

October 25, 2013

**Virginia Coastal Zone Management Program
Semiannual Section B.2-4 Report
For the Period from April 1, 2013 – September 30, 2013**

	Page
SECTION B.2 PERMIT ADMINISTRATION, MONITORING AND ENFORCEMENT	
The core agencies within the Virginia Coastal Zone Management Program are:	
1) Department of Environmental Quality (DEQ)	
a) Virginia Coastal Zone Management Program Office	2
b) Water Permitting Programs (VPDES, VPA, VWP)	2
c) Water Program Enforcement and Compliance	5
d) Air Permitting Program	6
e) Air Program Enforcement and Compliance	8
2) Virginia Marine Resources Commission (VMRC)	
a) Habitat Management Division	9
b) Fisheries Management Division	9
c) Law Enforcement Division	10
3) Virginia Department of Health (VDH) – Division of Shoreline Sanitation	11
4) Department of Conservation and Recreation (DCR)	
a) Division of Soil and Water Conservation	12
b) Division of Natural Heritage	13
c) Division of Planning and Recreation Resources	33
d) Division of Chesapeake Bay Local Assistance	34
5) Department of Game and Inland Fisheries (DGIF)	34
SECTION B.3 FEDERAL CONSISTENCY	44
SECTION B.4 PROGRAM CHANGES	73

SECTION B.2 PERMIT ADMINISTRATION, MONITORING AND ENFORCEMENT

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.

b) DEQ – Water Permitting Programs

DEQ- Virginia Water Protection Permit (VWPP) Program

The Virginia Water Protection (VWP) Permit 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. Please refer to the attached summaries of data for both permit processing data and wetlands impact data that apply to all areas of the Commonwealth.

During the Virginia fiscal year 2013 (July 1, 2012 through June 30, 2013), the VWP Permit Program experienced a decrease in permits issued and a slight decrease in certain permits modified or permit authorizations changed (See Attachment No. 1). The program reissued one individual permit during this time for ongoing regulated activities, such as but not limited to, surface water withdrawals. No permit denial case decisions were made. Permit application and issuance processing delays, if any, were mainly due to suspension of the permit process due to inadequate project information or change in project scope or impacts, threatened and endangered species concerns and/or coordination, and required coordination under the State Program General Permit (SPGP) process. The VWP Permit Program staff also conducts inspections on a variety of sites and for a variety of reasons (See Attachment No. 2).

During FY13, the VWP Permit Program experienced a similar amount of nontidal wetland impacts proposed through permit applications and subsequently authorized through permit actions (See Attachment No. 3). Compensatory mitigation, when required, was consistent with current program regulations. No noteworthy events occurred during the reporting period that affected compensatory mitigation; however, the VWP Permit Program finds that the development pressure in Northern Virginia, greater Richmond, and Tidewater continues to be reflected in the large amount of surface water impacts in these regions. Wetland impacts are particularly difficult to avoid in Tidewater as this area of the Commonwealth has the highest proportion of wetlands to uplands.

The VWP Permit Program did/did not implement new or revised regulations during the reporting cycle. However, the Program is tasked with developing a new in-lieu fee fund program for compensatory mitigation across the Commonwealth. Staff is currently developing the required documentation for fund approval through the U.S. Army Corps of Engineers.

The VWP Permit Program continued to work with the Virginia Institute of Marine Science to develop wetland condition assessment tools under existing grant funding from the U.S. Environmental Protection Agency's nontidal wetland grants program.

The VWP Permit Program did not receive comments, concerns, or procedures for expediting decision-making for the management of coastal resources.

ATTACHMENT NO. 1

DRAFT EXCERPT FROM FY13 BIENNIAL FEE REPORT TO VA GENERAL ASSEMBLY

Water Permitting

An analysis of the status of the Water Permit Programs within DEQ is provided in this section.

The average length of time needed to process a Virginia Water Protection (VWP) individual permit and to process a VWP General Permit authorization decreased since 2011.

In FY 2013, 28 VWP individual permits were issued, one VWP individual permit was reissued, and 97 VWP authorizations for coverage were issued for projects where impacts were more than 1/10 acre or 300 linear feet. All of these actions incurred fees. In addition to these actions, the following other permit actions that *by statute did not incur fees* were processed during FY 2013: 142 VWP ‘reporting-only’ general permit authorizations where impacts are less than 1/10 acre or 300 linear feet; 35 minor modifications to VWP individual permits; 46 changes to VWP general permit authorizations (includes both types of general permit authorizations); two waivers for the need of a VWP individual permit from DEQ; and no waivers for the need of a VWP general permit authorization from DEQ.

Table 2.1 – 1 Average Water Permitting Processing Times (FY 2005 – FY 2013)¹

	VPDES ²	VPA ³	VWP ⁴
2005	186	116	78 / 89 / 16
2007	194	218	537 ⁵ /130/41
2009	155	167	295/922 ⁶ /79
2011	156/107	113/75	237/210/82
2013			139/64/26

¹ Permit Processing Times presented in “Days.” For VWP, the amount of days shown in 2005 through 2011 is the difference between the date the application was received and the date the permit or permit authorization was issued as final, less any periods when application processing was suspended. The amount of days shown in 2013 is the difference between the date the application was deemed complete and the date the permit or permit authorization was issued as final, less any periods when application processing was suspended.

² Processing times for VPDES and VPA individual permits and general permits in 2011 and 2013 are shown as IP/GP.

³ Processing times for VPDES and VPA individual permits and general permits in 2011 and 2013 are shown as IP/GP.

⁴ VWP permit data is shown as Individual/General/General Reporting Only (those resulting in impacts less than 1/10 acre or 300 linear feet) for 2005 through 2009, but is shown as Individual Issuance/Individual Reissuance/General Authorization in 2011 and 2013. 2011 and 2013 general permit authorizations do not include Reporting Only actions (those resulting in impacts less than 1/10 acre or 300 linear feet), which do not incur fees.

⁵ One individual permit required a longer period of time to reach the complete application stage due to the withdrawal and resubmittal of the original application.

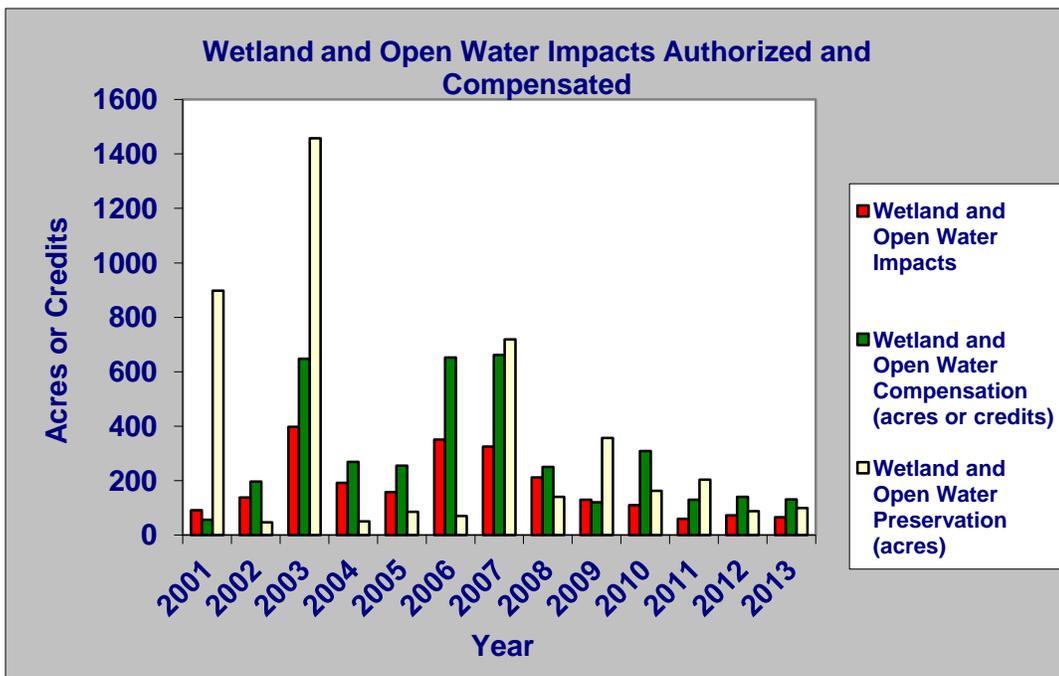
⁶ Three out of the four VWP individual permit re-issuances averaged took two or more years to complete.

ATTACHMENT NO. 2 DEPT. OF ACCOUNTS ANNUAL PERMIT AND INSPECTION REPORT

Group	# Permit Actions FY13	# Inspections FY13
- VWP Individual Permit Issuances	26	N/A
- VWP Individual Permit Modifications	18	N/A
- VWP Individual Permit Reissuances	1	N/A
- VWP General Permits Issued	216	N/A
- VWP General Permit Authorization Changes	44	N/A
- VWP Inspections	N/A	698

ATTACHMENT NO. 3

EXCERPT FROM DRAFT 2013 VIRGINIA WATER PROTECTION PERMIT PROGRAM OVERVIEW



DEQ-Virginia Pollution Discharge Elimination System (VPDES) Water Permitting Program

There are a total of 249 individual municipal and industrial CZM area VPDES permits. This number and the numbers in the table above represent typical activity in the program. There is no known reason for increases or decreases in numbers of permits from the last reporting period. There are also numerous facilities registered under general permits in CZM areas including 32 car wash facilities, 75 concrete products facilities, 5 cooling water discharges, 183 single family homes, 24 nonmetallic mineral mining facilities, 13 petroleum and hydrostatic testing discharges, 3 potable water treatment plants, 50 seafood processors, and 401 industrial storm water discharges. These represent typical numbers for general permit registrants in CZM areas in Virginia.

DEQ – VPA Water Permitting Program

The Virginia Pollution Abatement permit (VPA) is required for facilities that manage wastewater, animal waste, biosolids or industrial sludges in such a manner that they 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. During the period between April 1, 2013 and September 30, 2013, no permit applications for new VPA Individual permits were received, but 2 new permits were issued; each authorizing the land application of biosolids in the Coastal Zone Management area. One VPA permit application for the reissuance of a permit not related to biosolids was also received during that time. Three permit modifications, all related to biosolids land application, were requested and completed during the reporting period.

During the period between April 1, 2013 and September 30, 2013, no applications for coverage under the General Permit for Poultry Waste management were submitted in the Coastal Zone Management area. Also, during the period, no applications were received and no coverage was issued, modified or denied under the VPA General Permit for Animal Feeding Operation in the Coastal Zone Management area.

VPDES/VPA/VWP - April 1, 2012 – September 30, 2012										
	Permits Issued / Avg Proc. Days ⁽¹⁾		Permits Reissued / Avg Proc. Days		Permits Modified / Avg Proc. Days		Denied / Avg Proc. Days		Permits Reissue Pending / Avg Proc. Days	
	VPDES	1	98	30	351	5	49	0	N/A	21**
VPA	2	80	0	0	3	47	0	N/A	1	30
VPA GP	0	0	0	0	0	0	0	0	0	0

Processing day is the amount of time between receiving a complete application and making the final case decision (issuance, reissuance, modification, etc.).

* Information from CEDS database

** This represents existing VPDES individual permits expired but pending through September 2013.

c) DEQ – Water Program Enforcement and Compliance

DEQ continues to apply both informal and formal enforcement measures in the enforcement program. Reference Table 1, below.

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 April 1, 2013 through September 30, 2013, DEQ issued 57 Warning Letters for violations of VPDES, VPA, VWPP, and Ground Water program requirements (one Letter of Agreement was issued for facilities located in Virginia’s coastal zone during this period).

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 April 1, 2013 and September 30, 2013, DEQ issued 43 Notices of Violation for violations of VPDES, VPA, VWPP, and Ground Water program requirements. During the same period, the agency concluded enforcement cases with the issuance of eighteen Consent Orders that assessed a total of **\$112,625** in civil charges.

Table 1

Measure	Action Type	Count	Total Civil Charges Assessed
Informal	Warning Letters	57	N/A
Informal	Letters of Agreement	1	N/A
Formal	Notices of Violation	43	N/A
Formal	Consent Order	18	\$112,625
Total		119	\$112,625

d) DEQ – Air Permitting Program

**OFFICE OF AIR PERMIT PROGRAMS
PERMITS ISSUED REPORT FOR
VIRGINIA’S COASTAL RESOURCES MANAGEMENT PROGRAM**

Period: April 1, 2013 – September 30, 2013

PERMIT TYPE	NUMBER OF PERMITS ISSUED	AVERAGE PROCESSING TIME (Days)
PSD & NA	0	NA
Major	0	NA
Minor	45	23
Administrative Amendment	7	25
Exemptions	18	20
State Operating	2	73
Federal Operating (Title V)	0	NA
Acid Rain (Title IV)	0	NA
Total Number Permits Issued	<u>72</u>	

* 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 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 SO₂ and NO_x which are imposed on large higher emitting electric utility plants and sets restrictions on smaller, cleaner plants fired by coal, oil, and gas.

**OFFICE OF AIR PERMIT PROGRAMS
PERMITS PENDING REPORT FOR
VIRGINIA'S COASTAL RESOURCES MANAGEMENT PROGRAM**

Permits pending as of September 30, 2013

PERMIT TYPE	NUMBER OF PERMITS PENDING
PSD & NA	0
Major	1
Minor	40
Administrative Amendment	1
Exemptions	4
State Operating	3
Federal Operating (Title V)	4
Acid Rain (Title IV)	0
Total Permits Pending	<u>53</u>

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

**OFFICE OF AIR PERMIT PROGRAMS
PERMITS WITHDRAWN AND APPLICATIONS DENIED REPORT FOR
VIRGINIA'S COASTAL RESOURCES MANAGEMENT PROGRAM**

Period: April 1, 2013 – September 30, 2013

PERMIT TYPE	NUMBER OF PERMITS WITHDRAWN	NUMBER OF APPLICATIONS DENIED
PSD	0	0
Major	0	0
Minor	4	0
Administrative Amendment	0	0
Exemptions	1	0
State Operating	1	0
Federal Operating (Title V)	0	0
Acid Rain (Title IV)	0	0
Total Permits Rescinded	<u>6</u>	<u>0</u>

Note: The information provided for this report includes data from the 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 air enforcement program. Reference Table 2, on the following page.

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 April 1, 2013 – September 30, 2013, DEQ issued 19 Requests for Corrective Action, one Informal Correction Letter, and 8 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 April 1, 2013 and September 30, 2013, DEQ initiated six new formal enforcement actions via issuance of Notices of Violation. Additionally, the Agency issued four Consent Orders; these orders assessed a total of \$355,879 in civil charges.

Table 1

Measure	Action Type	Count	Total Civil Charges Assessed
Informal	Requests for Corrective Action	19	N/A
Informal	Informal Correction Letter	1	N/A
Informal	Warning Letters	8	N/A
Formal	Notices of Violation	6	N/A
Formal	Consent Orders	5	\$355,879
Total		43	\$355,879

2) VIRGINIA MARINE RESOURCES COMMISSION (VMRC)

a) VMRC – Habitat Management Division

During the period April 1, 2013 through September 30, 2013, the Habitat Management Division received 1018 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. Six notices to comply were issued during the period.

The Habitat Management Staff completed actions on 1122 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 April 2013. Similarly, those applications received near the end of the current reporting period are still under review. Habitat Management Staff also participated in the inter-agency review process involving general permits for Virginia Department of Transportation projects.

In addition to staff actions, the Full Commission considered 37 projects. During the reporting period the Commission considered 29 protested projects or projects requiring a staff briefing. The Commission also approved 8 projects over \$500,000.00 in value.

During the reporting period local wetland boards throughout Tidewater Virginia acted on 212 projects involving tidal wetlands. Of this total, 147 were approved as proposed, 49 were approved as modified, 4 were denied, 6 are pending, 5 no permit was required, 1 was inactivated, and 28 required compensation either on or off site (12), or through payment of an in lieu fee (16) accounting for 202,409 square feet of tidal wetland impacts.

b) VMRC – Fisheries Management Division

At its April 2013 meeting, VMRC established the 2013 commercial directed sea bass fishery quota as 394,000 pounds, and lowered the recreational black sea bass fishery possession limit from 25 to 20 fish for the May 19

through October 14 and November 1 through December 31 recreational fishery season. The VMRC also established several management measures for the commercial spiny dogfish fishery. The spiny dogfish commercial quota was increased by 17 percent to 4.4 million pounds, the daily trip limit was increased from 3,000 to 3,300 pounds, and participation was limited to individuals who landed spiny dogfish over the past two seasons. The VMRC codified an emergency chapter for the commercial horseshoe crab fishery. The emergency chapter established mesh and twine size requirements for gill net gear in order to decrease the possibility of protected species interactions.

At its June 2013 meeting, VMRC established that those individuals with reported commercial federal landings of spiny dogfish from the period of May 1, 2010 through April 30, 2012 would satisfy the limited entry criteria established for the commercial fishery at the April 2013 commission meeting. The VMRC established the commercial bluefish fishery quota for 2013 as 1,078,179 pounds, and 1,030,419 pounds for 2014. The VMRC adopted that the oyster tax regulations be replaced the tax with an annual oyster user fee as required by the Virginia General Assembly as of July 1, 2013. The emergency chapter pertaining to the commercial crab fishery passed at the May 2013 meeting was codified.

At its July 2013 meeting, VMRC established gear requirements for gill net gear fished in Tom's Cove near Chincoteague Island as a conservation measure for the commercial horseshoe crab fishery. Gill net gear ranging from 600 feet to 1,200 feet in length are required to have at least one anchor 800 feet from the low mean water line from April 1 through May 31. Gill net gear is not allowed to be fished in Tom's Cove from sunset to sunrise from June 1 through June 30.

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. These are the reckless driving, drunk driving, driving without a license/suspended license, shoplifting, possession of cocaine, marijuana, etc.

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

REPORT FORMAT: FEDERAL FISCAL YEAR AREA: ALL AREAS
START PERIOD: 10/01/2008
END PERIOD: 09/30/2013



Category	2008/2009		2009/2010		2010/2011		2011/2012		2012/2013	
	Convictions	Arrests	Convictions	Arrests	Convictions	Arrests	Convictions	Arrests	Convictions	Arrests
Buyers	2	2	2	3	1	1	7	7	5	6
Casting Garbage/Trash	0	0	1	1	1	1	1	1	0	0
Clams	1	1	3	5	1	1	6	6	0	0
Commercial Fishing License	7	11	3	6	3	6	8	9	3	5
Conch	0	0	0	0	0	0	0	0	0	0
Conchs	7	7	1	1	0	0	4	4	2	2
Crab	0	0	0	0	0	0	0	0	0	0
Crabs	93	111	65	77	48	59	79	96	31	36
Federal Violation	0	18	1	4	0	0	0	0	0	0
FIP Violations	0	0	0	0	92	100	142	156	56	56
Fish	143	180	112	138	119	139	520	608	187	211
Freshwater Fishing without a license	10	10	13	13	11	13	9	11	13	16
Gill Nets	16	23	2	2	6	8	7	14	6	6
Habitat/Wetlands	0	0	0	0	0	0	0	0	0	0
License Tags	1	2	1	2	2	4	4	10	0	2
Mandatory Reporting	0	0	0	0	0	2	0	0	1	58
Misc	0	0	0	0	0	0	0	0	0	0
Non-residents	0	0	0	0	0	0	0	0	0	0
NSSP	0	0	9	9	0	3	0	0	0	0
Other Agencies	278	321	242	278	275	321	315	352	188	214
Oysters	31	39	56	71	60	74	140	184	115	188
Piers	0	0	0	0	0	0	0	0	0	0
Police Powers	43	53	50	62	95	118	87	97	72	84
Removal of Obstructions	1	1	0	4	1	1	3	3	2	4
Resisting officer	0	0	0	0	0	0	0	0	0	0
Shellfish	1	2	4	4	2	3	14	15	10	15
SW Recreational Licenses	175	196	132	151	167	212	209	248	173	222
TOTALS:	809	977	697	831	884	1066	1555	1821	864	1125
PERCENT OF CONVICTIONS:	82.80%		83.87%		82.93%		85.39%		76.80%	

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

From April 1, 2013 through September 30, 2013, the VDH Division of Shellfish Sanitation had 1293 acres of shellfish grounds closed to harvesting. There were 2297 acres of shellfish grounds reopened.

The Department received and reviewed a total of 23 VMRC Permit Applications, and processed as follows:

Five (5) of the Permit Applications needed action in the Marina Program.

Eighteen (18) applications were approved based on meeting the requirements of providing adequate facilities.

Zero (0) applications were denied because of inadequate facilities.

4) Department of Conservation and Recreation (DCR)

a) DCR - Division of Soil and Water Conservation

The Department of Conservation and Recreation (DCR), Division of Stormwater Management that administered numerous enforceable and non-enforceable programs that help the Commonwealth of Virginia manage its coastal resources was re-organized and reprogrammed. The stormwater function was moved to the VA DEQ.

Regulatory Programs

Stormwater Management Program

No report at this time due to agency re-organization

Nutrient Management

No report at this time due to agency re-organization

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 Division of Soil and Water, VDCR 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 VA Coastal Management Program to promote joint, applied research and outreach projects, coastal nonpoint source pollution, coastal zone ecology, management, and restoration.

For the grant reporting period, the Environmental Scientist/Analyst with the Virginia Commonwealth University Center for Environmental Studies in the Department of Life Sciences continued to serve as the Program Manager of the Virginia Healthy Waters Program and the Virginia Coastal Nonpoint Source Pollution Control Program (CNP), Virginia Network of Education of Municipal Officials Program (VNEMO) at the Virginia Department of Conservation and Recreation. The VCU Environmental Analyst/ Program Manager continues to focus these efforts to expand the implementation of the programs and directs workshops and educational opportunities to local decision makers. Through the VNEMO Program the Program Manager also directs research and education on innovative stormwater management technologies at the Science Museum of Virginia.

The Environmental Scientist supported the continued growth of the Healthy Waters Program by coordinating directly with the VA Department of Environmental Quality, the USEPA, NOAA, Nature Conservancy and other partners. During the reporting period, the Program was formally moved from the Virginia DCR Division of Stormwater to the VDCR Division of Natural Heritage as the program is currently focused on the development of data, identification of valuable natural areas and protection of those resources. The program functions as a component to the land conservation efforts in the Commonwealth. The Program Manager participated in the Chesapeake Bay Program Goal Implementation Team 4 Healthy Watersheds as the Virginia representative and Program Manager. During the reporting period, the Program Manager concluded the coordination with the US EPA Healthy Watershed Program manager to obtain services to assist in the acquisition of biotic data to inform the development of a statewide modified Index of Biotic Integrity. Unfortunately, the USEPA reprioritized their efforts to other states. The VA HWI continues to seek funding to support this effort.

The Program Manager continued the management of the +\$2M, NFWF funded, project at the Virginia Science Museum. The Manager shares the Project Management role with the Director of Science at the Museum to facilitate full coverage of all aspects of project implementation. During the reporting period, the Program Manager directed the research aspects of the project, refining the treatment structures, modifying for enhanced performance and coordinating with outside interests for expanded monitoring research. The Program Manager provided presentations, lead tours and conducted field workshops illustrating the LID installed practices to various industry, nonprofit and public sector participants.

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

Fort Belvoir Sensitive Joint-vetch Report – 5/3/13

The DCR-DNH field botanist submitted a final report to U. S. Army Garrison Fort Belvoir in Fairfax County on surveys conducted in 2011-2012 for the federal and state listed plant species sensitive joint-vetch (*Aeschynomene virginica*, G2/S2/LT/LT). Sensitive joint-vetch, a tall annual herb in the pea family (Fabaceae), occurs in freshwater to slightly brackish wetland habitats, primarily marshes, in the intertidal zone of major coastal rivers in Virginia, Maryland, and New Jersey. It also has been found in North Carolina, in ditches and wet fields, although these are not considered stable populations. It is known historically from Delaware and Pennsylvania. In Virginia, the plant has been documented within the Chickahominy, James, Mattaponi, Pamunkey, Rappahannock, and Potomac Rivers. The nearest population that has been documented on the Potomac River lies approximately 20 miles downstream from Fort Belvoir. Although appropriate marsh habitat was present in the lower sections of Accotink Creek, Dogue Creek, and Pohick Creek, no sensitive joint-vetch was found. This project was part of a larger natural resource survey, including zoological surveys, conducted by DCR-DNH in 2011-2013 with funding from Fort Belvoir.

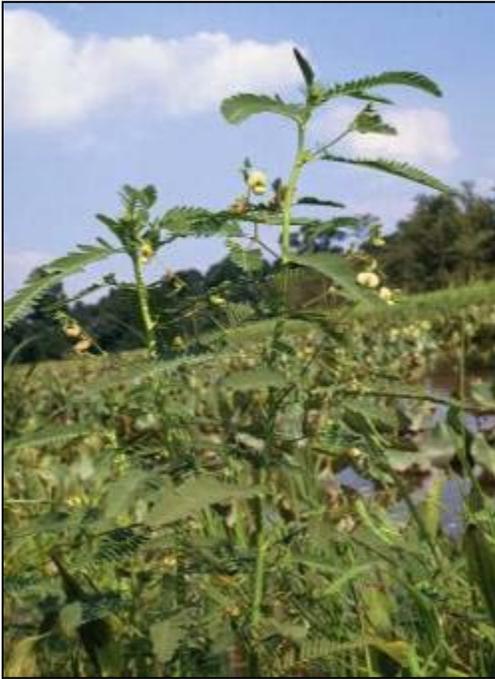
Fort Belvoir Small Whorled Pogonia Report – 5/3/13

The DCR-DNH field botanist submitted a final report to the U. S. Army Garrison Fort Belvoir in Fairfax County on surveys conducted in 2012 in selected areas of the Fort for the federal and state listed plant species small whorled pogonia (*Isotria medeoloides*, G2/S2/LT/LE). Small whorled pogonia is a globally rare orchid restricted to the eastern U.S. and Ontario, Canada, and in Virginia ranges from the Coastal Plain to the Cumberland Plateau with most of the Virginia occurrences located in the Coastal Plain and Piedmont. In Virginia, small whorled pogonia is most typically found in deciduous second or third growth successional hardwood forests with fairly sparse ground cover and highly acidic, nutrient-poor, sandy loam soils although plants have been found in a wider range of habitats in recent years. The focus of the surveys at Fort Belvoir was on areas that might be affected by proposed improvements in the sewer and water lines on the Fort. Additional areas included the site of a proposed building construction and the site of a previously documented occurrence on the Fort. No small whorled pogonia was found at any of the survey sites, and in general herbaceous cover was lacking, presumably due to heavy deer browsing. This project was part of a larger natural resources survey, including zoological surveys, conducted by DCR-DNH in 2011-2013 with funding from Fort Belvoir.

