



## **Environmental-Related Mapping of the Financially Constrained Long Range Transportation Plan (CLRP)**

October 2007

As of 2007, the National Capital Region Transportation Planning Board (TPB) is federally required to engage and consult with affected land use management, natural resources, environmental protection, conservation and historic preservation state and local agencies regarding the development of the long-range transportation plan, called the CLRP<sup>1</sup>. In compliance with these regulations, this initial consultation establishes a dialogue with environmental agencies and creates a foundation for ongoing consultation and knowledge sharing regarding environment issues on a regional, system-wide scale. This effort has led to the creation of the following maps, which show the intersection of the CLRP with State conservation plans and inventories of natural or historic resources.

This consultation effort was initiated in March 2007 when the TPB solicited input and comments on the draft 2007 CLRP, requested suggestions on potential environmental mitigation strategies and collected environmental GIS data from natural resource and environment agencies in D.C., Maryland and Virginia. The TPB sent ninety letters to various representatives from state and local resource agencies, out of which sixteen replies were received. The GIS information request was the most successful aspect of this effort and led to direct collaboration with the following agencies on the mapping effort:

- Maryland Department of Natural Resources
- Maryland Department of Planning
- National Park Service
- Virginia Department of Conservation and Recreation
- Virginia Department of Game and Inland Fisheries
- Virginia Department of Historic Resources
- Virginia Marine Resources Commission

For more information on the TPB's environmental consultation and mitigation discussion, please see the attached documents outlining the draft mitigation discussion and a summary of the fifteen replies received from the TPB's initial outreach effort.

The draft maps in this section are a product of this initial consultation effort and will serve as a starting point for the next round of annual consultations. The maps will be shared with environmental, historic preservation and transportation agencies in order to initiate a dialogue between the agencies and the TPB regarding intersections between transportation planning and regional resource conservation and preservation concerns.

---

<sup>1</sup> 23 C.F.R. § 450.322(g)

By defining and inventorying environmental resources and data, these maps will be used to inform state and local agencies and the public about the relationship between the CLRP and environmental concerns at the regional scale, rather than at the project level. The maps can serve as a tool to identify long-term regional mitigation strategies, such as the early identification of major environmental obstacles before defining exact project right-of-ways. These initial maps also serve an important purpose in identifying any gaps in the data that may be filled over time as the consultation process becomes more robust.

This consultation effort is strictly intended to examine the CLRP at a *regional* scale and not at the project level, as is outlined in the federal regulations. Moreover, at this early planning stage, specific project information regarding exact locations and project dimensions are not known. Therefore, it is important to note that the lines representing CLRP projects in the maps do not represent actual alignments, but rather are general depictions of project locations. Each map also includes detailed data descriptions of the environmental data used, which outlines data origin and definitions. These descriptions have also been compiled into the attached data index for easier reference.

These maps represent an initial effort by the TPB to engage environmental and historic preservation agencies. The consultation process and the maps will continue to develop and improve every year as past activities are evaluated and more information becomes available. For more information about the TPB's environmental consultation efforts or to comment on the maps, please contact Monica Bansal on the TPB Staff at [mbansal@mwkog.org](mailto:mbansal@mwkog.org) or (202) 962-3290.



## **Summary of Replies from March 2007 Environmental Consultation and Mitigation Outreach Effort**

October 2007

In March 2007 the TPB solicited input and comments on the 2007 CLRP from natural resource and environment agencies in D.C., Maryland and Virginia as part of a new environmental consultation process required under federal legislation. This process currently includes the engagement of federal, state and local environmental agencies by the TPB in order to solicit comments on the CLRP and to gather and share environmental data for future mapping exercises. Going forward, the TPB will hopefully collaborate with these agencies in the continued development and refinement of this new consultation process. As suggested in the SAFETEA-LU requirements, future elements of the process may include a comparison of transportation plans with environmental resource plans and identified areas and activities for potential environmental mitigation and/or potential environmental restoration or maintenance. This discussion will then be incorporated into the Financially Constrained Long-Range Transportation Plan (CLRP). The following is a summary of the preliminary discussion that has been initiated with state and local environmental agencies.

Sixteen replies from state and local agencies were received out of seventy-four letters sent by the TPB in March 2007 and sixteen emails sent in July 2007. The replies were varied but shared a few common threads. For instance, the comments generally did not provide specific comments on the plan, stating their agency was already involved in a formal environmental or historic preservation review. These references to existing pathways for environmental review signaled that there was some level of confusion regarding the purpose of the consultations. The comments reflected the tendency to view environmental impacts at a smaller, project-by-project level. Future attempts will be made to steer the consultations toward more system-wide discussions of environmental impact and mitigation rather than replicating existing environmental review processes.

The specificity of the GIS data request resulted in the widespread provision of relevant agency contacts for GIS data assistance or a direct path to download data regarding aquaculture, historic properties/archaeology, green infrastructure, watersheds, wetlands, etc. Also provided was an inventory of VA natural heritage resources that could be impacted by the plan. Agencies with this level of information largely extended offers for future comment/collaboration and requested coordination of mitigation activities with agencies at both early planning stages and during implementation.

Some agencies provided specific comments regarding missing elements. For instance, one agency stated that many projects in the plan “have the potential to affect historic properties”, yet the TPB does not identify cultural or historic

properties or address potential mitigation strategies for these resource types. Another agency found that “the proposed projects may impact potential scenic byways, some federally protected lands, and proposed and existing trails and greenways.” It was also advised to cast a wider net in our GIS mapping, such as the addition of rural legacy areas. Lastly, few mitigation strategies were offered by respondents, such as the recommendation by one agency to create and submit a forest conservation plan prior to submission of preliminary site plans.





# **Draft Discussion of Potential Environmental Mitigation Activities for Agency Review**

October 2007

## **Background**

Metropolitan transportation planning is a regional process that is used to identify the transportation issues and needs in metropolitan areas. In metropolitan areas over 50,000 in population, the responsibility for transportation planning lies with designated Metropolitan Planning Organizations (MPO). The MPO for the Washington metropolitan area is the National Capital Region Transportation Planning Board (TPB). Each year the TPB prepares a transportation plan for 2030 and a six-year program that the federal government must approve in order for federal-aid transportation funds to flow to the Washington region. Members of the TPB include representatives of local governments; state transportation agencies; the Maryland and Virginia General Assemblies; the Washington Metropolitan Area Transit Authority; and non-voting members from the Metropolitan Washington Airports Authority and federal agencies.

## **What is the Constrained Long-Range Transportation Plan (CLRP)?**

The Financially Constrained Long-Range Transportation Plan (CLRP) identifies and recommends projects and programs to meet the existing and future transportation needs of the public through the year 2030. The plan includes all “regionally significant” transportation projects and programs that are planned for the Washington metropolitan region by 2030. Each year the plan is updated to include new projects and programs, and analyzed to ensure that it meets federal requirements relating to air quality and funding. The inclusion of a project in the long range transportation plan represents preliminary regional support for that improvement. Transportation projects in the CLRP go through several steps from conception to implementation and take many years to successfully complete.

More information about the CLRP can be found here: [clrp.mwcog.org](http://clrp.mwcog.org).

## **The CLRP and Project Level Environmental Analysis**

The CLRP includes projects expected to be built by 2030 and covers a geographic area of approximately 3,000 square miles. Detailed environmental analysis conducted through the National Environmental Policy Act (NEPA) does not apply to the CLRP. With exceptions for regional ambient air quality, offsetting environmental impacts during the long-range planning process is not required. While detailed environmental analysis is not required, it is important to consult with environmental resource agencies during the development of a long-range transportation plan.

Detailed environmental analysis of individual transportation projects occurs later in the project development process as the improvement approaches the preliminary engineering stage. At this stage, project features may be narrowed and refined, and the environmental impacts and environmental mitigation strategies can be appropriately ascertained.

