

# Virginia Master Naturalist



Volunteer educators, citizen scientists, and stewards helping Virginians conserve and manage natural resources and public lands

## **Mission:**

The Virginia Master Naturalist program is a statewide corps of volunteers providing education, outreach, and service dedicated to the beneficial management of natural resources and natural areas within their communities.



# 4,580 trainees



**1700+ active volunteers**





**>803,000 hours  
(\$19.6 M) of  
service**

# Virginia Master Naturalist Sponsors

Sponsored by 7 agencies:



Also supported by:



# VA Department of Forestry



**Protects** 15.8 million acres of forest land from fire, insects and disease.

**Manages** 17 State Forests and other state lands totaling 47,899 acres for timber, recreation, water, research, wildlife and biodiversity.

**Assists** non-industrial private forest landowners through professional forestry advice and technical management programs.



<http://www.dof.virginia.gov>

# VA Department of Game and Inland Fisheries



Manages Virginia's wildlife and inland fish to maintain optimum populations of all species to serve the needs of the Commonwealth

Provides opportunity for all to enjoy wildlife, inland fish, boating and related outdoor recreation; to promote safety for persons and property in connection with boating, hunting and fishing.



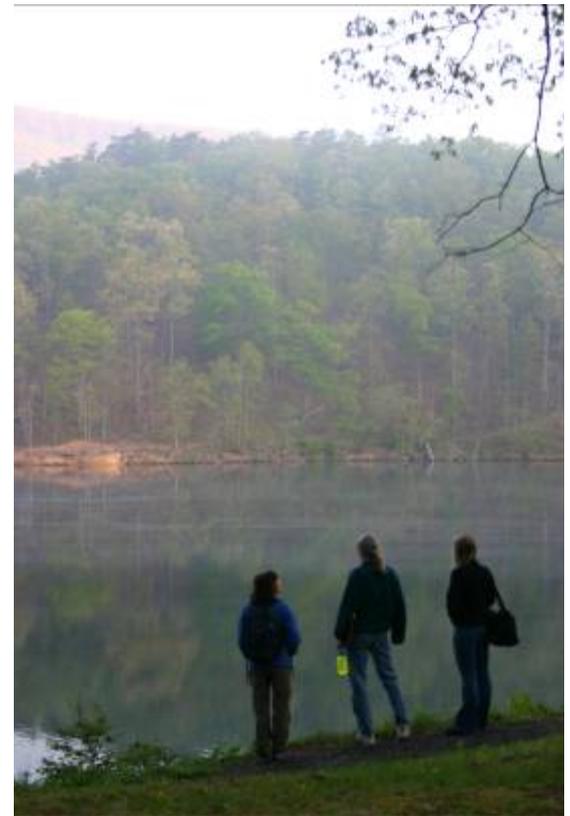
<http://www.dgif.virginia.gov>

# VA Department of Conservation and Recreation



Works with Virginians to conserve, protect, and enhance their lands and improve the quality of the Chesapeake Bay and our rivers and streams, promotes the stewardship and enjoyment of natural, cultural and outdoor recreational resources, and insures the safety of Virginia's dams.

- State Parks
- Soil and Water Conservation
- Natural Heritage Program
- Dam safety and floodplain management
- Land conservation
- Recreation planning
- Chesapeake Bay Local Assistance
- Virginia Office of Environmental Education



<http://www.dcr.virginia.gov>

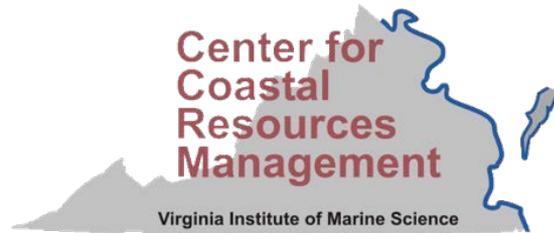
# Virginia Department of Environmental Quality



- Protects and improves the environment for the well-being of all Virginians.
- Administers state and federal laws and regulations for air quality, water quality, water supply and waste management.
- DEQ issues permits, conducts inspections and monitoring, and enforces regulations and permits
- Organizes citizen water quality monitoring



# Virginia Institute of Marine Sciences: Center for Coastal Resources Management



The Center for Coastal Resources Management (CCRM) develops and supports integrated and adaptive management of coastal zone resources. To fulfill this mission, the Center undertakes research, provides advisory service, and conducts outreach education.



