

Natural Heritage – Locality Liaison/Habitat Restoration

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Introduction

Through the Locality Liaison program, the Virginia Department of Conservation and Recreation's Division of Natural Heritage (DCR-DNH) works with local and regional planners to assist them in fully utilizing natural heritage resource information as well as the consultative services we provide to ensure protection of natural heritage resources. The Locality Liaison program seeks to establish natural heritage resource information as part of fundamental locality decision-making criteria through tools such as project review, comprehensive planning, project sitings, zoning amendments, and open space planning.

VCZMP and Chesapeake Bay Program initiatives have generated considerable interest in land use issues within the Coastal Zone. Coastal localities are developing conservation objectives, identifying potential areas for protection and looking at innovative approaches in making land use decisions that will lessen the trend toward urban sprawl. The Locality Liaison program is working to have natural heritage resources play a larger role in helping localities find beneficial answers to the problems and opportunities they face.

Staffing

The Coastal Zone Locality Liaison (Locality Liaison) Kristal McKelvey resigned from the position in August 2009. Rene' Hypes (Environmental Review Coordinator) serves to continue project review and locality outreach within the Coastal Zone. Numerous other DCR-DNH staff members also support the Locality Liaison program, including Data Manager Megan Rollins, Information Manager Jason Bulluck, several Project Review Assistants, and various Natural Heritage biological inventory personnel.

Environmental Review

The DCR-DNH Environmental Review Section, to which the Locality Liaison is assigned, works with local, state, and federal government agencies as well as private individuals and consultants to assess the potential for proposed activities to impact natural heritage resources and to recommend ways to avoid or minimize these impacts. The Locality Liaison has primary responsibility for reviewing projects in the Coastal Zone. She provides oversight for the Project Review staff and/or conducts the review herself for all Coastal Zone projects, except for Virginia Department of Transportation (VDOT) projects, which are overseen by the Environmental Review Coordinator. During this grant year DCR-DNH has reviewed 939 projects in the Coastal Zone. This represents 40% of the projects reviewed statewide by DCR-DNH.

Through environmental review, the Locality Liaison provides service in connecting clients directly to needed information about natural heritage resources. With the state's most comprehensive database for rare, threatened and endangered species and significant natural communities, environmental review provides an opportunity for cooperating with other organizations. Many private consultants routinely and voluntarily coordinate with DCR-DNH before taking development project applications to regulatory agencies.

Though DCR-DNH does not have regulatory authority, we have agreements with regulatory agencies that rely on our natural heritage resource data.

The United States Army Corps of Engineers (ACOE) and DEQ Virginia Water Protection Permit Program (VWPP) screen all wetland development projects against our database and forward potential conflicts for our comment. The Memorandum of Understanding agreement with inclusion of the Virginia Department of Game and Inland Fisheries (VDGIF) and the continued integration of DCR-DNH data into the Corps new GIS system is under review by DCR-NH.

The DEQ Virginia Pollutant Discharge Elimination System (VPDES) program also screens issuance and re-issuances of permits for point source discharges to surface waters against our database and forwards potential conflicts to Natural Heritage for comments.

The United States Fish and Wildlife Service (USFWS) relies heavily on DCR-DNH data for their own regulatory responses. In addition, DCR-DNH is currently working with the USFWS and other agencies on the Nisource Multi-Species Habitat Conservation Plan. The purpose of the plan is to develop a comprehensive multi-state, multi-region Habitat Conservation Plan (HCP) that would extend to federally-protected species affected by Nisource's pipeline including some areas within the coastal zone. The HCP would include a mitigation package that would identify measures Nisource would take to avoid, minimize, and mitigate the potential impact to covered species.

Through a Memorandum of Agreement with the Virginia Department of Agriculture and Consumer Services (VDACS), which regulates state-endangered plants and insects in Virginia, DCR-DNH conducts preliminary project screening on their behalf. During this grant period, discussion has continued with VDACS to modify the current Memorandum of Agreement and add species to the state list.

David O'Brien, National Oceanic and Atmospheric Administration (NOAA) Marine Habitat Resource Specialist-Gloucester Point Field Office, participated in Natural Heritage Data Explorer website training. He is using the website to access impacts to NOAA resources from development projects in Virginia including transportation projects.

DCR-DNH continues to work with the Virginia Department of Transportation (VDOT) to identify and address natural heritage resource concerns for most of its projects.

Through coordination with DCR-Soil and Water Division and the Department of Environmental Quality, DCR-NH has provided natural heritage information for biosolid application projects throughout the state including the coastal zone. Based on DCR's comments for potential impacts to natural heritage resources, some fields have been removed or application boundaries modified to protect the resources.

