State Specific Training Module for Virginia

In this Module

This module provides a review of the following topics.

- State Laws
- State Field Office Technical Guide (FOTG)
- Important State Resources/Issues
- Facts about Virginia
  - Major Land Uses
  - Major Rivers/Watersheds
  - Major Land Ownership
  - Agronomic Data
- TSP Workflow

Purpose of this Module

This module will provide awareness level of information about applicable State Laws and Regulations that individuals need to provide conservation planning assistance in Virginia.

This module does NOT cover all NRCS Policies and Federal Laws & Regulations applicable to the Technical Service Provider program or conservation planning.

The TSP applicant is expected and required to follow-up with additional reading or training to make sure they have the knowledge, skill, licenses and certifications to conduct conservation planning in Virginia.

Review of Virginia State Laws*

** The following information on State Laws is not all inclusive but do identify the more common laws related to conservation planning in Virginia.*

Review of Virginia State Laws

Article 13. Foresters

§ 10.1-1181.8. Definitions

§ 10.1-1181.9. Requirements for forester title.

Definitions:

"Forester" means any person who is engaged in the science, profession and practices of forestry and who possesses the qualifications required by this article.

"Forestry" means the science, art and practice of creating, managing, using and conserving forests and associated natural resources for human benefit and in a sustainable manner to meet desired goals, needs, and values.

Requirements of Forester's title.

A. In order to use the title of forester in connection with any practice of forestry, the person shall (i) hold a Bachelorette or higher degree from a public or private institution of higher education, having completed a degree program that (a) is accredited by the Society of American Foresters (the Society) and (b) meets the minimum education criteria set forth by the Society in the fields of forest ecology and biology, management of forest resources, and forest resources policy and administration or (ii) have met the educational criteria for Certified Forester as reviewed and officially recognized in writing by the Society

For more information visit:

Code of Virginia Code - Chapter 11. Forest Resources and the Department of Forestry

Review of Virginia State Laws

Article 6. Forest Warden & Fires.

§ 10.1-1142. Regulating the burning of woods, brush, etc.; penalties.

The VA Department of Forestry provides a three-day program with sessions on fire behavior, environmental effects of fire and smoke management. Those who successfully complete the three-day program will become a Certified Prescribed Burn Manager.

4 PM Burning Law (§10.1-1142 B)

- February 15 to April 30, restricting open air burning until after 4:00 p.m.

For more information visit:

https://dof.virginia.gov/wildland-prescribed-fire

Review of Virginia State Laws

Title 10.1 Conservation
Subtitle I – Activities Administered by the Department of Conservation & Recreation
Chapter 1 General Provisions, Article 1 DCR

§ 10.1-104.2. Voluntary nutrient management training and certification program

The department, shall operate a voluntary nutrient management training and certification program to certify, in accordance with regulations adopted by the Virginia Soil and Water Conservation Board pursuant to subsection D, the competence of persons preparing nutrient management plans for the purpose of (i) assisting land owners and operators in the management of land application of fertilizers, municipal sewage sludges, animal manures and other nutrient sources for agronomic benefits and for the protection of the Commonwealth's ground and surface waters and (ii) assisting owners and operators of agricultural land and turf to achieve economic benefits from the effective management and application of nutrients.

Certificates are valid for two years and can be renewed on or before the expiration date.

For more information visit: Virginia Nutrient Management Program

Review of Virginia State Laws

Title 62.1 Waters of the State, Ports & Harbors
Chapter 3.1 State Water Control Law
Article 3. Regulation of industrial Establishments
§ 62.1-44.17:1. Permits for confined animal feeding operations.

Confined Animal Feeding Operations are required to implement and maintain on site a nutrient management plan approved pursuant to Subdivision 1 of Subsection C. The Nutrient Management Plan shall contain, at a minimum, the following information: (i) a site map indicating the location of the waste storage facilities and the fields where waste will be applied; (ii) site evaluation and assessment of soil types and potential productivities, (iii) nutrient management sampling, including soil and waste monitoring; (iv) storage and land area requirements; (v) calculation of waste application rates; (vi) waste application schedules; and (vii) a plan for waste utilization in the event the operation is discontinued.

For more information visit:

§ 62.1-44.17:1. Permits for confined animal feeding operations (virginia.gov)

Review of Virginia State Laws

Chapter 39 -- Pesticide Control

Article 3. Pesticide Application and Certification

§ 3.2-3930. Application and certification of commercial applicators

The Virginia Department of Agriculture and Consumer Services, through Cooperative Extension, manages the Certified Pesticide Applicator program. There are multiple levels of certification available, as well as possible reciprocal recertification for out-of-state commercial or private applicators who were granted certificates via reciprocity (conditions apply).

Certificates are valid for two years.

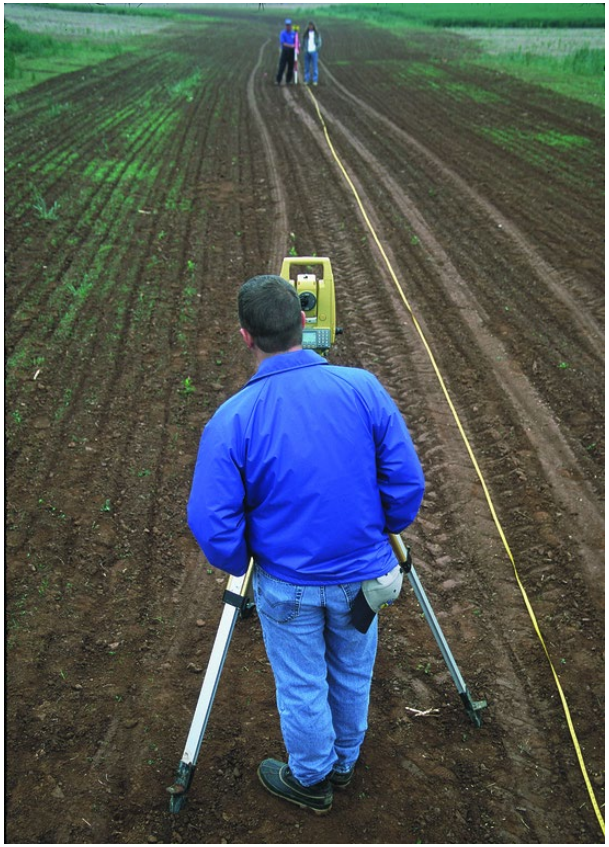
For more information visit:
Pesticides (virginia.gov) or Code of Virginia Code - Article 3. Pesticide Application and Certification

Review of Virginia State Laws

Chapter 4 – Architects, Engineers, Surveyors, Landscape Architects, & Interior Designers

§ 54.1-406. License required.

Unless exempted by § 54.1-401, 54.1-402, or 54.1-402.1, a person shall hold a valid license prior to engaging in the practice of architecture or engineering, which includes design, consultation, evaluation or analysis and involves proposed or existing improvements to real property.



For more information, visit:

Chapter 4 - Architects, Engineers, Surveyors, Landscape Architects and Interior Designers (54.1-400 thru 54.1-415) - Virginia Statutes (laws.com)

Review of Virginia State Laws
Professional Engineer

According to the National Engineering Manual, Part 501.0, "Engineering practices have the potential, upon failure, to affect public health and safety and cause loss of life and significant property damage, depending on the size, location, and complexity of the work. For this reason, the practice of engineering is regulated by State law governing professional engineering, requiring professional registration as described in Title 210, General Manual (GM), Part 402, "Professional Engineering."

- Title 210, General Manual (GM), Part 402.4 - Work by Others provides additional guidance.

Review of Virginia State Laws
Professional Engineer

- The design and implementation of many NRCS engineering practices within the state requires services of a Professional Engineer licensed to practice in the state. NRCS engineering practices are those listed in the National Handbook of Conservation Practices as having a Lead Discipline from the Conservation Engineering Division (CED).

- It is the responsibility of the TSP to determine whether the services contemplated are subject to state law that governs the practice of engineering.

Review of Virginia State Laws

Chapter 6 Article 2.1 Private Well Construction

§ 32.1-176.5. Construction permit; local government authority to require analysis of water.

"Private well" means any water well constructed for a person on land which is owned or leased by that person and is usually intended for household, ground water source heat pump, agricultural use, industrial use or other nonpublic water well.

"Site plan" means a sketch of a parcel of land, showing the property boundaries, the proposed site of the water well, and any potential sources of contamination.

For more information, visit:

Code of Virginia Code - Article 2.1. Private Well Construction

Review of Virginia State Laws

Title 32.2.1 Health Chapter 6 – Environmental Health Services
Article 2.1 Private Well Construction

§ 32.1-176.5. Construction permit; local government authority to require analysis of water.

Any person intending to construct a private well shall apply to the Department for and receive a permit before proceeding with construction. The permit application shall include a site plan. No survey plat shall be required. In all cases, it shall be the landowner's responsibility to ensure that the water well is properly located on the landowner's property. This permit shall be issued no later than 60 days from application and in accordance with the Board's regulations. In addition, an inspection shall be made after construction to assure that the construction standards are met.

Some counties and independent cities may require testing to determine compliance with existing federal and state drinking water requirements.