[ccrm.vims.edu](http://ccrm.vims.edu)

# Virginia Museum of Natural History



Interprets Virginia's natural heritage within a global context in ways that are relevant to all citizens of the Commonwealth.

- Maintains a state museum to provide a repository of the state's natural heritage
- Investigates natural history of Virginia and the world



<http://www.vmnh.net>

# Virginia Cooperative Extension



Enables people to improve their lives through an educational process that uses scientific knowledge focused on issues and needs.

A joint program among:

- Virginia's land grant universities (Virginia Tech and Virginia State)
- United States Department of Agriculture
- State and local governments

Program Areas:

- agriculture and natural resources
- 4-H youth development
- family and consumer sciences
- community viability



<http://www.ext.vt.edu>

# Program Structure

## Local Partners

Providing training and volunteer opportunities

## Chapter Advisor

Local representative of one of the 7 sponsoring agencies

## Chapters

Led by volunteer officers and committee chairs

Made up of certified Virginia Master Naturalists and individuals working towards certification

## Executive Committee

Represents the sponsoring agencies and makes final decisions about policy, personnel, and budget.

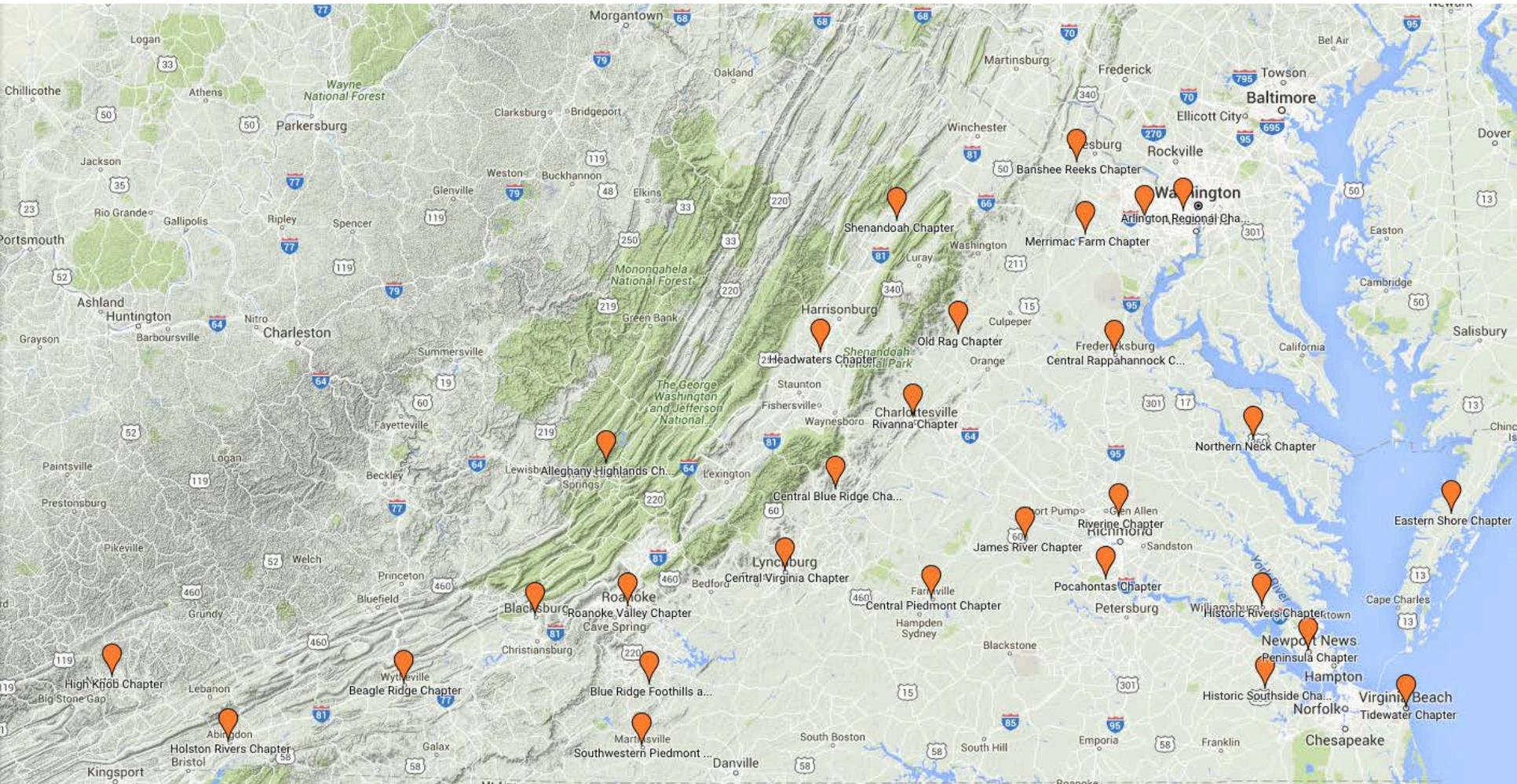
## State Office

*(Director, ½ time Project Assistant, ½ time Volunteer Coordinator)*  
Leads program development, supports operations of program, provides a central source for program information

## Steering Committee

Develops program policies and advises program operations. Approves chapter activities.

# Virginia Master Naturalist Chapters



# Certification Process

## Basic Training

40 hours