## Impact Types and Mitigation Strategies

Some common environmental impact types that are considered in an environmental analysis for a specific project include:

- Neighborhoods and communities, homes and businesses
- Cultural resources (i.e. historic properties or archaeological sites);
- Parks and recreation areas;
- Wetlands and water resources;
- Forested and other natural areas;
- Agricultural areas;
- Endangered and threatened species; and
- Air Quality.

Environmental mitigation is the process of addressing damage to the environment caused by transportation or other public works projects. Commonly, actions taken to avoid or minimize environmental damage are also considered mitigation as well.

Potential environmental mitigation activities may include:

- avoiding impacts altogether;
- minimizing a proposed activity/project size or its involvement;
- rectifying impacts (restoring temporary impacts);
- precautionary and/or abatement measures to reduce construction impacts;
- employing special features or operational management measures to reduce impacts; and
- Compensating for environmental impacts by providing suitable, replacement or substitute environmental resources of equivalent or greater value, on or off-site.

### Potential Mitigation Activities Identified in Environmental Studies

A review of environmental studies from five major projects in the CLRP showed a wide range of potential activities being considered throughout the region<sup>1</sup>. A summary of those potential mitigation activities are provided here. Many studies discuss both planned strategies to prevent the environmental impact (minimization) and strategies to atone for it (mitigation).

**Table 1: Mitigation Strategies Identified in Five Major Projects in the Washington Region**

<b>Resource</b>	<b>Potential Mitigation Strategy</b>
Neighborhoods and communities, homes and businesses	<ul style="list-style-type: none"><li>• Minimize noise impact with sound barriers</li><li>• Prevent the spread of hazardous materials with soil testing and treatment</li></ul>
Wetlands and Water	<ul style="list-style-type: none"><li>• Replace or restore wetlands</li></ul>

<sup>1</sup> Environmental documents from the following projects were reviewed: the Corridor Cities Transitway, Capital Beltway Study, I-495, Dulles Corridor Rapid Transit Project, Anacostia Corridor Demonstration project and the Intercounty Connector.

Resources	<ul style="list-style-type: none"> <li>• Submerge or utilize bottomless culverts</li> <li>• Bridge sensitive areas instead of laying pavement directly onto the ground</li> <li>• Improve storm water management</li> </ul>
Forested and other natural areas	<ul style="list-style-type: none"> <li>• Use selective cutting and clearing</li> <li>• Replace or restore forested areas</li> <li>• Preserve existing vegetation</li> </ul>
Endangered and threatened species	<ul style="list-style-type: none"> <li>• Use selective cutting and clearing</li> <li>• Bridge sensitive areas instead of laying pavement directly onto the ground</li> <li>• Replace or restore forested areas</li> </ul>
Air Quality	<ul style="list-style-type: none"> <li>• Control loose exposed soils with watering or canvas sheets</li> <li>• Minimize idling of heavy construction vehicles</li> </ul>

**Role of the TPB in Potential Environmental Discussions**

The Washington region is composed of three major jurisdictions: suburban Maryland, Northern Virginia and the District of Columbia. Large transportation projects are underway that have regional significance as well as potential regional environmental impacts. However, project planning and funding for environmental mitigation comes from the state and local levels. The TPB could have a role in facilitating agencies’ environmental mitigation efforts through information sharing about potential mitigation locations, techniques, best practices, etc.



infrastructure and provide for multimodal capacity increases based on regional priorities and needs. The metropolitan transportation plan may consider projects and strategies that address areas or corridors where current or projected congestion threatens the efficient functioning of key elements of the metropolitan area's transportation system;

(6) Design concept and design scope descriptions of all existing and proposed transportation facilities in sufficient detail, regardless of funding source, in nonattainment and maintenance areas for conformity determinations under the EPA's transportation conformity rule (40 CFR part 93). In all areas (regardless of air quality designation), all proposed improvements shall be described in sufficient detail to develop cost estimates;

(7) A discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the metropolitan transportation plan. The discussion may focus on policies, programs, or strategies, rather than at the project level. The discussion shall be developed in consultation with Federal, State, and Tribal land management, wildlife, and regulatory agencies. The MPO may establish reasonable timeframes for performing this consultation;

(8) Pedestrian walkway and bicycle transportation facilities in accordance with 23 U.S.C. 217(g);

(9) Transportation and transit enhancement activities, as appropriate; and

(10) A financial plan that demonstrates how the adopted transportation plan can be implemented.

(i) For purposes of transportation system operations and maintenance, the financial plan shall contain system-level estimates of costs and revenue sources that are reasonably expected to be available to adequately operate and maintain Federal-aid highways (as defined by 23 U.S.C. 101(a)(5)) and public transportation (as defined by title 49 U.S.C. Chapter 53).

(ii) For the purpose of developing the metropolitan transportation plan, the MPO, public transportation operator(s), and State shall cooperatively develop estimates of funds that will be available to support metropolitan transportation plan implementation, as required under § 450.314(a). All necessary financial resources from public and private sources that are reasonably expected to

be made available to carry out the transportation plan shall be identified.

(iii) The financial plan shall include recommendations on any additional financing strategies to fund projects and programs included in the metropolitan transportation plan. In the case of new funding sources, strategies for ensuring their availability shall be identified.

(iv) In developing the financial plan, the MPO shall take into account all projects and strategies proposed for funding under title 23 U.S.C., title 49 U.S.C. Chapter 53 or with other Federal funds; State assistance; local sources; and private participation. Starting December 11, 2007, revenue and cost estimates that support the metropolitan transportation plan must use an inflation rate(s) to reflect "year of expenditure dollars," based on reasonable financial principles and information, developed cooperatively by the MPO, State(s), and public transportation operator(s).

(v) For the outer years of the metropolitan transportation plan (i.e., beyond the first 10 years), the financial plan may reflect aggregate cost ranges/cost bands, as long as the future funding source(s) is reasonably expected to be available to support the projected cost ranges/cost bands.

(vi) For nonattainment and maintenance areas, the financial plan shall address the specific financial strategies required to ensure the implementation of TCMs in the applicable SIP.

(vii) For illustrative purposes, the financial plan may (but is not required to) include additional projects that would be included in the adopted transportation plan if additional resources beyond those identified in the financial plan were to become available.

(viii) In cases that the FHWA and the FTA find a metropolitan transportation plan to be fiscally constrained and a revenue source is subsequently removed or substantially reduced (i.e., by legislative or administrative actions), the FHWA and the FTA will not withdraw the original determination of fiscal constraint; however, in such cases, the FHWA and the FTA will not act on an updated or amended metropolitan transportation plan that does not reflect the changed revenue situation.

(g) The MPO shall consult, as appropriate, with State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of the transportation plan. The consultation shall involve, as appropriate:

(1) Comparison of transportation plans with State conservation plans or maps, if available; or

(2) Comparison of transportation plans to inventories of natural or historic resources, if available.

(h) The metropolitan transportation plan should include a safety element that incorporates or summarizes the priorities, goals, countermeasures, or projects for the MPA contained in the Strategic Highway Safety Plan required under 23 U.S.C. 148, as well as (as appropriate) emergency relief and disaster preparedness plans and strategies and policies that support homeland security (as appropriate) and safeguard the personal security of all motorized and non-motorized users.