§ 32.1-176.5:2. Prohibition on private well construction. A. No private well shall be constructed within 50 feet of the property line with an adjacent property of three acres or larger that is used for an agricultural operation, as defined in § 3.2-300. The following shall be exempt: (i) the owner of the adjacent property that is used for an agricultural operation may grant written permission for construction within 50 feet of the property line; or (ii) certification that no other site on the property complies with the Board's regulations for the construction of a private well.

Review of Virginia State Laws

Title 3.2 Agriculture, Animal Care, Food
Subtitle I General Provisions, Protection & Promotion of Agriculture
Chapter 8 Noxious Weeds
§ 3.2-800. to § 3.2-800.9

The law defines a "Noxious Weed" as any living plant, or part thereof, declared by the Board through regulations under this chapter to be detrimental to crops, surface waters, including lakes, or other desirable plants, livestock, land or other property, or to be injurious to public health, the environment, or the economy, except when in-state production of such living plant, or part thereof, is commercially viable or such living plant is commercially propagated in Virginia.

Cirsium arvense, (Canada thistle)
Photo: Oregon State University

For more information, visit:

Code of Virginia Code - Chapter 8. Noxious Weeds

Review of Virginia State Laws

Noxious Weeds

"Tier 1 noxious weed" means any noxious weed that is not known to be present in the Commonwealth.	"Tier 2 noxious weed" means any noxious weed that is present in the Commonwealth and for which successful eradication or suppression is feasible.	"Tier 3 noxious weed" means any noxious weed (i) that is present in the Commonwealth, (ii) whose spread may be slowed by restrictions on its movement, and (iii) for which successful eradication or suppression is not feasible.
1. Salvinia molesta, Giant salvinia.	1. Imperata cylindrica, Cogon grass.	1. Ailanthus altissima, Tree of heaven.
2. Solanum viarum, Tropical soda apple.	2. Lythrum salicaria, Purple loosestrife.	2. Ampelopsis brevipedunculata, Porcelain berry.
3. Heracleum mantegazzianum, Giant hogweed.	3. Ipomoea aquatica, Water spinach.	3. Celastrus orbiculatus, Oriental bittersweet.
	4. Vitex rotundifolia, Beach vitex.	4. Hydrilla verticillata, Hydrilla.
	5. Oplismenus hirtellus spp. undulatifolius, Wavyleaf basketgrass.	5. Persicaria perfoliata, Mile-a-minute weed.
	6. Corydalis incisa, Incised fumewort.	

Review of Virginia State Laws

Title 3.2 Agriculture, Animal Care, Food
Chapter 36 Fertilizer
§ 3.2-3600 to § 3.2-3625

The law defines an "Industrial co-product" as any industrial waste or byproduct, including exceptional quality biosolids and waste treatment residuals, that can be beneficially recycles for its plant nutrient content or soil amendments characteristics, that meets the definition of fertilizer, soil amendment, or horticultural growing medium.

For more information, visit:
https://law.lis.virginia.gov/vacode/title3.2/chapter36/

Review of Virginia State Laws

Title 3.2 Agriculture, Animal Care, Food
Subtitle I, General Provisions: Protection & Promotion of Agriculture
Chapter 10 – Endangered Plants and Insect Species
§ 3.2-1000 to § 3.2-1011

- **Virginia** law covers Endangered Plants and Insect Species. Additional information can be found in the National Environmental Policy Act (NEPA) and the Virginia Environmental Impact Report procedure (VA EIR). See https://ceq.doe.gov/laws-regulations/states.html for more information.
- Not every state has the same types of protections for endangered species at the "state" level.

For more information, visit:

https://www.nrcs.usda.gov/resources/guides-and-instructions/nrcs-environmental-evaluation-cpa-52-worksheet-tools-and-training

Review of Virginia State Agencies

Virginia NRCS works with the following state agencies* to address natural resource concerns throughout the Commonwealth.

Virginia Department of Agriculture & Consumer Services
Virginia Department of Conservation & Recreation
Virginia Department of Forestry
Virginia Department of Historic Resources
Virginia Department of Wildlife Resources
Virginia Marine Resources Commission
Virginia Cooperative Extension

**This list is not all inclusive.*

Review of Virginia State Laws

Examples of Virginia One-Call regulations, includes but is not limited to:

- Excavation/Trenching for construction of conservation practices

For more information, visit: Home - VA 811

Review of Virginia Field Office Tech Guide (FOTG)

Field Office Technical Guide (FOTG) - Virginia

- Serves as scientific references for NRCS, containing technical information about the conservation of soil, water, air, and related plant and animal resources.
- Localized for each field office
- Applies specifically to the geographic area for which they were prepared
- Updated on a continuous basis, some on an annual basis

Field Office Technical Guide (FOTG) - Virginia

- Planners should be thoroughly familiar with all sections and information contained within the Virginia Field Office Technical Guide (FOTG) being considered as part of the offered alternatives for addressing the client's resource concerns.
- If a conservation practice (you are certified for or wish to be certified for) is not listed in the Virginia FOTG, then it is not available for Farm Bill funding in Virginia. This does not mean you cannot be or remain certified, in the event that the state will one day offer the practice.

Field Office Technical Guide (FOTG) - Virginia

- Planners should also follow the Statement of Work (SOW) requirements for each practice and utilize specifications, Technical Notes, Operation & maintenance (O&M) instructions, and job sheets that are available for the practices in the Virginia FOTG.

Field Office Technical Guide (FOTG) - Virginia

- The FOTG has five sections.

- Section I – General Resource References
- Section II – Natural & Cultural References
- Section III – Resource Concerns & Planning Criteria
- Section IV – Practice Standards/Supporting Docs
- Section V – Conservation Practice Physical Effects

Field Office Technical Guide (FOTG) - Virginia

Section I
General Resource References

General State Maps

Watershed Information

NRCS Reference Manuals and Handbooks

Conservation Practice Costs

Erosion Information

Grassland Information

Tech Guide Notices

Field Office Technical Guide (FOTG) - Virginia

Section II
Natural & Cultural References

Special Environmental Concerns

Plant Establishment Guide

Soils Information

Climatic Data

Forage Suitability Groups

Ecological Site Description

Field Office Technical Guide (FOTG) - Virginia

Section III

Resource Concerns & Planning Criteria

Resource Concerns and Checklists

Land Use/Land Cover Categories and Definitions
Conservation Activity Plans Checklists

Resource Concerns and Planning Criteria Conservation Activity Plans Development Criteria Conservation Activity Plans Templates

Resource Quality Criteria Legislated Programs

Job Approval Authority

Field Office Technical Guide (FOTG) - Virginia

Section IV

Practice Standards/Supporting Docs

- Section 4 has undergone the most significant changes to encourage consistency in document organization, including a formal naming convention for Conservation Practice Standards and Conservation Practice Documents
- Practice Standards, Supporting Documents and Templates are 508 compliant
- Virginia may modify the national Conservation Practice standards to meet local conditions and to take advantage of local technologies and resources. **Always consult the Virginia Conservation Practice Standard NOT the National Standard.**

Field Office Technical Guide (FOTG) - Virginia

Engineering Practices

- Virginia has diverse soil conditions that may impact the success of a structural practice. **Refer to the NRCS web Soil Survey and Virginia Engineering Guidance to obtain site-specific information about engineering properties.**
- Hydrologic conditions (including precipitation and runoff) vary greatly throughout Virginia, particularly East to West. **Refer to the hydrology design requirements found in FOTG for each practice standard.** Also refer to the guidance found in Virginia's Engineering Manuals and Handbooks related to hydrology.

Field Office Technical Guide (FOTG) - Virginia

Vegetative Practices

- Virginia has diverse soil conditions that may impact the success of a vegetative practice. In developing vegetative practice specifications, **planners should consider soil conditions** (such as, but not limited to landscape position, available water holding capacity, aspect, slope, drainage class, fertility level, soil depth, flooding and ponding limitations).
- Virginia uses a wide range of vegetative species in plantings for vegetative practices. In developing vegetative practice specifications, **planners must be aware of the species that will provide successful plantings for the given site conditions.**

Field Office Technical Guide (FOTG) - Virginia

Section V
Conservation Practice Physical Effects Docs

- Information used in formulating and evaluating Conservation management Systems (CMS) for resource concerns in Virginia. The information is dependent on the conservation planning disciplines (soil, agronomy, biology, forestry, engineering, etc.)
- Conservation Practice Physical Effects (CPPE) contain qualitative and quantitative descriptions.

Field Office Technical Guide (FOTG) - Virginia

Conservation Planning Policy

Conservation Planning Policy

National Planning Procedures Handbook (NPPH) Amendment 9: The purpose of the handbook is to provide guidance on the planning process for developing, implementing, and evaluating individual conservation plans.

- Document can be found in eDirectives Weblink: https://directives.sc.egov.usda.gov/default.aspx
- eDirectives > Handbooks > Title 180 – Conservation Planning and Application

National Conservation Planning Policy and VA Supplement: NRCS policy for providing conservation planning assistance to clients.