Fort Belvoir Small Whorled Pogonia Habitat Delineation Report – 5/3/13

The DCR-DNH field botanist submitted a final report to the U. S. Army Garrison Fort Belvoir in Fairfax County on the small whorled pogonia (*Isotria medeoloides*, G2/S2/LT/LE) habitat delineation work conducted within the “300 Area” on the Fort in March and early April 2013. Earlier work had been conducted by a consultant in 2012 on targeted areas of this 309 acre section of Fort Belvoir, and Fort Belvoir requested that

DCR-DNH evaluate the remaining areas and delineate potential habitat and non-habitat. A review of aerial photos resulted in an initial delineation of 130 acres in 13 polygons of forest habitat that would need to be field evaluated. A protocol for evaluating the habitat was developed after reviewing other such delineation protocols as well as taking into account the broadening of the habitat types where small whorled pogonia occurs and the limitations of conducting habitat delineation in early spring before some characteristics, such as ground cover and shade, are fully, if at all, developed. Of the 130 acres of forested areas delineated from the aerial photos, almost 95 acres, or 73%, were evaluated as potential small whorled pogonia habitat; 35 acres, or 27% were evaluated as having low to no potential for small whorled pogonia. The maps and shapefiles of the delineated habitat that were provided to Fort Belvoir will allow their planners to determine when proposed actions / developments might affect small whorled pogonia habitat and so require surveys for this species.



Sensitive Joint-vetch



Small whorled pogonia

Report on James Spiny mussel Survey – 6/7/13

Natural Heritage zoologists submitted a final report entitled ‘Results of James Spiny mussel Surveys in Tributaries to the James River in Central and Eastern Virginia, 2012-2013’ to the Virginia Department of Game and Inland Fisheries (DGIF). The report summarized results of 50 surveys for the federally endangered James Spiny mussel (*Pleurobema collina*, G1 S2, Tier I). While no new populations were discovered, the Pedlar River population was found alive in the farthest upstream location known. The Green Floater (*Lasmigona subviridis*, state threatened, G3 S2, Tier II) was reconfirmed in the Tye River which remains one of the best populations of this species throughout its range. This project was funded by DGIF through an Endangered Species Section 6 grant from the U.S. Fish and Wildlife Service.

Fort Belvoir Zoology Survey Report – 6/14/13

DCR Natural Heritage zoologist Chris Hobson recently completed a final report summarizing the findings of surveys for six taxonomic groups at Fort Belvoir, Fairfax County, Virginia. The surveys began in September 2011, and continued through early 2013. Findings include more than 385 species of moths, 60 dragonflies and damselflies, 54 butterflies and skippers, 5 freshwater mussels, and 3 bat species. The report also includes information on several groundwater inhabiting crustacean species including the globally rare Northern Virginia well amphipod (*Stygobromus phreaticus* G1 S1). Eight specimens of *S. phreaticus* were discovered, and water quality monitoring provided details into the unique habitat where this species occurs at Fort Belvoir. One rare mussel, the Eastern lampmussel (*Lampsilis radiata* G5 S2S3) was documented along the shore of Accotink Bay,

and a rare damselfly, the Sphagnum Sprite (*Nehalennia gracilis* G5 S2) was documented at a previously known location. The report also included information on several exotic species of plants and animals found at Fort Belvoir.

Rare Specimen Search at the University of Connecticut and Rutgers University –7/19/13

The Natural Heritage staff zoologist recently visited the University of Connecticut and Rutgers University insect collections to search for specimens of rare Lepidoptera (butterflies, skippers, and moths) and Odonata (dragonflies and damselflies) collected in Virginia. One of the largest private Lepidoptera collections in North America (based in Connecticut) also was examined. Collectively, these three collections yielded more than 100 specimens of 25 rare species from Virginia. These records will be entered into the Division of Natural Heritage's Biotics database and also added to the web-based atlas of rare Lepidoptera and Odonata that recently went on-line.

Dyke Marsh Follow Up Visit Yields New Rare Species and Washington Post Article – 7/22/13

DCR Natural Heritage zoology staff led a three-hour canoe/kayak trip to Dyke Marsh Nature Preserve (DMNP) along the Potomac River in Fairfax County. In attendance were Friends of Dyke Marsh president Glenda Booth, a Washington Post photographer and reporter Patterson Clark. The trip was a follow up to a 2011 DCR project that documented 16 species of dragonflies and damselflies at DMNP. The trip started out on a great note when two shells of a state rare mussel (*Lampsilis radiata* G5 S2S3) were found at the put in point just south of DMNP. Over the next three hours, many of the same species documented in 2011 were seen in abundance and the survey team added four new species of dragonflies to the known fauna of the preserve. A story about Dyke Marsh, the 2011 DNH project, and the 24 species of dragonflies and damselflies that occur at DMNP is slated to be published in the Health and Science Section of the Washington Post on August 13, 2013.

Rare Plant and Significant Natural Community Discovered in Essex County – 8/19/13

A new population of the federally threatened vascular plant species sensitive joint vetch (*Aeschynomene virginica* – G2/S2/LT/LT) and a significant example of Tidal Oligohaline Marsh were discovered during a site visit along the Rappahannock River in Essex County. The marshes on this property cover approximately 600 acres, with only two small areas known to harbor sensitive joint vetch. Due to the difficulty of searching such a large area, additional individuals may be present on site.





DNH staff documenting rare plant and significant natural community in Essex County

Plant Occurrence Update Project Started at Natural Area Preserves – 8/30/13

The DCR Natural Heritage Field Botanist spent three days working with the Southeastern Regional Steward to begin updating the status of the numerous rare plant occurrences within DCR's Antioch Pines Natural Area Preserve and Old Dominion University's Blackwater Ecological Preserve in Isle of Wight County in southeastern Virginia. These Preserves are managed with prescribed fire, leading to the expansion of existing state rare plant population boundaries such as sheep laurel (*Kalmia angustifolia*, G5/S2/NL/NL), common pyxie-moss (*Pyxidantha barbulata* var. *barbulata*, G4TNR/S1/NL/NL), and Plukenet's flatsedge (*Cyperus plukenetii*, G5/S2/NL/NL) and enhancing the chances of finding new rare plant occurrences such as the more recent finding of the globally rare Cuthbert's turtlehead (*Chelone cuthbertii*, G3/S2/NL/NL). Updates to 18 rare plant species were made; the plant occurrence update work will continue at these Preserves into next year in order to assess other species in more appropriate seasons.

Plant Occurrence Update Project Continued at Natural Area Preserves – 9/20/13

The DCR Natural Heritage Field Botanist spent two days working with the Southeastern Regional Steward to update the status of the numerous rare plant occurrences within DCR's Cherry Orchard Bog Natural Area Preserve in the counties of Sussex and Prince George. There are 13 documented rare plants on this Preserve, mostly in seepage along a powerline right-of-way. It is managed with prescribed fire, leading generally to the expansion of existing rare plant population boundaries after burning. Updates to the plant occurrences identifiable in late summer were made including Cuthbert's turtlehead (*Chelone cuthbertii*) (G3/S2/NL/NL), Rafinesque's seedbox (*Ludwigia hirtella*) (G5/S1/NL/NL), common bog-buttons (*Lachnocaulon anceps*) (G5/S1S2/NL/NL), and 6 others; updates included population counts or estimates, refinement of existing mapped locations, or in some cases the addition of new locations.



Rafinesque's seedbox (*Ludwigia hirtella*)

Prescribed Burning

Natural Heritage East RX Burns Spring 2013 – 5/31/13

It was a productive fire season for DCR Natural Heritage staff. This could not have been done without the support of DCR staff and its partners including The Nature Conservancy, US Fish & Wildlife Service, and AmeriCorps.

Date	Site	Burn Unit	Size	Assistance
2/15/13	Chub Sandhill NAP	6	85	FWS, TNC
3/15/13	Chub Sandhill NAP	3	39	
3/15/13	Chub Sandhill NAP	5	25	
3/20/13	Antioch Pines NAP	8 north	51	AmeriCorps + Hubner, TNC
3/22/13	Antioch Pines NAP	1	73	AmeriCorps
3/28/13	Antioch Pines NAP	3	58	AmeriCorps + Hubner
4/4/13	Antioch Pines NAP	8 south	51	AmeriCorps
5/15/13	Blackwater Ecological Preserve	4	56	AmeriCorps, FWS
5/29/13	Cherry Orchard Bog	1	33	AmeriCorps, FWS, TNC
5/30/13	Antioch Pines NAP	6	35	AmeriCorps, FWS, TNC
	Total acres		506	



DCR Natural Heritage staff and partners at final Spring burn – Antioch Pines Natural Area Preserve

Natural Area Preserve Stewardship

Chesapeake Bay Region Natural Area Preserve Volunteers Meeting – 5/23/13

DCR Natural Heritage staff held a volunteer recognition event at Shiloh School for the volunteers that help keep Dameron Marsh Natural Area Preserve and Hughlett Point Natural Area Preserve open, safe and a great outdoor experience for visitors. The volunteers lead guided hikes, walk the preserves through the week, keep them clean, and assist with monitoring and special projects. Without their work, DCR would struggle to keep these sites open, the resources protected, and provide a safe and positive outdoor experience.

Installation of John Smith Water Trail Kiosk at Crow's Nest Natural Area Preserve - 6/7/13

From May 28 through May 31, 2013, DCR Natural Heritage staff installed a Captain John Smith Chesapeake National Historic Trail kiosk at the Brooke Road parking lot at Crow's Nest Natural Area Preserve in Stafford County. The design and installation of the kiosk was a collaborative effort between DCR and the National Park Service. The three panels on the kiosk provide an introduction to the trail as well as information on the voyages of John Smith within the Chesapeake Bay region. Within a year, visitors will be able to access the trail from the canoe/kayak launch to be constructed at this location within Crow's Nest.



Recently completed kiosk at the Brooke Road access point at Crow's Nest Natural Area Preserve.

Boundary Monitoring at Cumberland Marsh Natural Area Preserve – 7/22/13

On Monday July 22, the Eastern Operations Steward assisted staff from The Nature Conservancy by utilizing the Eastern Operations boat for boundary monitoring of Cumberland Marsh Natural Area Preserve. DCR and TNC staff also discussed potential locations for public access improvements, such as a canoe/kayak launch site, which TNC is interested in developing.

Stafford County officials meet on Widewater and Crow's Nest – 7/22/13

On Monday July 22, The Stafford County Administrator and staff met with the DCR Director and staff to discuss development plans and timelines for public access projects at Widewater State Park and Crow's Nest Natural Area Preserve in Stafford County. Stafford County is a strong management ally and cooperater with DCR on management of these properties.

Natural Heritage Stewardship Field Meeting –7/29/13 – 7/31/13

DCR Natural Heritage stewardship staff meet in southeast Virginia on July 29, 30, and 31. Staff toured the Eastern Operations center located at the Dept of Forestry New Kent Forestry Center, discussed management projects and challenges in an effort to improve coordination and finding common solutions; spent a full day in the field learning about and discussing management needs at Chub Sandhill, South Quay, and Antioch/Blackwater Natural Area Preserves; and spent a morning discussing a ten year vision for future natural area management challenges and opportunities.



Chub Sandhill Natural Area Preserve, Stewardship Field Meeting

Eagle Scout Project at Crow's Nest – 8/17/13

Scouts and parents with troop 1717, DCR Natural Heritage staff and volunteers with the local Master Naturalist chapter assisted Kaleb Neubarth with his Eagle Scout Project at Crow's Nest Natural Area Preserve in Stafford County. Kaleb's project involved the construction and installation of two benches and approximately 24-feet of boardwalk. In addition, approximately 2,200 feet of new trail were completed to an overlook of the tidal freshwater marsh along Accokeek Creek. Approximately 17 people assisted in the completion of the project.



Boy Scouts and the boardwalk and benches they installed

Invasive Species

Invasive Species Working Group Advisory Committee – 4/23/13

DCR Stewardship Biologist facilitated a meeting of the Invasive Species Working Group Advisory Committee at the Department of Forestry in Charlottesville. In attendance were representatives of DGIF, VDACS, DOF, DCR, Virginia Native Plant Society, US Forest Service, US Fish and Wildlife Service, The Nature Conservancy, and the Virginia Nursery and Landscape Association. Issues discussed included VDACS noxious weed regulations, thousand canker disease, the wavyleaf basketgrass task force, early detection training, and DCR invasive plant list revision process. Two new outreach projects were discussed: a "state of the invasive" annual report and a state-wide conference on invasive species. The annual report would be compiled by University of Richmond students guided by faculty. The invasive species conference would be open to all while specifically targeting the needs of teachers to incorporate invasive species into their curriculum. The committee also prepared a draft agenda for the upcoming Invasive Species Working Group meeting.

Garlic Mustard removal at Crow's Nest –5/4/13

On May 4, 2013, six volunteers joined DCR Natural Heritage staff in removing areas of garlic mustard from Crow's Nest Natural Area Preserve. The volunteers were members of the Central Rappahannock Chapter of the Virginia Master Naturalists. Many of the volunteers had assisted with the recent trail building work at Crow's Nest. Approximately four hours were spent pulling garlic mustard along the Crow's Nest Point Trail and from a stream valley near Boykin's Island.



Garlic mustard removal at Crow's Nest

Invasive Plant Species Presentation to Eastern Shore of Virginia Garden Club – 5/10/13

Eastern Shore Region Steward, Dot Field presented a program on invasive plant species for members of the Eastern Shore of Virginia Garden Club. The program, held at the Eastern Shore Yacht and Country Club, presented an overview of the common characteristics of invasive plants and highlighted the most troublesome species on the Eastern Shore. Specimens of common invasive plants and artifacts showing the damage incurred by native plants overrun with invasives provided a “hands on” experience. Control, prevention and potential invasive species were also discussed. Thirty-two garden club members attended the program.

Virginia Invasive Species Working Group Meeting – 6/5/13

The Virginia Invasive Species Working Group met on June 5 in Charlottesville. The Working Group consists of natural resource agency heads, Dept of Health and Dept of Transportation, VA Institute of Marine Sciences, and Commercial interest, agriculture industry, forest industry, conservation community, a federal agency and an academic institution. Topics discussed included thousand canker disease, emerald ash borer, wavy leaf basketgrass, feral hogs, nutria and new education and outreach initiatives such as a state of the invasion report, a state wide invasive species meeting, and an invasive species week. Additional information and the powerpoint presentations can be found on the Working Groups Website.

www.dcr.virginia.gov/natural_heritage/vaisc/index.htm

Annual Virginia Phragmites Managers Meeting – 6/6/13

DCR Stewardship Biologist, Kevin Heffernan, facilitated the annual Virginia Phragmites Managers meeting on June 6. Representatives from Fish and Wildlife Service, National Parks, Department of Defense, Virginia Department of Game and Inland Fisheries, City of Norfolk, the University of Richmond, and the Chesapeake Bay National Estuarine Research Reserve gathered at the Virginia Institute of Marine Science at Gloucester Point. University of Richmond researchers presented preliminary findings of an analysis of Phragmites genetics to better distinguish native and introduced invasive haplotypes and to determine if hybridization is occurring. In this ongoing study, no hybrids have been detected thus far. Other ongoing research was also discussed. Fish and Wildlife Service Invasive Species Biologist reported on a new management technique for chemical control of Phragmites. Members of the group also shared current management project updates. Kevin Heffernan presented information on the requirements of new Virginia Pollutant Discharge Elimination System General Permit when using herbicide to manage Phragmites in wetlands. This group has been meeting annually for six years.

DCR – Phragmites Tissue Sampling – 6/11/13-6/12/13

On June 11 and 12, DCR Stewardship Biologist led a team to collect Phragmites tissue samples for a genetics study being conducted by University of Richmond researcher, Dr. Carrie Wu. The team visited known Phragmites patches in marshes on the Pamunkey and the Mattaponi Rivers. The study seeks to distinguish populations of native Phragmites (*Phragmites australis* ssp. *americanus*) from the invasive strain Phragmites

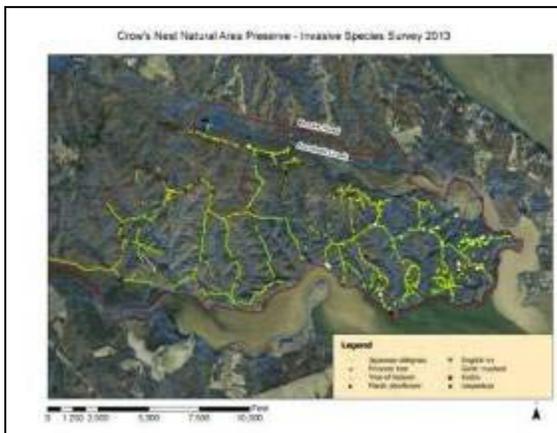
australis ssp australis. Dr. Wu is also looking for evidence that the two species are hybridizing. A hybrid variety of Phragmites could become even more invasive than the introduced species already has become. The research is being funded by the University of Richmond with logistical assistance from DCR Natural Heritage.



Dr. Carrie Wu (back) and student research assistant Laura Murray

Invasive Species mapping at Crow's Nest –6/12/13 to 7/17/13

DCR Natural Heritage, with the assistance of volunteers, mapped the limits of invasive species at Crow's Nest Natural Area Preserve, with the emphasis on Japanese stiltgrass, tree-of-heaven, princess tree, marsh dewflower, garlic mustard and English ivy. Additional species, including kudzu, were mapped in the fall of 2012. This was the first comprehensive mapping of invasive species at Crow's Nest since 2009. The information generated will be used to develop an invasive species management plan for the preserve and to direct ongoing treatment efforts.



Crow's Nest NAP – Invasive Species Survey 2013

Japanese stiltgrass treatment at Crow's Nest Natural Area Preserve – 7/25/13

An Exotic Plant Management Team (EPMT) with the National Park Service treated approximately 6,000 linear feet of Japanese stiltgrass (*Microstegium vimineum*) along a main road at Crow's Nest Natural Area Preserve. In addition, the team also treated beefsteak plant (*Perilla frutescens*). DCR Natural Heritage staff worked with staff from the National Park Service to develop an agreement that would allow the National Park Service EPMT

to work at Crow's Nest (and perhaps other Preserves in the future). The team plan to return to Crow's Nest for another work day on August 15th.



EPMT at Crow's Nest Natural Area Preserve. Result of Japanese stiltgrass treatment

Wavyleaf Grass Task Force Meeting – 9/4/13

In Warrenton, DCR Stewardship Biologist Kevin Heffernan led a meeting of the newly reconstituted Wavyleaf Grass Task Force. The meeting included staff from Department of Forestry, Department of Conservation and Recreation, Shenandoah National Park, Piedmont Environmental Council, Fairfax County Public Park Authority, and Towson University. The purpose of the meeting was to determine the best use of funds acquired by DOF from the US Forest Service to address Virginia's infestation of wavyleaf grass (*Oplismenus hirtellus* ssp. *undulatifolius*). Wavyleaf is an aggressive invader of forest understory. Currently, it is only known from Maryland and Virginia. Participants agreed on a three-part approach to be led by DCR: survey for wavyleaf near known locations to determine the distribution and abundance; develop a network of professional resource experts and volunteers to support the survey effort; and design and conduct herbicide treatment study. Most of the work on the three-year grant will be conducted in 2014 and 2015. Information resulting from these actions will help determine if eradication of wavyleaf in Virginia is possible.

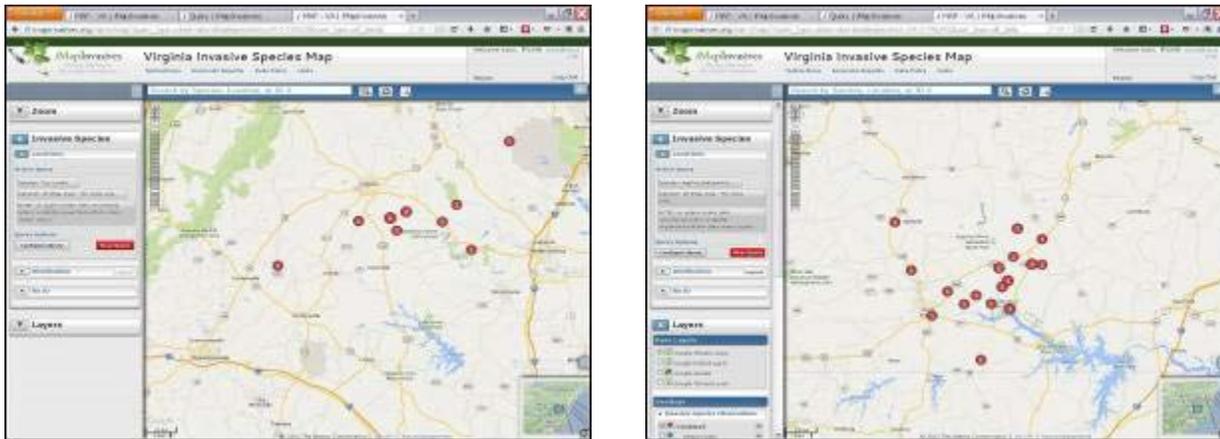


Wavyleaf Grass

Virginia iMapInvasives.org – 9/13/13

Virginia iMapInvasives.org the online invasive species mapping and data management tool, now includes Department of Game and Inland Fisheries data for feral hogs and Department of Forestry data for emerald ash borer. DCR Stewardship Technician Liz Engle sought data from DGIF and DOF. She then worked with iMapInvasives staff in New York and Florida to get the data prepared for upload. The general public can view the data at county level. Registered users can see point data. The species observations represented by these data are confirmed by experts. Registration at the site is free. In addition, three early detection trainings have been

conducted for Virginia Master Naturalists over the last year. In these workshops, a total of 60 participants learned to recognize five high priority early detection plant species and use iMapInvasives to map and report sightings. To learn more, go to: imapinvasives.org



iMapInvasives website

Feral Hog Stakeholders Meeting sponsored by DGIF – 9/18/13

DCR Stewardship Biologist Kevin Heffernan attended a feral hog stakeholder meeting sponsored by Department of Game and Inland Fisheries. Representatives of other state, federal and private organizations heard presentations on the growing feral hog problem in Virginia, including ecological impacts such as destruction of native vegetation, erosion and stream sedimentation, predation of ground-nesting game birds, bacterial contamination, livestock disease transmission, and crop damage. Several facilitated breakout sessions during the day gave participants the opportunity to voice concerns and discuss potential management actions. Presentations and results of discussions will be posted at: <http://www.dgif.virginia.gov/wildlife/feral-hogs/>.

Invasive Plant Species Presentation – 9/23/13

DCR Stewardship Biologist Kevin Heffernan gave a presentation on invasive plant species and their impacts on native biodiversity to members of the Garden Club of Virginia at a combined conservation/horticulture workshop. Held at Lewis Ginter Botanical Garden, over 200 GCV members from around the state attended. Following the invasive plant presentation, Cole Burrell presented a talk on gardening with native alternatives to invasive plants.

James River Chapter of Virginia Master Naturalists Workshop – 9/24/13

DCR Stewardship Biologist Kevin Heffernan, with assistance from Stewardship Technician Liz Engle, led an invasive species early detection and reporting workshop for the James River Chapter of Virginia Master Naturalists. The workshop took place at Powhatan County Library. Twenty-four participants were given an overview of invasive species issues in Virginia. They learned how to register for and use iMapInvasives.org. Particular emphasis was given to identifying five invasive plant species: wavyleaf basketgrass (*Oplismenus hirtellus* ssp. *undulatifolius*), cogon grass (*Imperata cylindrica*) and giant hogweed (*Heracleum mantegazzianum*), beach vitex (*Vitex rotundifolia*), and giant salvinia (*Salvinia molesta*).

Information Management

Chesapeake Forest Restoration Strategy – 5/24/13

DCR Natural Heritage staff were acknowledged for valuable contributions to the Chesapeake Forest Restoration Strategy as members of the Green Infrastructure and Wildlife Habitat teams. The document, developed over two years with teams of over 60 representatives from federal, state, and nongovernmental organizations, was identified as a key supporting action in the 2010 Executive Order (13508) Strategy for Protecting and Restoring the Chesapeake Bay Watershed. Forest restoration may be the single most important activity to help bring back

the Chesapeake ecosystem, because forests afford clean water, provide habitat for fish and wildlife, and are important for our response to climate change. The document advances innovative and collaborative approaches to targeting restoration in areas of greatest opportunity and benefit, and makes use of the natural land network developed for the Virginia Natural Landscape Assessment. Teams are reconvening now to discuss execution of some of the recommendations in the document.

Species Distribution Modeling Webinar to USFWS-Region 5 – 5/28/13

DCR-Natural Heritage staff assisted the New York Natural Heritage Program in a third webinar presentation about species distribution modeling to Region 5 staff of the US Fish and Wildlife Service. The audience was much larger for this presentation and included developers of the Information, Planning, and Conservation System web site, which is the Service’s main planning tool for threatened and endangered species, and representatives of the North Atlantic and Appalachian Landscape Conservation Cooperatives. DCR staff discussed use of Random Forest in R statistical software to develop species distribution models for rare species occurring in Virginia, how these models were used to build screening layers for project review, and how these screening layers greatly improve the review process for USFWS by reducing unnecessary surveys while targeting the best lands with predicted suitable habitat. Expansion of modeling to include all of Region 5 was discussed and future meetings are being planned to continue building support for the endeavor.

Outreach and Education

Prince William Wildflower Society Field Trip to Crow’s Nest – 4/4/13

DCR Natural Heritage led an early season wildflower walk at Crow’s Nest Natural Area Preserve for the Prince William Wildflower Society. Although spring has gotten off to a slow start in Stafford County, participants were able to enjoy a few early season flowers, including Spring-beauty, Dutchman’s breeches, Yellow corydalis, Early saxifrage, Slender toothwort and Cutleaf toothwort. Participants were able to hike recently completed sections of the Accokeek Creek Loop Trail. Approximately 20 people attended the field trip.



Visitors to Crow’s Nest are lead on a wildflower walk around the preserve

Great Blue Heron Presentation – 4/7/13

DCR Natural Heritage staff gave a presentation titled “Stafford’s Great Blue Herons: From Rookery to River” at Belmont (Gari Melchers Home and Studio) in Stafford County. The presentation was divided into three sections: the life history of great blue herons, the Potomac Creek Heronry that is partially located on Crow’s Nest Natural Area Preserve, and the relationship of the heronry to the Rappahannock River. Each spring, great blue herons congregate along the Rappahannock to take advantage of the annual river herring run. Following the presentation, a number of people joined DCR staff on a walk to the river to observe the herons. Approximately 60 people attended the presentation.