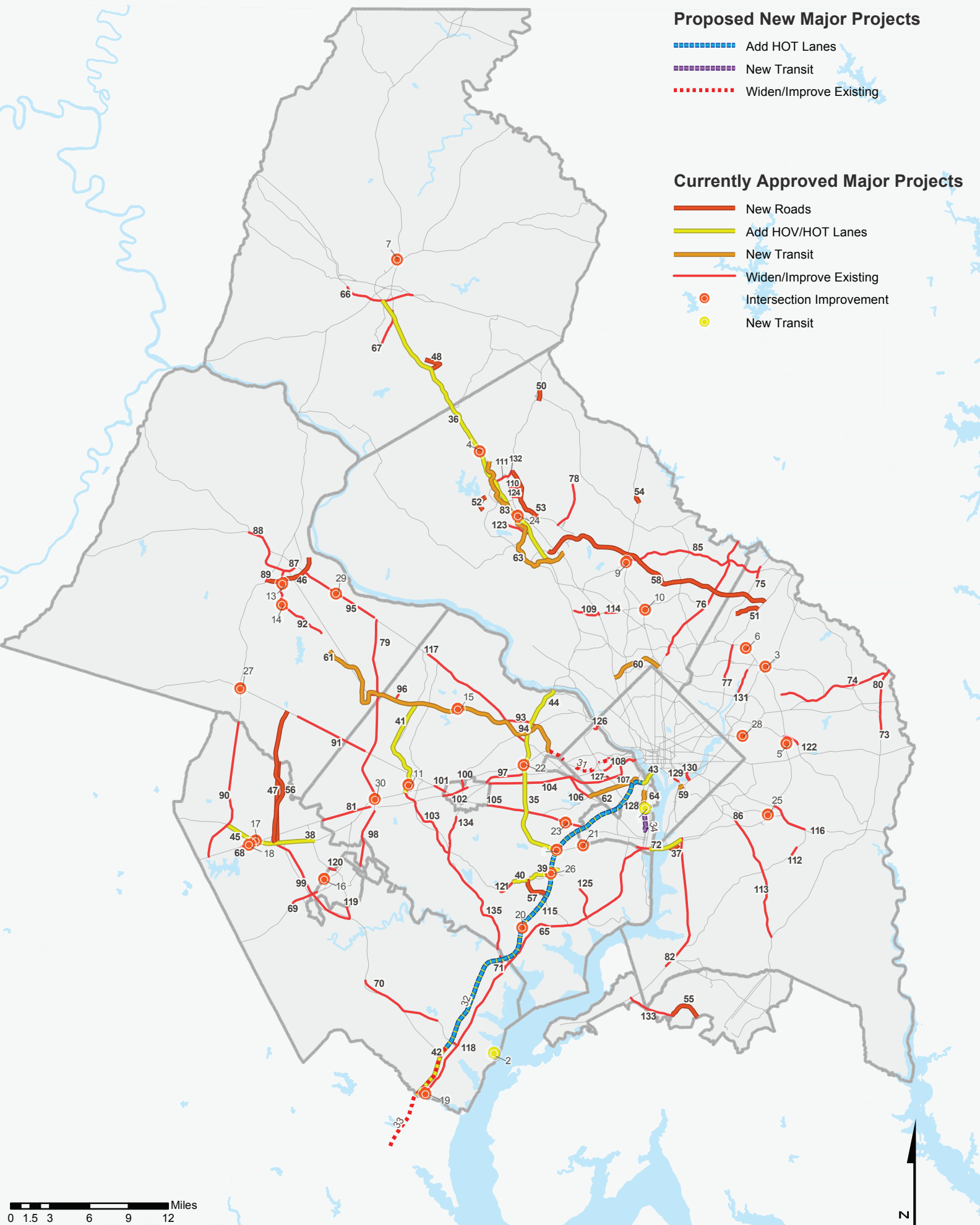
(i) The MPO shall provide citizens, affected public agencies, representatives of public transportation employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with a reasonable opportunity to comment on the transportation plan using the participation plan developed under § 450.316(a).

(j) The metropolitan transportation plan shall be published or otherwise made readily available by the MPO for public review, including (to the maximum extent practicable) in electronically accessible formats and means, such as the World Wide Web.

(k) A State or MPO shall not be required to select any project from the illustrative list of additional projects included in the financial plan under paragraph (f)(10) of this section.

(l) In nonattainment and maintenance areas for transportation-related pollutants, the MPO, as well as the FHWA and the FTA, must make a conformity determination on any updated or amended transportation plan in accordance with the Clean Air Act and the EPA transportation conformity regulations (40 CFR part 93). During a conformity lapse, MPOs can prepare an interim metropolitan transportation plan as a basis for advancing projects that are eligible to proceed under a conformity lapse. An interim metropolitan transportation plan consisting of eligible projects from, or consistent with, the most recent conforming transportation plan and TIP may proceed immediately without revisiting the requirements of this section, subject to interagency consultation defined in 40 CFR part 93. An interim metropolitan transportation