- Document can be found in eDirectives Weblink: https://directives.sc.egov.usda.gov/default.aspx
- eDirectives > General Manual > Title 180 – Conservation Planning and Application > Part 409 – Conservation Planning Policy
- eDirectives > General Manual > General Manual State Supplements > Virginia > Title 180 – Conservation Planning and Application > Part 409 – Conservation Planning Policy

National Resource Concern List and Planning Criteria: Official list of NRCS resource concerns and planning criteria that is used to determine resource treatment levels using the conservation planning process.

- Document can be found in eDirectives Weblink: https://directives.sc.egov.usda.gov/default.aspx
- eDirectives > National Instructions > Title 450 – Technology > NI 450-309 Resource Concerns and Planning Criteria

Conservation Planning Policy for TSPs

TSPs will obtain the certified conservation planner designation through the following national certification process:

•TSP certified conservation planner applicants MUST complete Modules 1 -5 of the NRCS Conservation Planning Couse in AgLearn, or an alternative (such as the TSP Orientation and Conservation Planning Course) with approval by the National Conservation Technical Assistance (CTA) program Manager.

•TSP certified conservation planner applicants MUST complete Modules 6 – 8 of the NRCS Conservation Planning Course offered Nationally or by any state or an equivalent course, as approved by the National Conservation Technical Assistance (CTA) program Manager.

•TSP certified conservation planner applicants MUST complete one field-reviewed RMS plan for a conservation management unit. TSPs seeking planning certification in multiple states will not be required to submit additional plans for review.

Conservation Planning Overview

All States

What's a Conservation Plan?

A conservation plan is the record of decisions and supporting information for treatment of a unit of land meeting planning criteria for one or more identified natural resource concerns as a result of the planning process.

Source: Handbook Title 180 –Natural Planning Procedures Handbook, Part 600.2 (33)
https://directives.sc.egov.usda.gov/36483.wba

Conservation Planning Overview

In 1947, Hugh Hammond Bennett identified the principles of conservation planning in his text, *Elements of Soil Conservation*. According to Bennett, an effective conservation planner must adhere to the following principles:

- **Consider the needs and capabilities of each acre within the plan**
- **Consider the client's facilities, machinery, and economic situation**
- **Incorporate the client's willingness to try new practices**
- **Consider the land's relationship to the entire farm, ranch, or watershed**
- **Ensure the conservationist's presence out on the land**

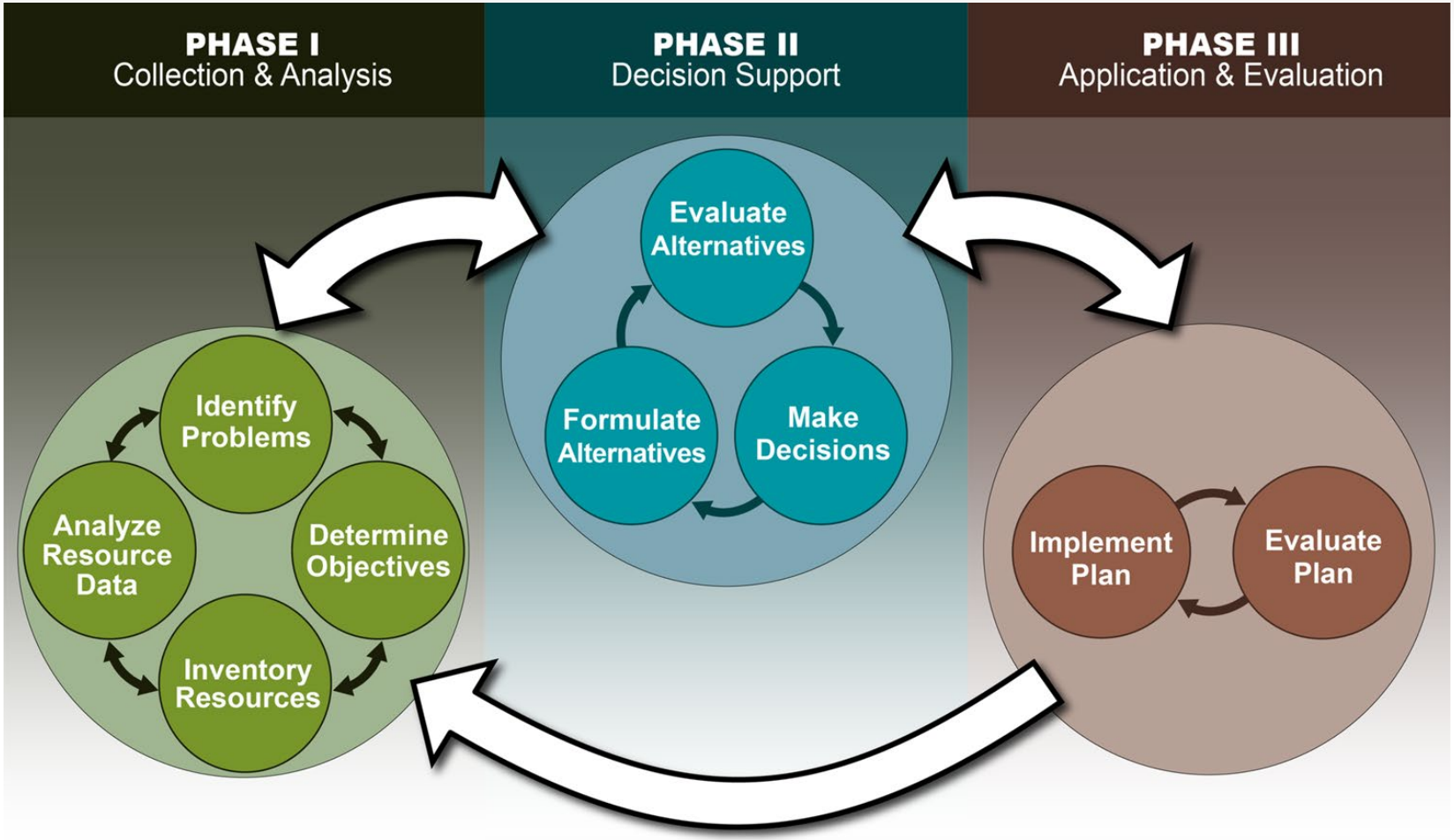
•Source: Handbook Title 180 –Natural Planning Procedures Handbook, Part 600.0 (Purpose)
https://directives.sc.egov.usda.gov/36483.wba

Conservation Planning Overview

Conservation plans are the basis for all assistance NRCS provides to clients and the basic tool for clients to manage their natural resources. Client participation in all steps of the planning process is encouraged to bring the most value to the process.

The objective in conservation planning is to help each client attain sustainable use and sound management of soil, water, air, plant, animal, and energy resources, based on related human considerations. The purpose is to prevent the degradation of resources and to ensure their sustained use and productivity, while considering the client's economic and social needs. Conservation planning assistance is based on ecological, economic, and social considerations relative to the resources.

Conservation Planning Overview



Source: Handbook Title 180 –Natural Planning Procedures Handbook, Part 600.11 (F)
https://directives.sc.egov.usda.gov/36483.wba

Overview of Natural Resources in Virginia

Overview of Virginia

Overview of Virginia

State Capital	Richmond
Largest City	Virginia Beach
Area (in square miles)	42,774.2
Population (as of 04/01/2020)	8,683,619
Major Industries	Government, Military, **Agriculture**, High-Tech
Elevation – Highest – Lowest	 5,729 ft (Mount Rogers) 0.00 ft/ (Atlantic Ocean)
Number of Localities – Counties – Independent Cities	 95 38
Bordering States/Areas –	Kentucky, Maryland, North Carolina, Tennessee, West Virginia, District of Columbia

Overview of Virginia

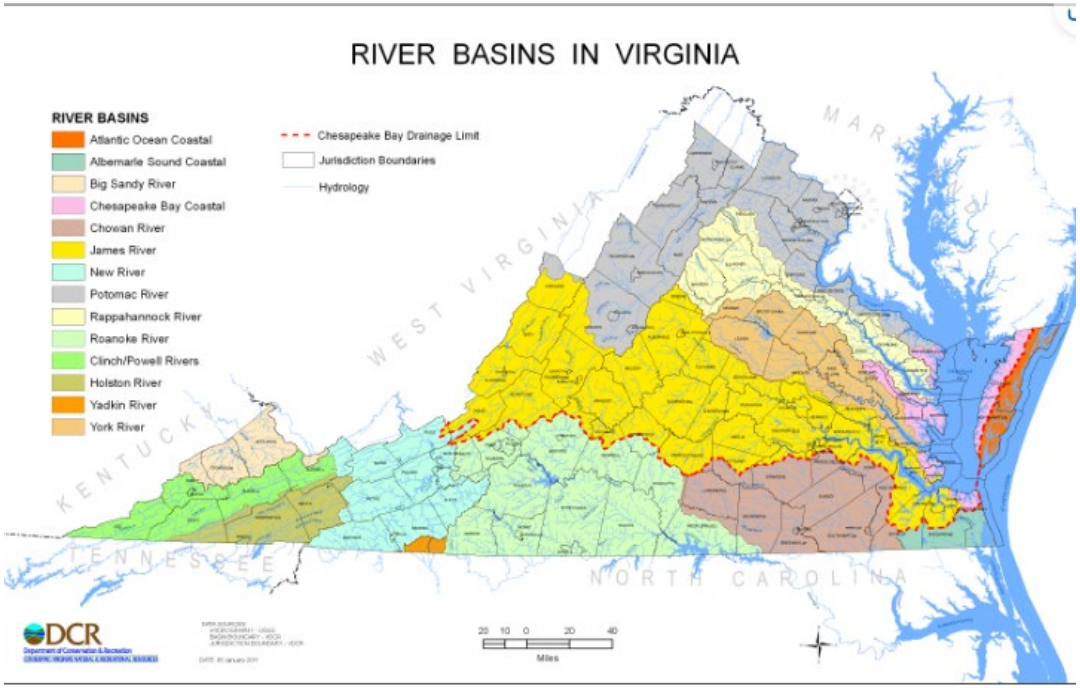
Major Estuaries –
Chesapeake Bay

Major Rivers –

Potomac-Shenandoah, Rappahannock, York, James, Roanoke, Chowan, New, Tennessee, Big Sandy