Classroom and field experiences

Natural history, conservation and management, teaching and research skills

Led by local experts

+

## Continuing Education

8 hours

Specialized topics that build on basic training

Required annually to maintain certification

+

## Volunteer Service

40 hours

Education, citizen science, or stewardship

Required annually to maintain certification

=

Certified Virginia Master Naturalist

# A Virginia Master Naturalist Knows...

- Mission, objectives, and guidelines of the program
- Significance of naturalists and natural history
- Biogeography of Virginia
- Ecology (basic concepts)
- Geology (basic concepts)
- Resource management (basic principles)
- Some native flora and fauna in the region
- Process of science
- Roles of Virginia state agencies in the management and conservation of natural resources



# A Virginia Master Naturalist Can...

- Use a key to identify organisms
- Use a field guide
- Share knowledge with others
- Make and record observations in nature
- Recognize when he or she does not know the answer to a question, but be able to seek out answers from people, books, or other reliable resources



# Education



# Citizen Science



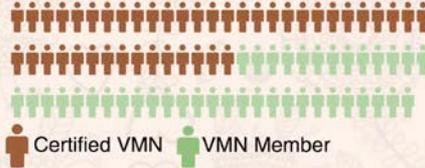
# Stewardship

# Virginia Master Naturalist Tidewater Chapter



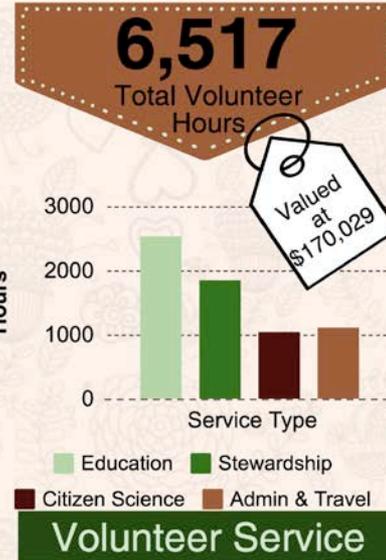
2016 Annual Report Snapshot

## Chapter Membership



**64** active volunteers  
reporting service in 2016

**14** new volunteers  
trained and graduated in 2016



## 2016 Accomplishments

### Helping the Indian River

Volunteers provided education, citizen science, and stewardship centered on the Indian River, including clean-ups, trail maintenance, and a public BioBlitz.