Specific Projects

In 2006, DCR-NH recommended a Small whorled pogonia survey for a development project in Spotsylvania County. The survey identified Small whorled pogonia (*Isotria medeoloides*, on site and DCR-NH worked with the consultant along with other agencies to create a 4.5 acre conservation buffer area and develop easement language for the protection of this rare plant. According to Jim Hall, reporter for the Free Lance Star, the new medical building currently under construction is named after the listed species

<http://fredericksburg.com/News/FLS/2009/082009/08042009/483681>.



Small whorled pogonia (*Isotria medeoloides*)

An individual proposed to build a private road and pier on his property on the Eastern Shore. During the general permit review process by DCR-NH, it was determined that the project was within a TNC easement. After this was brought to the attention of DEQ, they contacted TNC who contacted the applicant. The applicant thought there was a clause allowing the road but TNC verified that the easement did not allow road building. The applicant withdrew the permit. DEQ stated they were unaware of the easement until it was brought to their attention by DCR-NH.

DCR-NH has been working with a developer in York County in the pre-application phase of a proposed senior apartment project. The proposed development is adjacent to the Grafton Ponds Natural Area Preserve owned by the City of Newport News and managed by DCR-NH. In January 2009 during a site visit conducted by DCR-NH, VDGIF, DEQ and the consultant, three Mabee's salamanders (*Ambystoma mabeei*, G4/S1S2/NL.LT) were documented in the project area as well as two coastal depression wetlands (i.e. Grafton Ponds). DCR-NH has recommended the ponds and a 250 meter upland buffer surrounding the ponds be protected in an open space easement and dedicated to the natural area preserve system (Appendix C). DCR-NH will continue to work with the applicant as the project is submitted to DEQ for permitting.

Mabee's salamander (*Ambystoma mabeei*)



DCR-NH provided comments to NASA in regards an Environmental Impact Study for shoreline restoration and infrastructure protection program for Wallop's Island. The preferred alternative would involve extending Wallop Island's rock seawall, construction of a rock groin perpendicular to the shoreline and beach nourishment of 3 million cubic yards. DCR-NH and others expressed concerns of potential impacts to the natural heritage resources on or adjacent to Wallop's Island and to the Mutton Hunk Fen Natural Area Preserve to the south of the project area. DCR-NH was especially concerned that the proposed groin construction would interrupt transport of sand to downdrift islands and recommended the avoidance of groin construction and developing a long term solution to combat pending sea-level rise and shoreline protection (Appendix D).

In October 2009, the updated information posted to NASA's website http://sites.wff.nasa.gov/code250/shoreline_eis.html stated "after analysis of sand transport patterns, NASA has identified a new preferred alternative that only includes beach fill and seawall extension. The Preferred Alternative would not include sand retention structures (i.e. breakwaters, groins)."

DCR-NH provided comments to Dominion Power and the permitting agencies in regards to the 16 mile 230kv transmission line proposed between the existing Old Church substation and the existing Chickahominy Substation. Potential impacts from the proposed project are 42 acres of forested wetlands including rare communities, plants and animals. The Army Corps of Engineers has taken discretionary authority over the project due to impacts being more than minimal. DCR-NH recommended avoidance of impacts to documented occurrences within the project area by conducting construction activities during the dry time of the year to avoid impacts to existing hydrology of habitats supporting rare species. Surveys for rare dragonflies and butterflies were also recommended by DCR-NH (Appendix E). To date surveys have been conducted for rare plant species within the proposed project area.

Natural Heritage Data Explorer Internet Website

The heart of DCR-DNH's service to localities is the set of databases and information tools that indicate what's rare, where the rarities are, and how they can be protected. DCR-DNH databases contain information about approximately 8,700 specific occurrences of natural heritage resources. Over the years, DCR-DNH has continually worked to improve the quality of the data and the utility of the tools used to present the data to researchers, planners, and decision-makers. All DCR-DNH data has been converted to modified polygons within the GIS system. Conservation sites are now the primary mechanism for distributing natural heritage location information for public use. Conservation sites identify areas that potentially warrant conservation action because of the associated natural heritage resources and the habitat they support. They incorporate contextual information about the key areas of the landscape surrounding the actual locations of natural heritage resources that are necessary to ensure protection of those resources. DCR-DNH currently tracks over 2,200 conservation sites and these sites are continuously being updated by DCR-DNH staff. There has also been work in data

development to further the concept of conservation sites by forming “building blocks” around natural heritage resource occurrences to inform our conservation sites posted to the Natural Heritage Data Explorer Website.