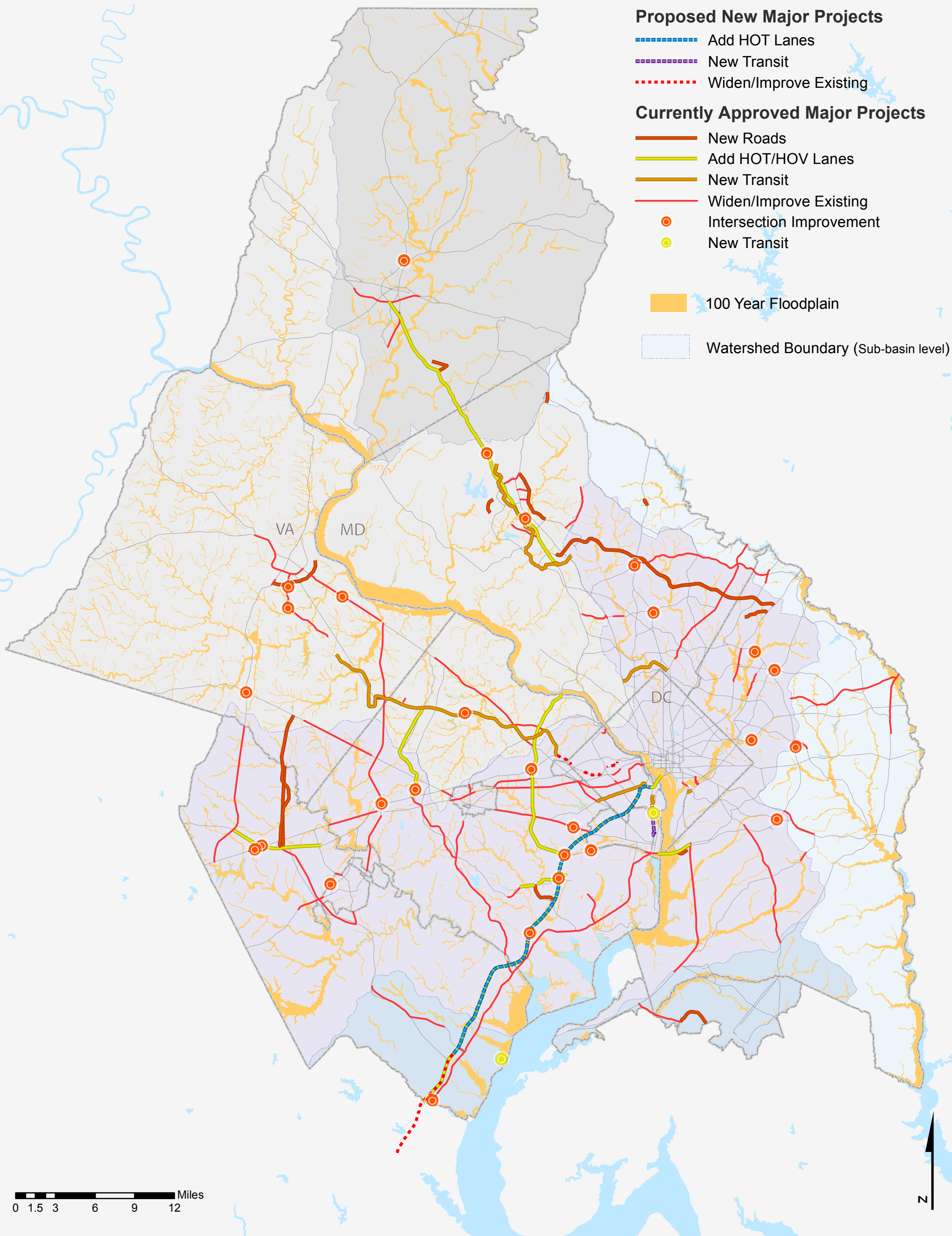




Proposed New Major Projects		Proposed New Major Projects	
<b>Virginia</b>			
31	I-66 Westbound Spot Improvements inside the beltway, extend existing acceleration/deceleration lanes, 2013	13	Dulles Greenway, construct interchange at Battlefield Parkway, 2007
32	I-95/395 HOT Lanes between the Eads St in Arlington and south of the Town of Dumfries, 2010	14	Dulles Greenway, construct interchange at VA 653, 2006
33	I-95/395 HOT Lanes between the Eads St in Arlington and south of the Town of Dumfries, 2010	15	Dulles Toll Road, reconstruct interchange at VA 674, 2012
34	Potomac Yard Transit Way -- Alexandria	16	VA 28, Interchange at Wellington Road, RR tracks, 2008
		17	I-66, reconstruct interchange at US 29, 2014
		18	US 29, interchange at VA 55, 2014
		19	US 1, reconstruct interchange at Russell Road, 2010
		20	I-95, reconstruct interchange at VA 642, 2010
		21	I-95/495, reconstruct interchange at VA 613, 2015
		22	I-66/I-495, reconstruct interchange, 2013
		23	VA 236, reconstruct intersection at Braddock Road, 2006
		26	I-95, construct interchange at VA 7900, 2015
		27	US 50, construct round-about at US 15, 2010
		29	VA 7, interchange at Claiborne Parkway, 2006
		30	VA 28, reconstruct interchange at I-66, 2008
		35	I-495 High Occupancy/Toll (HOT) lanes, Transit Service, 2010, 2020
		38	I-66 HOV, widen to 8-lanes, 2010
		39	Franconia/Springfield Parkway HOV, 2010, 2020
		40	Fairfax County Parkway HOV, construct 2 lanes, 2015
		41	Fairfax County Parkway HOV, widen and upgrade, 6 to 8 lanes, 2010, 2015
		42	I-95 HOV, extend HOV lanes from Quantico Creek to Stafford County line, 2015 and re-stripe to 3 lanes from Quantico Creek to I-495
		43	I-395 HOV, restripe to 3 lanes, 2010
		44	I-495 HOV lanes
		45	I-66 HOV, includes interchange reconstruction at US 15, 2015
		46	Battlefield Parkway, construct, widen, upgrade 4 lanes, 2006, 2010
		47	VA 234 Bypass, widen, upgrade, construct 4 lanes, 2012
		56	VA 411, (Tri-County Parkway), construct 4, 6 lanes, 2015, 2020
		57	Construct 6 lanes
		61	Dulles Corridor Rapid Transit, 2011, 2015
		62	VA-244 (Columbia Pike) Transit Service Improvements, Pentagon to Bailey's Crossroads, 2010, 2020
		63	Corridor Cities Transitway, from Shady Grove to COMSAT, 2010, 2020
		64	Crystal City Potomac Yard Transit Way -- Arlington, 2007, 2008, upgrade to BRT 2012
		65	US 1, widen to 6, 8 lanes including interchange at VA 123, 2006, 2008, 2009, 2015, 2025
		68	US 29, widen to 5, 6 lanes, 2014
		69	VA 28, widen to 6 lanes, 2015
		70	VA 234, widen to 4 lanes, 2006, 2007
		71	VA 123, widen to 6 lanes, 2008, 2015
		79	VA 28, widen to 6, 8 lanes, with interchanges, 2006, 2007, 2008, 2010, 2025
		81	US 29, widen to 6 lanes, 2011
		87	VA 7/US 15 Bypass, widen to 6 lanes, 2015
		88	VA 7, widen to 6 lanes, 2015
		89	US 15, widen to 4 lanes, 2010
		90	US 15, widen to 4 lanes, 2008, 2020
		91	US 50, widen to 6 lanes, 2010, 2012
		92	Dulles Greenway, widen to 6 lanes, 2006
		93	Dulles Access Road, widen to 6 lanes including interchange reconstruct at I-495, 2010
		94	VA 123, widen to 8 lanes, 2013
		95	VA 7, upgrade with interchanges, 2015
		96	South Elden Street/Centreville Road, widen to 6 lanes, 2007
		97	US 29, widen to 6 lanes, 2015, 2020
		98	VA 28, widen to 6 lanes, 2025
		99	VA 234 Bypass, widen/upgrade, 6 lanes, 2020
		100	VA 123, widen to 6 lanes, 2010
		101	US 50, widen 3, 8 lanes, 2020
		102	US 29, widen to 6 lanes, 2010, 2012
		103	VA 7100, widen to 6 lanes, 2015
		104	US 50, widen/reconstruct 6 lanes including interchanges, 2020
		105	VA 236, widen to 4, 6 lanes, 2008, 2020
		106	VA 7, widen to 6 lanes, 2020
		107	VA 244, widen 5 lanes, 2010
		108	Wilson Blvd., reconstruct 4 lanes, 2010
		115	I-95, widen to 8 lanes, 2009
		117	VA 7, Leesburg Pike, widen to 6, 8 lanes, 2009, 2012, 2013
		118	VA 234, widen, upgrade 6 lanes, including interchange at US 1, 2011
		119	VA 234, widen to 4 lanes, 2010
		121	VA 7900, widen, construct 2, 6 lanes, 2009, 2015
		125	Old Mill Road, construct, widen 4 lanes, 2009
		126	VA 120, reconstruct 2 lanes, 2020
		127	VA 120, reconstruct 4 lanes, 2006
		128	VA 120, reconstruct 4 lanes, 2010
		134	VA 123, widen, reconstruct 6 lanes, 2006, 2015, 2020
		135	VA 123, widen, reconstruct 6 lanes, 2006, 2015, 2020
<b>District of Columbia</b>			
59	Anacostia Street Car Project Phase I, 2011		
129	South Capitol Str/Bridge Reconstruction, including intersection with Martin Luther King Jr. Blvd, 2015		
130	11th Street Bridge reconstruction, 2011		
<b>Maryland</b>			
3	Baltimore Washington Parkway at MD 193, Intersection Improvement, 2025		
4	I-270, reconstruct interchange at MD 121, 2010		
5	I-95/495, interchange at Arena Drive, 2010		
6	I-95/495, interchange at Greenbelt Metro, 2010		
7	US 15, interchange at MD 26 (Liberty Road), 2010		
9	MD 97, upgrade intersection at MD 28, 2010		
10	MD 97, upgrade intersection at Randolph Road, 2010		
24	I-270, interchange at Watkins Mill Rd. Ext., 2020		
25	Suitland Parkway, interchange at Rena/Forestville Road, 2025		
28	US 50, westbound ramp to Columbia Park Road, 2025		
36	I-270/US 15 Corridor, Shady Grove to I-70, HOV, 2020		
37	Woodrow Wilson Bridge/I-95, HOV, 2009		
48	MD 355/MD 80, Urbana Bypass, construct 4 lanes, 2007		
49	MD 414 Extended, widen, construct 4 lanes, 2008		
50	MD 124 extended, construct 2 lanes, 2008		
51	MD 212, construct 4 lanes, 2007		
52	Father Hurley Blvd., construct, widen, 4, 6 lanes, 2010		
53	M-83, construct 4, 6 lanes, 2015, 2020		
54	MD 97, construct 2 lanes, 2015		
55	Cross-County Connector (Phase 5) 2007		
58	Intercounty Connector, construct 6 lanes, 2010		
60	Bi-County Transitway, Bethesda to Silver Spring, 2015		
66	I-70, widen to 4, 6 lanes, 2010		
67	MD 85, widen to 4, 6 lanes, 2020		
72	I-95, Woodrow Wilson Bridge, build 12 lane bridge, 2009		
73	US 301, widen to 6 + 2 lanes, 2030		
74	MD 450, widen to 4, 6 lanes, 2020		
75	I-95, interchange and CD lanes at Contee Road, 2020		
76	US 29, upgrade, including intersections/interchanges, 2020		
77	US 1, reconstruct 4 lanes (2020), widen to 6 lanes, 2010, 2020		
78	MD 124, widen to 6 lanes, 2010, 2015		
80	MD 3, widen, construct 6 lanes, 2030		
82	MD 210, upgrade 6 lanes, 2020		
83	I-270, widen, 2025		
84	MD 355, reconstruct 6 lanes, construct interchange at Montrose/Randolph Road, 2010, 2015		
85	MD 28/MD 198, widen, construct 4, 6 lanes, 2030		
86	I-95/495: Branch Avenue Metro Access, construct 8 lanes, 2010		
109	Montrose Parkway, construct 4 lanes, 2010		
110	MD 118 (Germantown Rd.), widen to 6 lanes, 2015		
111	MD 27, widen to 6 lanes, 2010		
112	MD 223, widen to 4 lanes, 2007		
113	MD 5, upgrade, widen to 6 lanes, including interchanges, 2010		
114	Randolph Road, widen to 5 lanes, 2015		
116	MD 4, widen to 6 lanes, upgrade with interchanges at Westphalia Road, Suitland Parkway and Dower House, 2010		
120	VA 234, widen to 5 lanes, 2010		
122	MD 202, reconstruct 6+2 lanes, 2010		
123	MD 117, widen to 4 lanes, 2015		
124	Middlebrook Road Extended, widen, construct 6 lanes, 2010		
131	MD 201/Kenilworth Ave widen, 2010		
132	MD 27, widen, MD-355 to A 305, 2010		
133	Cross-County Connector (Phases 6 & 7) reconstruct 2008/2009		
<b>Virginia</b>			
1	Potomac Yard Metro Station, 2015		
2	Cherryhill VRE Station, 2011		
8	I-95/I-395/I-495, interchange reconstruction with access ramps to I-49		
11	VA 7100, interchange at Fair Lakes Parkway, 2010		