### Connecting Youth to Nature

Volunteers organized and piloted a unique Junior Master Naturalist program in which, with mentoring by chapter members, trained teen instructors led nature lessons and field experiences for younger youth.



**Provided stewardship at 25 sites**

**Contributed to 19+ citizen science studies of natural resources**

**Made 8,235 contacts through educational programs**

# Urban and Developed Systems Ecology and Management



## Virginia Master Naturalist Basic Training



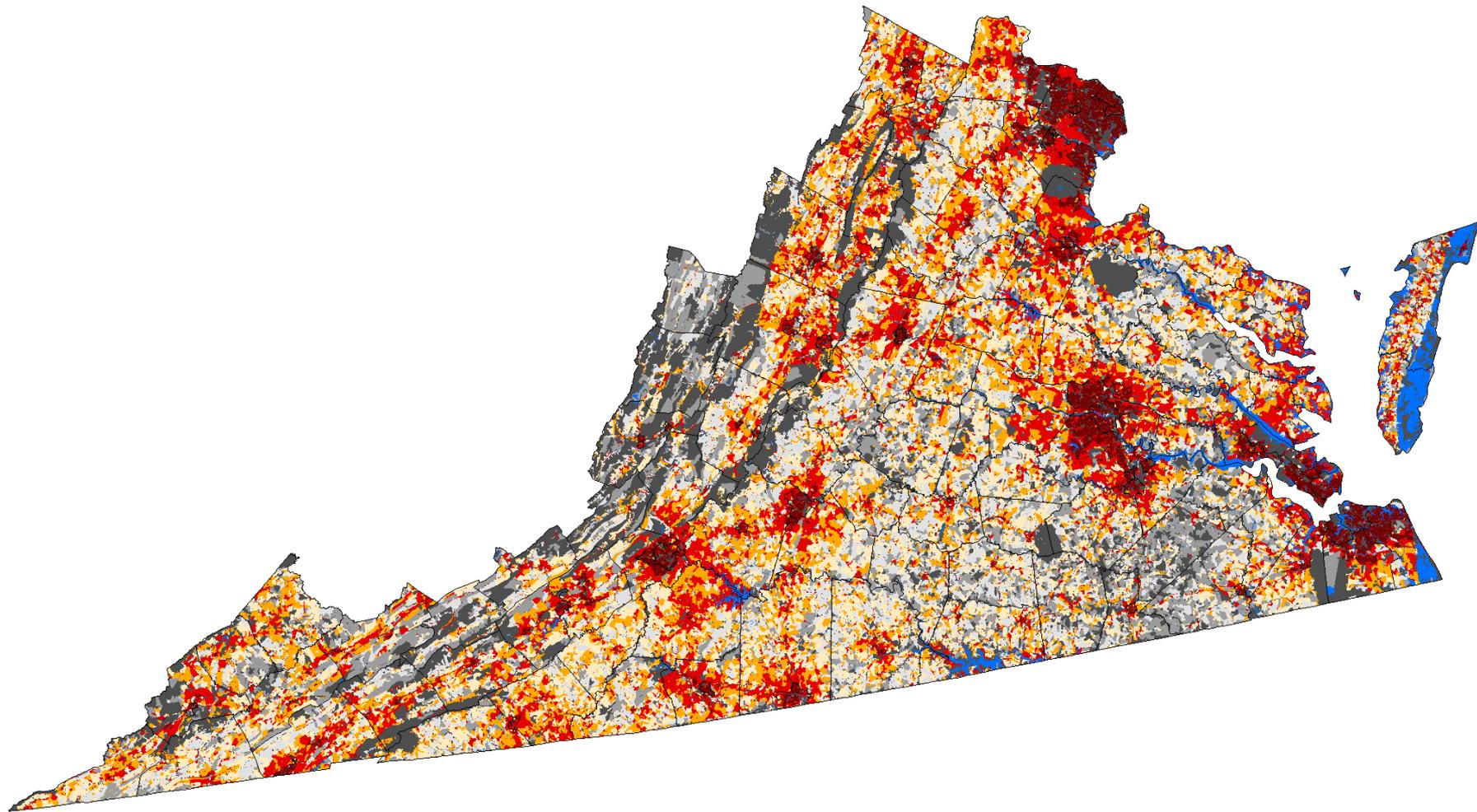




# Road Map

- I. Ecology of developed systems
- II. Management practices to improve ecosystem function
- III. Volunteer projects for Virginia Master Naturalists

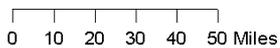




# Virginia

## 2010 Block Level Housing Density

Units / square km



Copyright 2012

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 University of Wisconsin-Madison  
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Source: 2010 U.S. Census Data