Virginia Natural Heritage Data Explorer (NHDE) allows Internet users to conduct basic GIS functions on a remote website, requiring only a Microsoft Internet Explorer web browser and minimal instruction. This informational tool can alert planners to potential areas of opportunity or concern, facilitate proactive planning for county resources, and allow preliminary screening of projects and activities for potential impacts to natural heritage resources. By providing immediate access to our data through the internet, we are empowering our partners to utilize and apply our data more rapidly and effectively by having it easily available at their desktop. This user-friendly tool for accessing natural heritage resource data is available on a subscription basis to local governments, state and federal agencies, land trusts, consultants, private companies and other organizations. A signed data license agreement is required for all data subscriptions. Please see Appendix A for an example of the license agreement normally sent to localities. The natural heritage data on the website is updated quarterly, as is done with the digital screening coverage. The website can be accessed at www.vanaturalheritageexplorer.org.

Hands-on training sessions for the Natural Heritage Data Explorer are generally held on an every-other-month basis. Most are held in Richmond but regional training sessions are also held around the state. Training is provided by the project review staff, including the Locality Liaison. The general training sessions are open to all organizations, but are divided into three sections according to the user’s tier level. During this grant year, four hands-on general training sessions for NHDE were held in Richmond, one in Gloucester at the Virginia Institute for Marine Science and one at the Rappahannock Community College in Warsaw-VA.

Within the Coastal Zone there are twenty-eight localities and seven Planning District Commissions using NHDE. Also, we have trained many conservation partners including other state agencies, land trusts, and Soil & Water Conservation Districts. Fourteen land trusts within the Coastal Zone are using NHDE and/or natural heritage data.

Approximately 264 projects have been submitted through NHDE within the FY2008 for the Coastal Zone. Of these 264 projects, 47 projects did not have natural heritage resources within two miles of the project location. Those 47 projects were not further reviewed by DCR-DNH staff. NHDE has significantly made project submittal easier for clients as they receive natural heritage information within minutes and streamlined workflow for DCR-DNH staff by capturing shapefiles of projects submitted through the website.

A user guide for the NHDE continues to be updated (Appendix B). This manual is designed to assist users by providing guidelines for use of the data, explaining the various layers and functions, and offering trouble-shooting tips for common problems.

At the time of this report being written, Phase II has been officially approved as complete. Updates to the NHDE website within this reporting period include:

- Continued site infrastructure updates and quarterly data updates
- ArcGIS model was updated to append NHDE information into the master in-house project boundary shapefile
- Enhanced shapefile generator has reduced processing time by eliminating the need to manually digitize projects submitted through the website
- Ongoing routine testing to ensure site and scope of work compliance

Locality Partnerships with DCR-Natural Heritage

The Locality Liaison has worked with various organizations within the Coastal Zone to encourage comprehensive use of natural heritage data and DCR-DNH services for conservation planning. Also, the Liaison has continued working with other conservation partners such as land trusts and other state agencies.

During this grant year, the Locality Liaison has provided specific language about natural heritage resources to several localities including Virginia Beach, Henrico County, James City County, Chesterfield County, and Accomack County for use in their comprehensive plan updates. Henrico County stated the updated natural heritage information would not be included in the adopted comprehensive plan however could be added as an amendment at a later date via the county's website. DCR-NH is following up with the other localities in regards to how the Natural Heritage Data information is being incorporated into their plans

In April 2009, the Project Review Manager attended Henrico Earth Day where approximately 150 citizens of Henrico County attended to learn about environmental issues. The Locality Liaison made a display consisting of maps of the relevant area showing basic natural heritage resource information, details about the natural history of selected natural heritage resources in the area, and provided handouts about the DCR-DNH program.



Henrico County Earth Day

At the end of FY2008, there are twenty-two coastal counties and six coastal cities with access to NHDE, digital shapefile data, or a combination of these tools. This equates to approximately 64% of Coastal Zone counties or cities having access to these tools.

Furthermore, the Locality Liaison has worked with many localities to train new staff on the use of NHDE. A combination of DCR-DNH project review staff and data management staff work to update annual license agreements and provide updated digital shapefile data quarterly. Please see Appendix F for a map of the Virginia localities with Natural Heritage information. Many localities have faced employee turnover so the Locality Liaison has retrained many localities this year as well.

Publicity of the NHDE has continued to result in interest in Natural Heritage data and services, beyond just the NHDE. Many land trusts interested in Natural Heritage data have elected to come to the general NHDE training sessions, instead of receiving an individualized presentation from the Locality Liaison.