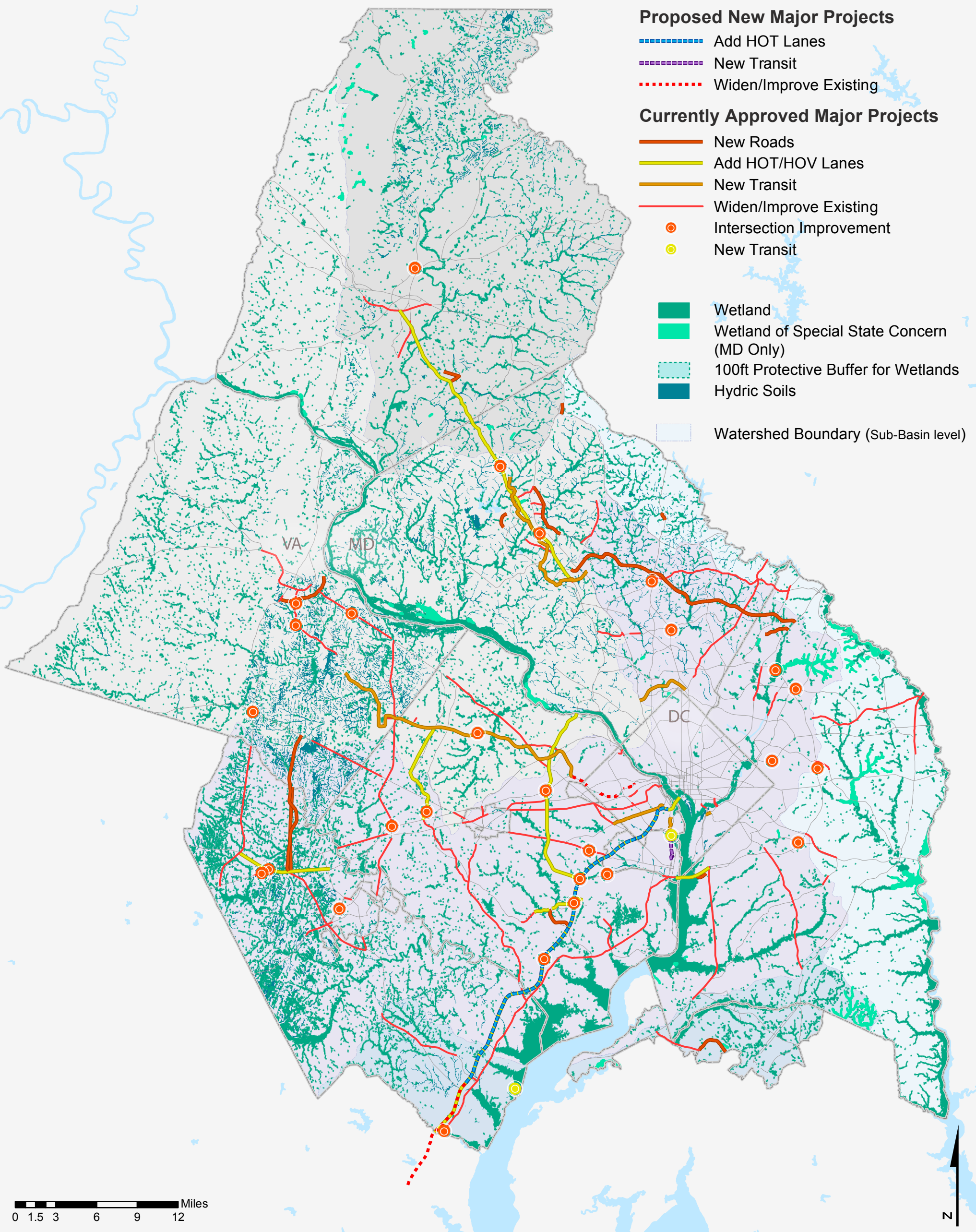
This floodplain data was obtained at the county level for Maryland and Virginia and for the entire District of Columbia. The data used is Q3 flood data developed by the Federal Emergency Management Agency in 1996 from FEMA's Flood Insurance Rate Maps.

The data includes floodplain zones that are standardized to the 100-year flood, which are designated as Special Flood Hazard Areas. These areas have a one percent chance of being flooded in any given year.

The 100 year floodplains represented in this map were delineated by excluding all areas outside of a Special Flood Hazard Area.

All TPB counties and cities were included in the floodplain analysis except for Arlington County, for which digital data development is still underway by FEMA. This map will be updated when this data becomes available.