Major Lakes –

John H. Kerr Reservoir, Lake Anna, Lake Chesdin, Smith Mountain Lake and South Holston Lake

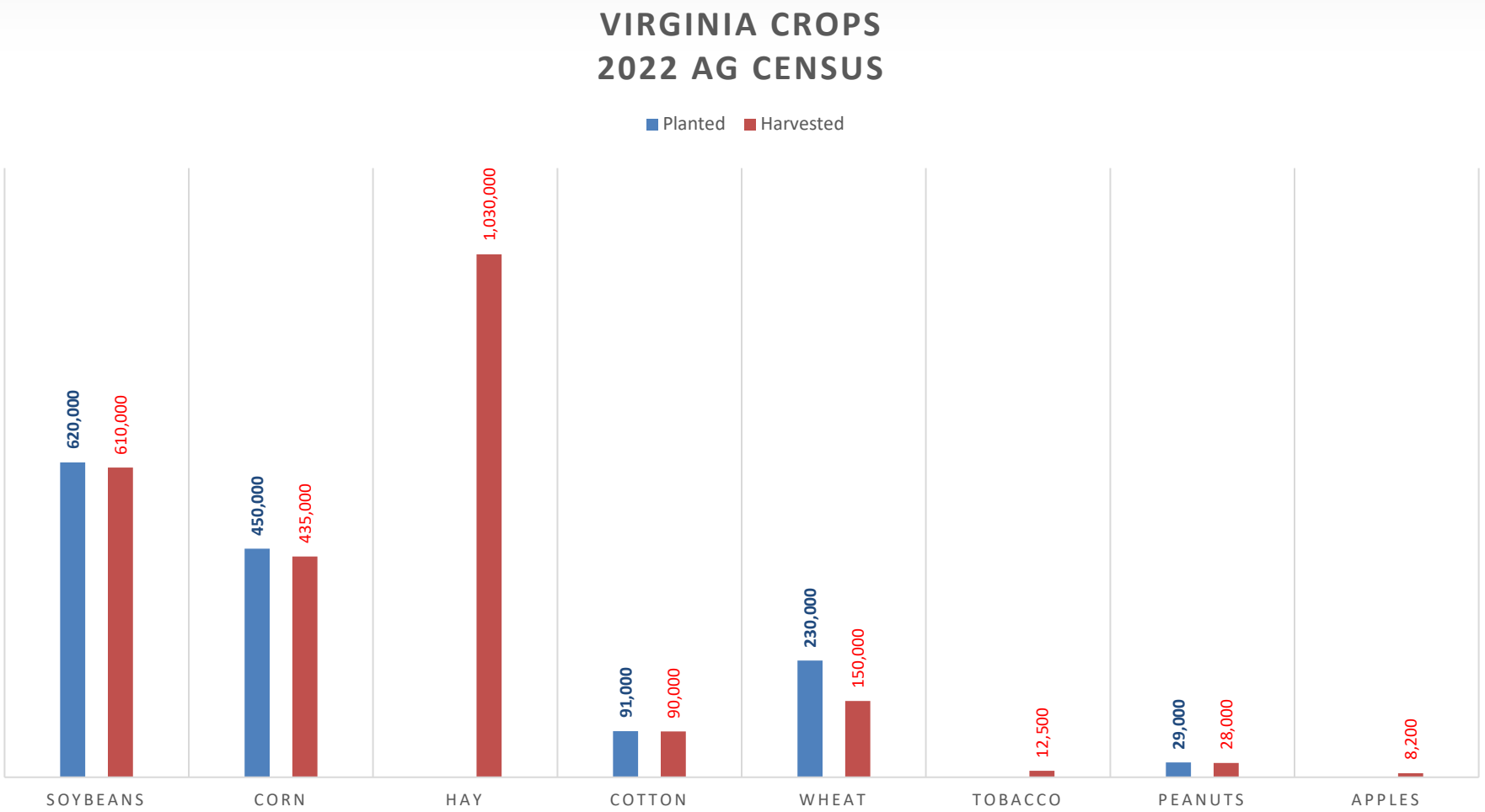


Review of Major Land Uses or Agronomic Practices

- Virginia has approximately 7.8 million acres (28%) of farmland over 43,225 farms, with average farm size of 181 acres.

- Forests covered 62% of Virginia in 2021
  - 80% hardwood; 20% pines
  - 13,016,673 acres private forestland
  - 2,866,568 acres of public forestland
- Agriculture/Farm Operations
  - 7,700,000 acres operated
  - 3,047,505 acres in pastureland
  - 2,990,336 acres in cropland

Virginia Crops

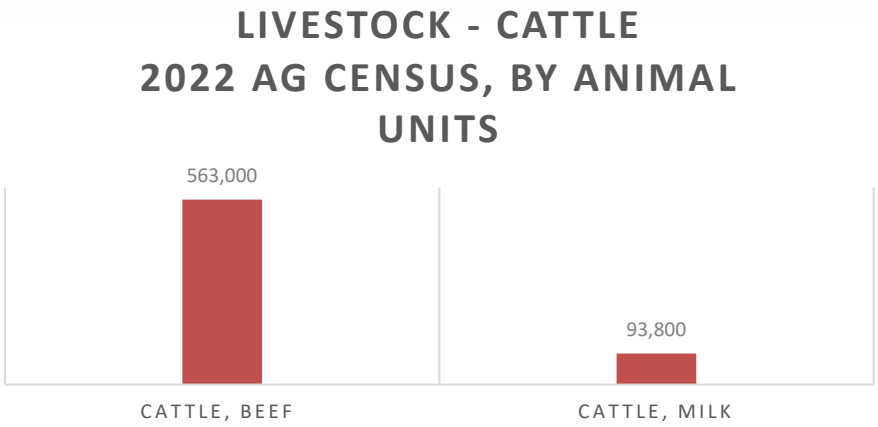


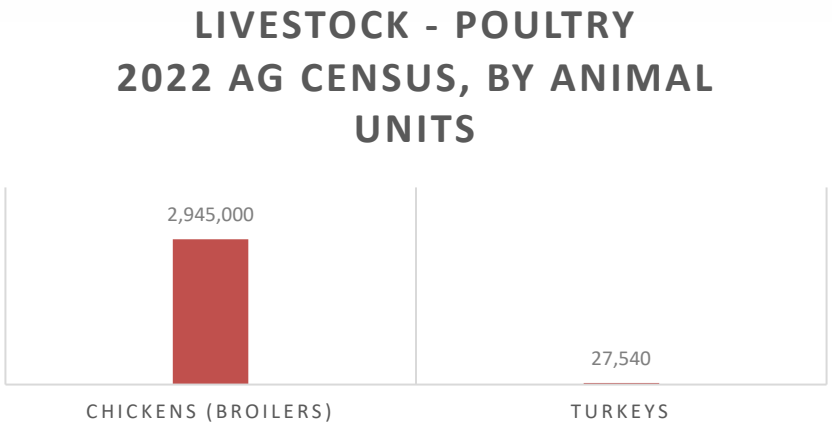
Agricultural Growing Season in Virginia

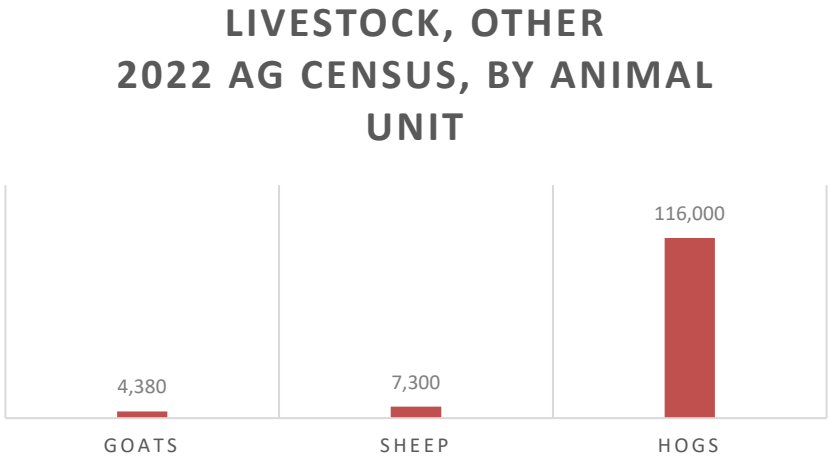
- Virginia has an average growing season of:
  - Mountain/Valley = 136 days
  - Coastal = 214 days

- With such a long growing season, timely installation can ensure the success of most conservation practices requiring establishment of plants.