Hérons at the Potomac Creek Rookery



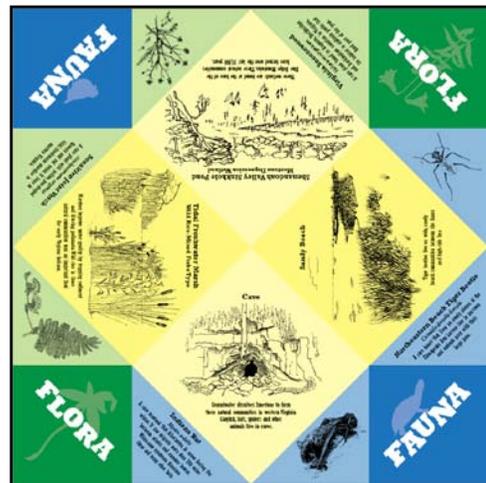
A nest tree

New Kent County's Envirothon –4-13-13

The DCR Natural Heritage Project Review Coordinator participated in New Kent County's Envirothon 2013 Earth Day Celebration on April 13, 2013. Approximately 75 children and adults participated in the event. The DCR Natural Heritage display had information and pictures of rare species found in New Kent County, invasive species and a diorama of a Bald Cypress-Water Tupelo Swamp. By placing plants and animals in different habitats, the children learned about significant communities types occurring in New Kent County including the Tidal Freshwater Marsh (Wild Rice-Mixed Forbs Type) found on the Cumberland Marsh Natural Area Preserve. Children also made "fortune tellers" which contained information about natural heritage resources including Sensitive Joint-vetch (*Aeschynomene virginica*), a federally and state listed rare plant documented in the Cumberland Marsh Natural Area Preserve.



Natural Communities in New Kent County



Natural Heritage Outreach Activity

Biodiversity Without Boundaries Conference in Baltimore, MD – 4/14/13 – 4/18/13,

DCR-Natural Heritage attended the annual Biodiversity Without Boundaries conference in Baltimore, Maryland. Attendees included a variety of partners from other Natural Heritage Programs from throughout the U.S., Canada, and Latin American countries; state and federal natural resource agencies; and private sector partners, all of whom are users of Natural Heritage data, information and mapping tools. Virginia DCR staff delivered presentations on a new Natural Heritage Data Explorer online Environmental Review Tool; an online Atlas of Rare Butterflies and Dragonflies, developed through partnership between DCR-Natural Heritage and DGIF; Virginia's approach to mapping and prioritizing areas of biodiversity significance; the new Flora of Virginia; a smartphone application for collecting field data on Natural Heritage resources and integrating those data into an internal database; and the importance of, and methods for managing data on Conserved Lands. DCR- Natural Heritage staff also participated in several sessions focused on developing leadership skills for natural resources professionals. These presentations provided several examples of DCR-Natural Heritage successes that are recognized as models for other programs engaging in similar work with their partners.

Moreover, this provided invaluable opportunities for DCR staff to learn from the ongoing work throughout the international network of Natural Heritage programs and partners.

U.S. Regional Association of the International Association for Landscape Ecology (IALE) in Austin, TX – 4/14/13

Landscape Ecologist Kirsten Hazler attended the annual conference of the U.S. Regional Association of the International Association for Landscape Ecology (IALE) in Austin, TX during the week of April 15. A poster was presented titled “Development of a Statewide Vulnerability (urban growth) Model for Virginia, Phase 1: Image acquisition, calibration, and normalization.” The conference had over 200 landscape ecologists in attendance, with skills workshops, multiple concurrent sessions, and numerous presentations involving land cover change, climate change, modeling techniques, remote sensing, and other topics applicable to current Natural Heritage work. This was an excellent opportunity to stay abreast of cutting-edge research, as well as to make contacts with other landscape ecologists, to draw on their expertise, and to get feedback on methodology for Virginia’s new vulnerability model in progress.

Fort Belvoir Earth Day Event – 4/19/13

A DCR Natural Heritage Project Review Assistant participated in the Fort Belvoir Earth Day 2013 Event. Approximately 300 elementary-aged children from nearby schools participated, along with teachers and many adult chaperones. The DCR Natural Heritage Display contained species native to Fort Belvoir, including the globally rare *Stygobromus phreaticus*, currently found in a single seep located on the army base. Children had the opportunity to view live specimens of a similar species *Stygobromus tenuis*, as well as a pinned dragonfly display and several species of mussel shells. Additionally, children could take a “fortune teller” activity, which contained information about natural heritage species and communities.

Henrico Earth Day Celebration – 4/20/13

Two Natural Heritage volunteers participated in the Henrico County Earth Day Celebration at Three Lakes Park. Approximately 2500 children and adults participated in the event. The DCR Natural Heritage display had information and pictures of rare species found in Henrico County along with a map of the locations of conservation sites within the county. Children had fun making dragonflies and “fortune tellers” while learning about natural heritage resources.



Natural Heritage Volunteers at Henrico County Earth Day

Virginia Wetland Priorities Meeting – 5/1/13

Natural Heritage Conservation Biologist, Joe Weber, attended a meeting hosted by the Chesapeake Bay Program (CBP) to discuss wetland priorities in Virginia. Also in attendance were representatives from The

Natural Conservancy, Ducks Unlimited, USDA-Natural Resources Conservation Service, Chesapeake Bay Foundation, US Fish and Wildlife Service, and DGIF. The CBP, specifically its Habitat Goal Implementation Team, seeks to facilitate the implementation of projects that restore and enhance a network of land and water habitats to support priority species, which at the same time benefit water quality, recreation, and scenic values, to help achieve the goal of restoring 30,000 acres of tidal and non-tidal wetlands throughout the bay watershed. The group discussed obstacles to wetland restoration, wetland prioritization schemes, and next steps to achieving the restoration goal. While DCR-DNH was asked to provide only brief updates on the status of Phragmites mapping and management and ongoing development of the Virginia Wetlands Catalog (VWC), the latter topic generated much interest and resulted in an impromptu slide presentation during the lunch hour. After the presentation, participants discussed additional prioritization variables and analyses and possible funding sources for new work. DCR-DNH was invited to present the VWC at a CBP webinar to be held later this month in Annapolis, MD.

Crow's Nest Spring Field Day – 5/11/13

On May 11, 2013, DCR Natural Heritage staff, with assistance from Stafford County staff and Hal Wiggins with the Corps of Engineers, welcomed visitors to the Spring Field Day at Crow's Nest Natural Area Preserve. Interest in Crow's Nest remains high with approximately 50 participants signing up for the day. Unfortunately, the forecast of rain kept some people away. After a brief introduction to the Natural Heritage Program and Crow's Nest, participants divided into two groups for hikes on the Accokeek Loop and Boykin's Island trails. Hikers on the Accokeek Loop Trail trip were able to use the newly completed segments (approximately 1.25 miles long) of the trail and see a number of wildflowers, including showy orchid and jack-in-the-pulpit. Participants that joined the Boykin's Island Trail hike learned much about edible wild plants with Hal Wiggins. Many participants continue to have questions regarding the availability of future access to Crow's Nest.



DCR and Stafford County staff leading visitors at Crow's Nest Field Day

Stafford Middle School Class Visit – 5/14/13

On May 14, 2013, DCR Natural Heritage staff visited Stafford County Middle School to participate in a laboratory exercise with four 6th grade science classes that are taught by Ms. Rebecca Musso. The purpose of the exercise was to teach the value of aquatic macroinvertebrates as bioindicators of water quality and stream health. To facilitate the exercise, staff collected water from Accokeek Creek within Crow's Nest Natural Area Preserve that contained a diversity of macroinvertebrates, including mayfly, caddisfly, stonefly, damselfly and dragonfly larvae. Students divided into groups and were given a water sample to process and count the types of different organisms that they found.



DCR staff with Stafford Middle School Students learning about macroinvertebrates

Stream Clean-Up: 5/30/13

Four DCR Natural Heritage staff members participated in a DCR sponsored clean up of Walker's Creek located at the south end of the Mayo Bridge on May 30, 2013. The clean-up effort resulted in 8 bags of trash and 4 tires. DCR has adopted this stream as part of their Adopt-A-Stream program in partnership with the City of Richmond.



DCR staff cleaning up Walker's Creek an Adopt-A-Stream site

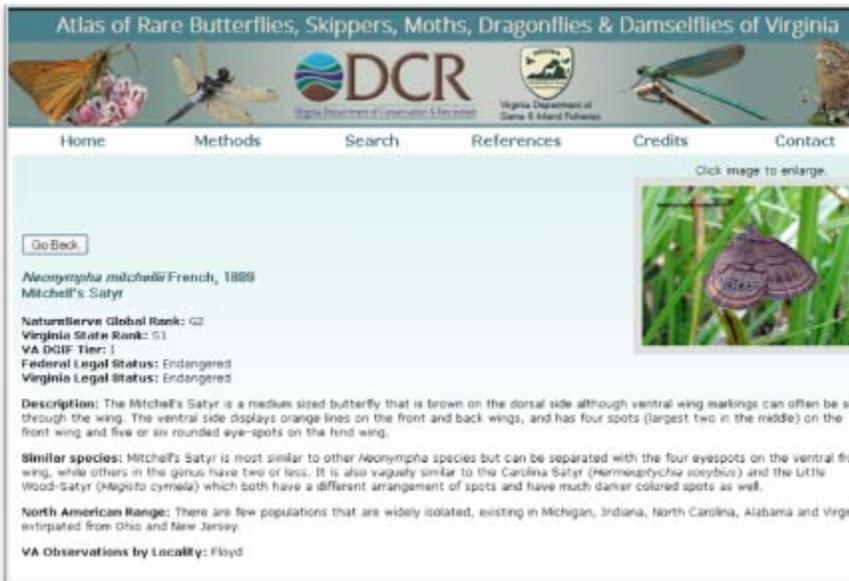
Presentation on Moth Conservation in Virginia – 6/7/13

The DCR Natural Heritage staff zoologist presented a paper entitled “Inventory and Conservation Assessment of the Moth Fauna of Virginia (Lepidoptera)” at the Virginia Academy of Science meeting held at Virginia Tech. The talk summarized the efforts of natural heritage staff during the past quarter century to document the composition, distribution, and conservation status of the macro-moth fauna of the Commonwealth, which consists of nearly 1,200 species. Currently, the DCR Natural Heritage rare animal list includes 95 species of moths (92 macro-moths and 3 micro-moths), 11 of which have not been recorded in the state in more than 50 years. None of these species is formally listed as threatened or endangered in Virginia. The DCR Natural Heritage animal “watchlist” contains 123 additional species of macro-moths that may warrant conservation attention. The web-based atlas of Virginia’s rare Lepidoptera (butterflies, skippers, and moths) and Odonata (dragonflies and damselflies) that debuted on June 1, 2013 was also discussed during the presentation.

Web Atlas of Rare Butterflies, Skippers, Moths, Dragonflies and Damselflies Launched – 6/1/13

On June 1, 2013, DCR Natural Heritage launched a Web Atlas of Rare Butterflies, Skippers, Moths, Dragonflies and Damselflies. This web atlas provides a wealth of information on 193 rare species in these insect groups, all made possible by hundreds of records from around the state. These records were amassed over two years from the Natural Heritage database, the field work of DCR Natural Heritage Inventory Biologists and cooperators, and in many cases literature sources and museum specimens. The public can use

this web atlas to: 1) enter locality name and receive a summary of all rare species in these groups, by locality in Virginia; 2) enter a species or common name, and get summary information on its physical appearance, its food or host plants, its habitat requirements, conservation status, view a current county presence map for Virginia, and more. This information, as well as photos, is provided in printable factsheets for every rare species in the Atlas. This Atlas was developed by DCR Natural Heritage, and the DCR Public Communications Office, with funding and initial project vision provided by the Virginia DGIF, via a USFWS State Wildlife Grant. Check it out at www.vararespecies.org.



Web Atlas of Rare Butterflies, Skippers, Moths, Dragonflies and Damselflies

Northeast Regional Meeting of the Dragonfly Society of the Americas in Griswold, Connecticut – 7/19-13
 The Natural Heritage staff zoologist recently attended the Northeast Regional meeting of the Dragonfly Society of the Americas in Griswold, Connecticut. Approximately 80 people ranging from amateur naturalists to professional biologists, and residing in more than a dozen states, attended the meeting, which included field trips to wetlands in Connecticut and Rhode Island. Concurrent with the meeting was a review and discussion of the Northeast Regional Conservation Assessment of Odonata (dragonflies and damselflies) that is being led by staff of the New York Natural Heritage Program. The zoologist's capture of a state-endangered riverine dragonfly at a previously unknown locality in eastern Connecticut was regarded as the best find of the weekend by the meeting's hosts. Representation of Virginia at the conservation meeting was much appreciated by the team preparing the assessment that spans the region from Maine to Virginia.

Cub Scout visit to Crow's Nest – 7/27/13

DCR Natural Heritage led a field trip for Stafford County Cub Scout troop 1425 to Crow's Nest Natural Area Preserve. The field trip started at the Brooke Road parking lot where the scouts visited the site of the future canoe launch. After a brief look over the tidal freshwater marsh along Accokeek Creek, the group carpooled into the main portion of the Preserve where everyone participated in a hike on the Accokeek Creek Loop Trail. Along the trail, scouts were introduced to a number of topics, including trail construction and maintenance, invasive species management and the importance of the intact soils at Crow's Nest to the healthy and productivity of the forest. Including the 18 scouts, approximately 60 people attended the field trip.



Cub Scouts visit Crow's Nest

Cherry Orchard Bog Field Trip Conducted for Dominion Power Personnel – 9/4/13

DCR Natural Heritage biologists and the Southeastern Regional Steward led a field trip and workshop to Cherry Orchard Bog Natural Area Preserve for twenty employees of Dominion Power to discuss vegetation management issues, particularly as it relates to rare vascular plants. This field visit was part of an ongoing effort between the two organizations to identify and implement management schemes that both perpetuate populations of rare species and meet the vegetation management needs of the utility. Power line rights of way are key habitats for rare species of the southeastern Coastal Plain in Virginia. Many species that were formerly associated with open, often boggy habitats in this region have declined significantly due to fire suppression, with the only populations of many of them remaining in power line easements.



Dominion Virginia Power employees at Cherry Orchard Bog

Trash Removal Day at Crow's Nest – 9/25/13

Five volunteers joined DCR Natural Heritage staff in removing trash and debris from the shoreline at Crow's Nest Natural Area Preserve in the vicinity of Boykin's Island. Approximately 600 pounds of debris were collected, including old advertising signs, chairs, wood and trash brought in with high tides. Several of the volunteers were members of the Central Rappahannock Chapter of Virginia Master Naturalists. Volunteers spent approximately four hours on the project.



Volunteers helping staff remove trash along Crow's Nest Shoreline

Natural Heritage Volunteers at the State Fair of Virginia – 9/27/13

On September 27, 2013, DCR Natural Heritage Project Review Assistant volunteered at the DCR building at the State Fair of Virginia, held at Meadow Event Park in Caroline County. DCR presented information about state parks, natural area preserves, native plants, and the Flora of Virginia Project, in addition to providing kids activities such as rare species coloring sheets and a fortune teller game. The DCR display was held in the Dominion Conservation Classroom, an energy efficient building with features such as a geothermal heat pump, solar panel array, and sprayed foam insulation. The State Fair of Virginia runs through Sunday, October 6.



Natural Heritage Staff at Virginia State Fair

Land Conservation

Special Protections Recommended for Rare Swamp Community – 7/8/13

DCR Natural Heritage staff visited a property which is being considered by the Department of Forestry for an open space easement, in King William County on the Pamunkey River and determined that much of the bottomland on the tract supports a globally rare (G3 / S3) community known as a Freshwater Tidal Hardwood Swamp [*Fraxinus profunda* - *Nyssa biflora* - (*Fraxinus pennsylvanica*) / *Ilex verticillata* / *Polygonum arifolium* Tidal Forest]. This discovery extends the range of this community type approximately nine miles up the Pamunkey from the closest known occurrence. Recommendations have been made to DOF to include special protections in the easement for the swamp.



Freshwater Tidal Hardwood Swamp [*Fraxinus profunda* - *Nyssa biflora* - (*Fraxinus pennsylvanica*) / *Ilex verticillata* / *Polygonum arifolium* Tidal Forest]

Stafford County Transfer of Development Rights - 9/13/13

Stafford County Board of Supervisors is working on a Transfer of Development Rights ordinance. DCR has been contacted about possible interest in donation of TDR associated parcels within the Crows Nest Harbor area to DCR as additions to the Crow's Nest Natural Area Preserve. DCR is talking to the potential donors to determine what specific lots are in question.

104 acres added to the Mutton Hunk Fen Natural Area Preserve, Accomack County – 9/24/13

On September 24, 104 acres were protected through an open space easement and natural area preserve dedication by DCR. This project expands the Mutton Hunk Fen Natural Area Preserve, established in 2005, to 515 acres. This easement restricts future divisions and development, and protects the forest cover of the property. This tract was identified by the DCR Division of Natural Heritage as an important addition to the natural area preserve, as it strengthens the protection of the groundwater recharge area that controls the quantity and quality of groundwater that feeds a globally rare sea-level fen on the preserve. The easement will preserve the scenic forested approach to the natural area preserve along Whites Neck Road. This project was funded by a grant from the Virginia Coastal Zone Management Program and the 2002 VPBA bond fund. The Virginia Natural Area Preserve System now contains 55,352 acres protecting 663 mapped locations of 441 unique rare species and exemplary natural communities.

Natural Heritage Data Management Totals for FY2012:

Activity 00-00-12 – 0-0-12

New Mapped Locations (EOs) – 40

Updated Mapped Locations (EOs) -163

New Conservation Sites – 8

Updated Conservation Sites -72

Total Number in Database 0-0-12:

Animal Mapped Locations (EOs) – 595

Plant Mapped Locations (EOs) – 1193

Community Mapped Locations – 520

Conservation Sites – 542

Managed Areas: 2569 (Acres added 4/1/13 – 9/30/13)

Mapped Tracts: 2606 (total in coastal zone)

Mapped Managed Areas: 3347 (total in coastal zone)

c) DCR – Division of Planning and Recreation Resources

There were no additional access sites reported by the planning districts for April 1, 2013 – September 30, 2013.

On Sept. 10 and 11, DCR co-sponsored a workshop on Universal Design for Water Access with the National Park Service, Isle of Wight County and the Town of Smithfield. Over 30 people attended the keynote session on Tuesday evening and 66 people attended the classroom session Wednesday morning at the Smithfield Center. York River and Chippokes State Park provided equipment and support for the paddling field trip in the afternoon. Other field trips included a bicycle tour of Fort Monroe and a visit to Huntington Park and Leeward Marina to discuss 2010 ADA standards for water access facilities. Copies of presentations will be available on DCR's website soon. Evaluations were very positive and a representative from the Va. Tourism Corporation expressed interest in doing a water trail workshop next fall in southern Virginia--focusing on water trails and tourism/economic development. A meeting with DGIF to discuss partnering on next year's workshop is scheduled in January.

Water-related public access, training, and education activities reported by the Friends of the Lower Appomattox River include:

9/28/13 – Paddle or Battle race between Petersburg and Hopewell

9/21/13 – Pocahontas Island canoe launch site clean-up w/Fort Lee

9/7/13 – Petersburg trail clean up w/Fort Leep

8/17/13 – FOLAR workday at Hopewell Marina

8/14/13 – FOLAR fishing day with Petersburg kids

7/24/13 - \$15,000 capacity building grant received from Cameron Foundation

7/4/13 – installed interpretive signs in Appomattox River Regional Park

6/7/13 - \$3,000 grant received from Virginia American Water

5/5/13 – new pavilion installed at Hopewell City Park

4/13/13 – Appomattox River Clean Up Day

d) DCR- Division of Chesapeake Bay Local Assistance

No report at this time due to uncertainties regarding work assignments under the DCR/DEQ merger.

5) Department of Game and Inland Fisheries (DGIF)

Recreational Fisheries

1. Stream Monitoring, Adult Anadromous Fishes

Weekly boat electrofishing for adult anadromous fish was begun in mid-February 2013, and continued through early June on the James, Appomattox and Rappahannock rivers in the fall zones and on the tidal Chickahominy River. On the upper tidal James hickory shad, alewife and blueback herring results were typical. American shad CPUE through the fall zone and at Boshers Dam was typical. American shad CPUE in the tidal James at Richmond was substantially higher than in previous years. American shad CPUE was up substantially in 2013 (similar to 2011) compared to 2012 in the tidal Rappahannock at Fredericksburg. The target of 100 shad for hatchery mark analysis was reached for the first time on the Rappahannock in 2013. Hickory shad, alewife and blueback herring CPUEs were typical on the tidal Rappahannock. A blueback herring adult and a juvenile striped bass were collected at Kelly's Ford, which is 28 miles upstream of the Embrey Dam removal site. Rappahannock River levels were relatively normal for spring unlike in 2012 when low river flow in the Rappahannock seemed to have an adverse effect on upstream fish migration.

2. Stream Monitoring, Juvenile Anadromous Fishes

Juvenile alosine sampling using a bow-mounted push net was conducted from June into August of 2013 on the James (Boshers pool) and Rappahannock (tidal) rivers. No American shad juveniles were found in the Boshers pool and tidal Rappahannock collections were typical (American shad and herring juveniles). Boat electrofishing began in August and continued into September also resulting in the collection of target fish from the tidal Rappahannock at Fredericksburg and Port Royal. No American shad juveniles were collected by electrofishing in the Boshers pool. This is the first year that American shad juveniles have been absent in both pushnet and electrofishing samples in the Boshers pool since restoration efforts began in 1994. River flow has been consistently well above median since early June and this may have resulted in an earlier downmigration of juvenile shad. Electrofishing in the tidal James began in September resulting in consistent weekly collections of herring and American shad juveniles. Oxytetracycline treatment of fry in the hatchery results in a visible ring in the otoliths (earbones) under black light. Otoliths will be extracted from the American shad juveniles and examined under a black light microscope to determine origin.

3. Boshers Dam Fishway

In 2010, the DGIF moved from reviewing all recorded video to counting fish in the first 15 minutes and expanding by a factor of four. Statistical analysis on this method using known counts compared to simulated estimates showed this to be a valid approach. The estimate for 2011 was 696 and the hourly passage rate of just over one per hour was the highest on record for the fishway's 13-year history. The estimate for American shad passage in 2012 is 184, down considerably from 2011. The five and ten year running averages for American shad passage are 267 and 165 respectively.

4. Fish Passage Projects

Harvell Dam is the first dam encountered by migratory fish on the Appomattox River. The current owner has continued to cooperate with removal planning and permitting. The DGIF has obtained sufficient funding from the USFWS and NOAA for removal. The final design is complete and all necessary permits have been received. The historical mitigation plan (Section 106 requirement) is currently being circulated for signatures. In June, DGIF conducted a freshwater mussel survey above and below the dam. Only common mussels were found so there will not be a need for an additional time of year restriction in mid to late summer for protected

mussels. There will be a time of year restriction protective of anadromous fish and mussels in the spring. The low flow season of 2014 is the current target date for removal implementation.

The City of Newport News continued the staged process of replacing Walkers Dam on the tidal Chickahominy River (Lanexa). The impoundment is one of Newport News' drinking water reservoirs. During the spring of 2013 the new double Denil fishway was operated for the first time. However, continued work on the new boat adjacent to the fishway hindered work to establish operating protocols for the new fishway. In 2014, the new fishway should be fully functional and the Fish Passage Coordinator will work with Newport News staff to establish operating protocols.

The DGIF continued planning for the removal of Monumental Mills Dam on the Hazel River. Permits for the project have been received. For Section 106 of the permitting process a mitigation plan to deal with historic resources was completed and signed by the participating parties including DGIF. Adjacent landowner issues still need to be resolved before this project is implemented. A title search is currently underway by DGIF to determine if any ownership claims to the river bottom are valid.

Nature-like fishway plans for a raised culvert on Claiborne Run (tributary to the tidal Rappahannock at Fredericksburg) are complete and construction is scheduled to begin in October 2013. The fish passage facility will be part of Stafford County's mitigation plan for the construction of Rocky Pen Run Reservoir.

5. Fisheries Stream Sampling Summary

During this reporting period, DGIF conducted survey work, using boat electrofishing techniques primarily, on sections of a multitude of streams which drain into the geographic area covered by the CZMP. Extensive sampling of stream fish communities occurred in the James, Rappahannock, Shenandoah, and York drainages. Relative abundance indices were generally obtained for all species surveyed, for recreationally important species additional parameters were examined, including analyses of age structure and growth rates based on examination of otoliths. A report detailing results of this work is being prepared under Sportfish Restoration Grant F-111-R.

6. Tidal River Catfish Summary

In August, DGIF Fisheries biologists sampled the tidal Rappahannock River, from Skinkers Neck (Caroline County) downstream to the mouth and lower reaches of Piscatoway Creek (Essex County) below Tappahannock. The fish were counted, measured, and weighed before most of them were returned to the river (a sub-sample of fish was retained for age and growth analyses. This is part of an ongoing effort to monitor the catfish assemblage in the tidal Rappahannock River that began in 2000, with a primary focus on the introduced blue catfish population that occurs there.

The survey occurred as part of an ongoing effort to monitor the catfish assemblage in Virginia tidal systems – tributaries of Chesapeake Bay – that began in the mid-1990's; a primary focus on the introduced blue catfish populations which occur in these systems. Blue catfish populations all Virginia tidal systems (Rappahannock, York, James), where blue catfish have been established for several decades, are experiencing declines in individual growth associated with increasing density (fish per area). Ongoing shifts in population parameters for blue catfish make it impossible to determine what the eventual impacts of this introduced species will be on other resources and species of concern in these tidal systems.

Reports detailing results of this work are being prepared under Sportfish Restoration Grant F-111-R.

7. Monitoring of Northern Snakehead Expansion in Bay Watershed

In 2013, work to document range expansion of this exotic species continued, with electrofishing work in the lower Potomac, Great Wicomico, Painkatank, and Rappahannock watersheds. The species was found to have expanded into fresh-oligohaline reaches of lower Dragon Run in the headwaters of the Painaktank River. This

work also provided further documentation of the species in fresh-oligohaline reaches of tidal tributaries of the lower Potomac, Great Wicomico, and Rappahannock rivers.

8. American shad stocking

The Virginia Department of Game & Inland Fisheries, a private fisheries consulting firm, the U.S. Fish & Wildlife Service, and the Interstate Commission on the Potomac River Basin worked cooperatively to stock American shad into two of Virginia's coastal river systems this spring. In 2013, American shad fry totaling 4.33 million were stocked in the Rappahannock River at Kelly's Ford. The total number stocked since 2003 is now 46.6 million. Approximately 400,000 shad fry were also stocked back into the Potomac River, bringing the total to 6.5 million since 2003. These fish are stocked to compensate for the eggs taken to stock the Rappahannock. Adult shad were collected this spring in the Pamunkey River and their eggs were used as broodstock for the James River. During April 2013, the James River was stocked at Scottsville and Lynchburg with a total of 4.82 million fry. This brings the grand total stocked in the James since 1992 to 124.3 million. Since the inception of the restoration program, 202.5 million American shad have been stocked into Virginia's waters. Both the James and Rappahannock rivers now support more American shad than they did prior to the initiation of the Restoration Programs, but biologists are still working towards the goal of restoring these spawning runs to historical levels. For more information regarding this program, please check out our [Shad Restoration Program](#) website or contact Eric Brittle, DGIF Shad Restoration Program Coordinator, at 757-465-6829.