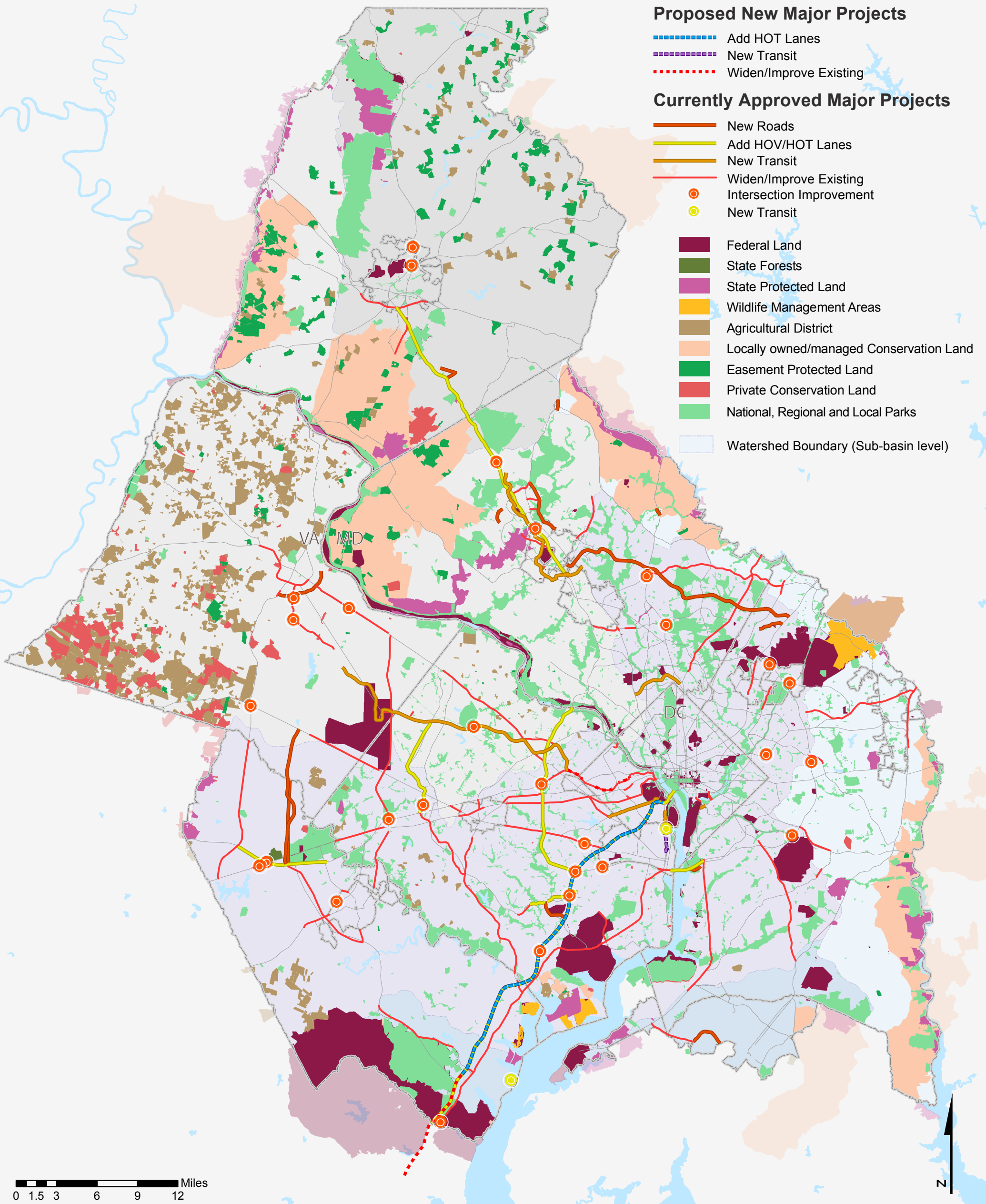
The wetland data represented in this map was obtained from the Maryland Department of Natural Resources and the US Fish and Wildlife Service's (USFWS) National Wetlands Inventory (NWI).

The Wetland layer represents the NWI and identifies land where saturation with water is a dominant characteristic, which often determines wetland-specific soil properties and the plant and animal life. The Wetlands of Special State Concern layer is state data, currently available only in MD. It delineates wetlands with rare, threatened, endangered species or that provide unique habitat so that they may receive special attention. The NWI provides the general basis for wetlands identification in this layer.

The 100-foot buffer layer represents a protective buffer from development for all wetlands, which is a generally accepted environmental best practice in order to adequately protect wetland habitat and its environmental functions.

The NWI maps do not show all wetlands and, as suggested by USFWS, hydric soil data developed by the National Cooperative Soil Survey was obtained from the U.S. Department of Agriculture. This national-level data was added to delineate possible wetlands because these soils, which are saturated or inundated long enough to support hydrophytic vegetation, possess unique properties normally associated with wetlands. Hydric soil spatial information was not available for Prince George's County, Charles County, and Fairfax County. However, when this data becomes available this map will be updated.

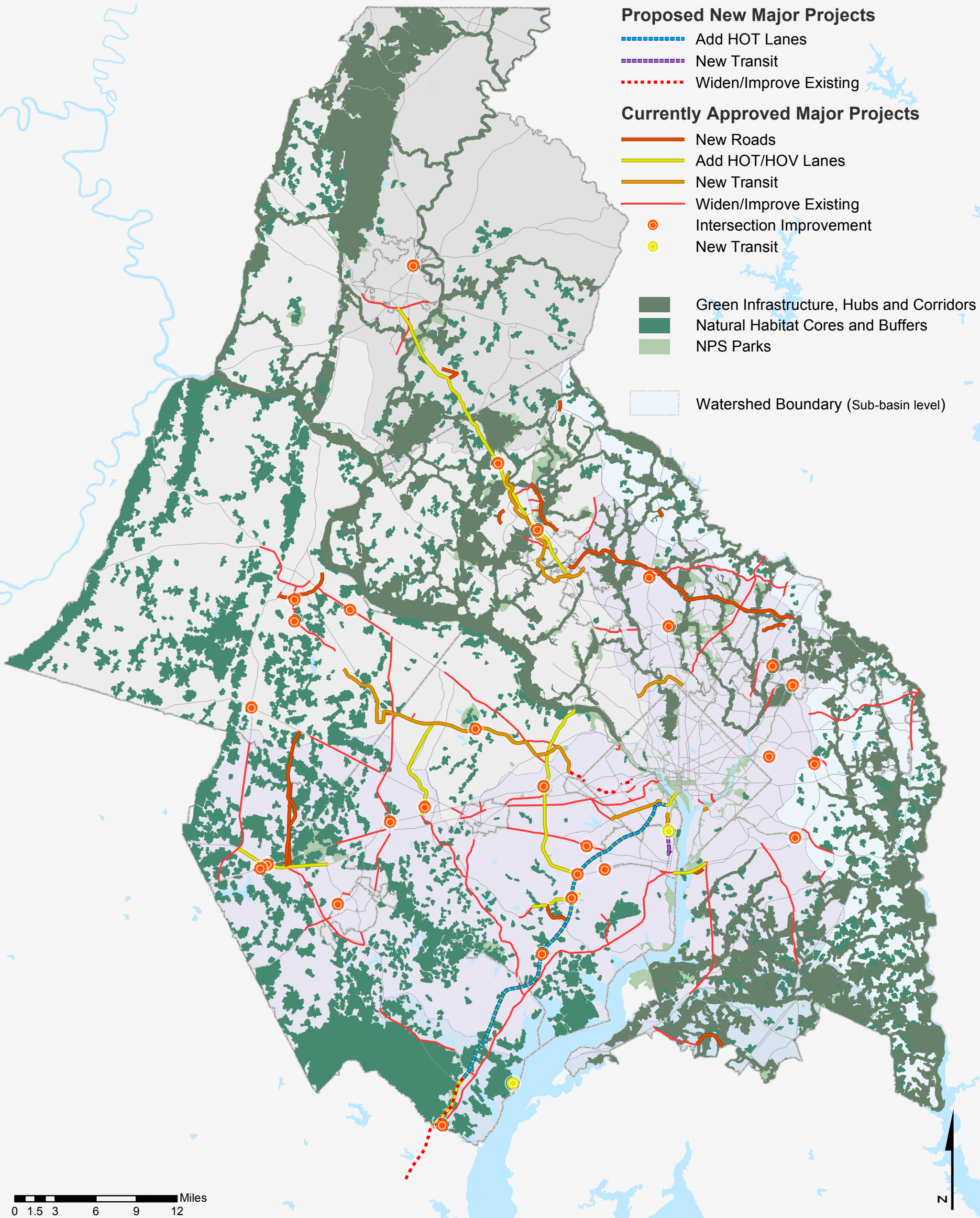




Each layer in this map is a generalized category with multiple layers of specific conservation data at the national, state and local level, obtained from the Maryland Department of Natural Resources and the Virginia Department of Conservation and Recreation-Division of Natural Heritage. The information presented is thus intended to provide a general picture of protected lands in the TPB region and will be updated as more complete data becomes available.