List of Participants in Presentations

Presentations included an overview of DCR's Natural Heritage Program, the Locality Assistance Program, the Natural Heritage Data Explorer (NHDE) website, the Virginia Conservation Lands Needs Assessment (VCLNA), and the Land Conservation Data Explorer (LCDE). Please see Appendix G for an example of a PowerPoint presentation.

The following localities and conservation partners participated in these training sessions:

- Accomack-Northampton PDC
- Farm Service Agency
- Chesterfield County
- USDA-Natural Resources Conservation Service
- Gloucester County
- Mathews County
- Richmond County
- King George County
- National Audubon Society
- Friends of the Rappahannock
- James River Association
- NOAA
- City of Newport News
- Crater PDC
- George Washington Regional Commission
- Spotsylvania County
- Stafford County
- Northern Neck PDC
- City of Fredericksburg
- Town of Port Royal
- Fort AP Hill
- Northern VA Regional Commission

Habitat Restoration and Protection Initiatives

The Wetland Restoration Catalog contains potential wetland restoration sites that are within or adjacent to Natural Heritage Conservation Sites. Natural Heritage Conservation sites larger than 500 acres with a biodiversity rank of B1 (outstanding significance), B2 (very high significance) and B3 (high significance) were selected. Chief Biologist, J. Christopher Ludwig, reviewed each conservation site against Virginia Basemap aerial photography, National Wetland Inventory wetland coverage, and other GIS datasets. This catalog is intended to guide localities and regulatory agencies to appropriate sites for various conservation purposes including wetland mitigation.

Please note, these prior-converted wetland patches occur on a mix of private and public lands and property information has not been referenced. The wetland restoration opportunities have not been field verified. Additional property research, site evaluation and coordination with DCR-DNH will be necessary to determine which areas are suitable candidates for restoration. Nevertheless these sites represent high-probability opportunities to design and implement high-value wetland restoration projects.

The Locality Liaison in collaboration with Natural Heritage staff has updated the Wetland Restoration Catalog Web Page (http://www.dcr.virginia.gov/natural_heritage/wetrestcat.shtml) with assistance from DCR-DNH Data Management and Inventory staff. This web page includes an overview of the catalog, methodology, a discussion of the results, a PDF version of the catalog including an attributes table, interactive state map of the sites with HUC codes and individual site maps. DCR-DNH staff are using the 2006 and 2007 Virginia Basemap aerial photography and modified conservation sites to update the wetland restoration site boundaries. Please see Appendix H for an example of the Wetland Restoration Catalog updates.

The Wetland Restoration Catalog is being utilized by consultants and others as a way to focus and target potential conservation easements and wetland restoration projects. DCR-DNH is also working with the DEQ Coastal Zone Program to post the Wetland Restoration Catalog on Coastal GEMS (<http://128.172.160.131/gems2/>) with an accompanying factsheet. The Hampton Roads PDC and Northern Neck PDC have requested the wetland restoration catalog shapefile for planning and mitigation purposes.

Recommendations for Further Actions

The Locality Liaison program has proven most effective when the Locality Liaison can become actively involved in a specific project of concern to the locality. Furthermore, interest in natural heritage information often depends on timing such as whether a comprehensive plan is under review or a major development project is being considered. Thus, the Locality Liaison will strive to stay aware of upcoming locality events. The Liaison has also researched the Coastal Zone localities to determine when their comprehensive plans are due for review and will contact these localities at the appropriate time to offer assistance.

Coordination with other agencies is another way to provide better assistance. The Locality Liaison has joined a group of other DCR outreach professionals in an effort to better understand locality needs and provide assistance to these localities more efficiently. This opportunity will also provide a wider network of contacts within the Coastal Zone of Virginia.

The Locality Liaison will continue to focus on contacting Localities that are not currently using Natural Heritage data. This may also involve an effort to assist Localities in adding

ordinances or regulations necessitating the review of Natural Heritage information for certain projects.

In addition, many Coastal Zone localities currently have access to NHDE or digital shapefile data. It is very important to provide follow-up assistance to these localities beyond the initial presentation. The Locality Liaison plans to meet with these localities to determine how the data has been used and discuss local needs for further assistance. It is also important to keep in contact with the localities due to possible staffing changes.

The Locality Liaison web page and Wetland Restoration Catalog will continue to be updated. Examples of localities that have worked with the Liaison on specific projects will be presented on the Liaison website and a new locality information services order form will be developed. The Liaison will work to further the promotion and use of this Wetland Restoration Catalog as an effective tool for planning and environmental review processes.

Appendix