Virginia Livestock

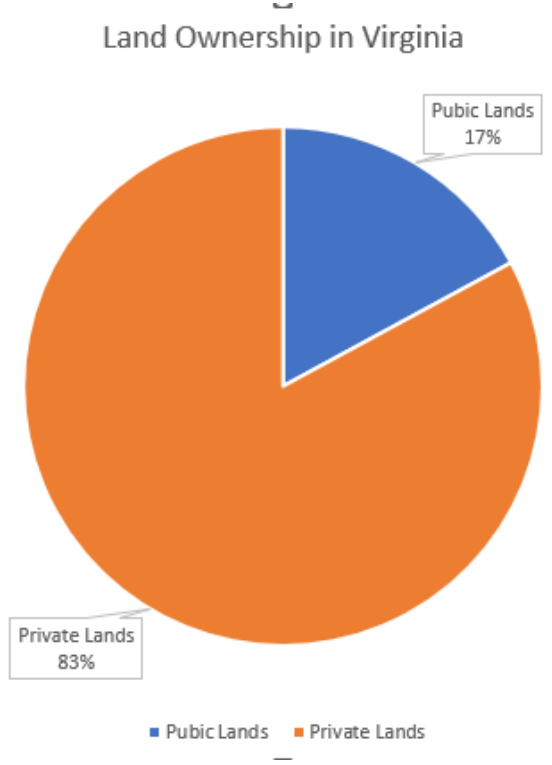






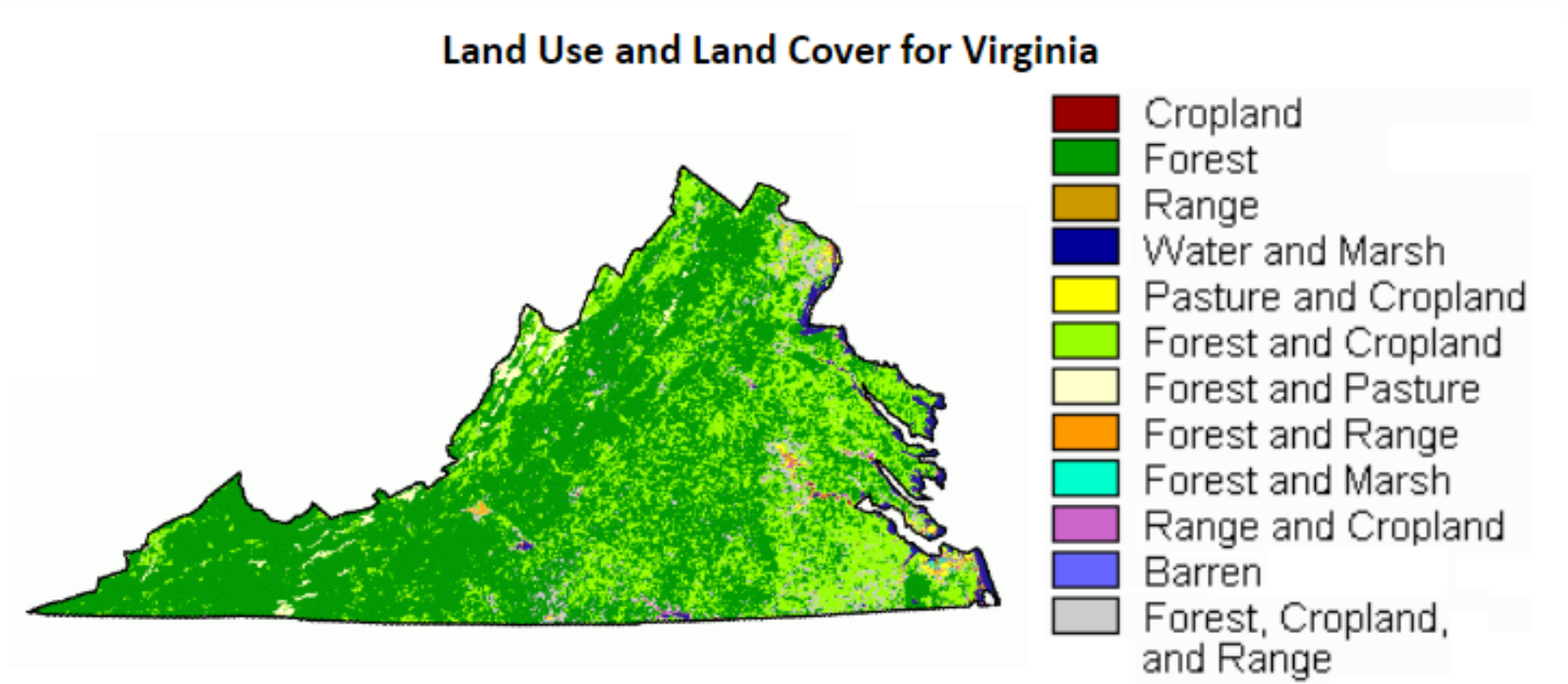
Review of Major Land Ownership

Most of the public land is managed for multiple use, and leases by individual ranchers is common. Conservation planning on private land may include a public component, however the opportunity for private individuals to construct permanent conservation practices on public lands is limited.



Source: Public and Private Land Percentages by US States : Facts & Information : SummitPost

Land Use


Land Use and Land Cover for Virginia
Cropland
Forest
Range
Water and Marsh
Pasture and Cropland
Forest and Cropland
Forest and Pasture
Forest and Range
Forest and Marsh
Range and Cropland
Barren
Forest, Cropland, and Range

Resource Concerns in Virginia

- In Virginia, agriculture spans a wide spectrum of activities, from the traditional raising of field crops, vegetables, livestock, and nursery production, to the breeding of commercial horses, the bottling of premium wines, and the growing of fish, or aquaculture.

- Virginia follows the National Resource Concern list and Planning Criteria.

Resource Concerns

A resource concern is the resource condition that does not meet minimum acceptable condition levels as established by resource planning criteria shown in the FOTG, Section III. This implies an expected degradation of the soil, water, air, plant, animal or energy resource base to the extent that the sustainability or intended use of the resource is impaired.

Resource Concerns in Virginia

- Soil Resource Concerns
  - Sheet and rill erosion
  - Wind erosion
  - Ephemeral gully erosion
  - Classic gully erosion
  - Bank erosion from streams, shorelines, or water conveyance channels
  - Compaction
  - Organic matter depletion
  - Concentration of salts or other chemicals,
  - Soil organism habitat loss or degradation
  - Aggregate instability

Resource Concerns in Virginia

Typical Conservation Practices that can be used to address SOIL resource concerns:

- 512 – Forage and Biomass Planting
- 412 – Grassed Waterway
- 410 -- Grade Stabilization Structure
- 340 – Cover Crop
- 345 – Reduced Tillage
- 329 -- No Till
- 528 – Prescribed Grazing
- 449 --Irrigation Water Management

- Tools to determine needs for addressing SOIL resource concern:
  - Observation
  - SVAP2
  - Gully Erosion Calculator
  - Pasture Conditioning Score - Erosion

Resource Concerns in Virginia

- Water Resource Concerns
  - Ponding and flooding
  - Seasonal high-water table
  - Seeps
  - Surface water and/or Groundwater depletion
  - Inefficient irrigation water use
  - Nutrient transported to surface and/or groundwater
  - Pesticide transported to surface and/or ground water
  - Pathogen loss from manure, biosolids, fertilizer to surface and /or groundwater
  - Elevated water temperature

Resource Concerns in Virginia

Typical Conservation Practices that can be used to address WATER resource concerns:

- 484 - Mulching
- 372 - Access Control
- 472 - Critical Area Planting
- 391 - Riparian Forest Buffer
- 390 - Riparian Herbaceous Buffer
- 657 – Wetland Restoration
- 340 – Cover Crops
- 329, 345 – Residue & Tillage Management (No-Till, Reduced Tillage)

- Tools to determine needs for addressing WATER resource concern:
  - Observation
  - SVAP2

Resource Concerns in Virginia

- Air Resource Concerns
  - Emissions of particulate matter
  - Emissions of greenhouse gases
  - Emissions of ozone precursors
  - Objectionable odors
  - Emissions of airborne reactive nitrogen

Resource Concerns in Virginia

Typical Conservation Practices that can be used to address AIR resource concerns:

- 484 - Mulching
- 472 - Critical Area Planting
- 592 – Feed Management
- 629 – Waste Treatment
- 313 – Waste Storage Facility
- 590 – Nutrient Management

- Tools to determine needs for addressing AIR resource concern:
  - Observation

Resource Concerns in Virginia

- Plant Resource Concerns
  - Plant productivity and health.
  - Plant structure and composition
  - Plant pest pressure
  - Wildfire hazard from biomass accumulation

Resource Concerns in Virginia

Typical Conservation Practices that can be used to address PLANT resource concerns:

- 314 – Brush Management
- 666 – Forest Stand Improvement
- 315 – Herbaceous Weed Treatment
- 590 – Nutrient Management
- 338 – Prescribed Burning
- 595 – Pest Management Conservation System
- 328 – Conservation Crop Rotation

- Tools to determine needs for addressing PLANT resource concern:
  - Observation
  - Pasture Conditioning Score Worksheet(s)

Resource Concerns in Virginia

- Animal Resource Concerns
  - Terrestrial habitat for wildlife and invertebrates
  - Aquatic habitat for fish and other organisms
  - Feed and forage imbalance
  - Inadequate livestock shelter
  - Inadequate livestock water quality, quantity and distribution.