The State Forests layer includes state managed forests in Virginia, however no protected forest land fell within the TPB boundary in Maryland. State Protected Land includes lands owned and protected by the state, such as state parks and natural area preserves. The Wildlife Management Areas layer is nationally compiled data obtained from the US Fish and Wildlife Service that delineates boundaries for National Wildlife Refuges. Easement Protected land includes all open land, such as farmland, forest land, and areas with significant natural resources, that are protected through conservation easements, perpetual agricultural easements, permanent environmental easements managed by the Maryland Environmental Trust, and easements held by the Virginia Outdoors Foundation. Private Conservation Lands include non-profit fee-simple lands and lands protected through private conservation organization ownership. The Agricultural Districts layer represents land that has been protected from non-agricultural uses as designated in both Maryland and Virginia. The Federal lands layer includes lands protected through federal agency ownership, such as federal parks, wildlife preserves and office complexes and was taken from the the National Atlas of the United States. The map also depicts locally owned/managed conservation lands, including rural areas designated as significant to the community and the state by local governments and land trusts in Maryland. Lastly the map shows National Park Service parkland and local and regional parks.

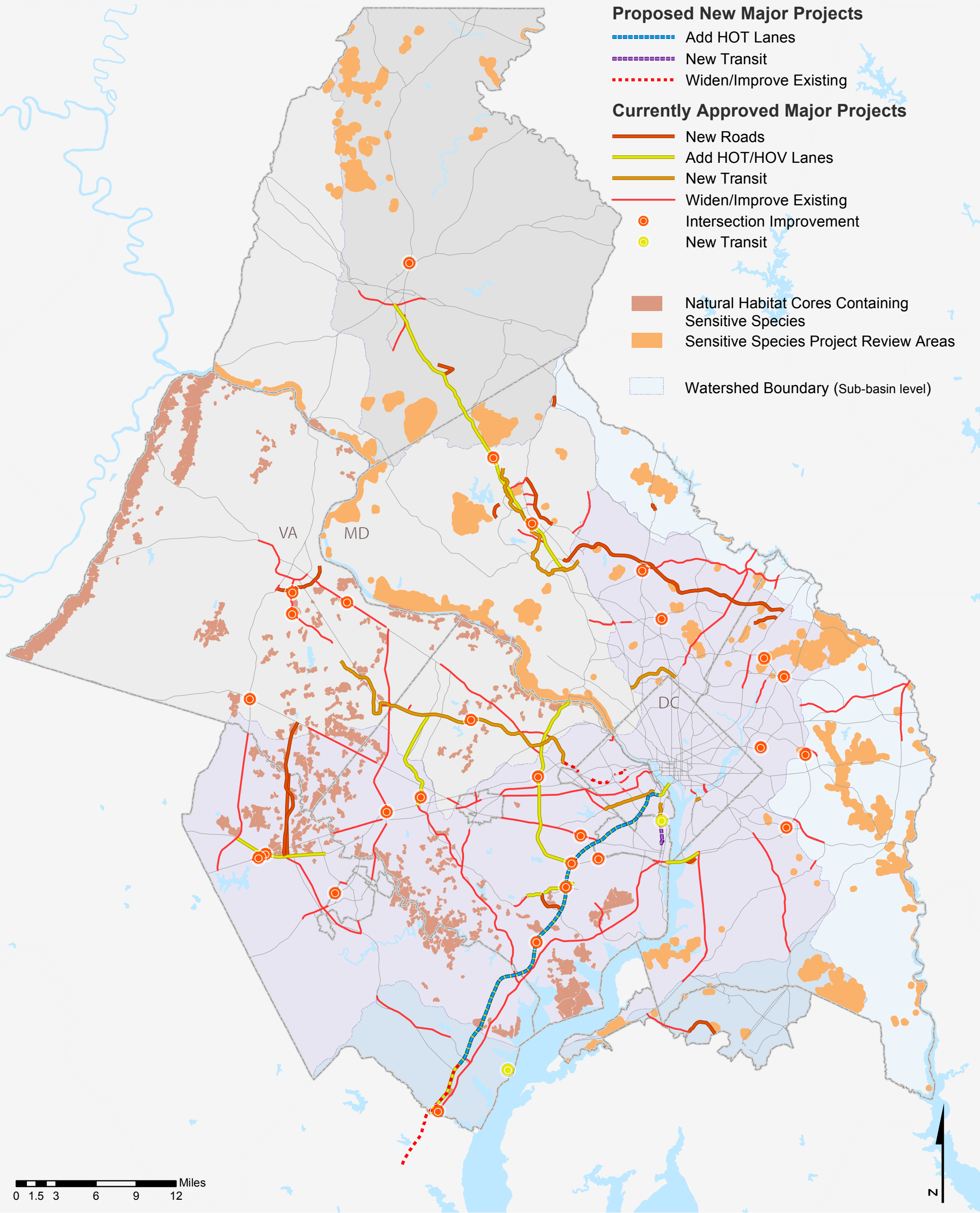




The green infrastructure data represented in this map was obtained from the Maryland Department of Natural Resources and the Virginia Department of Conservation and Recreation—Division of Natural Heritage.

The Natural Habitat Cores and buffers layer was derived from Virginia Conservation Lands Needs Assessment data representing “cores,” or unfragmented natural habitats and large patches of natural land cover with at least 100 acres of interior conditions, and “natural landscape blocks,” or slightly fragmented areas of natural cover that buffer cores from major roads and human land uses. NLBs classify Deciduous Forests, Evergreen Forests, Mixed forests, Deciduous Wooded Wetlands, Evergreen Wooded Wetlands, Emergent Herbaceous Wetlands, Mixed Wetlands, Undeveloped Beaches/Dunes, and Maritime Grasses as natural land and do not contain areas of detected and estimated human disturbance.

The Maryland Green Infrastructure, Hubs and Corridors layer shows a) “hubs,” which are large contiguous areas (at least 100 acres) of interior forest, unmodified wetlands, important animal and plant habitats, sensitive aquatic habitats, and/or existing protected natural resource lands that buffered from major roads and/or human land uses; and b) “corridors,” which connect generally similar types of hubs together to help animals and plant propagules to move between hubs.