Instream Flow Incremental Methodology (IFIM) Study:

The Department continued working with the Dept. of Environmental Quality and the Appomattox River Water Authority on modifications to the Brasfield Dam (Lake Chesdin) release permit. During this time period, DGIF coordinated with the various entities involved in the project, and reviewed results from the IFIM study. This work continues.

Wetlands:

1. Mitigation Banking

DGIF continues to participate on the Inter-Agency Review Team that oversees stream and wetland mitigation banking 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 during this reporting cycle. DGIF is also now part of the IRT overseeing the Virginia Aquatic Resources Trust Fund projects.

2. Wetland Restoration

VDGIF continues to have an active voluntary wetland restoration program. The program assists private, state, local, and federal government landowners to restore wetlands on their property. Landowners receive assistance with site selection, cost-share programs, restoration design, and permit issues. The Virginia Department of Game and Inland Fisheries is actively restoring wetland habitats in Virginia. Partnerships with organizations such as The U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program, The U.S. Department of Agriculture's farm bill programs, Ducks Unlimited, The Chesapeake Bay Foundation, and many others have resulted in additional wetland acres restored. DGIF has implemented the Virginia Migratory Waterfowl Stamp Grant program designed to give grants to non-profit organizations for wetland restoration, enhancement or creation. Grants have been awarded to Ducks Unlimited, The Elizabeth River Project, The Nature Conservancy and many other to restore wetlands in Virginia.

Geographic Information Systems/Data Management:

VDGIF continued to maintain spatial datasets of wildlife locations and resources in the coastal zone. VDGIF continues to focus on improving the both the range and quality of our species occurrence data as well as information on VDGIF properties. Staff completed several structural improvements to our observation database

from which internal and external users will benefit. Over 1000 new observations for species in the Coastal Zone were added, including some for threatened and endangered species. Several new subscribers were added to the Wildlife Environmental Review Mapping System (WERMS), and two quarterly updates were performed and notifications sent to users. Staff continued work on improving our Bald Eagle Concentration Areas and Roosts dataset (BECAR) in the Coastal Zone, and these efforts will continue. Similarly, the Anadromous Fish Use Areas layer was updated to add expanded streams. Staff also began working on updating the T&E Waters dataset to transfer the current dataset 1:100,000 NHD to the 1:24,000 NHD waters.

Sustainable Ecotourism:

21st Annual Eastern Shore Birding and Wildlife Festival

The Department of Game and Inland Fisheries continues to be a primary sponsor of this long-standing effort to help local communities on Virginia's Eastern Shore recognize the benefit of ecotourism. DGIF staff serves on the planning committee and organizes all trip, tours and volunteer guides.

Nongame Species Monitoring and Research:

1. American Oystercatcher

Virginia's third coastwide American Oystercatcher breeding survey was conducted from May – July, 2013. Survey participants included VCR, VDGIF, USFWS and other members of the Virginia Coastal Avian Partnership. The effort encompassed the following five geographic areas: the barrier island chain; the seaside lagoon system; the eastern shore of the Chesapeake Bay, the western shore of the Chesapeake Bay and southern ocean-facing beaches. VDGIF staff and interns surveyed four barrier islands, two seaside marsh systems and nine Chesapeake Bay islands and marshes. Survey results were being compiled at the time of this writing and therefore will be presented in next year's performance report.

This year, North Carolina State University, North Carolina shorebird biologists, VDGIF and VCR participated in the design of a future range-wide breeding survey by conducting repeated breeding/resighting surveys in conjunction with each state's coast-wide oystercatcher breeding survey. The purpose of the repeated surveys is to determine the level of bias that stems from a one-time survey effort and to help ascertain the level of effort necessary to obtain accurate population estimates. Virginia performed 2-4 repeated surveys at three barrier island sites. Preliminary findings from this pilot effort will be presented at the American Oystercatcher Working Group meeting in December 2013 where the implications of the data regarding a future range-wide effort will be discussed by working group members.

2. 2013 Virginia Colonial Waterbird Breeding Survey

Virginia's fourth coast-wide colonial waterbird survey was conducted from May – July 2013. In addition, this year's survey was part of a coordinated regional colonial waterbird breeding survey that extended from Maine to Virginia. The purpose of this regional effort is to be able to more accurately assess population trends over a larger geographic area.

VDGIF contracted with The Center for Conservation Biology (CCB) to carry out the following survey tasks: conduct a single extensive aerial survey during the early stages of the breeding season to direct ground surveys; conduct aerial surveys of extensive laughing gull and forster's tern nesting in the seaside marshes; conduct ground surveys of urban nesting colonial waterbirds; develop digital maps of colony locations that will be linked with a database containing all field variables; and present population estimates and trends in a final report. Through a separate contract with DGIF, CCB also conducted aerial surveys of widely distributed great egret and great blue heron breeding colonies within the western portion of Virginia's coastal plain, which have expanded exponentially over the past 30 years. CCB will generate similar mapping products and final report for this survey effort.

The majority of ground surveys of colonial nesting seabirds (with the exception of laughing gulls and forster's terns) and long-legged wading birds on the barrier islands, seaside lagoon system and the eastern shore of the Chesapeake Bay were conducted by DGIF, VCR and the USFWS. DGIF staff and interns conducted a total of 40 ground surveys that covered 22 species across 25 sites. These data were submitted to CCB for analyses at the end of the breeding season. Survey results were being compiled at the time of this writing and therefore will be presented in next year's performance report.

3. Long-legged Wading Birds

In 2012, VDGIF staff initiated a four-year study to measure the reproductive success of wading birds (herons, egrets and ibises) in several different habitat types (i.e., barrier islands, seaside saltmarshes, and Chesapeake Bay marsh islands) and develop methods for obtaining more accurate breeding population estimates for long-legged waders. To date, this suite of species has not been monitored effectively or with the intensity necessary to accurately assess their breeding status in coastal Virginia. The intent of this study is to intensify focus on this suite of species to establish a baseline for measuring future changes in colony size, species configuration, location and reproductive rates in habitats threatened by sea level rise.

2013 Methods and Preliminary Results

In 2013, we monitored five mixed species colonies in the seaside lagoon system of coastal Virginia. Two of the eight colonies monitored in 2012 were no longer active due to significant storm-related changes in habitat quality. And, we decided to forego monitoring the large colony on Wreck Island this year because so much of time was diverted to conducting colonial waterbird and oystercatcher breeding surveys. We conducted searches for nests containing at least one egg and recorded nest contents in new and previously found nests every 5 - 14 days during laying, incubation, hatching, and nestling periods. Upon the first visit to a new nest, we placed a marker labeled with the nest ID ≤ 1.0 m above the nest structure and recorded species, ID code, substrate, height and location within the colony. We attempted to monitor nests until the estimated age of nestlings reached ≥ 15 days post-hatch or were abandoned by the adults. Unfortunately, because this year's oystercatcher and colonial waterbird surveys took precedence over this study, we were unable to obtain productivity estimates (i.e., the number of young ≥ 15 days old per pair) for the majority of pairs with marked nests.

We monitored 422 breeding pairs from May 2 – August 13, 2013 and marked a total of 438 nests (including 16 second nesting attempts) from May 2 – July 21, 2013. Table 1 presents the number of pairs and nesting attempts monitored, by colony and species. We calculated hatch success only among those nests for which the number of eggs hatched was known. We determined hatch success for 78% ($n = 340$ pairs) of all nests monitored, including re-nesting attempts. We calculated hatch success by dividing the number of nests that successfully hatched at least one egg by the number of nests with known hatch success (i.e., those nests we were 100% certain either hatched or did not hatch at least one egg). Species specific hatching success, all colonies combined, ranged from 34% - 79%. Preliminary analyses indicate that glossy ibis experienced the lowest hatch success (34%), in part, because they tend to nest on the ground; thus making them more susceptible to tidal inundation. The hatching success for the remaining species (great egrets, snowy egrets, black-crowned night herons, and little blue herons) was $\geq 75\%$. These species tended to nest higher in the vegetation which likely offered greater protection from flooding events. Hatch success among colonies (all species combined) ranged from 65% – 100%, suggesting these seaside marsh sites continue to provide relatively stable breeding habitat in the face of rising sea level. More detailed investigations are still pending, especially among year analyses, and final results will be presented in the FY15 performance report.

Although we were unable to collect the data necessary to calculate productivity estimates, we were able to test a temporary brood marking method that we plan to employ next year, which will greatly increase our ability to accurately track the survival of broods up to or beyond 15 days post-hatch. We applied plastic spiral bandettes on the right tarsus of 71 nestlings < 1 week old. Each target species was assigned a different color bandette (i.e., snowy egret - yellow, great egret – red, tri-colored heron – white, black-crowned night heron – blue and glossy ibis – green) and each member of a brood received the same numbered band. The inside diameter of

smallest available bandette is equivalent to that of a federal band size 7, which is too large for young nestlings. We reduced the inside diameter bands by applying a thin layer of plasticine on the interior aspect of the band, when necessary. Plasticine prevented the bands from slipping off the tarsus when they were first applied on small nestlings and did not restrict normal leg growth because of its malleability. We did not use glue to secure the bands to facilitate the self-removal of bands by birds we failed to recapture. We successfully removed 65 of the 71 bands applied. Sixty-one of the removals were from live nestlings ≥ 15 day old. The remaining four bands were removed from dead nestlings. No leg injuries or other detrimental effects from bands were observed; as such we plan to use this brood marking method next year.

4. *An Assessment of Breeding Productivity for Selected High Marsh Nesting Birds in Virginia*

In spring of 2013, DGIF entered into 2-year contract with the Center of Conservation Biology to conduct this study designed to investigate the role of nest predation on reproduction rates on high marsh birds by monitoring artificial nests with eggs and nests of selected avian marsh species.

Methods and Preliminary Results

Twelve marsh patches have been selected for the study. A boundary area of approximately 10 ha was applied within each marsh to help focus nest searching to a standardized area. The length and width of each nest searching area varied between marshes to accommodate large marsh patches and narrow marsh patches. These patches were divided into 5 patches that would also have artificial nests placed in them and 7 patches that would not receive artificial nests. Two rounds of artificial nest checks were completed in May and June. Each artificial nest plot received 12 artificial nests containing 2 Japanese quail eggs per nest. Artificial nests were arranged in a 3x4 grid with 3 nests positioned parallel to the upland edge and 4 rows of nests running perpendicular to the upland edge and moving towards the shoreline at intervals of 50 m. Artificial nests were composed of dead marsh grasses and placed on the ground. Nest searches of marsh birds were conducted using a mix of strategies that included direct observation of adult nesting behavior, area searches, and rope drags to flush birds from nests.

Preliminary results following the first round nest checks indicated predation rates on artificial nests were spatially variable, with all of the artificial nests in some marshes being completely predated while others predated at lower levels. Notes were made on the condition of predated nests to help infer the nest predator species. In most instances, the nest structure was destroyed in the predation process. Over 40 natural nests of nine species (i.e., Willet, Black Duck, Canada Goose, Marsh Wren, Seaside Sparrow, Saltmarsh Sparrow, Clapper Rail, and Red-winged Blackbird) were found by mid-season. Approximately 23% of the nests under observation failed, with most attributed to nest predation. Final results from this year's effort are still pending and will be presented in next year's performance report.

5. *Spring Barrier Island Shorebird Migration Aerial Surveys*

The department funded spring shorebird aerial surveys conducted by The Nature Conservancy Virginia's Coast Reserve (VCR) and the Center for Conservation Biology as part of an Atlantic Flyway survey effort. Weekly surveys were conducted from April 26, 2013 – June 6, 2013. The ocean-facing shorelines of all Virginia's barrier islands were surveyed during low tide. Species surveyed included unidentified peeps, sanderlings, whimbrels, dunlin, willets, ruddy turnstones, black-bellied plovers and red knots. Dunlin comprised the largest spring season total followed by the red knot, a candidate species for federal listing. Peak red knot count occurred during the late May count, which follows similar trends in the past, but fell below the past 8-year barrier island average of 7,186.

6. *Sea Turtles and Marine Mammals*

During this reporting period, minimal resources were devoted to marine mammals, with the Department's primary role being to assist the Virginia Marine Mammal Stranding Network, which is administered by the Virginia Aquarium & Marine Science Center's Stranding Response Program (VAQS). During this project year, DGIF involvement was restricted to responding to bottlenose dolphin strandings found on the barrier islands,

Chesapeake Bay islands and shorelines, and other remote locations during an on-going elevated mortality event that began in July 2013. Preliminary immunological testing on dolphin tissues indicates that the die-off may be due in part to some form of cetacean *morbillivirus*. During this reporting period, Department staff have responded to and collected skin, teeth and morphological measurements from 19 dolphin carcasses.

VDGIF continued to maintain the state's sea turtle nesting database. From 1970 – 2013, a total of 156 Loggerhead (*Caretta caretta*) nests, one Green Sea Turtle (*Chelonia mydas*) nest and one Kemp's ridley (*Lepidochelys kempii*) nest have been documented in Virginia, the majority of which have occurred on the southern mainland beaches (North Carolina/Virginia border – Fort Story Military Reservation). In 2013, five loggerhead nests were reported in Virginia: three on the southern mainland beaches and two on Wallops Island. Results for all five nests are still pending.

VDGIF staff continued to respond to sea turtle strandings on the remote barrier and bay islands and conducted necropsies on fresh to moderately decomposed carcasses. During this reporting period, the Department documented seven Loggerhead strandings and one Kemp's ridley stranding. The 2013 statewide stranding total thus far is 201: 137 loggerheads; 48 Kemp's ridleys; six leatherbacks; four green turtles; and six unidentified species.

VDGIF continues to administer and manage the large multi-state NMFS Section 6 funded sea turtle project entitled the *Virginia/Maryland Sea Turtle Conservation Initiative*. The three year project seeks to collect a comprehensive set of data on the life history, abundance and distribution sea turtles in the Chesapeake Bay and Virginia's ocean waters. In March of 2011, VDGIF contracted with the Virginia Aquarium and Marine Science Center to complete most of the work. During this reporting period, many components of this multi-faceted project were initiated and results from these efforts are summarized in the attached report entitled *2013 Section 6 Jan-Mar_progress report_final.pdf*.

7. Endangered and Threatened Birds

A. Piping Plover and Wilson's Plover Population Estimates and Distribution

The 28th Annual Virginia Plover Survey (VPS) was conducted from June 1 - June 9, 2013 to obtain statewide breeding population estimates for the federally threatened Piping Plover (*Charadrius melodus*) and the state endangered Wilson's Plover (*Charadrius wilsonia*). VPS participants examined all suitable nesting habitats shared by both species of plovers in coastal Virginia. As in previous years, 17 ocean-facing sites, two inshore sites on the western shore of the Chesapeake Bay (Grandview Beach and Plum Tree Island National Wildlife Refuge) and Craney Island Dredge Material Management Area located near the mouth of the Elizabeth River in Portsmouth, VA were surveyed in 2013. A total of 203 Piping Plover breeding pairs and 20 unpaired single adults (lone adults that did not appear to be defending a territory, mate, nest or brood) were observed during the 2013 survey. This year's survey pair total is slightly below last year's total of 207 pairs. This year's Piping Plover distribution was confined to the barrier islands (Assateague Island to Fisherman Island) with the majority of birds occurring on the northern half of the island chain (Assateague Island to Cedar Island). No Piping Plovers were documented at ocean-facing sites south of the Chesapeake Bay (i.e., Back Bay NWR and False Cape State Park) or on the western Shore of the Bay and the James River; a trend that has been ongoing since 1997. The 2013 end-of-season Piping Plover breeding pair total that includes additional pairs discovered during productivity monitoring efforts following the breeding survey was 245 pairs. This reflects a 5% decrease from last year's end-of-season pair total of 259 pairs. A total of 24 Wilson's Plover breeding pairs and 5 single adults recorded during the 2013 VPS. The end-of-season total of 28 pairs reflects a 7% decrease over last year's total of 30 pairs. Wilson's Plover breeding activity was confined to Assawoman, Metompkin and Cedar islands. Prior to 2006, up to 25% of the state's breeding population was reported on the southern islands (Parramore Island - Fisherman Island; VDGIF unpubl. data). It is not clear why Wilson's Plovers have remained absent from the southern islands in recent years.

B. Plover Productivity

Staff from The Nature Conservancy's Virginia Coast Reserve (VCR), Chincoteague National Wildlife Refuge, Wallops Flight Facility and VDGIF monitored the breeding success of 100% of Virginia's Piping Plover population in 2013. This year's statewide productivity estimate was 1.16 fledged young per pair, well above the value necessary (i.e., 0.93 fledged young per pair) to maintain a stable population in the southern recovery unit. VDGIF staff resumed Wilson's Plover productivity studies on Cedar Island in 2013. Fifteen out of the 18 pairs monitored fledged at least one young which yielded a productivity estimate of 1.22 fledged young per pair.

8. Atlantic Slope Freshwater Mussel Propagation

The VA Department of Game & Inland Fisheries continued its cooperative Atlantic Slope freshwater mussel propagation facility with the U.S. Fish & Wildlife Services' Harrison Lake National Fish Hatchery in Charles City, which marks the 6th year of production and 7th year of operation at the VA Fisheries and Aquatic Wildlife Center (VFAWC). Propagation started in February and ended in late August resulting in the production of nearly 1.1 million juvenile mussels from seven species (Table 1), which was well over our target number of 460,000 juveniles and a record production number for VFAWC. As with 2012, we expanded our propagation coverage from the Nottoway River watershed to include the Appomattox, Rappahannock, Pamunkey and Mattaponi River watersheds again. While most of the species propagated at VFAWC are not listed as threatened or endangered but listed as a species of greatest conservation need in Virginia's Wildlife Action Plan or as a species of concern by the USFWS, we did continue to work with the state threatened green floater (*Lasmigona subviridis*) to develop successful grow-out techniques. We continued to release propagated mussels from our 2011 and 2012 stocks, with over 21,000 tagged mussels released in the lower Nottoway River, Southampton County (Table 2). Additional mussels from our 2011 and 2012 stocks will be released in October and November 2013 with any remaining mussels released in 2014. Juvenile mussels from our 2013 stock will start to be released in 2014. All mussels were or will be tagged for future monitoring of survival and reproduction.

Table 1. Juvenile freshwater mussels produced at VFAWC in 2013

Species	Source Location	Juveniles Produced
<i>Anodonta implicata</i>	Nottoway River	22,012
	Pamunkey River	4,879
	Rappahannock River	566,581
<i>Lampsilis cariosa</i>	Nottoway River	64,370
<i>Lampsilis radiata radiata</i>	Blackwater River	23,863
	Nottoway River	119,314
	Mattaponi River	2,262
	Pamunkey River	16,980
<i>Lasmigona subviridis</i>	Tye River	113,914
<i>Leptodea ochracea</i>	Nottoway River	40,413
	Rappahannock River	9,852
<i>Ligumia nasuta</i>	Blackwater River	7,822
	Nottoway River	54,025
<i>Villosa constricta</i>	Johns Creek	32,222
	Dicks Creek	2,499
		1,081,026

Table 2. Freshwater mussels released in 2013

Species	Release Date 2013	Number Released	Total Released
<i>Anodonta implicata</i>	8/15	11	11
<i>Lampsilis cariosa</i>	6/11	964	2,388
	7/23	1,419	
	8/15	5	
<i>Lampsilis radiata</i>	5/31	1	8,996
	6/11	3,422	
	7/23	142	
	8/15	5,431	
<i>Leptodea ochracea</i>	5/31	2	651
	7/23	58	
	8/15	591	
<i>Ligumia nasuta</i>	4/10	1,104	9,542
	5/31	5,962	
	6/11	1,269	
	7/23	516	
	8/15	691	
TOTAL	4/10-8/15		21,588

9. Herpetofauna

A. North American Amphibian Monitoring Program (NAAMP) and Virginia Frog and Toad Calling Survey (FTCS)

The North American Amphibian Monitoring Program was established in 1997 to record the population trends of calling amphibians throughout the United States. Virginia is one of 20 states involved in this program. The Virginia Department of Game and Inland Fisheries (VDGIF) became involved with the program in 1999. We have 53 USGS established routes available for volunteers. Currently, there are 27 volunteers surveying as many routes. Four of these routes are located in Virginia’s Coastal Plain. Data for the 2013 field season will not be available until the end of October and that may be delayed by the on-going Federal government shutdown.

B. Chicken Turtle Trapping Survey

The Chicken Turtle (*Deirochelys reticularia*) is a State Endangered species. Only two populations are known to occur in the state; First Landing State Park in the City of Virginia Beach and the Cat Ponds in Isle of Wight County. As part of our on-going conservation efforts, we conducted trapping efforts from May 13-24 at the Cat Ponds site. The result of this trapping effort was the capture of six adult turtles, including the only two turtles captured in 2012. These adult turtles were affixed with radio transmitters for tracking during the following months. In addition to the adult turtles captured, two one-year old sub-adults, and one hatchling was captured. This provides evidence that reproduction is still occurring at the site and that conservation of this population is a viable goal. This survey and radio telemetry work is part of an overall effort to better understand the ecology and life history of this species in Virginia.

In addition to our field investigations, a conservation planning meeting occurred. The goal of this meeting was to discuss a population augmentation proposal. The purpose of the meeting was to establish guidelines for creating and refining the proposal. If the proposal is approved, we will be augmenting and/or reintroducing a small group of juvenile chicken turtles into one or both of the Virginia populations. A Chicken Turtle Conservation Plan is also currently being developed.

C. Canebrake Rattlesnake Radio Telemetry

As part of a general ecology study spanning nearly 20 years on a group of Canebrake Rattlesnakes (*Crotalus horridus*) in the City of Chesapeake, weekly radio telemetry was performed. The telemetry project is now an effort to maintain vigil on the remaining snakes in order to collect movement and habitat use data in the south-east portion of Virginia. In the beginning of the year, we had seven snakes with active transmitters. However, and likely due to transmitter failures, two of the seven snakes were lost during this time period, resulting in only five individuals with active transmitters remaining at the site. Currently, the snakes have begun to migrate to hibernacula sites as we leave September and enter into October. Tracking of these snakes will continue until the snakes enter hibernation (likely only a few weeks away), and then will cease until spring of 2014 when the snakes will be emerging. There is a possibility of recapturing the two lost snakes during the fall or during spring emergence in order to recover and replace the two failed transmitters and to keep the two snakes in the study.

D. Eastern Box Turtle Radio Telemetry

In 2007, we began an investigating a methodology into headstarting Eastern Box Turtles (*Terrapene carolina carolina*). Twenty captive-bred box turtles were released onto a 350 acre site in Charles City County, Virginia. Ten of the turtles were treated via penning for 9 months. The intent of the treatment was in imprint the turtles and therefore reduce movement patterns. Long-distance movement patterns are typical in released animals which often results in mortality from predators of anthropomorphic causations (e.g. highways). The remaining ten turtles were released untreated. As a result part of the treatment, initial movement patterns (first two weeks) were reduced by 70% and first year movement by 50%. Since the initial 2 years of this investigation, we have continued to monitor the head-started turtles (n=12) and in addition, 10 resident adult turtles. Eight of the head-start turtles have either died (n=2) or have been lost (n=6) due to transmitter failure.

In 2013, a volunteer from Christopher Newport University performed weekly tracking of the turtles. In addition, a graduate student from the University of Nebraska (UN) has been assisting in the field on a bimonthly basis as part her study: *A Comparison of Juvenile and Adult Microhabitat Preferences of Eastern Box Turtles (Terrapene carolina carolina) in eastern Virginia*. Once the turtles enter brumation this year, we will be removing transmitters and completing the investigation.

E. Population viability of common snapping turtles in Virginia waterways under increasing harvest pressure

The field season this year began on May 27 and continued for 6 weeks. 2 weeks were spent at each of our field sites Totuskey Creek (off the Rappahannock), The Walkerton area of the Mattaponi River, and Morris Creek (off of the Chickahominy). The season continued after a 3 week hiatus on August 5 and continued until September 14, following the same pattern as the first aforementioned field cycle. We trapped 20 locations per day, randomized from a possible 48 at each site, 4 days per week. We caught tagged, or marked, and released 124 total turtles over the entire field season with the first cycle being more productive than the second. Out of 124 turtles caught 60 were snapping turtles with the remainder made up of various species of river cooters, mud turtles and painted turtles. We recaptured 14 snapping turtles bringing our recapture rate to roughly 15%, which given the species and environment (open river) is better than was expected. On the Morris creek site we now have 18 turtles equipped with radio transmitters for the telemetry portion of the study, and we were able to track the majority of those tagged both this year and last on survey days. We will conduct telemetry surveys again this year over the winter months to identify hibernaculum, and then in field season three we will survey daily on the days we on Morris creek in both the spring and fall to increase the accuracy of our home range estimate and to look for differences based on seasonality. Additionally, we took a total of 38 nail samples from snapping turtles for analysis. The analysis will include mercury (Hg), methylmercury (MeHg), and stable isotope analysis to examine the stage based shifts in trophic level feeding. This will provide some of the first data geared towards river snappers and their niche feeding habits based on size or stage. It will also provide valuable information on mercury levels in snapping turtles as they are being harvested to provide for the international food trade.

SECTION B.3 FEDERAL CONSISTENCY

During the second half of FY 2012, the Office of Environmental Impact Review/Federal Consistency (OEIR) reviewed 145 development projects and management plans for consistency with the Virginia Coastal Zone Management Program (VCP). This represents 90% of the total amount of projects (161) reviewed during this period. Major state projects accounted for 18 projects, 94 were federal actions, and 33 were federally funded projects (predominantly local government projects). The 94 federal projects included 48 federal agency activities, 32 federal licenses and approvals, and 14 projects submitted under the residual category pursuant to the federal consistency regulation (15 CFR 930.31(c)) (included 9 U. S. Department of Housing and Urban Development (HUD) mortgage insurance projects, 2 USDA Rural Development, 2 National Science Foundation leases (submitted by GSA) and 1 from U.S. Department of Health and Human Services). All federal consistency determinations and federal consistency certifications were completed within the established legal deadlines.

The OEIR provided informal training on federal consistency requirements of state projects with federal involvement to some senior management staff at the Division of Real Estate Services (DRES) of the Department of General Services (DGS). The DRES responsibilities include, but are not limited to, managing Virginia's real estate portfolio and transactional negotiation support, including leasing, acquisition, disposal, and easements. Included among the state-owned portfolio of land and buildings that DRES oversees are: 400,000 acres of land in over 1,200 locations; 12,000 buildings; and 117 million square feet of space. Additionally, Virginia leases approximately 13 million square feet of rental space in 1500 locations. The OEIR continues to maintain a website for Federal Consistency Reviews and can be accessed through DEQ's main webpage or found at <http://www.deq.virginia.gov/Programs/EnvironmentalImpactReview.aspx>. The OEIR webpage is updated weekly.