SOILS



FLORA



AIR QUALITY & MICROCLIMATE

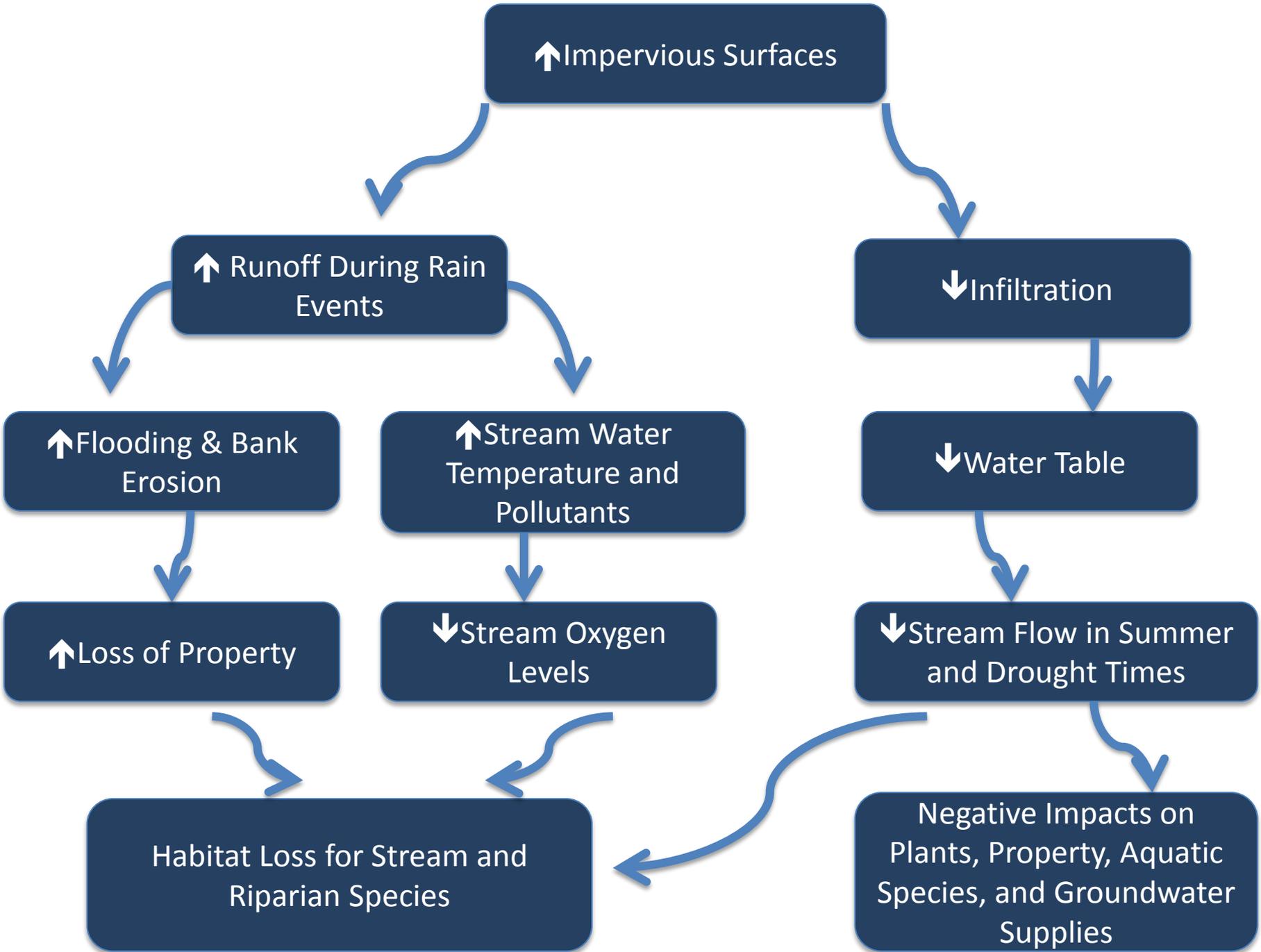


HYDROLOGY



FAUNA

UGA1330014



↑ Impervious Surfaces

↑ Runoff During Rain Events

↓ Infiltration