Resource Concerns in Virginia

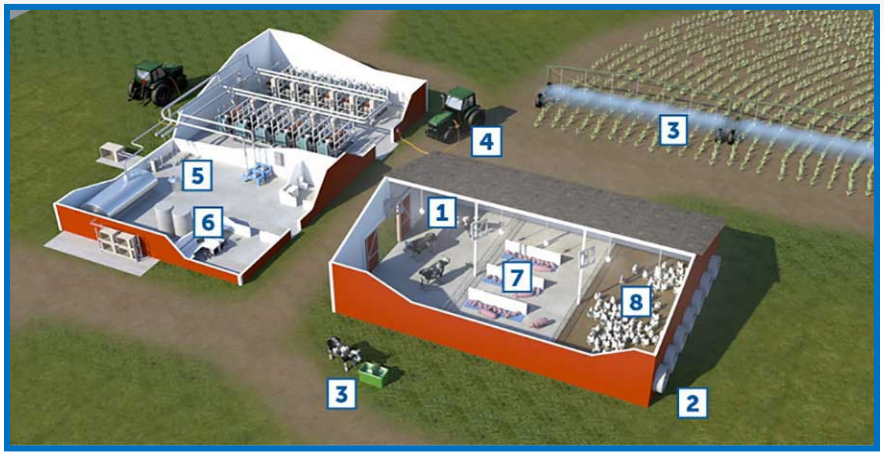
Typical Conservation Practices that can be used to address ANIMAL resource concerns:

- 316 – Animal Mortality Facility
- 592 – Feed Management
- 382 – Fence
- 511 – Forage Harvest Management
- 516 – Livestock Pipeline
- 512 – Pasture and Hay Planting
- 528 – Prescribed Grazing
- 643 – Restoration of Rare or Declining Natural Communities
- 367 – Roofs & Covers
- 642 – Water Well

- Tools to determine needs for addressing ANIMAL resource concern:
  - Observation
  - WHET

Resource Concerns in Virginia

- Energy Resource Concerns
  - Energy efficiency of equipment and facilities
  - Energy efficiency of field operations



Energy resource concerns are evaluated through an Ag Energy Audit. Audits evaluate

- equipment power
- grain drying
- milk cooling
- irrigation pumps
- illumination systems

Audits, available via EQIP, may suggest equipment upgrades to more efficient engines, heating and lighting systems

Resource Concerns in Virginia

Typical Conservation Practices that can be used to address ENERGY resource concerns:

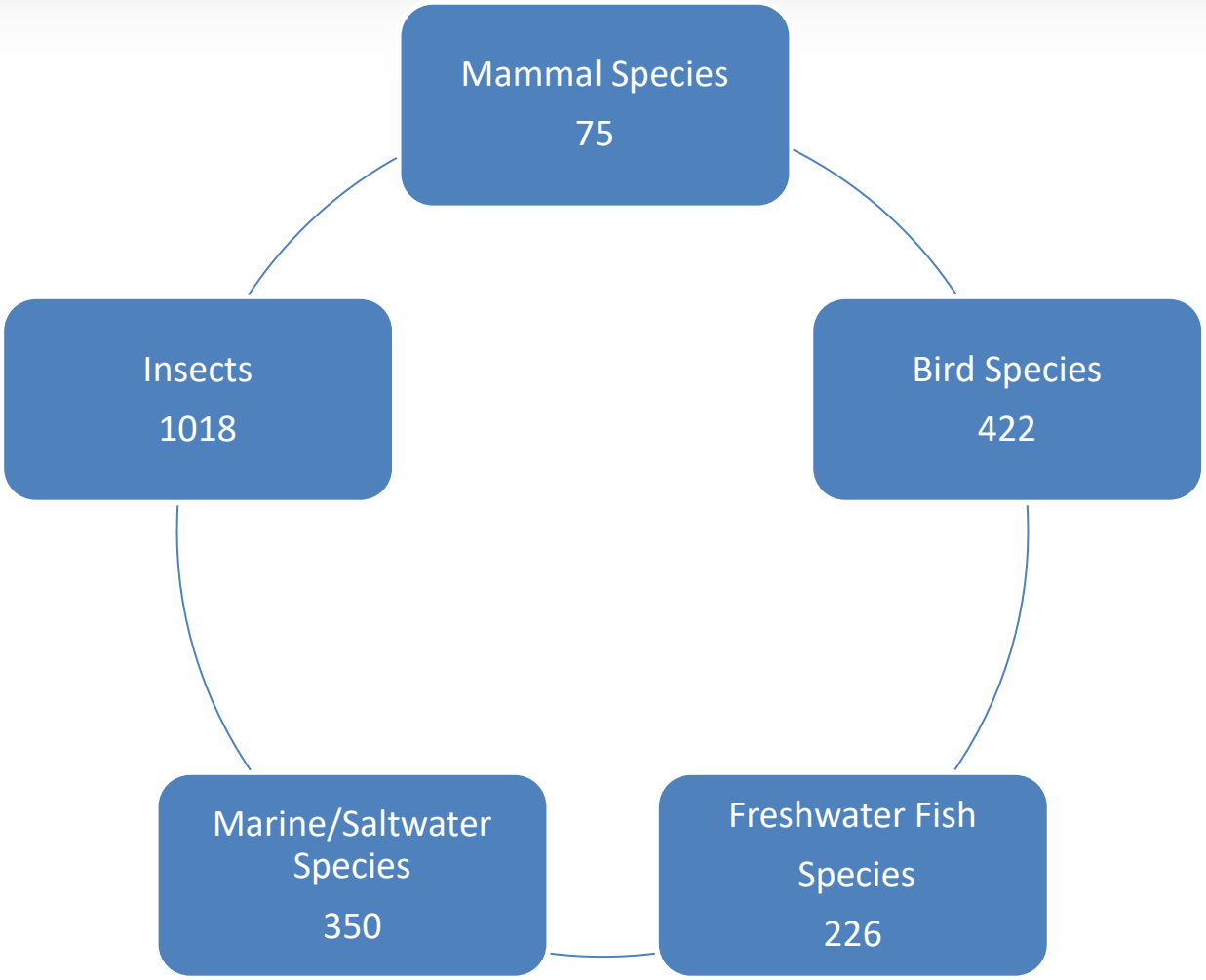
- 374 – Energy Efficient Agricultural Operation
- 672 – Energy Efficient Building Envelop
- 670 – Energy Efficient Lighting System

- Tools to determine needs for addressing ENERGY resource concern:
  - Observation