Table 1 depicts federal projects in Tidewater Virginia reviewed from 4-1-13 to 9-30-13.

TYPE OF FEDERAL PROJECTS REVIEWED*	NUMBER OF PROJECTS COMPLETED	REVIEW PERIOD
*Direct Federal Actions	60	30-60 Days
** Federal Activities (approvals & permits)	33	90 Days
***Federally Funded Projects	33	30 Days
Outer Continental Shelf	1	45-60 Days
TOTAL	127	30-90 DAYS

*Includes 14 FCDs reviewed under the residual category of Subpart C of the Regulations. (HUD Mortgage Insurances, National Science Foundation leases, USDA assistance projects).

**These projects include individual permits issued pursuant to Section 404 of the Clean Water Act administered by the U.S. Army Corps of Engineers. Nationwide and regional general permits are certified every five years or as requested by the Norfolk District U.S. Army Corps of Engineers.

*** These include federal assistance to state and local government reviewed under subpart F.

I. Federal Agency Projects

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

Atlantic Fleet Training and Testing –DEQ completed the coordinated review of a Final Environmental Impact Statement/Overseas Environmental Impact Statement submitted by the Department of the Navy (Navy) that evaluates the potential environmental effects associated with military readiness training and research, development, test and evaluation activities conducted within the Atlantic Fleet Training and Testing (AFTT) Study Area. The Study Area is in the western Atlantic Ocean and encompasses the waters off the east coast of North America and the Gulf of Mexico. Virginia offshore and inland coastal waters in the Study Area includes the Virginia Capes (VACAPES) Range Complex and the lower Chesapeake Bay. The VACAPES Range Complex spans 270 miles along the coast from Delaware to North Carolina from the shoreline to 155 nautical miles (nm) seaward. The VACAPES Range Complex includes special use airspace with associated warning and restricted areas, and surface and subsurface sea space of the VACAPES Operations Area (OPAREA). The VACAPES Range Complex also includes established mine warfare training areas located within the lower Chesapeake Bay and off the coast of Virginia. The Final EIS/OEIS analyzes potential impacts on environmental resources resulting from activities under the alternatives. On behalf of the commonwealth, DEQ previously responded to the Draft EIS/OEIS and the federal consistency determination (FCD) submitted by the Department of the Navy for the proposal on July 9, 2012 and February 11, 2013 respectively. Based on comments from reviewers, the Commonwealth has no objection to the proposed action, provided the Navy complies with all applicable laws and regulations. The proposal is unlikely to have significant effects on ambient air quality, water quality, and wetland resources of the Commonwealth. The response recommends that the Navy coordinate closely with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service and the Virginia Department of Game and Inland Fisheries to ensure that impacts on protected species including sea turtles, whales and marine mammals, and state natural area preserves are adequately avoided and minimized.

Amendment 5 to the Atlantic Herring Fishery Management Plan – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the National Marine Fisheries Service (NMFS) for the proposed implementation of Framework Adjustment 2 to the Atlantic Herring Fishery Management Plan (FMP). Framework 2 would allow the specifications process to split annual catch limits (ACLs) seasonally (by month) for the Atlantic herring management areas, and it proposes a policy for authorizing annual carryover of unutilized herring ACL under specific conditions. The Atlantic herring fishery specifications are annual amounts (for the 2013-2015 fishing years, January-December) including: Overfishing Limit (OFL); Acceptable Biological Catch (ABC); Stock-wide ACL = U.S. Optimum Yield (OY); Domestic Annual Harvest (DAH); Domestic Annual Processing (DAP); U.S. At-Sea Processing (USAP); Border Transfer (BT, U.S.-Caught herring transferred to Canadian vessels for export); Management Area sub-ACLs; Research Set-Asides (RSA); and Fixed Gear Set-Aside (FGSA). Based on the information in the FCD and comments from the Virginia Marine Resources Commission, DEQ concurs that the proposed project is consistent, to the maximum extent practicable, with the enforceable policies of the VCP as it will result in no adverse impacts to the fisheries resources of the commonwealth.

Shoreline Restoration and Protection Project – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the Department of the Navy (Navy) for a shoreline restoration and protection project at Joint Expeditionary Base (JEB) Little Creek/Fort Story in the City of Virginia Beach. Under the proposed action, sand on the beaches at JEB Fort Story would be replenished and a single stone breakwater would be constructed as follows: (1) sand would be replenished along approximately 2,500 linear feet of shoreline, and the toe of the existing dune would be replenished and reshaped at the Omaha Beach training area; (2) sand would be replenished along approximately 1,300 linear feet of shoreline across from the Department of Public Works (DPW) building; and (3) one stone breakwater would be constructed to provide storm protection and sand would be replenished along approximately 370 linear feet of shoreline north and east

of Building 734 at the northern terminus of Leyte Road. Approximately 845,800 cubic yards of sand would be required from either the Thimble Shoals federal navigation channel or the Atlantic Ocean and the Cape Henry federal navigation channels. Based on the information in the FCD and comments from reviewers, DEQ concurs that the proposed project is consistent, to the maximum extent practicable, with the enforceable policies of the VCP provided the applicant obtains and complies with applicable authorizations with respect to proposed impacts to subaqueous lands, dunes and beaches, surface waters, land disturbance, air emissions, and lands analogous to Chesapeake Bay Preservation Areas. In addition, the Navy must comply with applicable regulatory requirements for the management of solid and hazardous wastes, and the protection of listed species (Seabeach amaranth).

Atlantic Fleet Aerial Target Operations Consolidation – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by The Department of the Navy (Navy) for the construction of the Atlantic Fleet Aerial Target Operations Facility (ATOF) at Naval Air Station Oceana, Dam Neck Annex in the City of Virginia Beach. The project consists of the construction of a 1,635 square meter (m²), two-story ATOF, and a 115 m² stand-alone Center-of-Gravity (CG) Alignment and Range Operations Facility for Naval Air Warfare Center Aircraft Division/Atlantic Target Marine Operations (NAWCAD/ATMO). The Proposed Action would also include the demolition of four buildings at Dam Neck Annex. NAWCAD/ATMO provides an average of fifty-four BQM-74 aerial target launches per year in support of critical Fleet air-to-air and surface-to-air training in Operating Area 'W-72' (VACAPES). This project would provide for uninterrupted, critical mission essential surface/aviation operations systems, weapons and radar systems training. Based on the information in the FCD and comments from reviewers, DEQ concurred that the proposed project is consistent, to the maximum extent practicable, with the enforceable policies of the VCP provided the Navy obtains and complies with applicable permits and authorizations with respect to proposed impacts to surface waters and wetlands, erosion and sediment control, and air emissions. The Navy must comply with applicable regulatory requirements for the management of solid and hazardous wastes, and the protection of listed species (White-top fleabane).

Outdoor Research, Development, Test, and Evaluation Activities at NSWC – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the U. S. Department of the Navy (Navy). The Navy proposes to expand research, development, test, and evaluation activities within the Potomac River Test Range and Explosives Experimental Area complexes, the Mission Area, and special use airspace at the Naval Support Facility, Dahlgren in King George County. These activities include outdoor operations requiring the use of ordnance (guns and explosives), electromagnetic energy, lasers, and chemical and biological simulates (non-toxic substances used to mimic dangerous agents). The purpose of the proposed action is to enable the Naval Surface Warfare Center, Dahlgren Division (NSWCDD) to meet current and future mission-related warfare and force protection requirements by providing research, development, testing, and evaluation of surface ship combat systems, ordnance, lasers and directed energy systems, force level warfare, and homeland and force protection. The Final Environmental Impact Statement (Final EIS) analyzes three alternatives, as did the Draft EIS: The Draft EIS included a Federal Consistency Determination (FCD), with which the Commonwealth concurred in its response to that document (DEQ-12-152F, comments mailed October 18, 2012). In responding to the Final EIS, reviewers indicated that they had no additional comments and that the Navy's responses to comments on the Draft EIS were satisfactory.

Safety Zone for Coleman Bridge Submarine Cable Repair – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the U. S. Coast Guard. The Coast Guard intends to establish a safety zone closing a section of the York River Channel so that the Department of Transportation can facilitate the installation of submarine cables for the Coleman Bridge between Yorktown (York County) and Gloucester Point (Gloucester County). The work will take place in the York River underneath the bridge. The safety zone is established to protect mariners from the hazards associated with marine repair work and to ensure the successful completion of the work. The Coast Guard determined that the safety zone and activities associated with it are consistent, to the maximum extent practicable, with the enforceable policies of the

Virginia Coastal Zone Management Program. Based on the information submitted by reviewers, DEQ, on behalf of the Commonwealth, concurred with the federal consistency determination. The Department of Game and Inland Fisheries requested coordination by the Coast Guard in regard to peregrine falcons, a state-listed species, if the activities appeared likely to take place during the falcons' nesting season (February 15 through June 30). The Hampton Roads Planning District Commission found the activity consistent with local and regional plans and policies, but recommended that the Coast Guard work with the two Counties (Gloucester and York) to provide for recreational access to their pier and boat launch facilities along the York River if possible.

Radio Propagation Equipment – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the National Oceanic and Atmospheric Administration (applicant) to conduct a radio experiment at Wallops Command and Data Acquisition Station (WCDAS) in Wallops, Accomack County. The proximity of sensitive satellite antenna receivers to mobile transmitters, operating within the same frequency band, may result in interference to the NOAA satellite antenna receivers. The experiment is designed to determine if and when radio frequency interference (RFI) outside of a 26 kilometer (km) radius around the WCDAS can occur. Up to 50 low-power transmitters (less than 5 Watts) will be placed at United States Coast Guard (USCG) Stations around the Del-Mar-Va peninsula region. Each transmitter will be mounted on a 10-foot tall steel pole/tower structure. A solar panel, log periodic antenna and 12 VDC battery will also be mounted on the pole/tower. A receiver system at WCDAS will record the times and signal levels when the low-power transmissions are received. The transmitters will transmit for 1 to 2 minutes, 3 or 4 times an hour, 24/7 for a period of roughly 12 months. At the conclusion of the experiment, the pole/tower will be taken down and the area restored, leaving no impact on station property. Based on the information in the FCD, DEQ concurs that the proposed project is consistent, to the maximum extent practicable, with the enforceable policies of the VCP. In addition, the response recommends that the applicant coordinate with the Department of Game and Inland Fisheries with respect to potential impacts to wildlife resources.

Oceana Youth Center – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the Department of the Navy (Navy) for the construction of a youth center at the Oceana Naval Air Station (NAS) in Virginia Beach. The project site consists of approximately 5.6 acres of land with approximately 3.8 acres designated as the area of land disturbance. The remainder of the site will remain as open space. The facility design includes an approximately 17,800-square foot slab-on-grade structure and approximately 58,000 square feet of additional impervious surfaces including sidewalks, patios, and driveways/parking lots. Two parking lots of 9 and 47 parking spaces will be located north and south of the building, respectively. Based on the information in the FCD and responses from reviewers, DEQ concurs that the proposed project is consistent, to the maximum extent practicable, with the enforceable policies of the VCP, provided the applicant obtains all applicable permits and authorizations with respect to erosion and sediment control, stormwater management, air emissions, and impacts to Chesapeake Bay Preservation Areas. Furthermore, the Virginia Water Protection Permit program at DEQ-Tidewater Regional Office recommends that a wetland delineation of the parcel be performed and confirmed by the U. S. Army Corps of Engineers to ensure that any potential impacts to wetlands are addressed. In addition, the project must comply with solid and hazardous waste regulations, and Section 106 of the National Historic Preservation Act.

Amendment 14 to the Atlantic Mackerel, Squid, and Butterfish FMP – DEQ completed a coordinated review of a federal consistency determination (FCD) submitted by the National Marine Fisheries Service (NMFS) to implement Amendment 14 to the Atlantic Mackerel, Squid, and Butterfish (MSB) Fishery Management Plan (FMP). The goals of Amendment 14 are to: (1) implement an effective program for monitoring river herring and shad bycatch in the MSB fisheries; and (2) reduce the bycatch of river herring and shad in the MSB fisheries. If implemented, the measures recommended would: expand reporting requirements for all MSB permit holders; require federal MSB dealers to weigh all landings of mackerel over 20,000 pounds and longfin squid over 2,500 pounds or document why they cannot weight landings; require that, for mackerel and longfin butterfish permits, reasonable assistance be provided to observers, notice of haul-back or pumping be provided to observers, and one observer is provided for each vessel on pair-trawl operations whenever possible; prohibit

the release hauls of fish (“slippage”) prior to observer documentation, and catch affidavits would have to be completed for any pre-observed net release unless safety, mechanical, or spiny dogfish issues make it inappropriate; establish a fleet-wide cap of 10 non-emergency (safety, mechanical, spiny dogfish) slippages after which further non-emergency slippages would require a vessel to terminate their trip for mackerel limited access vessels; implement additional portside monitoring and catch avoidance based on portside monitoring; require 100% observer coverage of midwater trawl (MWT) mackerel trips as well as tiered coverage levels for small mesh bottom trawl mackerel trips (100% for Tier 1, 50% for Tier 2, and 25% for Tier 3); and establish mortality caps for river herring/shad (RH/S) on the mackerel fishery and added future mortality caps and hotspot closures since RH/S catch is greatest in the mackerel fishery, and current analysis suggested that area-based could not be determined to be an effective measure. Based on comments submitted by the Marine Resources Commission, DEQ concurred that this proposal is consistent with the enforceable policies of Virginia Coastal Zone Management Program.

Implementation of NASA Langley Research Center Master Plan – DEQ completed a coordinated review of an environmental assessment (EA) and federal consistency determination (FCD) submitted by the National Aeronautics and Space Administration (NASA) for the implementation of the Langley Research Center (Langley) Master Plan, which is the proposed action. The master plan includes a 20-year revitalization strategy that expands and extends the New Town project work that began in 2009. The proposed action includes constructing state-of-the-art facilities, renovating critical infrastructure, vacating and/or demolishing non-essential facilities, and performing other general infrastructure maintenance and improvement activities throughout the NASA Langley facility. In total, the proposed action includes 22 building construction, building rehabilitation and infrastructure projects, and 31 building and tunnel demolition projects. Infrastructure projects include storm hardening of facilities and utilities to include storm sewer upgrades, perimeter flood barriers, utility tunnel upgrades, electrical substation protection, and heating, ventilation, and air conditioning (HVAC) system upgrades. According to the FCD, the project would be consistent with the enforceable policies of the Virginia Coastal Zone Management Program (VCP). Based on the review of the FCD and the comments submitted by agencies administering the enforceable policies of the VCP, DEQ concurs that the implementation of the master plan is consistent with the VCP provided all applicable permits and approvals are obtained.

Maintenance Dredging of the Federal Navigation Channel in the Little Wicomico River – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the U.S. Army Corps of Engineers, Baltimore District for the maintenance dredging of the federal navigation channel in the Little Wicomico River in Northumberland County. The channel would be dredged to the authorized depth of eight feet, mean lower low water, plus two feet of advanced maintenance dredging and one foot of allowable over-depth. Approximately 12,000 cubic yards of material consisting primarily of sand, gravel, and shell will be dredged using a hydraulic pipeline dredge. The dredge material will be extracted from the outermost 1,100 feet of the channel and placed below the mean low water line along a beach area of the Potomac River in Maryland. This same area of the shoreline has been used as the placement site for the maintenance dredging of this project for the last three dredging cycles dating back to 1994. Based on the information in the FCD and responses from reviewers, DEQ concurs that the proposed project is consistent, to the maximum extent practicable, with the enforceable policies of the VCP. In this regard, the DEQ Virginia Water Protection Permit program waived the § 401 Clean Water Act water quality certification review process (one of the programs administered under the point source pollution control enforceable policy of the VCP), due to the nature and scope of the proposed dredging for this particular project. In addition, the applicant must comply with applicable solid and hazardous waste management regulations. The response recommends that the applicant coordinate with the Department of Game and Inland Fisheries with respect to potential impacts to the canebrake rattlesnake.

Water/Wastewater Utility Upgrade – DEQ completed the coordinated review of an Environmental Assessment (EA) and Federal Consistency Determination (FCD) submitted by the Department of the Army for the implementation of a number of projects to upgrade the water and wastewater system infrastructure at Fort Belvoir in Fairfax County. These projects are organized into four categories: (1) initial system deficiency

corrections (ISDC) projects, (2) renewals and replacement (R&R) projects, (3) future system deficiency corrections/upgrades (FSDC), and (4) general maintenance. These projects include: demolition of four water storage tanks and construction of three new water storage tanks (ISDC); replacement of six sections of sewer force mains (R&R); maintenance of seven sections of gravity sewer mains (general maintenance); reinstallation or repair of nine aerial stream crossings with associated streambank repair (ISDC); and implementation of additional projects (R&R and FSDC) identified in Fort Belvoir's *2012 Annual System Deficiency Corrections, Upgrades and Renewal & Replacement Plan* for fiscal years 2013 through 2017. Reviewers provided extensive comments regarding resources at the site. The Department of Conservation and Recreation (DCR) and the Department of Game and Inland Fisheries identified several natural heritage resources and protected species at the Fort. DCR recommends that an inventory be conducted for the Northern Virginia well amphipod. With the survey results DCR-DNH can more accurately evaluate potential impacts to natural heritage resources and offer specific protection recommendations for minimizing impacts to the documented resources. Fairfax County encourages that care be taken when working in sensitive environmental areas to minimize the unavoidable impacts of the proposed construction. In addition, the County recommends that the Army reuse the fully treated reclaimed water from the Fairfax County Norman M. Cole, Jr. Pollution Control Plant located in the vicinity of Fort Belvoir for uses such as cooling water, irrigation and/or other uses as allowed by the Virginia Water Reclamation and Reuse Regulations. The Department of Forestry provided extensive recommendations including conducting evaluations of land use impacts on forest resources based on the policies identified in the *Comprehensive Plan for the National Capital: Federal Elements* (NCPC 2004). In addition, the Northern Virginia Regional Commission recommends that the Army proceed with development of an Environmental Impact Statement for the proposal to ensure that appropriate mitigation measures are fully explored and implemented. Based on the comments provided by reviewers and the information provided (in the EA and the FCD), DEQ concurs that the proposed project is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program.

Widening of Russell Road, Phase III– DEQ completed the coordinated review of an Environmental Assessment (EA) and Federal Consistency Determination (FCD) submitted by the Marine Corps. The Marine Corps proposes to widen Russell Road to a maximum of four lanes from Building 3300 to Catlin Avenue at the Marine Corps Base Quantico (MCBQ), which is in Prince William County. The widened area would include two additional through lanes in some areas and one additional traffic lane in other areas; the one lane would have a reversible direction to accommodate peak commuter traffic. This project would be the third and final project to help alleviate traffic congestion on Russell Road, and the widening would be complete by 2015. The Environmental Assessment (EA) includes consideration of a no-action alternative. DEQ, on behalf of the Commonwealth, concurred with the FCD and provided comments on it and on the accompanying EA. In reviewing environmental impacts, DEQ reflected guidance from its Water Division on erosion and sediment control, stormwater management, and the Virginia Stormwater General Permit for Construction Activities. DEQ reflected the Department of Historic Resources (DHR) comments that the project would adversely affect historic resources, and for this reason the Marine Corps should continue consulting with DHR to develop a Memorandum of Agreement governing the way in which adverse impacts are mitigated. The Department of Conservation and Recreation (DCR) gave its findings on a conservation site representing plant species, and other findings on insect species. DCR recommends expansion of Russell Road to the north, and avoidance of infringement upon wetlands to the south, in order to mitigate environmental impacts. The Department of Forestry (DOF) made a number of findings in relation to local forest resources, and a number of recommendations for reducing impacts upon forests. These include not only controlling erosion and restoring native vegetation, but also reducing soil compaction, following Forestry Best Management Practices, and avoiding stockpiling of soil on or near tree roots. DOF also recommended practices intended to reduce the entry of invasive vegetation or other species into the forest interior; minimizing forest fragmentation, which frequently results from road construction and allows entry of invasive species; and establishing low-growing vegetation instead of mowing in cleared areas.

Repairs to Lower Pond Dam at Yorktown Training Center – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the U.S. Coast Guard. The Coast Guard proposes to repair the Lower Pond Dam at its Yorktown Training Center. The dam is failing due to a deteriorated discharge pipe and a dam face that is improperly sloped (too steep) and eroding. The earthen dam was built in the 1950s, and provides stormwater control for one third of the Training Center’s footprint. The dam discharges into the tidally influenced Wormley Creek, which flows into the York River. To accomplish the repair, the Coast Guard proposes to replace an existing corroded metal pond discharge pipe with an appropriately sized non-corrosive plastic pipe. It will then place a stone embankment buttress on the discharge side of the dam to provide proper sloping and permanent stabilization. A tidal zone aquatic wetland bench will be installed parallel to the line where the dam meets the creek, for additional stabilization and eventual establishment of a section of inter-tidal living shoreline. The Coast Guard has determined that the proposed repairs are consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program. DEQ concurred on behalf of the Commonwealth. DGIF identified several sea turtle species, as well as salamanders and an Anadromous Fish Use Area in the vicinity of the project, and recommended coordination with the U.S. Fish and Wildlife Service relative to the river species. The Department of Game and Inland Fisheries (DGIF) also made general recommendations for in-stream activities. The Virginia Marine Resources Commission is working with the York County Wetlands Board to ensure that the project meets a “no net loss” standard; the Wetlands Board has issued an emergency permit to temporarily stabilize the dam to prevent it from breaching and losing additional sediment into Wormley Creek.

Demolition/Consolidation Plan and General Plan Update Projects – DEQ completed the coordinated review of a draft Environmental Assessment (EA) and Federal Consistency Determination (FCD) submitted by the United States Air Force (Air Force) 633d Air Base Wing (ABW) for the implementation of the Demolition/Consolidation (D/C) Plan and the General Plan Update (GPU) Projects at Joint Base Langley-Eustis in the City of Hampton. The D/C Plan is designed to reduce the overall square footage of administrative facilities on the base. The D/C Plan evaluates a phased process of facility modification, consolidation, and demolition. The D/C Plan would be implemented in a three-phase approach over a 5-year period with implementation of each of these phases dependent on funding. The GPU Projects include select long-term projects for improving the physical infrastructure and functionality of the installation in support of the 633d ABW mission. The GPU Projects are for long-term planning purposes and the Air Force is not committed to funding these projects in the future. Based on DEQ’s review of the EA and comments from reviewers, DEQ has no concerns with the proposed projects provided the Air Force obtains and complies with the conditions of all applicable permits and authorizations with respect to impacts to state subaqueous lands, impacts to surface waters and wetlands, air emissions, impacts to Chesapeake Bay Preservation Areas, erosion and sediment control, stormwater management, solid and hazardous waste management, and Section 106 of the National Historic Preservation Act. The DEQ response recommends that the applicant coordinate with the Department of Conservation and Recreation for an inventory of the Northern harrier, the Department of Game and Inland Fisheries with respect to the state-listed endangered canebrake rattlesnake, and the U.S. Fish and Wildlife Service regarding potential impacts to the bald eagle. In addition, DEQ concurs with the finding in the FCD that the proposal is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program.

Sector Storage Building – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the U.S. Coast Guard (USCG) for the construction of the Sector Storage Building at USCG Base Support Unit Portsmouth in the City of Portsmouth. Major items of work will include the demolition of an existing 50-foot x 90-foot concrete slab, disposal of the materials offsite in accordance with all applicable laws, excavation of the area of the previous concrete slab to accommodate a 6-inch thick 50-foot x 100-foot concrete pad, and construction of a one-story metal storage building. The new storage building will result in an expansion of the footprint of the existing pad by 10 feet to the north and add 500 square feet of impermeable surface area. Based on the information in the FCD and comments from reviewers, the DEQ concurs that the proposed project is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia

Coastal Zone Management Program, provided the USCG obtains and complies with the conditions of all applicable permits and authorizations with respect to erosion and sediment control, stormwater management, air emissions, and impacts to Chesapeake Bay Preservation Areas. In addition, the project must comply with applicable solid and hazardous waste requirements and Section 106 of the National Historic Preservation Act. The response recommends that the USCG coordinate with the U.S. Fish and Wildlife Service with respect to potential impacts to the federal-listed endangered Atlantic sturgeon.

Proposed Rule to Implement the Shark Conservation Act of 2010 – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the National Marine Fisheries Service (NMFS) which intends to adopt the Proposed Rule to Implement the Shark Conservation Act (SCA) of 2010. The rule would prohibit any person from removing any of the fins of a shark at sea, possessing shark fins on board a fishing vessel unless they are naturally attached to the corresponding carcass, transferring or receiving fins from one vessel to another at sea unless the fins are naturally attached to the corresponding carcass, landing shark fins unless they are naturally attached to the corresponding carcass, or landing shark carcasses without their fins naturally attached. NMFS proposes this action to amend existing regulations and make them consistent with the SCA. The NMFS also proposes to adopt language from section 103(b) of the SCA regarding individuals engaged in commercial fishing for smooth dogfish to allow those individuals to process smooth dogfish at sea (i.e. remove fins). The NMFS intends to further develop those provisions in a subsequent rule making. Based on DEQ's review of the FCD and comments submitted by the Virginia Marine Resources Commission, DEQ concurs that the proposal is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program.

Amendment 5 to the Atlantic Herring Fishery Management Plan – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the National Marine Fisheries Service (NMFS) for a proposal to adopt and implement management measures to adjust the fishery management program for the federally-managed Atlantic Herring fishery through Amendment 5 to the Atlantic Herring Fishery Management Plan (FMP). The proposed action focuses on establishing a comprehensive catch monitoring program for the limited access herring fishery, addressing river herring bycatch in the herring fishery, establishing criteria for mid-water trawl vessel access to groundfish closed areas, and adjusting other aspects of the fishery management program to keep the Herring FMP in compliance with the Magnuson-Stevens Fishery Conservation and Management Act. Based on DEQ's review of the FCD and comments submitted by the Virginia Marine Resources Commission, DEQ concurs that the proposal is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program.

Integrated Natural Resources Management Plan – DEQ completed a coordinated review of a draft environmental assessment (EA), including a federal consistency determination (FCD), developed by the Department of the Army for the implementation of the Integrated Natural Resources Management Plan (INRMP) at the Armed Forces Experimental Training Activity Camp Peary in York and James City counties. The EA addresses the proposed action, which is the implementation of the plan, and the no action alternative. The implementation of the plan would include 23 recommendations about environmental compliance, environmental stewardship and environmental awareness. For example, one of the recommendations is to avoid development and mission related activities in waters of the United States. If wetlands cannot be avoided, then the INRMP recommends following best management practices (BMPs) for work in wetlands. Related actions include completing a jurisdictional determination for waters of the United States and obtaining confirmation from the U.S. Army Corps of Engineers. Other actions to implement recommendations include conducting surveys for threatened and endangered species, following best management practices for forestry work, conducting prescribed burning, monitoring bird activity to reduce aircraft hazards, controlling invasive species as well as other projects. The INRMP identifies six construction projects for which NEPA documents will need to be prepared. The FCD states that the proposed action would be consistent with the enforceable policies of the Virginia Coastal Zone Management Program (VCP). The reviewing agencies that are responsible for the administration of the enforceable policies generally agree with the FCD. Based on the review of the FCD and the comments

submitted by agencies administering the enforceable policies of the VCP, DEQ concurs that the proposed project is consistent with the VCP.