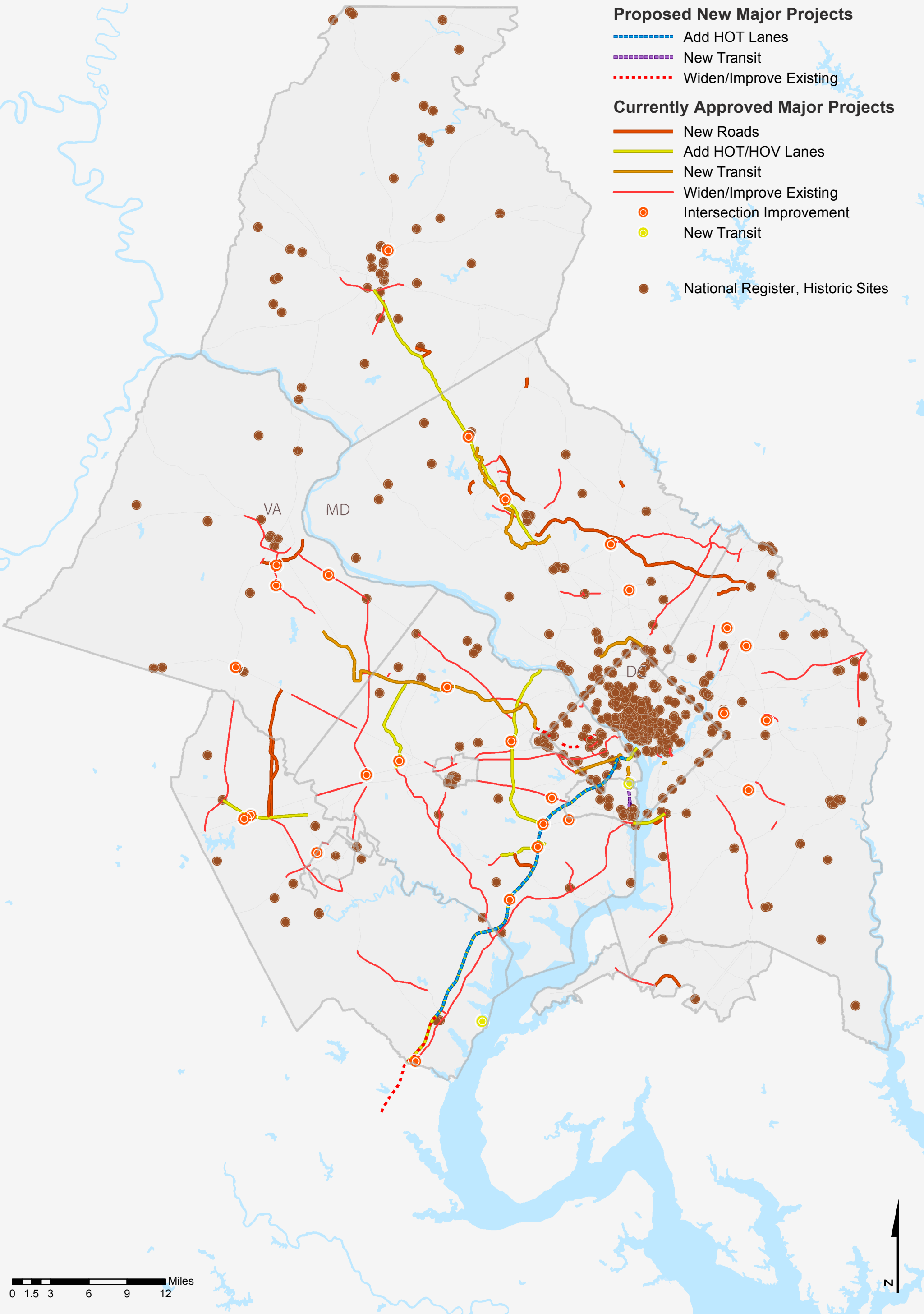


The sensitive species data represented in this map was obtained from the Maryland Department of Natural Resources (DNR) and the Virginia Department of Conservation and Recreation-Division of Natural Heritage (VDCR-DNH). MD and VA define areas containing sensitive species differently as described below. However, the datasets allow for general comparison.

The Natural Habitat Cores layer was derived from Virginia Conservation Lands Needs Assessment (VCLNA) data representing "cores," or unfragmented natural habitats and large patches of natural land cover with at least 100 acres of interior conditions. The cores represented in this map contain potential and confirmed habitats of more than 1 acre for Tier 1 species, the species of greatest conservation need in Virginia. The VCLNA data was developed by the VDCR-DNH and includes input from the Virginia Department of Game and Inland Fisheries' Wildlife Action Plan.

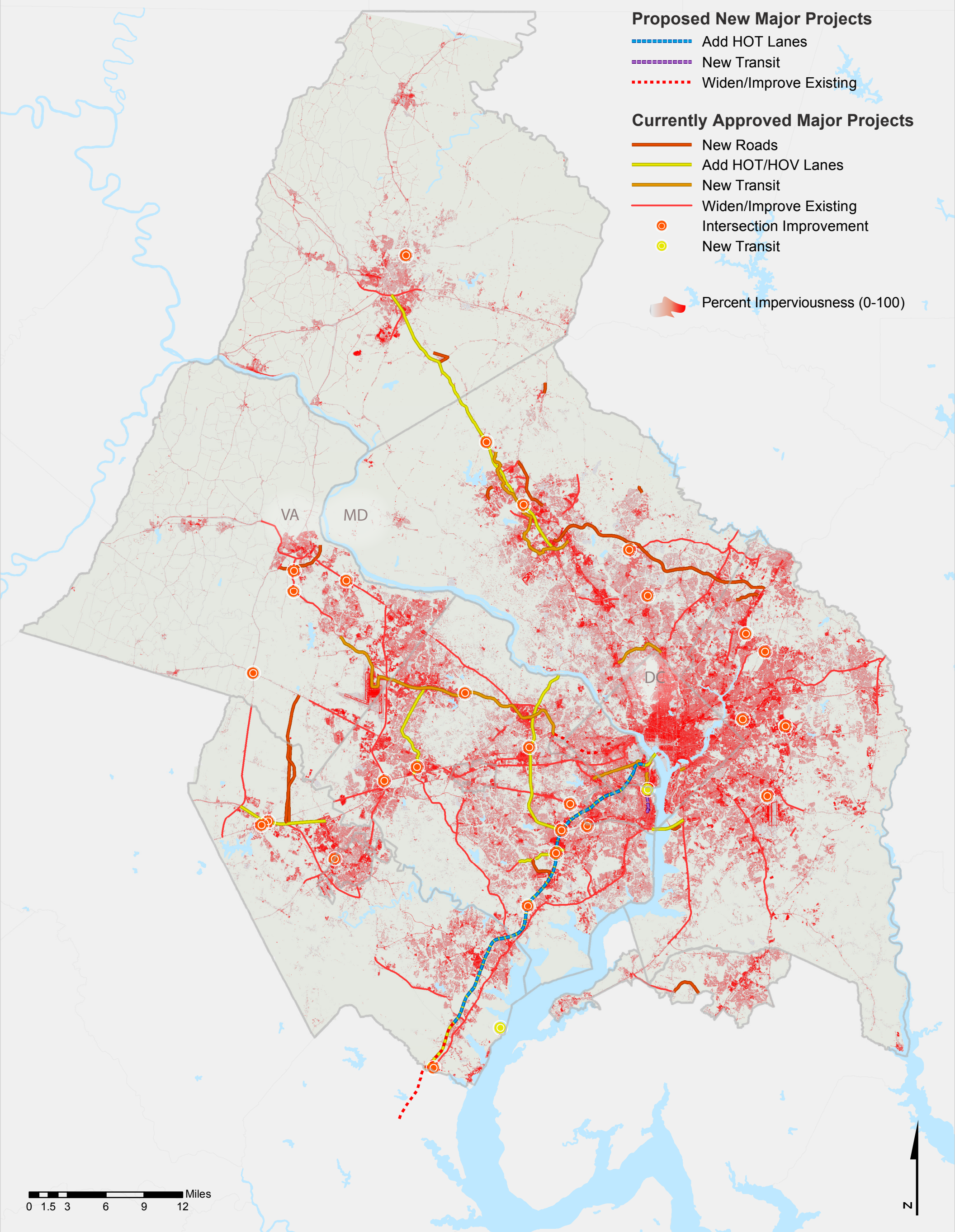
The Maryland Sensitive Species Project Review Areas shows buffered areas that primarily contain habitat for rare, threatened, and endangered species and rare natural community types. It generally includes regulated areas as Natural Heritage Areas, Wetlands of Special State Concern, Colonial Waterbird Colonies, and Habitat Protection Areas. This data is intended to inform the local jurisdictions and state agencies in assessing environmental impacts and reviewing potential development projects or land use changes. THIS MAP IS IN THE PROCESS OF BEING UPDATED.





The Historic Sites layer was derived from the National Register of Historic Places as administered by the National Park Service. The sites included in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. All of these sites are evaluated according to uniform standards that qualify them for preservation and consideration in the planning process.





Impervious surface data was produced by the Mid-Atlantic Regional Earth Science Applications Center (RESAC). The percent imperviousness is a calculation of the amount of impervious surface within each 30 meter pixel, which was derived from analysis of multi-spectral satellite imagery (Landsat TM) acquired between 1999 and 2000. The map depicts this percent impervious with a range from white depicting no impervious land within the 30 meter pixel to bright red depicting 100% impervious land in the 30 meter pixel.

Based on analysis of this data, regional impervious surface calculations were made. In 2000, 17% of the region's total land area was found to be impervious surface, such as buildings and pavement.

The RESAC data does not cover 100% of the TPB jurisdiction, leaving out a portion of the northwestern tip of Loudoun County, Virginia. This area comprises less than 1% of the TPB area (17,853,300 square meters).