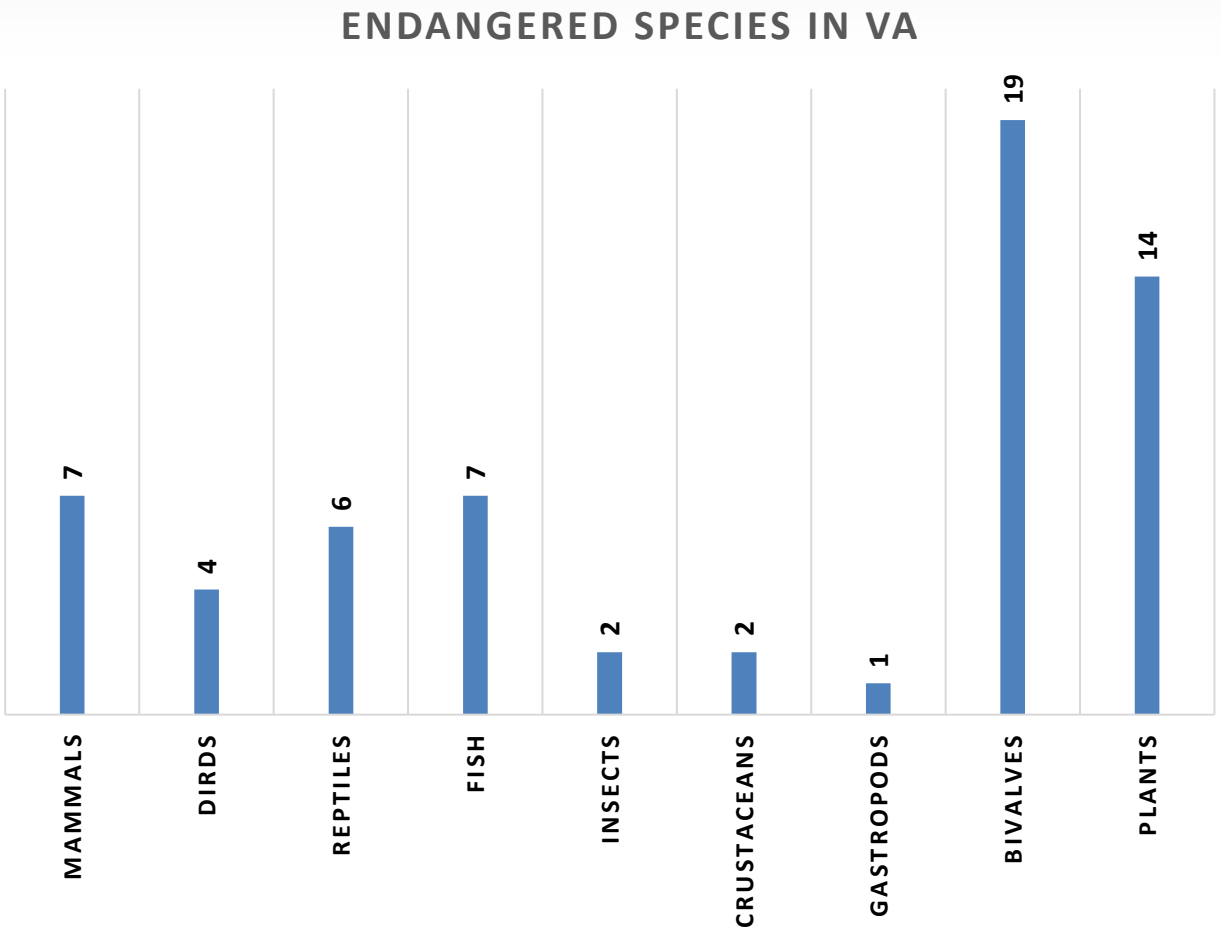
Important Resource Species of Concern

Longleaf Pine
Shortleaf Pine
Golden-Winged Warblers
Bog Turtles
Chesapeake Bay Oysters
American Black Duck
Northern Bobwhite Quail
Eastern Hellbender

Virginia Wildlife



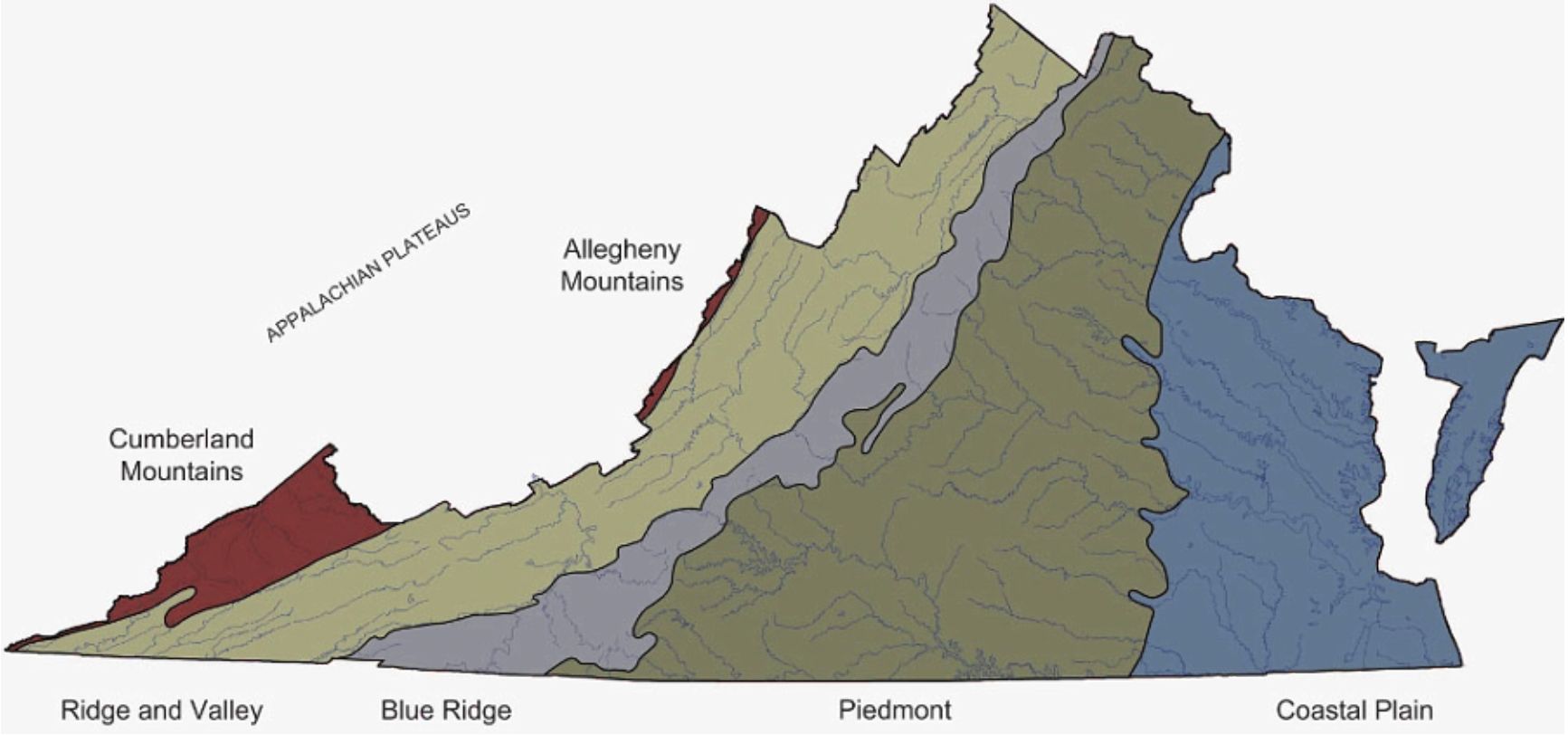
Endangered Species in Virginia



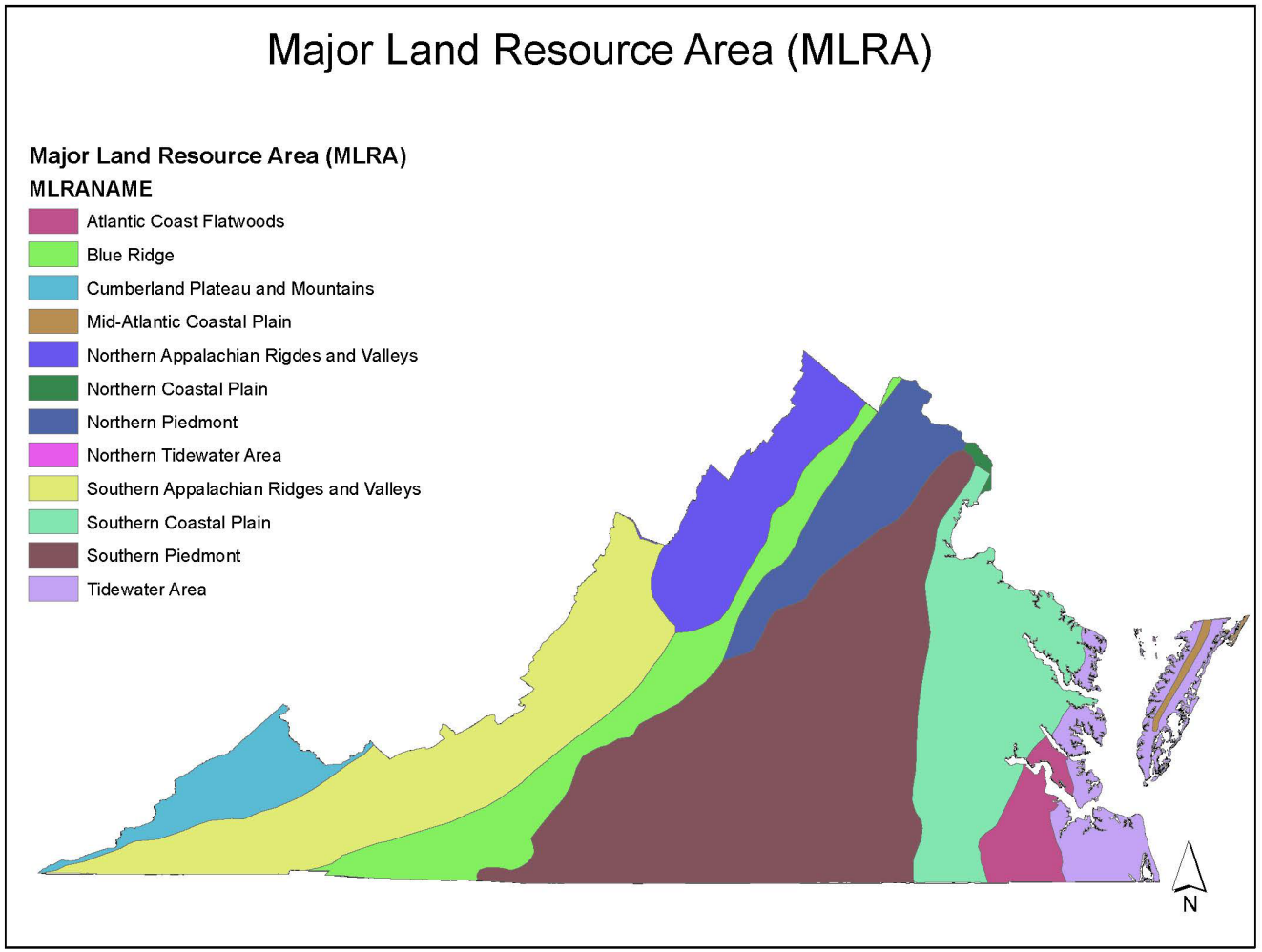
SOURCE: https://ecos.fws.gov/ecp/species-reports

Physiographic Regions of Virginia

The Commonwealth has four major geographic regions.