Pohick Road Waterline Replacement – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the Department of the Army at Fort Belvoir for the replacement of 7,500 linear feet of existing waterline with polyvinyl chloride (PVC) and high-density polyethylene (HDPE) pipe between Pohick and Gunston Road, the west side of Jackson Loop, and near the intersection of Pohick and Gunston Roads on the Main Post in Fairfax County. The new pipe will be installed parallel to the existing pipe or in new areas further away from wetlands, streams and forests, and the existing pipe will be abandoned in place. The project will use open cut and Horizontal Directional Drilling (HDD) to minimize impacts to Resource Protection Areas, wetlands and streams. The total work area is anticipated to be 150,000 square feet, which includes: material and equipment staging area; area where pipes will be fused together and strung out; and a disturbed soil area. The new waterline will be hydrostatically pressure tested, chlorinated, and de-chlorinated to remove the remaining residual chlorine from the water prior to discharge. Based on the information in the FCD and comments from reviewers, the DEQ concurs that the proposed project is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program. The Army must comply with the conditions of all applicable permits and authorizations obtained with respect to impacts to erosion and sediment control, stormwater management, air emissions, and Chesapeake Bay Preservation Areas. In addition, the project must comply with applicable solid and hazardous waste requirements and Section 106 of the National Historic Preservation Act. The response recommends that the Army coordinate with the U.S. Fish and Wildlife Service with respect to potential impacts to the bald eagle.

Alternate Water Supply System and Booster Station – DEQ completed the coordinated review of an Environmental Assessment (EA) and Federal Consistency Determination (FCD) submitted by the Departments of the Army and Air Force (Army/Air Force) for the construction of an alternate water supply system and booster station on Joint Base Langley-Eustis (JBLE-FE) at Fort Eustis in the City of Newport News. Old Dominion Utility Service (ODUS) owns and operates the water and sanitary sewer facilities at JBLE-FE and would install the new water supply point. Construction would include excavation, site grading, trenching and pipe installation. In addition, a meter vault, backflow preventer, water booster station, 2,450 linear feet of buried 12-inch pipe, and a 1,700-linear foot long by 12-foot wide gravel maintenance access road would be installed. A secondary connection would provide redundant water service to account for potential future water outages, which would improve system reliability. Based on the information in the EA and comments from reviewers, the Commonwealth of Virginia has no objection to the proposal provided activities are performed in accordance with authorizations for impacts to wetlands, erosion and sediment control, stormwater management, lands analogous to Chesapeake Bay Preservation Areas, air emissions, waste management, wildlife resources, and waterworks regulations. In addition, DEQ concurs that the proposed action is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program.

Issuance of 2 RPs and Revision and Reissuance of 7 Regional Permits – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the Norfolk District U.S. Army Corps of Engineers (Corps) for the issuance of two Regional Permits (RP-01 and RP-02, formerly Letter of Permission (LOP)-1 and LOP-2, respectively) and the reissuance of seven revised RPs (RP-05, RP-15, RP-17, Rp-18, RP-19, RP-20 and RP-22). The RPs apply to activities such as Virginia Department of Transportation roadway and railway projects; new and maintenance dredging; construction of small impoundments; maintenance of existing drainage ditches; installation of open-pile piers, mooring piles, mooring dolphins, fender piles, mooring camels, covered boathouses, boatlifts, osprey pilings/platforms, and devices associated with shellfish gardening; construction and/or installation of living shoreline projects, low breakwaters, bulkheads, riprap, groins, jetties, spurs and/or baffles, associated beach nourishment, boat ramps, and aquaculture/mariculture activities; creation of artificial reefs and dredging of old shellfish reefs; and certain activities within the Virginia portion of Lake Gaston. Based on the information provided in the FCD and comments from reviewers, DEQ conditionally concurs that the proposed action is consistent, to the maximum extent practicable, with the enforceable policies

of the Virginia Coastal Zone Management Program. The concurrence is conditioned upon the provisions that applicants shall obtain all required permits and approvals necessary from Virginia Marine Resources Commission (wetlands, subaqueous lands, dunes and beaches), Department of Conservation and Recreation (Chesapeake Bay Preservation Areas), and that RP's receive Section 401 Clean Water Act Certification from DEQ.

Wallops Island Post-Hurricane Sandy Beach Renourishment – DEQ completed the coordinated review of an Environmental Assessment (EA) and Federal Consistency Determination (FCD) submitted by the National Aeronautics and Space Administration (NASA) for the re-nourishment of the beach at the Goddard Space Flight Center, Wallops Flight Facility (WFF) on Wallops Island in Accomack County. The project includes the dredging and placement of up to 800,000 cubic yards (CY) of sand from an offshore borrow area (Unnamed Shoal A) using one or more trailing suction hopper dredge(s) to obtain the material. This would require one or more anchored pump-out station(s) approximately two miles east of Wallops Island. Up to several miles of submerged steel pipeline would be temporarily placed on the seafloor and would be the conduit by which the sand/water slurry would be pumped from the dredge to the beach. Once discharged onto the beach, mechanized equipment (e.g., bulldozers) would grade the material to the design template. The linear extent of the proposed beach fill would be approximately 2.3 miles. Following beach fill, NASA would re-plant the dunes with native vegetation and install sand fencing to trap windblown sand. Based on the information provided in the EA and comments from reviewers, the Commonwealth of Virginia has no objection to the proposal as presented in the EA. In addition, DEQ concurs that the project is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program provided NASA complies with the conditions of existing authorizations received from DEQ and the Virginia Marine Resources Commission for impacts to surface waters, dunes, beaches and subaqueous lands. In addition, the project must comply with applicable solid and hazardous waste requirements. The response recommends coordination with the Department of Conservation and Recreation and U.S. Fish and Wildlife Service regarding possible impacts to the loggerhead sea turtle and seabeach amaranth.

Marine Corps Reserve Center – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the Department of the Navy (Navy) for the construction of the Marine Corps Reserve Training Center (RTC) and Vehicle Maintenance Facility (VMF) at the Naval Air Station Oceana, Dam Neck Annex in the City of Virginia Beach. The RTC would consist of a specially constructed weapon's storage area (armory), assembly hall, classrooms, locker and shower rooms, workshops, and a Navy Marine Corps Intranet (NMCI) telecommunications room. The VMF would have high bay compartments, a tool room, parts room, office, asphalt parking lot, curbs and gutters, sidewalks, concrete tactical road/parking, landscaping and irrigation, storm drainage piping and inlets, security lighting, perimeter fencing, bollards, and vehicle/pedestrian gates. The facility will result in the loss of twelve acres of forest land on the twelve-acre site. Based on DEQ's review of the FCD and the comments submitted by reviewing agencies, DEQ concurs that the project is consistent with the enforceable policies of the Virginia Coastal Zone Management Program provided the Navy complies with the conditions of all applicable permits and authorizations obtained with respect to impacts to surface waters, erosion and sediment control, stormwater management, and air emissions. In addition, the project must comply with applicable solid and hazardous waste requirements and Section 106 of the National Historic Preservation Act. The DEQ response includes the recommendation that the Navy continue to discuss mutually beneficial forest management strategies that complement Virginia Department of Forestry mitigation objectives and anticipated future buffer requirements at the Navy facility.

USCG Marine Event Permits

OEIR reviewed 12 marine events permits for the USCG from April 1, 2013 through September 30, 2013.

Virginia Symphony Orchestra Fireworks Event – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the U.S. Coast Guard. The Coast Guard intends to promulgate a

regulation for the establishment of a safety zone to support the Virginia Symphony Orchestra Fireworks event. The event sponsor is Beach Events/Integrated Management Group, LLC. The event will take place in the Atlantic Ocean off the Virginia Beach oceanfront. The safety zone will include all waters of the ocean within a 1000-yard radius of the position 36-51-12 N/075-58-06 W. The safety zone is for the purpose of protecting mariners and spectators from the hazards of fireworks displays, including accidental discharge, dangerous projectiles, and falling hot embers or other debris. The Coast Guard states that the proposed event will be conducted in a manner consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Resources Management Program. DEQ concurred on behalf of the Commonwealth.

Portsmouth Boat Club Cock Island Race – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the Coast Guard. The Coast Guard intends to issue a CG-4424 Permit for Marine Event to the Portsmouth Boat Club, the event sponsor for the Cock Island Race. This event is to be held on the Elizabeth River in the vicinity of the Boat Club. The FCD provides detailed latitude and longitude boundaries to describe the portion of the river involved. The Coast Guard expects approximately 100 sailboats to participate in a regatta. The boats will not use mechanical propulsion. The Coast Guard has an established Special Local Regulation (#2 in table to 33 CFR section 100.501(c)), promulgated to promote safety on the navigable waters immediately before, during, and after a marine event. The Coast Guard states that the proposed event will be conducted in a manner consistent with the enforceable policies of the Virginia Coastal Resources Management Program. DEQ concurred with the Coast Guard’s federal consistency determination on behalf of the Commonwealth. The Department of Game and Inland Fisheries notified its regional staff, and concurred, provided the Coast Guard follows applicable public notice and signage requirements.

Marine Event Permit for Rocketts Landing Masters Sprint – DEQ completed the review of a Federal Consistency Determination (FCD) submitted by the U. S. Coast Guard. According to the proposed event description accompanying the federal consistency determination, the Coast Guard intends to issue a CG-4424 Permit for Marine Event to the Virginia Boat Club, the event sponsor, for the Rocketts Landing Masters Sprint. This event will take place on the lower James River in Richmond between the following positions: 37-30-02N / 077-25-16 W and 37-31-12 N / 077-25-02W. There will be approximately 200 boats participating in the regatta. These boats are crew shell boats that do not use any type of mechanical propulsion. Crews will enter the James River from the Rocketts Landing Boathouse, which has an established and approved dock. The Coast Guard indicated that the establishment of the safety zone and the event will have no effects on Virginia’s coastal uses or coastal resources. Based on DEQ’s review of the FCD and the comments submitted by reviewing agencies, DEQ concurred that the project is consistent with the enforceable policies of the Virginia Coastal Zone Management Program. The Virginia Marine Resources Commission (VMRC) indicated that if any portion of the event activities involves any encroachments channel-ward of ordinary high water along natural rivers and streams above the fall line, or mean low water below the fall line, a permit may be required from VMRC.

Hampton Blackbeard Festival – DEQ completed a coordinated environmental review of a federal consistency determination (FCD) submitted by the Coast Guard for its intent to issue a CG-4424 Permit for Marine Event to the City of Hampton, the event sponsor, for the Hampton Blackbeard Festival. Festival events will take place on the Hampton River, between the Settlers Landing Road Bridge and the Hampton Yacht Club Docks, and will include “Pirate Sea Battles.” The Hampton River will be closed to all maritime traffic between the Hampton City Docks and the Mill Point Tower Condos Docks on June 1 from 9:30 PM to 10:00 PM for a fireworks display. The Coast Guard states that the proposed event is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program. On behalf of the Commonwealth, DEQ concurred with the Coast Guard’s determination. The Virginia Marine Resources Commission stated that the event would not require a permit for encroachment on subaqueous lands. The Department of Game and Inland Fisheries concurred, provided that the Coast Guard met applicable public notice and event signage requirements.

Coast Guard: USO Patriotic Air Show – DEQ completed a coordinated environmental review of a federal consistency determination (FCD) submitted by the Coast Guard for its intent to establish a safety zone for the USO Patriotic Festival and Oceanfront Air Show, scheduled to take place between 12 noon and 3:30 PM on the selected date. The safety zone, along the Atlantic Ocean in Virginia Beach, is bound by the following coordinates: 36-49-50 N/075-58-2 W; 36-51-46 N/075-58-33 W; 36-51-52 N/075-57-57 W; and 36-49-56 N/075-57-26 W. The sponsor, USO, intends to place buoys to mark the race course. These will be temporary, and not for general navigation use. The Coast Guard states that the proposed event is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program. DEQ concurred with the Coast Guard determination. The Virginia Marine Resources Commission stated that it has no objection to proposed impacts along the Atlantic Ocean shoreline in Virginia Beach, provided the waterway restrictions are temporary and only necessary for public safety during the event. The Department of Historic Resources indicated that the proposed event will have no effect upon any known architectural or archaeological resource listed in or eligible for listing in the National Register of Historic Places or the Virginia Landmarks Register.

Permit for Marine Event, 37th Annual Norfolk Harborfest – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the Coast Guard (USCG). The USCG intends to issue a CG-4424 Permit for Marine Event to Norfolk Festevents, Ltd., the event sponsor for the 37th Annual Norfolk Harborfest. This event is to be held on the Elizabeth River adjacent to Town Point Reach in Norfolk. The Coast Guard expects approximately 200 vessels to participate in various parades, cruises, and demonstrations throughout the event. There will be a fireworks display from 9:30 PM to 10:00 PM one day from one barge positioned immediately off Town Point Park. The event sponsor does not intend to place buoys to mark the event. The Coast Guard has an established Special Local Regulation (#2 in table to 33 CFR section 100.501(c)), promulgated to promote safety on the navigable waters immediately before, during, and after a marine event. DEQ concurred that the proposal is consistent with the Virginia Coastal Zone Management Program.

Mattaponi Madness Drag Boat Race – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the U.S. Coast Guard. The Coast Guard intends to issue a CG-4424 Permit for Marine Event to the Mattaponi Volunteer Rescue Squad, the event sponsor for the Mattaponi Madness Drag Boat Event. This event is to be held on the Mattaponi River adjacent to Rainbow Acres Campground in King and Queen County, bounded to the east by a line drawn along longitude 076-52-43 W and on the west by a line drawn along longitude 076-53-41 W. The Coast Guard expects approximately 40 boats to participate in the drag boat race. The event sponsor intends to place buoys to mark the race course. These buoys are not for general navigational use; they will not display characteristics prescribed for general navigation or for Intracoastal Waterway marker systems. The Coast Guard stated that the proposed event will be conducted in a manner consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program. Based on our review of the FCD and comments submitted by reviewers, DEQ concurred with the FCD.

Urbanna Independence Day Celebration – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the U.S. Coast Guard. The Coast Guard intends to promulgate a regulation to establish a safety zone to support the Urbanna Independence Day Celebration Event in Urbanna Creek from 9:45 PM to 10:30 PM on the selected day. The safety zone would include all waters of Urbanna Creek within a 350-foot radius of the approximate position 37-38-09 N/076-34-03 W. The Coast Guard plans to establish a temporary final rule in Table 33 CFR 165.506 to enforce the safety zone, in order to protect spectators and mariners from the hazards associated with the fireworks display. These hazards may include accidental discharge, dangerous projectiles, and falling hot embers or other debris. The Coast Guard states that the proposed event is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program (VCP). Based on the comments submitted by reviewers, DEQ concurred with findings of the FCD on behalf of the Commonwealth.

Stars and Stripes Explosion – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the U.S. Coast Guard. According to the FCD, the Coast Guard intends to promulgate a regulation to establish a safety zone to support the July 4th Stars and Stripes Explosion, a fireworks event to be held in the Atlantic Ocean offshore of 14th Street in Virginia Beach. The event sponsor is Beach Events/Integrated Management Group, LLC. The safety zone would encompass a 700-foot radius around the position 37-50-35N/075-58-09W, and it would be enforced from 9:15 PM to 10:15 PM on July 4, 2013. The purpose of the safety zone is to protect mariners and spectators from the hazards associated with the fireworks display: accidental discharge, dangerous projectiles, and falling hot embers or other debris. The Coast Guard states that the proposed event will be conducted in a manner consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program. Based on our review of the FCD and comments submitted by reviewers, DEQ concurred with the FCD.

Hampton Bay Days Fireworks Event - DEQ completed the coordinated review of a federal consistency determination for the U. S. Coast Guard. The Coast Guard has a Special Local Regulation (SLR) that promotes the safety of life on navigable waters before, during, and after a marine event. The marine event in question is a fireworks event over the waters of Sunset Creek and the Hampton River in Hampton. Because the SLR covers the second and third September weekends but not the first, the Coast Guard would publish a Temporary Final Rule to reflect the change in the date covered by the SLR. The Coast Guard has an established Special Local Regulation #9, in the table to 33 CFR Section 100.501(c) to promote safety before, during, and after the event. The Coast Guard states that the proposed event is consistent, to the maximum extent practicable, with the enforceable policies of Virginia's Coastal Zone Management Program. DEQ concurred with the Coast Guard's federal consistency determination on behalf of the Commonwealth.

Safety Zone for Navy Live Fire Event – DEQ completed a coordinated review of a federal consistency determination (FCD) submitted by the U. S. Coast Guard. The Coast Guard intends to promulgate a regulation to establish a safety zone in support of a live fire and explosive training exercise within the confines of the U.S. Navy's Motor Vessel SS Del Monte. The safety zone would be enforced by the Coast Guard in the James River, in the vicinity of the James River Reserve Fleet at Newport News, specifically within a 1500-foot radius of the vessel. The safety zone would be enforced during the training period, from 8:00 AM on August 19, 2013 through 4:00 PM on August 22, 2013. The purpose of the safety zone is to protect mariners from the hazards associated with live fire and explosives. The Coast Guard intends to establish a temporary final rule in Table 33 CFR section 165.506 to enforce the safety zone. The Department of Game and Inland Fisheries (DGIF) indicated that the Atlantic sturgeon (federally listed as endangered) has been documented in the event area, and recommended that the Coast Guard coordinate with the NOAA Fisheries Service. Also, DGIF stated that bald eagles and barking tree frogs are documented in the vicinity of the event, but that the event will not give rise to significant adverse impacts on these species. According to the Coast Guard, the proposed activity is consistent, to the maximum extent practicable, with the enforceable policies of Virginia's Coastal Zone Management Program. Based on the information provided in the FCD and comments submitted by reviewers, DEQ concurred, provided applicable permits are obtained and requirements followed.

87th Hampton Cup Regatta – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the U.S. Coast Guard. The Coast Guard intended to issue a CG-4424 Permit for Marine Event to the City of Hampton/Hampton Cup Regatta Racing Club, the event sponsors, for the 87th Hampton Cup Regatta. The event took place on Mill Creek, adjacent to Fort Monroe, in Hampton and occurred on August 10 and 11, 2013, between 11:00 AM and 6:00 PM each day. There were approximately 75 boats, hydroplane and jersey speed skiffs, participating in a hydroplane race. Since docks were provided, the sponsors did not construct any type of structure. Bleachers were placed on the Mercury Boulevard Bridge for spectators. The sponsors placed buoys to mark the race course, but they were to be placed for a limited duration and were not intended for general navigation. The Coast Guard states that the event is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program (VCP). Based on

the comments submitted by reviewers, DEQ concurred with finding of the FCD on behalf of the Commonwealth.

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).

Hoffman Town Center Block 8 – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by Hoffman Block 8, LLC for the construction of the Hoffman Town Center Block 8 at 2401 Eisenhower Avenue in the City of Alexandria. Hoffman Block 8, LLC, the owner of the property and project applicant, is planning to redevelop the site with one fourteen- and one nineteen-story office tower with underground parking. Hoffman Block 8, LLC, hopes to secure the National Science Foundation as a future tenant for the development and must satisfy the conditions of the General Services Administration (GSA) in order to qualify as a lessor. In the GSA Request for Lease Proposal (No. 9VA2433) Northern Virginia, compliance with the Coastal Zone Management Act is required. Based on the information provided in the FCD and comments from reviewers, DEQ concurs that the project is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program. Hoffman Block 8, LLC must comply with the conditions of all applicable permits and authorizations obtained with respect to impacts to erosion and sediment control, stormwater management, air emissions, and Chesapeake Bay Preservation Areas as locally administered by the City of Alexandria. In addition, the project must comply with applicable solid and hazardous waste requirements. Should archaeological resources be encountered during construction, all work must cease and the Alexandria Archaeology Museum and Virginia Department of Historic Resources must be contacted.

Cutover Forestland Conversion to Crop Production (Daniel Rilee) – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the U.S. Department of Agriculture (USDA) Farm Service Agency (FSA) related to a FSA loan to Mr. Daniel Rilee (applicant) for the conversion of approximately 50 acres of cutover timber land to crop production in Gloucester County. The property is located on Pampa Road near the intersection of Glenns Road. Project activities will include the clearing of stumps, debris, and grading activities. The applicant is required to implement a conservation plan that sets forth practices to protect soil resources and limit erosion and surface water pollution. Based on the information in the FCD and comments from reviewers, the DEQ concurs that the proposed project is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program. The applicant must comply with the conditions of the Natural Resources Conservation Service-approved conservation plan, and all applicable permits and authorizations obtained with respect to air emissions and impacts to locally-designated Chesapeake Bay Preservation Areas. In addition, the project must comply with applicable solid and hazardous waste requirements. The response recommends that the applicant coordinate with the U.S. Fish and Wildlife Service with respect to potential impacts to the bald eagle.

National Science Foundation Office – DEQ completed a coordinated review of a federal consistency determination (FCD) submitted by Wetlands Studies and Solutions for the U.S. General Services Administration (GSA) as part of a request for lease proposal. Vornado/Charles E. Smith, a real estate investment trust, would construct the rentable space and lease it to the GSA. Per the request for lease proposal, the GSA is seeking up to 667,759 square feet of rentable space. The National Science Foundation will use the space as offices. The potential lease site is approximately two acres and located in Arlington County. The site is approximately 300 feet south of the intersection of Army Navy Drive and South Fern Street. The area has been graded and mostly covered by gravel, and was used as a parking lot. The FCD states that the proposed project is consistent with the enforceable policies of the Virginia Coastal Zone Management Program (VCP). The reviewing agencies that are responsible for the administration of the enforceable policies generally agree with the FCD. Based on the review of the FCD and the comments submitted by agencies administering the

enforceable policies of the VCP, DEQ concurs that the proposed project is consistent with the VCP provided all applicable permits and approvals are obtained.

Bermuda District Medical Center Renovation – DEQ completed a coordinated environmental review of a federal consistency determination (FCD) submitted by the Capital Area Health Network, a non-profit organization (hereinafter “Network”). The Network has applied to the Health Resources and Services Administration (HRSA), an agency of the U.S. Department of Health and Human Services (HHS), for grant funds to aid in building space within a leased building in Chesterfield County, Virginia. The building, which has been vacant since 2006, is located at 2740 Bensley Commons Boulevard in North Chesterfield. The Network proposes to use grant funds to renovate interior space in the building to its specifications for medical services. All work will be internal to the space; there are no plans to add square footage to the existing space. As part of its consideration of the grant request, HHS requires the federal consistency review. The Network stated, on behalf of HHS, that the project would be consistent, to the maximum extent practicable, with the enforceable policies of the VCP. DEQ concurred, giving advice on control of potential air quality impacts from open burning and fugitive dust. DEQ also gave advice on management of waste materials, coordination on historic structures, energy conservation, water conservation, and pollution prevention.

Riverwoods at Lake Ridge – DEQ completed a coordinated environmental review of a federal consistency determination (FCD) submitted by the U.S. Department of Housing and Urban Development (HUD). HUD is processing an application for mortgage insurance from AGM Financial Services. AGM Financial Services plans to finance construction of a two-building, 72-unit apartment complex called Riverwoods at Lake Ridge in Prince William County. The proposed project site consists of approximately 3.48 acres of partially undeveloped grassland improved with prepared building pads and associated paved access roads and parking areas. The apartment complex is proposed to be constructed in four phases. The FCD states that the project would be consistent with the enforceable policies of the Virginia Coastal Zone Management Program (VCP) (formerly called the Virginia Coastal Resources Management Program). Based on the review of the FCD and the comments submitted by agencies administering the enforceable policies of the VCP, DEQ concurs that the proposed project is consistent with the VCP provided all applicable permits and approvals are obtained. The review includes requirements for the responsible party to adhere to all applicable erosion and sediment controls when constructing the apartment complex.

Woodlands Apartments – DEQ completed a coordinated review of a federal consistency determination (FCD) submitted by the U.S. Department of Housing and Urban Development (HUD). HUD is processing mortgage insurance for the construction of the proposed Woodlands Apartments in the City of Hampton. The property consists of approximately 5 acres of undeveloped wooded land with wetlands. The apartment complex would consist of one three-story wing and one four-story wing. The FCD states that the project would be consistent with the enforceable policies of the Virginia Coastal Zone Management Program (VCP). The reviewing agencies that are responsible for the administration of the enforceable policies generally agree with the FCD. Prior to finalizing development plans, the DEQ Tidewater Regional Office strongly recommends that the project proponents apply for and obtain the required Virginia Water Protection permit from DEQ. Based on the review of the FCD and the comments submitted by agencies administering the enforceable policies of the VCP, DEQ concurs that the proposed project is consistent with the VCP provided all applicable permits and approvals are obtained. In addition, the Department of Forestry (DOF) requests that HUD coordinate with DOF representatives regarding approaches to addressing forest loss.

Quarterpath Apartments – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the U.S. Department of Housing and Urban Development (HUD) which proposes to provide mortgage insurance under HUD Section 221(d)(4) to the Bonaventure Realty Group, LLC (applicant) to finance the construction of the Quarterpath Apartments near the intersection of Route 199 and Route 143 in the City of Williamsburg. The project involves the construction of a two-hundred twenty five (225) unit multi-family apartment complex consisting of three buildings, driveways, parking lots and utilities. The site currently

consists of approximately 7.20 acres of undeveloped wooded land. Based on the information in the FCD and comments from reviewers, the DEQ concurs that the proposed project is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program, provided the applicant obtains and complies with the conditions of all applicable permits and authorizations with respect to erosion and sediment control, stormwater management, air emissions, and impacts to Chesapeake Bay Preservation Areas. In addition, the project must comply with applicable solid and hazardous waste requirements and Section 106 of the National Historic Preservation Act. The response recommends that the applicant coordinate with the U.S. Fish and Wildlife Service with respect to potential impacts to the bald eagle, and the Department of Conservation and Recreation for an inventory of the state-listed small whorled pogonia. In addition, the project will require site plan approval from the City of Williamsburg.