↑ Flooding & Bank Erosion

↑ Stream Water Temperature and Pollutants

↓ Water Table

↑ Loss of Property

↓ Stream Oxygen Levels

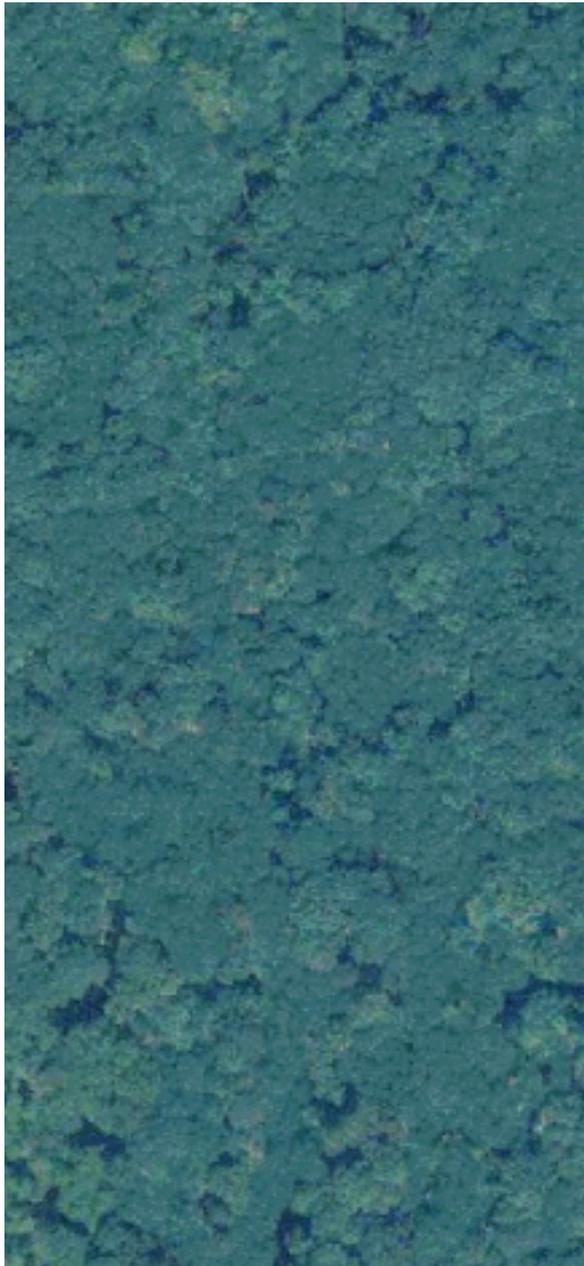
↓ Stream Flow in Summer and Drought Times