Seasons at Salem – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the U.S. Department of Housing and Urban Development which proposes to provide Section 203(b) National Housing Act condominium mortgage insurance to Ocean Bay Homes, Inc. (applicant) for the proposed Seasons at Salem condominium development located on three parcels at 4341 Elderberry Lane in the City of Virginia Beach. The 32-unit condominium development is currently under construction on approximately 14 acres of land. The development will ultimately consist of 6 buildings, parking lots, driveways, and landscaped areas. DEQ conducted a limited review of the submitted FCD since HUD confirmed that the project is currently under construction and the project applicant appears to have received the necessary state and local reviews, permits and authorizations for construction, including authorizations related to the Virginia Coastal Zone Management Program (VCP) enforceable policies. Based on the information in the FCD and responses from reviewers, the DEQ concurs that the proposed project is consistent with the enforceable policies of the VCP, provided the applicant continues to comply with the conditions of all applicable permits and authorizations currently in effect. DEQ completed the review in 20 days instead of the 60 days allowed under the CZMA.

Alzheimer's Assisted Living Facility – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the U.S. Department of Housing and Urban Development which proposes to provide Section 232 LEAN Program mortgage insurance to Retirement Unlimited, Inc. (applicant) for the construction of the proposed Alzheimer's Assisted Living Facility to be located on Baltrusol Boulevard in Gainesville, Prince William County. The HUD program provides mortgage insurance for nursing homes, intermediate care, board and care, and assisted-living facilities. The project will include the construction of a 52,000 square foot structure on 6.964 acres to include 115 dwelling units, a 115-space asphalt parking lot, and necessary utilities. Based on the information in the FCD and responses from reviewers, the DEQ concurs that the proposed project is consistent, to the maximum extent practicable, with the enforceable policies of the VCP, provided the applicant obtains and complies with the conditions of all applicable permits and authorizations with respect to erosion and sediment control, stormwater management, air emissions, and impacts to Chesapeake Bay Preservation Areas. In addition, the applicant must comply with applicable solid and hazardous waste management regulations. The response recommends that the applicant coordinate with the U.S. Fish and Wildlife Service with respect to potential impacts to the bald eagle.

Fox Hill Apartments Repair and Upgrade – DEQ completed a coordinated review of a federal consistency determination (FCD) submitted on the behalf of U.S. Department of Housing and Urban Development (HUD). The City of Hampton and a private developer, CCDC Fox Hill LLC (hereinafter "project proponent") propose to use grant funds from HUD to repair the Fox Hill apartments building located at 200 Ranalet Drive. The proposed repairs consist of the following: Expansion of the apartment office building by approximately 1,500 square feet; Exterior repairs: replacement of vinyl siding, windows, and doors; Repair of existing asphalt driveways and parking areas; Roof repairs as needed; Power washing and/or painting of exterior brick facades; and Up-grading and repair of existing interior and exterior electrical, stormwater, and plumbing facilities. DEQ's Water Division indicated that an on-site delineation of Resource Protection Areas may be required if there is reason to believe that an RPA feature exists on the site, and the City of Hampton would review the

project for compliance with City ordinances. The City of Hampton indicated that the project would require site plan review and building permits. Based on the comments submitted by reviewers, DEQ concurred with the FCD that the proposal is consistent, to the maximum extent practicable, with the VCP, provided any applicable permits and approvals are obtained.

Lake Kennedy-Housing Hampton Roads – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the U.S. Department of Housing and Urban Development (HUD) which intends to provide federal financial assistance through the HOME Investment Partnership Program to Housing Hampton Roads (applicant), for the construction of the proposed Lake Kennedy-Housing Hampton Roads project in the City of Suffolk. The proposed project will involve the construction of up to 12 single family homes on an approximately 2-acre parcel located at White Marsh Road and Lake Kennedy Drive. Current surrounding land use is primarily residential and commercial. Based on the information in the FCD and responses from reviewers, DEQ concurs that the proposed project is consistent, to the maximum extent practicable, with the enforceable policies of the VCP, provided the applicant obtains all applicable permits and authorizations with respect to erosion and sediment control, stormwater management, air emissions, and impacts to Chesapeake Bay Preservation Areas. In addition, the project must comply with solid and hazardous waste regulations, and local ordinances applicable to drinking water, sewage treatment, and access management and traffic control policies.

Bailey Wood Subdivision Single Family Home – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by the U.S. Department of Housing and Urban Development (HUD) for the Bailey Woods Subdivision in Hanover County. HUD proposes to provide funding under the Self-Help Homeownership Opportunity Program (SHOP) to the Hanover Habitat for Humanity (Hanover Habitat) for construction of the subdivision. SHOP grant funds are awarded to eligible national and regional non-profit organizations and consortia to purchase home sites and develop or improve the infrastructure needed for volunteer based homeownership programs for low-income persons and families. Hanover Habitat will construct eight single-family residences and the associated infrastructure to support them on 11.713 acres of undeveloped property located on Ashcake Road (State Route 657). Other project activities include the installation of a public water, sewer, storm sewer, and associated roadway to serve the single family residences. Based on DEQ's review of the FCD and the comments submitted by agencies administering the enforceable policies of the Virginia Coastal Zone Management Program (VCP), DEQ concurs that the proposal is consistent, to the maximum extent practicable, with the enforceable policies of the VCP provided all applicable permits and approvals are obtained with respect erosion and sediment control, stormwater management, air emissions, and impacts to Chesapeake Bay Preservation Areas. In addition, HUD must consult with the Department of Historic Resources in accordance with Section 106 of the National Historic Preservation Act.

Abberly Development, Stafford County – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by a company named Berkadia Commercial Mortgage LLC (Berkadia). Berkadia proposes to finance an apartment complex of 288 units in Stafford County on a forested parcel of 37.567 acres of land east of U.S. Route 1 and Peake Lane. The complex would consist of buildings of 2, 3, and 4 stories. The property is bordered by single-family residences to the north; Old Potomac Church Road and single-family residences to the east, south, and west as well as undeveloped woodland areas in all directions; and grasslands to the north and south of the parcel. Dominion Due Diligence Group (consultant) is submitting the federal consistency determination on behalf of the Department of Housing and Urban Development (HUD) and of Berkadia, which is applying for HUD mortgage insurance. The consultants state, on behalf of HUD, that the project will have no adverse effects on coastal uses or coastal resources addressed by the enforceable policies of the Virginia Coastal Zone Management Program. On behalf of the Commonwealth, DEQ concurred with the determination, provided that all applicable permits and approvals are obtained and followed. DGIF gave recommendations on in-stream activities, stormwater controls, and rain gardens. DGIF expressed willingness to assist in planning to include open space, wildlife habitat, and natural stream channels that retain wooded buffers. VMRC indicated that a permit may be required for the project because of the proximity of

Potomac Creek. DEQ indicated that a wetlands delineation should be accomplished, and that the project may require a Virginia Water Protection Permit. The Department of Forestry indicated concerns relative to wetlands management and information deficiencies relative to wetlands and cumulative impacts. DOF indicated an interest in further communication with the applicants.

Heritage Green at Hanover – DEQ completed a coordinated review of a federal consistency determination (FCD) submitted by Dominion Due Diligence on behalf of the U.S. Department of Housing and Urban Development (HUD). HUD is processing an application for mortgage insurance from Lancaster Pollard Mortgage Company to finance construction of a 21-unit/33-bed addition to Heritage Green at Hanover, an existing assisted living facility in Hanover County. The proposed project site is a landscaped lawn. The FCD states that the project would be consistent with the enforceable policies of the Virginia Coastal Zone Management Program (VCP). The reviewing agencies that are responsible for the administration of the enforceable policies generally agree with the FCD. Based on the review of the FCD and the comments submitted by agencies administering the enforceable policies of the VCP, DEQ concurs that the proposed project is consistent with the VCP provided all applicable permits and approvals are obtained.

III. Federal Activities (Permits, Licenses and Approval)

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

Reissuance of Permit for Weanack Land, LLLP – DEQ completed the coordinated review of a Federal Consistency Certification (FCC) submitted by Weanack Land, LLLP for the reissuance of a U.S. Army Corps of Engineers (Corps) individual permit (NAO-2003-2436) as required pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. The permit addresses proposed impacts to jurisdictional Waters of the United States related to maintenance dredging activities associated with Port Tobacco at Weanack and the Weanack Access Channel on the James River in Charles City County. Project activities include: an increase in the dredge depth in the Weanack Access Channel; the expansion of the area within Shirley Cove used for mooring and staging; and the alteration of the footprint of the Shirley Cove Dredged Material Management Area. Once all phases have been completed, 61 acres consisting of a mosaic of open water, tidal emergent, scrub-shrub, and forested wetlands will have been restored. In addition, the ancestral wetland hydrologic connections to the James River and Eppes Creek will be reestablished. Based on DEQ's review of the FCC and the comments submitted by reviewing agencies, DEQ concurs that the project is consistent with the enforceable policies of the Virginia Coastal Zone Management Program provided Weanack complies with the conditions of all applicable permits and authorizations obtained with respect to impacts to state subaqueous lands, wetlands, erosion and sediment control, stormwater management, air emissions, and Chesapeake Bay Preservation Areas. In addition, the project must comply with applicable solid and hazardous waste requirements. The DEQ response includes the recommendation that Weanack coordinate with the U.S. Fish and Wildlife Service on potential impacts to the Atlantic sturgeon and bald eagle.

TL-465 Special Permit Pipeline Replacement Project in Prince William County – DEQ completed the review of a Federal Consistency Certification (FCC) submitted by Dominion Transmission, Inc. for the construction of the TL-465 special permit pipeline replacement project in Prince William County. The project consists of the replacement of approximately 9,200 linear feet of 24-inch diameter natural gas transmission pipeline (TL-465) using the parallel lay construction technique, whereby the replacement section will be installed at a 10-foot offset parallel to the existing pipeline. Additional facilities required include a total of 1.0 mile of access roads and a 3.0-acre temporary storage/construction pipe-yard. Based on DEQ's review of the FCC and the comments submitted by reviewing agencies, DEQ concurs that the project is consistent with the enforceable policies of the Virginia Coastal Zone Management Program provided Dominion obtains and complies with the conditions of all applicable permits and authorizations with respect to any impacts to wetlands, erosion and sediment control, stormwater management, air emissions, and Chesapeake Bay Preservation Areas. In addition, the project must comply with applicable solid and hazardous waste requirements. The DEQ response

recommends that Dominion coordinate with: the Department of Conservation and Recreation on potential impact to natural heritage plant species; the Virginia Department of Transportation on compliance with Land Use Permit Regulations; and the Department of Historic Resources and Prince William County on potential impacts to a cemetery on site.

Relocation of Airport Rotating Beacon at RIC – DEQ completed the coordinated review of a Federal Consistency Certification (FCC) submitted by the Capital Region Airport Commission (Commission). According to the federal consistency certification (FCC), the Commission, owner of the Richmond International Airport located in Henrico County, proposes to relocate a rotating beacon from the west side of the airport to an area adjacent to the airport maintenance facility near the southern end of the airport. The project may be partially funded by the Federal Aviation Administration. The project elements include the following: construction of a concrete support foundation, 3-4 feet in diameter, for the beacon tower; installation of a new 55-foot tall, 9-inch diameter tapered steel beacon tower; re-installation of the rotating beacon light; installation of electric power, control conduit, and wiring; and installation of an automatic power transfer switch for the existing airport maintenance facility emergency generator. Based on DEQ's review of the FCC and the comments submitted by reviewing agencies, DEQ concurs that the project is consistent with the enforceable policies of the Virginia Coastal Zone Management Program provided that any applicable permits and approvals are obtained.

Edgewater Haven Dredging Project – DEQ completed the coordinated review of a Federal Consistency Certification (FCC) submitted by the City of Norfolk for the issuance of a U.S. Army Corps of Engineers (Corps) individual permit (NAO-2012-0428-1) as required pursuant to Section 10 of the Rivers and Harbors Act of 1899. The permit addresses proposed impacts to jurisdictional Waters of the United States related to the maintenance dredging of the Lafayette River to the Edgewater Haven subdivision in the City of Norfolk. The proposed channel improvement will impact 4,355 feet of channel with a 30-foot width (at the toe). The requested maximum depth is -5 feet mean low water. The estimated dredge volume is 19,700 cubic yards and the project will impact 180,900 square feet (4.15 acres) of state-owned bottom land. The channels will be dredged mechanically and the material will be barged to the Craney Island Dredged Material Management Area (DMMA) for disposal. The project proposes either disposal into the Rehandling Basin from the barge or a hydraulic pump out directly into the upper cells of the DMMA. Based on DEQ's review of the FCC and the comments submitted by reviewing agencies, DEQ concurs that the project is consistent with the enforceable policies of the Virginia Coastal Zone Management Program provided Norfolk complies with the conditions of all applicable permits and authorizations obtained with respect to impacts to state subaqueous lands and air emissions. In addition, the project must comply with applicable solid and hazardous waste requirements. The DEQ response includes the recommendation that Norfolk coordinate with the U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration (NOAA Fisheries) on potential impacts to species under their jurisdictions.

TL-465 Special Permit Pipeline Replacement Project (Portsmouth and Norfolk) – DEQ completed the coordinated review of a Federal Consistency Certification (FCC) submitted by Elizabeth River Crossing, LLC (ERC) for proposed modifications to the Elizabeth River Tunnels project to be constructed in the Cities of Portsmouth and Norfolk. This project is part of the Downtown Tunnel/Midtown Tunnel/Martin Luther King Extension project (formerly known as the Midtown Tunnel Corridor project) previously reviewed by the Commonwealth on July 6, 2012 (DEQ 12-080F). The project consists, in part, of the construction of a new immersed tunnel under the Elizabeth River, running generally parallel to the existing tunnel. The project modifications include the elimination of the pile installation under tunnel elements 1, 2, 3 and 11. The proposed dredge depths have been increased in these areas in order to remove soft clay materials which will then be backfilled with granular fill. This will result in a reduction in the area to be dredged from 25.2 acres to 20.9 acres, and the volume of dredge material will be reduced from 1,500,000 cubic yards to approximately 1,300,000 cubic yards. In addition, the location and design of the temporary ancillary structures have changed and timber pilings will be used to support the turbidity curtains to be installed during dredging and excavation

operations. Based on DEQ's review of the FCC and the comments submitted by reviewing agencies, DEQ concurs that the project is consistent with the enforceable policies of the Virginia Coastal Zone Management Program provided ERC complies with the conditions of all applicable permits and authorizations obtained with respect to impacts to state subaqueous lands, surface waters, erosion and sediment control, stormwater management, air emissions, and Chesapeake Bay Preservation Areas. In addition, the project must comply with applicable solid and hazardous waste requirements and Section 106 of the National Historic Preservation Act.

ecoFUELS Wood Pellet Storage Terminal – DEQ completed the coordinated review of an Environmental Impact Report (EIR) submitted by the Virginia Port Authority (VPA) for the construction of a wood pellet storage facility at the Portsmouth Marine Terminal (PMT) in the City of Portsmouth. VPA has entered into an agreement with ecoFUELS Pellet Storage, LLC (ecoFUELS) that allows ecoFUELS to lease approximately 14.6 acres of property at the terminal. The term of the lease is 20 years. ecoFUELS would construct a state-of-the-art wood pellet storage facility that will include rail and truck receiving, temporary storage and ship loading equipment and facilities. Wood pellets will be transferred within the facility by a system of belt conveyors and associated diverter gates and loaded onto ships for export, primarily to Europe. The maximum annual throughput of wood pellets to be handled at the facility is estimated to be 1.5 million metric tons. Based on comments submitted by reviewers, DEQ has no objections to the project provided that activities are performed in accordance with authorizations to control impacts to surface waters, erosion and sediment control, stormwater management, air emissions, Chesapeake Bay Preservation Areas, and solid and hazardous waste regulations.

Summer Lake Development – DEQ completed a coordinated review of a federal consistency certification (FCC) submitted by Townes Site Engineers on behalf of Base Camp Development Company. The FCC is for the development of sections 7 through 11 of Summer Lake Development in Chesterfield County. The project qualifies for a U.S. Army Corps of Engineers (Corps) Individual Permit. The Summer Lake residential development is located on 675 acres of wooded land along Otterdale Road. Each section contains between 40 and 75 lots with a minimum size of 12,000 square feet. The FCC states that the Corps permit under review considers impacts to 0.38 acres of forested wetlands and 675 linear feet of stream channel with temporary impacts to 60 linear feet of stream channel. On December 17, 2012, the DEQ Office of Environmental Impact Review (OEIR) received comments on the FCC from the Department of Conservation and Recreation (DCR). DCR's response included a finding by the DCR Division of Stormwater Management (DSM) Local Implementation (LI) that the FCC did not contain sufficient information to determine the project's consistency with the coastal lands management enforceable policy of the VCP. On December 17, 2012, DEQ OEIR requested information from Townes Site Engineers regarding DCR DSM-LI's comment and received additional information on January 8, 2013, indicating that RPAs are on the proposed project site. Therefore, DEQ OEIR asked Chesterfield County if the project as proposed is consistent with the Chesapeake Bay Preservation Area program as locally implemented. On February 26, 2013, DEQ OEIR sent a letter to the applicant as required under 15 CFR Part 930, sub-section 930.62(b), to provide an update on the status of the review and the basis for further delay within 90 days of receiving a FCC. The delay was based on a lack of comments from Chesterfield County. Chesterfield County provided comments to DEQ OEIR on April 8, 2013. Final comments from DCR DSM-LI were received on April 17, 2013. DCR DSM-LI indicated that the project would be consistent with the coastal lands management enforceable policy as long as the development was reviewed according to the process described by Chesterfield County. The FCC states that the project will be conducted in a manner consistent with the enforceable policies of the Virginia Coastal Zone Management Program (VCP). Based on a review of the FCC and the comments submitted by agencies administering the applicable enforceable policies of the VCP, DEQ concurs that the proposal is consistent with the VCP provided all applicable permits and approvals are obtained. During the review, the Department of Forestry (DOF) indicated that the project sponsor is developing 675 acres of wooded land, much of it consisting of upland forest. The size of the project and its impact on forest land is a concern to the DOF given its charge to reduce the rate of forest conversion to non-forest use in the Commonwealth. DOF requested that the applicant coordinate with the DOF regarding any potential mitigation for forest loss that may be implemented.

Rowe-Byrdwood Property Shoreline Stabilization Project – DEQ completed the coordinated review of a Federal Consistency Certification (FCC) submitted by Mr. Michael J. Bogese Jr., the project applicant, for the construction of a shoreline stabilization project on the James River in Charles City County. The project consists of the stabilization of approximately 5,300 linear feet of shoreline through a hybrid approach combining offshore sills and breakwaters with beach nourishment and plantings. In addition, a boat ramp and a pedestrian crossing of a tidal gut connecting the two properties are proposed. Shoreline stabilization will consist of the construction of a combination of approximately 20 sills ranging in length from 40 to 250 feet and a total of 630 linear feet of breakwaters ranging in length from 70 to 100 feet. The structures will extend a maximum of 65 feet channelward of mean high water and 60 feet channelward of mean low water. The open-pile wooden pedestrian bridge will measure 5 feet wide and extend approximately 16 linear feet. The approximately 12 feet by 38 feet concrete boat ramp will be constructed on approximately 240 square feet of subaqueous bottom. The applicant intends to submit a Joint Permit Application to the U.S. Army Corps of Engineers (Corps) for the issuance of an individual permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. Based on DEQ's review of the FCC and the comments submitted by reviewing agencies, DEQ concurs that the project is consistent with the enforceable policies of the Virginia Coastal Zone Management Program provided the applicant complies with the conditions of all applicable permits and authorizations obtained with respect to impacts to state subaqueous lands, erosion and sediment control, stormwater management, air emissions, and Chesapeake Bay Preservation Areas. In addition, the project must comply with applicable solid and hazardous waste requirements. The DEQ response includes the recommendation that the applicant coordinate with the U.S. Fish and Wildlife Service to ensure compliance with the Bald and Golden Eagle Act.

Dredging at Perdue Agribusiness, Inc. – DEQ completed the coordinated review of a Federal Consistency Certification (FCC) submitted by Perdue Agribusiness, Inc. (Perdue or applicant) for the issuance of an individual permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act U.S. by the U.S. Army Corps of Engineers (Corps) to increase dredge depths at its facility located 0.30 mile south of the Jordan Bridge on the Southern Branch of the Elizabeth River in the City of Chesapeake. The dredging would occur at the unloading pier which is located on the Southern Branch of the Elizabeth River and the loading pier which is located on Jones Creek which runs perpendicular to the Southern Branch of the Elizabeth River. Purdue is requesting an allowable dredge depth of 42 feet below mean low water with a 1-foot allowable over dredge at the unloading pier and an allowable dredge depth of 42 feet below mean low water with a 1-foot allowable over dredge at the loading pier. In addition, Purdue seeks a western dredge limit of 115 feet and a northern dredge limit of 250 feet from the face of the loading pier. The dredge spoils will be removed from the river bottom and placed in a barge for transport to Craney Island's re-handling basin where it will later be moved upland by the Corps. Based on DEQ's review of the FCC and the comments submitted by agencies administering the enforceable policies of the Virginia Coastal Zone Management Program (VCP), DEQ concurs that the proposal is consistent with the enforceable policies of the VCP provided all applicable permits and approvals are obtained with respect to impacts to state subaqueous lands, surface waters, erosion and air emissions. In addition, the project must comply with applicable solid and hazardous waste regulations and the applicant must consult with the U.S. Fish and Wildlife Service with respect to potential impacts on the piping plover.

Obstruction Removal and Easement Acquisition – DEQ completed the coordinated review of a Short Environmental Assessment (EA) Form and Federal Consistency Certification (FCC) submitted by the Accomack County Airport Commission (Commission or applicant) for acquisition of avigation easements and the removal of approximately 247 acres of obstructions (trees) on both the acquired easements and existing property at the county-owned Accomack County Airport (MFV) near the Town of Melfa. The trees have been determined to cause interference to the electronic signal emitted by the localizer antenna and are obstructions to navigation (FAR part 77) for approach and transitional surfaces at MFV. The Commission will acquire approximately 125 acres of avigation easements for tree clearing that is off airport property. The obstruction removal involves approximately 2 acres of tree clearing and approximately 245 acres of tree removal through

the use of silviculture to reduce the environmental impact of tree clearing and permanent impacts on wetlands. Phase one of the silviculture process consists of cutting trees without grubbing the root system, utilizing equipment that will minimize ground disturbance. Phase two involves replanting with different species of trees that will flourish in the indigenous environment but will not grow to the heights of those species that were removed. Based on the information in the EA and comments from reviewers, the Commonwealth of Virginia has no objection to the proposal provided activities are performed in accordance with authorizations for impacts to wetlands, erosion and sediment control, stormwater management, air emissions, waste management, wildlife resources, forest resources, and historic resources. In addition, DEQ concurs that the proposed action is consistent with the enforceable policies of the Virginia Coastal Zone Management Program.

Installation of Bat Detectors on the Cape Charles Lighthouse and the Rappahannock Rear Range Light Tower – DEQ completed the review of a Federal Consistency Certification (FCC) submitted by the Department of Game and Inland Fisheries for the installation of bat detector equipment on the Cape Charles Lighthouse and the Rappahannock Rear Range Light Tower in Northampton County. The equipment consists of a microphone and reflector; a marine box housing the bat detector, voltage regulator, battery, and GML unit (cell phone); a solar panel; and a cable connecting the solar panel with the marine box. The unit is a self-sustaining system that is enclosed in a water proof marine grade box housed in existing structures and located near the top of the lighthouse and light tower. The project requires a Real Property License Agreement between DGIF and the U.S. Coast Guard. Based on DEQ's review of the FCC, DEQ concurs that the proposal is consistent with the Virginia Coastal Zone Management Program (VCP) since the project will have no impact on the enforceable policies of the VCP.

Richmond International Airport Improvement Projects – DEQ completed the coordinated review of a Federal Consistency Certification (FCC) submitted by the Capital Region Airport Commission (“applicant”) to undertake four projects at the Richmond International Airport. These projects include: North Cargo Apron Rehabilitation; General Aviation Apron- West Rehabilitation; Taxiway “E” Reconstruction; and Snow Removal Equipment Building construction. The applicant stated that the proposed airport projects for 2013 comply with the enforceable policies of the VCP and will be conducted in a manner consistent with the VCP. Based on the information in the FCC and comments submitted by reviewers, DEQ, on behalf of the Commonwealth, concurred with applicant's certification. In regard to wildlife resources, the Department of Game and Inland Fisheries indicated that a time-of-year restriction would apply to tree cutting and ground clearing in order to protect songbird nesting. The Department of Historic Resources indicated that the Federal Aviation Administration consultation concerning historic properties had already begun and should continue.

Elbow Road Improvements – DEQ completed a coordinated review of a federal consistency certification (FCC) submitted by the City of Chesapeake for proposed roadway and ditch improvements along Elbow Road. The project qualifies for an Individual Permit from the U.S. Army Corps of Engineers, necessitating the submission of the FCC. The city proposes to construct approximately 1,260 linear feet of improvements along the north side of Bethel Baptist Curve and 1,400 linear feet of improvements along the south side of the Virginia Beach City Line Curve. The project aims to reduce the number of vehicular accidents on Elbow Road. Elongating the radius of the curves along the road will increase sighting distances for drivers, and widening the shoulders will provide emergency areas. The improvements will result in impacts to 1.46 acres of forested non-tidal wetlands and open water areas. According to the FCC, the project will be consistent with the enforceable policies of the Virginia Coastal Zone Management Program (VCP). Based on a review of the FCC and the comments submitted by agencies administering the applicable enforceable policies of the VCP, DEQ concurs that the proposal is consistent with the VCP. The review states that the City of Chesapeake must obtain and comply with a Virginia Water Protection Permit.

Pier IX Dredging Project – DEQ completed the coordinated review of a Federal Consistency Certification (FCC) submitted by Kinder Morgan, Inc. for the issuance of an individual permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act by the U.S. Army Corps of Engineers

(Corps) for the proposed dredging of the north berth of Pier IX at the company facility on the James River in the City of Newport News. The applicant finds that it is necessary to deepen the berth to -52 feet Mean Low Water (MLW) (the current permitted depth is -45 feet MLW) to accommodate the larger PANAMAX vessels now being used to transport coal. The deepening will allow for coal loading from the larger vessels on both sides of the pier. The footprint of the dredge area is approximately 476,500 square feet (10.94 acres). The material will be dredged mechanically and then barged in sealed scows for disposal at the Craney Island Dredged Material Management Area in the City of Portsmouth. Based on the information in the FCC and comments from reviewers, the DEQ concurs that the proposed project is consistent with the enforceable policies of the Virginia Coastal Zone Management Program, provided the applicant obtains and complies with the conditions of all applicable permits and authorizations with respect to impacts to state subaqueous lands, impacts to surface waters, and air emissions. In addition, the project must comply with applicable solid and hazardous waste requirements and Section 106 of the National Historic Preservation Act. The response recommends that the applicant coordinate with the U.S. Fish and Wildlife Service with respect to potential impacts to the federal-listed threatened piping plover and loggerhead sea turtle.

Final Design Refinements for Dulles Metrorail Extension – DEQ completed the coordinated review of a Federal Consistency Certification (FCC) submitted by the Metropolitan Washington Airports Authority (MWAA) addressing the preliminary engineering for Phase 2 of the Dulles Corridor Metrorail Project, a 23.1 mile extension of the Washington Metrorail system in Fairfax and Loudoun Counties. Phase 2 begins at the Wiehle Avenue-Reston East station and extends 11.4 miles west to and beyond Dulles International Airport to the Route 772 station in eastern Loudoun County. Design refinements have been made since the approval of the Final Environmental Impact Statement (FEIS) in 2004. These refinements, included in a Refined Locally Preferred Alternative, consist of the following, all of which are described in detail in Chapter 2 of the April 2012 Environmental Assessment (EA) (reviewed under DEQ 12-100F, comments mailed June 14, 2012) and in the Federal Transit Administration’s Finding of No Significant Impact: Herndon-Monroe Station parking facilities: consolidation in a single garage structure; Route 28 Station, north side facilities; Dulles Airport aerial alignment and station location; Route 772 south side station facilities: reconfiguration and reduction in surface parking; Rail yard: change to the layout; Ancillary facilities: revised stormwater facilities location, reduction in tail track length, changes to sub-station and tie-breaker station locations. MWAA states that the proposed design refinements are consistent with the enforceable policies of the Virginia Coastal Zone Management Program. DEQ concurred with the FCC on behalf of the Commonwealth provided the MWAA obtains and complies with the conditions of all applicable permits and authorizations with respect to erosion and sediment control, stormwater management, and air emissions. The Department of Conservation and Recreation (DCR) stated that the project qualifies for a conditional exemption for rail lines from Chesapeake Bay Preservation Act requirements. DCR also identified natural heritage resources (yellow lampmussels, wood turtles) and recommended mitigation of impacts. The Department of Game and Inland Fisheries recommended several ways to reduce project impacts on wildlife, and offered assistance in developing specific measures.

Williams Wharf Landing – DEQ completed the coordinated review of a Federal Consistency Certification (FCC) submitted by the Mathews Land Conservancy (MLC) for the issuance of an individual permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act by the U.S. Army Corps of Engineers (Corps) for proposed improvements to Williams Wharf Landing on the East River in Mathews County. MLC has spent twenty years removing the old deteriorating structures and cleaning up the site. MLC further plans to demolish and remove the existing docks on the north and west sides of the site; remove and replace riprap to facilitate the new building foundation construction; construct a sustainable rowing and sailing center with an open, precast concrete pile foundation and open decks; construct two 80-foot x 16-foot floating docks; construct a fixed public dock on the west side of the site with a 100-foot x 14-foot “T-Head” for large historic and educational vessel mooring, public fishing, and event-specific activities. Based on the information in the FCC and comments from reviewers, DEQ conditionally concurs that the proposed project is consistent with the enforceable policies of the Virginia Coastal Zone Management Program (VCP), provided MLC receives applicable permits from the Virginia Marine Resources Commission (VMRC) and the Mathews

County Wetlands Board related to the subaqueous lands management and wetlands management enforceable policies of the VCP. According to the VMRC, an adjacent property owner and 25 other freeholders have protested the Wetlands Board's approval on the basis that the proposed building does not qualify as water dependant and the wetlands impacts are too great for the scope of the project. Most of the impacts are related to the shading of un-vegetated intertidal wetlands by the building. VMRC finds that the applicant has made an effort to minimize, as much as possible, the footprint of the building over wetlands while taking into consideration constraints with upland space that prevents the placement of the building further landward. Vegetated wetland impacts will be mitigated by the creation of wetlands from uplands on site. VMRC indicated that the wetlands case was remanded back to the Matthews County Wetlands Board for further consideration due to a procedural error at the May 1, 2013 hearing. The Board's decision to approve the project as proposed at its July 24, 2013 was again protested. At the August 2013 VMRC meeting, the Commission heard the appeal of 25 freeholders for the Mathews Local Wetlands Board's decision to approve the project as submitted. At that hearing the Commission upheld the Board's decision. At the September VMRC meeting the Commission heard the subaqueous portion of the project and approved the request as submitted. VMRC staff believes that the applicant has appropriately created a mitigation plan for impacts to vegetated wetlands and has minimized the footprint of the building over un-vegetated wetlands as much as possible. In addition, VMRC staff believes that the building, while not totally water dependant, does have aspects which are water dependent and that the benefits (economics, education, and public water access) of the project outweigh the detriments (shading of un-vegetated wetlands). DEQ's response recommends that the applicant coordinate with the U.S. Fish and Wildlife Service with respect to potential impacts to the federal-listed threatened loggerhead sea turtle.

New Market Heights Phase of the Capital Trail Project – DEQ completed the coordinated review of a Federal Consistency Certification (FCC) submitted by Henderson, Inc. (applicant) for the construction of the New Market Heights Phase of the Capital Trail Project in Charles City and Henrico Counties. The applicant has submitted a Joint Permit Application to the U.S. Army Corps of Engineers (Corps) for the issuance of an individual permit pursuant to Section 404 of the Clean Water Act due to proposed impacts to surface waters and wetlands. The project will consist of the construction of a 10.5-mile-long, 10-foot-wide asphalt trail with 3-foot wide graded shoulders on each side. Timber bridges will be used for the crossing of the channels at Baileys Creek and Crewes Channel, while pilings will be required within the jurisdictional limits at Turkey Island and Kimages Creek. The construction will have direct impacts to approximately 1.48 acres of vegetated wetlands, conversion impacts to 0.06 acres of wetlands, and permanent impacts to 712 linear feet of streams. The New Market Heights Phase is part of the multi-use trail linking the City of Richmond and the City of Williamsburg. Based on the information in the FCC and comments from reviewers, DEQ concurs that the proposed project is consistent with the enforceable policies of the VCP provided the applicant obtains and complies with applicable permits and authorizations with respect to proposed impacts to surface waters and wetlands, erosion and sediment control, air emissions, and impacts to Chesapeake Bay Preservation Areas. The applicant must comply with applicable regulatory requirements for the management of solid and hazardous wastes, protection of listed species (sensitive joint-vetch), and impacts to historic resources.

Bayshore Concrete Products Travelift Piers – DEQ completed the review of a federal consistency certification (FCC) submitted by Bayshore Concrete Products Corporation (Bayshore). Bayshore has submitted a Joint Federal-State Permit Application to the Army Corps of Engineers, Norfolk District (Corps) for the construction of two travel lift concrete piers (250 feet long by 8 feet wide) allowing access from Bayshore's property to the Cape Charles Harbor. The project includes installation of concrete panels between the cylinder piles as a wave break (designed with 4-foot gaps to promote flushing and maintain water quality), and four "dolphins" to protect the travel lift piers. Dredging is not involved in the project. The project would take place entirely within Cape Charles Harbor. DEQ, on behalf of the Commonwealth, concurred that the project would be consistent with the enforceable policies of the Virginia Coastal Zone Management Program, provided that all applicable requirements of those policies are met. The Department of Game and Inland Fisheries deferred to Virginia Marine Resources Commission (VMRC) on fisheries impacts because the site drains to marine waters. VMRC indicated that it has no jurisdiction, because the subaqueous lands in the harbor are privately owned.

The Department of Game and Inland Fisheries made recommendations to protect Kemp's Ridley sea turtles, loggerhead turtles, bald eagles, and colonial waterbirds that are documented as present the area.

Mountain Run Subdivision – DEQ completed the coordinated review of a Federal Consistency Certification (FCC) submitted by Gilman and Bateman Real Estate (applicant) for the construction of residential housing (Phase 5) at the existing Mountain Run Subdivision in Hanover County. The applicant intends to submit a Joint Permit Application to the U.S. Army Corps of Engineers (Corps) for the issuance of an individual permit pursuant to Section 404 of the Clean Water Act due to proposed wetland impacts. Mountain Run is located in southwestern Hanover County and is north of Mountain Road (Route 33), west of Farrington Road, south of Cherry Hill Road, and east of Scotchtown Road. The development encompasses 620 acres, of which 460 acres have been developed into a large lot residential golf course community. However, 160 acres of the original permitted area were not completed. The proposed action includes the construction of housing on 30 undeveloped lots. Based on the information in the FCC and comments from reviewers, DEQ concurs that the proposed project is consistent with the enforceable policies of the Virginia Coastal Zone Management Program provided the applicant obtains and complies with applicable permits and authorizations with respect to proposed impacts to surface waters and wetlands, erosion and sediment control, air emissions, and impacts to Chesapeake Bay Preservation Areas. The applicant must comply with applicable regulatory requirements for the management of solid and hazardous wastes, protection of listed species (dwarf wedgemussels), and impacts to historic resources. In addition, the response recommends that the applicant coordinate with the Department of Health to ensure compliance with the Virginia *Waterworks Regulations* and construction permit requirements.

Luck Stone Massaponax Quarry – DEQ completed a coordinated review of a federal consistency certification (FCC) submitted by Luck Stone Corporation as part of the application to renew a Corps of Engineers permit. The permit allowed impacts to occur in relation to the excavation of a quarry and associated infrastructure for 10 years. All impacts had not occurred before the permit expired. Additional impacts are not proposed. Luck Stone Corporation is proposing to complete the development of a 400-acre granite quarry. The permit allowed for impacts to 3.97-acres of forested, non-tidal wetlands, 4,484 feet of intermittent streams and 130 feet of a perennial stream. Luck Stone Corporation now proposes to complete the remaining impacts (2.8 acres of wetlands and 1,047 feet of streams). The FCC states that the project would be consistent with the enforceable policies of the Virginia Coastal Zone Management Program (VCP). Based on comments submitted by reviewers and a review of the FCC, DEQ concurs that the project is consistent with the enforceable policies of the VCP.

Apex Oil Center Point Terminal –DEQ completed a coordinated review of a federal consistency certification (FCC) submitted by Moffatt and Nichol, on behalf of Apex Oil, for maintenance dredging in the Elizabeth River at the Apex Oil facility in the City of Chesapeake. The project qualifies for a Corps' Individual Permit. The proposed dredging will remove less than 3,200 cubic yards of sediment by removing shoals that are near the pier. The material may then be placed at Craney Island if it meets the Corps' requirements. The FCC states that no wetlands will be affected and there may be time-of-year restrictions for the dredging to protect fish spawning. According to the FCC, the project will be consistent with the enforceable policies of the Virginia Coastal Zone Management Program (VCP). Based on a review of the FCC and the comments submitted by agencies administering the applicable enforceable policies of the VCP, DEQ concurs that the proposal is consistent with the VCP provided all applicable permits, including a Virginia Water Protection Permit, in necessary, and a Virginia Marine Resources Commission dredging permit, are obtained.

Partial Parallel Taxiway Construction at the Franklin Municipal-John Beverly Rose Airport – DEQ completed the coordinated review of a Short Environmental Assessment (EA) and Federal Consistency Certification (FCC) submitted by the City of Franklin (applicant) for the construction of a partial parallel taxiway connecting an existing taxiway with Runway 27 at the Franklin Municipal-John Beverly Rose Airport (FKN) in Isle of Wight County. The proposed project will occur along the south side of the runway, near the approach end of Runway 27. The proposed activity will result in approximately 5.3 acres of land disturbance for the taxiway construction, and include: constructing a 35-foot wide partial parallel taxiway with two connecting taxiways to

the end of Runway 27 resulting in approximately 1.6 acres of new impervious surface; grading the Taxiway Object Free Area (131 feet wide) on both sides of the proposed taxiway; installing three new 131-foot long culverts under the proposed taxiway in alignment with existing drainage ditches to manage stormwater; and establishing a temporary staging area on an abandoned ramp. Based on the information in the EA and responses from reviewers, DEQ has no objection to the project as presented, provided the applicant obtains all applicable permits and authorizations with respect to erosion and sediment control, stormwater management, and solid and hazardous waste regulations. In addition, DEQ finds the proposal consistent with the enforceable policies of the Virginia Coastal Zone Management Act.

T-hangar #4 Construction at the Stafford Regional Airport – DEQ completed the coordinated review of a Federal Consistency Certification (FCC) submitted by the Stafford Regional Airport Authority (Airport Authority or applicant) for the construction of a T-Hangar building (T-Hangar #4) at the Stafford Regional Airport in Stafford County. The hangar will measure 65 feet x 280 feet (18,200 square feet) and be divided into ten separate units for the storage of small general aviation aircraft. The T-hangar will be located between two existing T-hangars on ground that was previously disturbed during the construction of the Airport. The T-Hangar location was previously graded and the elevation raised with fill material to ensure proper drainage of the site. In addition, the proposed project includes construction of 15,270 square feet of asphalt apron to link the edge of the proposed T-Hangar with the existing apron at the site, and a 2,420 square foot automobile parking lot constructed adjacent to the proposed T-Hangar. Based on the information in the FCC and responses from reviewers, DEQ concurs that the proposed project is consistent with the enforceable policies of the VCP, provided the applicant obtains all applicable permits and authorizations with respect to erosion and sediment control, stormwater management, point source stormwater discharges, air emissions, and impacts to Chesapeake Bay Preservation Areas. In addition, the project must comply with solid and hazardous waste regulations, Section 106 of the National Historic Preservation Act, and Federal Aviation Administration regulations.

Richneck Regional Water Quality Retrofit and Flood Control Project – DEQ completed the coordinated review of a Federal Consistency Certification (FCC) submitted by the City of Newport News which has submitted a Joint Permit Application to the U.S. Army Corps of Engineers (Corps) for the issuance of an individual permit pursuant to Section 404 of the Clean Water Act to construct the Richneck Regional Water Quality Retrofit and Flood Control Best Management Practice (BMP) in the City of Newport News. The purpose of the project is to reduce the Total Maximum Daily Load (TMDL) of nitrogen, phosphorus, and sediment loads; and to reduce property damage from repeated flood events within the Stoney Run watershed. The proposed project will total over 16 acres and incorporate the use of three sub-basins designed in a step-down topographic alignment that will impact 5.58 acres of forested wetlands, 0.98 acres of emergent wetlands, 1,695 linear feet in intermittent/ephemeral stream channel, and 377 linear feet of perennial stream channel. For compensatory stream mitigation, Newport News proposes the creation of a stream complex within the sub-basins totaling over 3,800 linear feet of channel. Based on the information in the FCC and responses from reviewers, the DEQ concurs that the proposed project is consistent with the enforceable policies of the VCP, provided the applicant obtains and complies with the conditions of all applicable permits and authorizations with respect to impacts to wetlands, erosion and sediment control, stormwater management, air emissions, and impacts to Chesapeake Bay Preservation Areas. In addition, the applicant must comply with applicable solid and hazardous waste management regulations. The response recommends that the applicant coordinate with the Department of Game and Inland Fisheries with respect to potential impacts to the canebrake rattlesnake.

Shandy Hall Shoreline Stabilization – DEQ completed a coordinated review of a federal consistency certification (FCC) submitted by Vanasse Hangen Brustlin, on behalf of Bank of America and its trustee Byron Mobley, for a shoreline stabilization project in Richmond County. The project qualifies for a U.S. Army Corps of Engineers Individual Permit. The proposed project is the creation of living shorelines (using rock sills, breakwaters, sand fill and marsh plantings) at two separate areas of the Shandy Hall property as well as installing a segment of riprap revetment at the southeast end of the property. According to the FCC, US Trust – Bank of America c/o Byron Mobley certifies that the proposed activity is consistent with the enforceable

policies of the Virginia Coastal Zone Management Program (VCP). Based on our review of the FCC and the comments submitted by agencies administering the applicable enforceable policies of the VCP, DEQ concurs that the proposal is consistent with the VCP provided all applicable permits and approvals are obtained.

Parallel Taxiway and Obstruction Removal – DEQ completed the coordinated review of a Short Environmental Assessment (EA) Form and Federal Consistency Certification (FCC) submitted by the City of Suffolk for the removal of trees, completion of the construction of a parallel taxiway, relocation of the localizer antenna, and removal of a portion of abandoned runway and taxiways at the Suffolk Executive Airport (SFQ) in the City of Suffolk. The obstruction removal portion of the proposed action includes the removal of approximately 55 acres of trees (both on and off airport property) within approximately 55 acres of forested wetlands through silviculture using the Virginia Department of Forestry’s *Forestry Best Management Practices for Water Quality in Virginia Technical Manual (Fifth Edition, 2011)*. Based on the information in the EA and comments from reviewers, the Commonwealth of Virginia has no objection to the proposal as presented. In addition, DEQ concurs that the proposed project is consistent with the enforceable policies of the Virginia Coastal Zone Management Program (VCP), provided the City of Suffolk receives applicable permits related to the nonpoint source pollution control, point source pollution control, and coastal lands management enforceable policies of the VCP. In addition, the project must comply with applicable solid and hazardous waste requirements. The response recommends that the applicant coordinate with the Department of Game and Inland Fisheries with respect to a habitat assessment for the Maybee’s salamander.

Lee Hall Reservoir Dam Improvements – DEQ completed the coordinated review of a Federal Consistency Certification (FCC) submitted by the City of Newport News which has submitted a Joint Permit Application to the U.S. Army Corps of Engineers (Corps) for the issuance of an individual permit pursuant to Section 404 of the Clean Water Act to make improvements to the Lee Hall Reservoir Dam in the City of Newport News. The reservoir comprises an Upper Pool and Lower Pool with differing pool elevations. The Upper Pool is impounded by a CSX Railroad causeway and has a water level that is 3.1 feet higher than the water elevation of the Lower Pool (elevation 16.5 feet) which is impounded by a dam first constructed over 100 years ago and improved over the decades (the Lower Dam). Both the CSX Causeway and Lower Dam are classified as “high hazard” structures by the Department of Conservation and Recreation, which is defined as a dam which, should it fail, could result in the possible loss of life and serious property damage. The project includes decommissioning the CSX Causeway as a regulated dam by removing the water control structure; this action would be done in conjunction with improvements to the Lower Dam to handle the Probable Maximum Flood. The project also includes improving the Lower Dam and spillway in such a manner as to raise the Lower Pool by 2.5 feet from 16.5 feet to 19.0 feet. Based on the information in the FCC and responses from reviewers, the DEQ concurs that the proposed project is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program, provided the applicant obtains and complies with the conditions of all applicable permits and authorizations with respect to impacts to, state subaqueous lands, wetlands, erosion and sediment control, stormwater management, air emissions, and impacts to Chesapeake Bay Preservation Areas. In addition, the applicant must comply with applicable solid and hazardous waste management regulations. The response recommends that the applicant coordinate with the Department of Conservation and Recreation and the Department of Game and Inland Fisheries with respect to potential impacts to the Southeastern myotis, barking treefrog and Mabee’s salamander.

IV. Federal Funds

DEQ completed the review of 31 projects from April 1 to September 30, 2013 that were submitted under 15 CFR, Part 930, Subpart F for federal financial assistance to state and local governments. The projects break out as follows:

- 9 home rehabilitations/weatherizations
- 4 multifamily apartment redevelopments

- 4 sidewalk, curb and gutter modifications (ADA)
- 2 ADA ramps at single family homes
- 1 gateway signage
- 2 demolitions of blighted property
- 1 public water access
- 3 community park improvements
- 1 historic structure rehabilitation
- 1 wastewater collection system improvement
- 1 VIMS EPA grant application
- 1 water line construction
- 1 drainage improvement

Examples of Federally-funded projects which were reviewed:

Colonial Beach Apartments Rehabilitation – DEQ completed the review of a Federal Consistency Determination (FCD) submitted by the U.S. Department of Agriculture (USDA) Rural Development (RD) which is processing an application for a loan submitted by Colonial Beach Apartments LP, LLP under the Section 515 Rural Rental Housing Loans program for the rehabilitation of the Colonial Beach Apartments located at 343 12th Street in the Town of Colonial Beach. The 23,376-square foot apartment complex is situated on 2.3 acres and consists of 32 units (sixteen 1-bedroom units and sixteen 2-bedroom units). Rehabilitation activities will include the repair and replacement of siding; windows; doors; insulation; heating, ventilation, and air conditioning (HVAC) systems; hot water heaters; carpet; tile; appliances; parking lot; and landscaping. Based on the information in the FCD, DEQ concurs that the proposed project is consistent, to the maximum extent practicable, with the enforceable policies of the VCP, since the project would have no adverse impacts on those policies. In addition, the project must comply with solid and hazardous waste regulations, and Section 106 of the National Historic Preservation Act.

Woodhaven Shores Waterline Improvements – DEQ completed the coordinated review of a Federal Consistency Determination (FCD) submitted by Rural Utilities Service in accordance with the provisions of the residual category of the consistency regulations. According to the FCD, the Woodhaven Water Company is applying for federal funds from the Rural Utilities Service of the U.S. Department of Agriculture (hereinafter “USDA-RUS”) in order to construct new water lines serving the Woodhaven Shores subdivision in New Kent County. Approximately 25,412 linear feet of 8-inch water line would replace an existing pipe network consisting of smaller diameter pipes, most of which were constructed about 50 years ago and have exceeded their useful life. The project would upgrade the system to correct deficiencies and meet modern standards. The FCD states that the project is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program (VCP). Based on a review of the FCD and the comments submitted by agencies administering the applicable enforceable policies of the VCP, DEQ concurred on behalf of the Commonwealth that the proposal is consistent with the VCP provided all applicable permits and approvals are obtained and the applicant complies with the conditions governing utility exemptions to the requirements pertaining to Chesapeake Bay Preservation Areas. The Department of Game and Inland Fisheries (DGIF) indicated that colonial waterbirds are present, and that USFWS should be consulted in regard to them. DGIF also stated that Rafinesque’s eastern big-eared bats, a species listed by the Commonwealth as endangered, have been documented from the project area. However, the project would not affect either this species or the colonial waterbirds, provided that trees are not being removed as part of the project. DGIF provided general recommendations, including a time-of-year restriction on ground clearance and tree cutting to protect nesting birds; and DGIF offered to work with the applicant to minimize wildlife impacts.

Partrea I Apartment Development, Norfolk– DEQ completed the coordinated review of a Federal Consistency Certification (FCC) submitted by the Norfolk Redevelopment and Housing Authority (NRHA) to construct a three-story apartment building consisting of 47 units, intended for senior citizens, on undeveloped land east of

the existing Partrea Apartments, which are owned by NRHA. The existing apartments are located at 701 Easy Street, near the highway interchange between Tidewater Drive and Interstate Route 64 in Norfolk. The project site is approximately 2.5 acres. The new building will use an existing access road and infrastructure. Federal assistance is sought by NRHA from the U.S. Department of Housing and Urban Development, which, according to the correspondence from VHB, Inc. (the consultant), has determined that the project will have no adverse impacts on coastal uses or coastal resources addressed by the enforceable policies of the Virginia Coastal Zone Management Program (VCP). On behalf of the Commonwealth, DEQ concurred, provided that the applicants for HUD assistance comply with applicable enforceable policies of the VCP. In regard to coastal lands management, the project is in a Resource Protection Area that has an Intensely Developed Area (IDA) overlay. In IDAs, development is not limited, provided erosion and sediment control and stormwater management requirements are addressed and a water quality impact assessment (WQIA) is submitted to the City for review and approval.

Capital One Financial Services – DEQ completed a coordinated review of a federal consistency certification (FCC) submitted by Capital One Financial Services (Capital One) for the development of a data center site at the Meadowville Technology Park in Chesterfield County. Capital One is constructing the first phase of development with a 150,000-square foot building on the 75-acre site. The building will be used for a data center, customer service center and offices. The site will contain open space and parking areas with approximately 900 parking spaces. Capital One proposes to fill 1.8 acres of forested wetlands, which will require an individual permit from the U.S. Army Corps of Engineers. According to the FCC, Capital One certifies that the proposed activity is consistent with the enforceable policies of the Virginia Coastal Zone Management Program (VCP). Based on a review of the FCC and the comments submitted by agencies administering the applicable enforceable policies of the VCP, DEQ concurs that the proposal is consistent with the VCP provided all applicable permits and approvals are obtained. The FCC review includes a recommendation for Capital One to coordinate with the National Marine Fisheries Service regarding protection of the federally-listed endangered Atlantic sturgeon.

OCS Activities

1 project was reviewed during this period.

Research Lease on the Outer Continental Shelf Offshore Virginia – DEQ completed the coordinated review of a public notice issued by the Department of the Interior (DOI) Bureau of Ocean Energy Management (BOEM) for an unsolicited request for an Outer Continental Shelf (OCS) Research Lease, Request for Competitive Interest (RFCI), and Request for Public Comment. On February 13, 2013, BOEM received an unsolicited request for a research lease from the Virginia Department of Mines, Minerals and Energy (DMME). DMME's objective is to obtain a lease under 30 CFR 585.238 for renewable energy research activities, including: installation and operational testing of two 6-megawatt (MW) wind turbines; installation of metocean (meteorology-oceanography) monitoring equipment; installation of a meteorological tower or buoy; and installation of associated cabling to the shore outside of the Virginia Wind Energy Area (WEA). The proposed research lease area (Proposed Research Area 2) consists of six OCS sub-blocks (an OCS sub-block is 1,200 meters by 1,200 meters in area). The DEQ coordinated response provided information on potential project impacts to sea turtles, marine mammals, and avian species in the project area as well as the Department of Conservation and Recreation's recommendations on measures to protect these species. The response also addressed potential impacts associated with development onshore including the installation of cables from the OCS to the shoreline including impacts on surface waters and wetlands; state subaqueous lands; Chesapeake Bay Preservation Areas; land (erosion and sediment control, and stormwater management), air quality; solid and hazardous wastes; and historic and archaeological resources. If BOEM receives no competing indications of interest for a lease in response to this notice, BOEM may decide to move forward with the research leasing process.

SECTION B.4 PROGRAM CHANGES

Although state-listed threatened and endangered (T&E) species have been included in every Virginia CZM Program Executive Order, there are no T&E species enforceable policies included in Virginia's current federal consistency review. During a 2010 routine program change (RPC) submission to NOAA on DGIF laws and statutes, VDOT objected to the addition of code sections that would have added T & E species protection. As a result, Virginia withdrew the submission and contracted with the Environmental Law Institute (ELI) to prepare a new RPC for all DGIF laws and statutes that did not involve T & E species. As part of this grant, ELI also prepared a report that: 1) analyzed Virginia's current federal consistency review process and several representative projects with regard to their effectiveness in addressing T & E species issues, 2) examined the practices of other coastal states, and 3) made recommendations for next steps. This report was received during the reporting period and presented to the Virginia Coastal Policy Team (CPT) on August 19, 2013. In its report, ELI found that two thirds of Virginia's current federal consistency reviews had nonbinding recommendations with regards to state-listed T&E species. The four Virginia case studies included in the report had mixed results with regard to the effectiveness of these recommendations, in part because of the advisory status of T & E species policies. The report also examined the practices of five other states, including Maryland and North Carolina, which both have state T&E species included in their enforceable policies. The report's conclusion was that Virginia should incorporate state-listed T & E species laws and statutes as enforceable policies. After considering the report, the CPT decided to table further action on this issue until its next meeting.