Habitat Loss for Stream and Riparian Species

Negative Impacts on Plants, Property, Aquatic Species, and Groundwater Supplies



[http://www.dcr.virginia.gov/natural\\_heritage/invspinfo.shtml](http://www.dcr.virginia.gov/natural_heritage/invspinfo.shtml)





bryant









It's Our Future

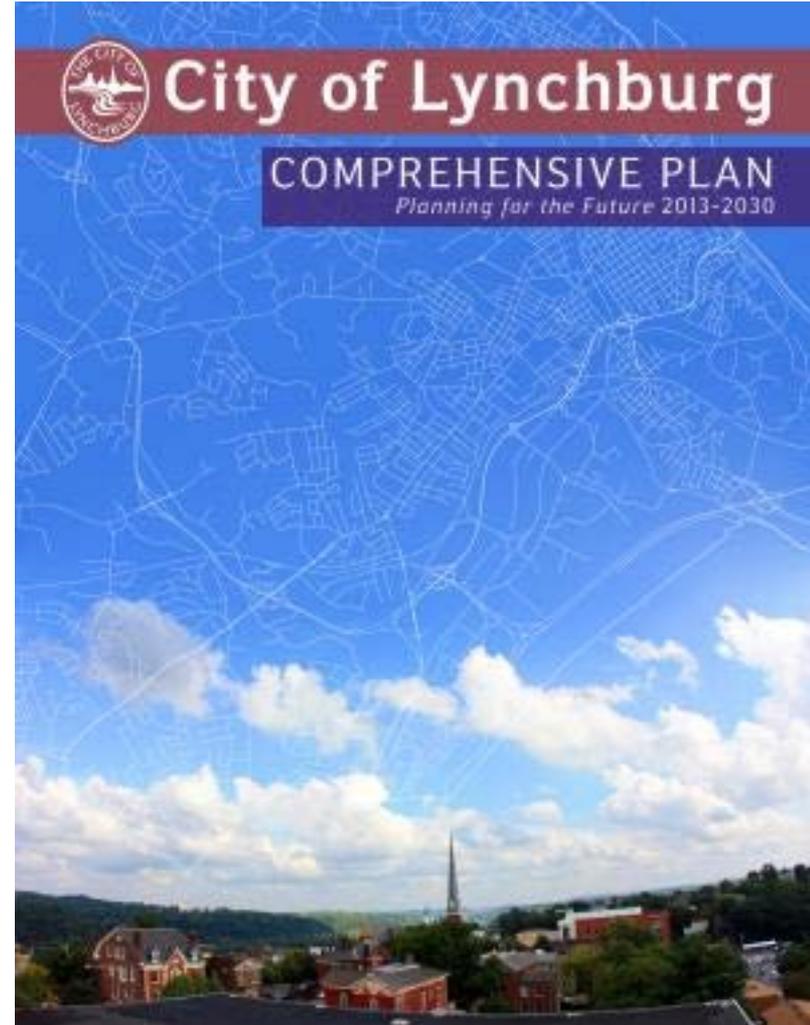
Adopted: December 8, 2009  
 Amended: May 11, 2010; July 6, 2010; January 25, 2011;  
 April 26, 2011; September 13, 2011; December 6, 2011;  
 February 14, 2012; April 24, 2012; August 28, 2012;  
 March 26, 2013; January 14, 2014; February 25, 2014



**CITY OF VIRGINIA BEACH**  
**COMPREHENSIVE PLAN** Policy Document

July 28, 2014 Planning Commission DRAFT

Washington County, Virginia  
**2014 Comprehensive Plan**





# Acknowledgements

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# Stay in touch with the Virginia Master Naturalist Program!

[www.VirginiaMasterNaturalist.org](http://www.VirginiaMasterNaturalist.org)

[www.virginiamasternaturalist.smugmug.com](http://www.virginiamasternaturalist.smugmug.com)

[www.facebook.com/VirginiaMasterNaturalist](http://www.facebook.com/VirginiaMasterNaturalist)

[twitter.com/VA\\_Naturalists](http://twitter.com/VA_Naturalists)





# Virginia Master Naturalist



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