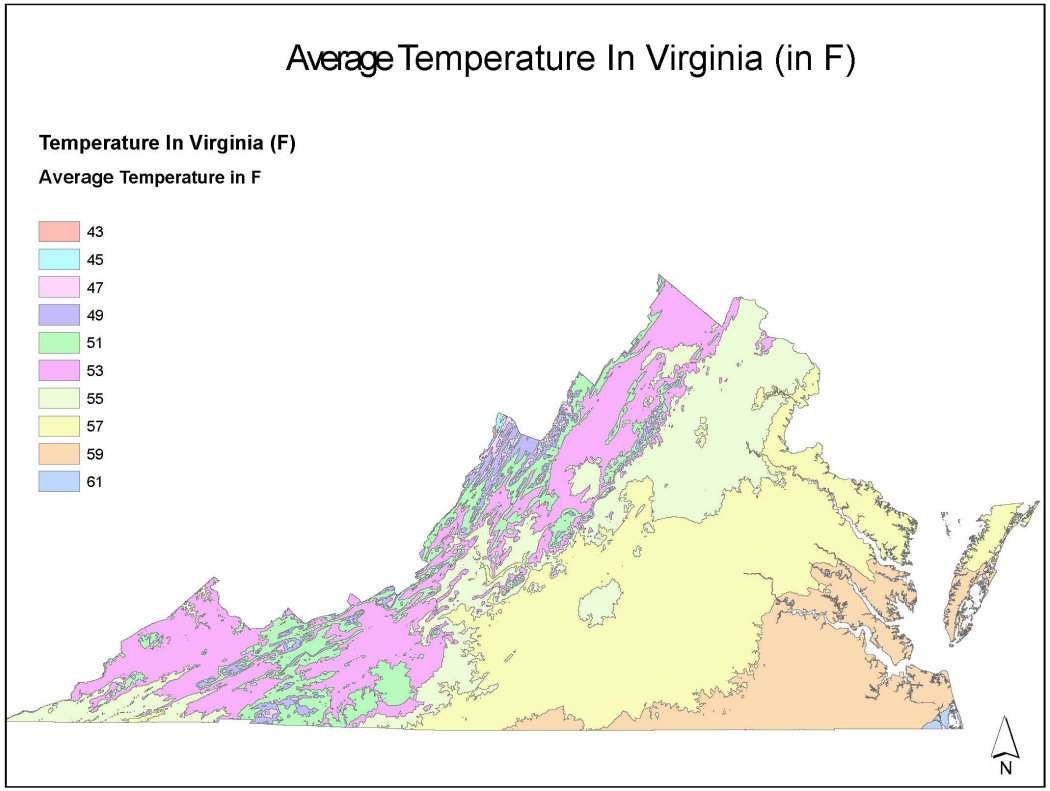


Major Land Resource Areas (MLRA)



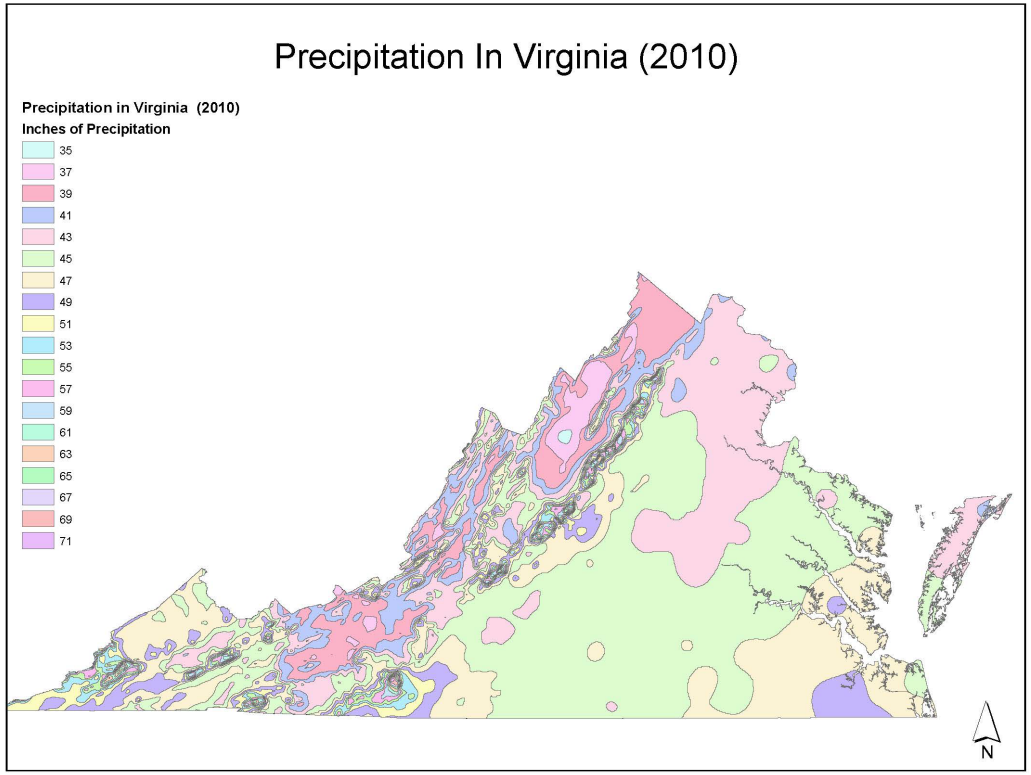
Climate in Virginia

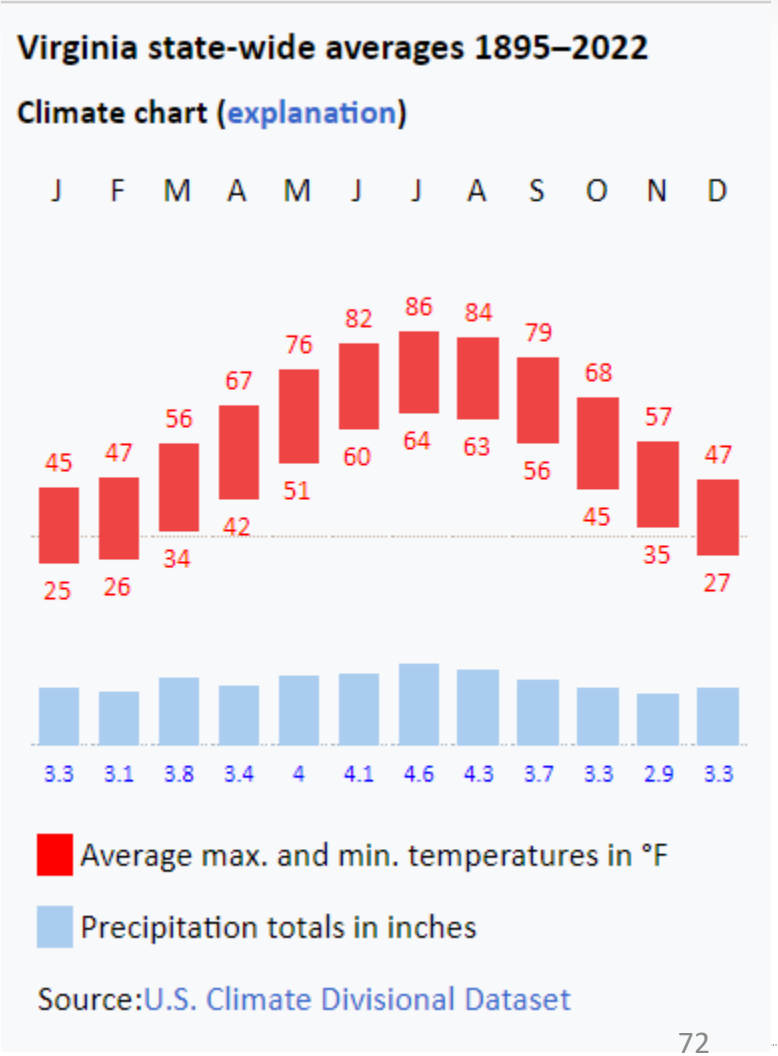
- Humid subtropical, transitioning to humid continental (west of Blue Ridge)



Precipitation in Virginia

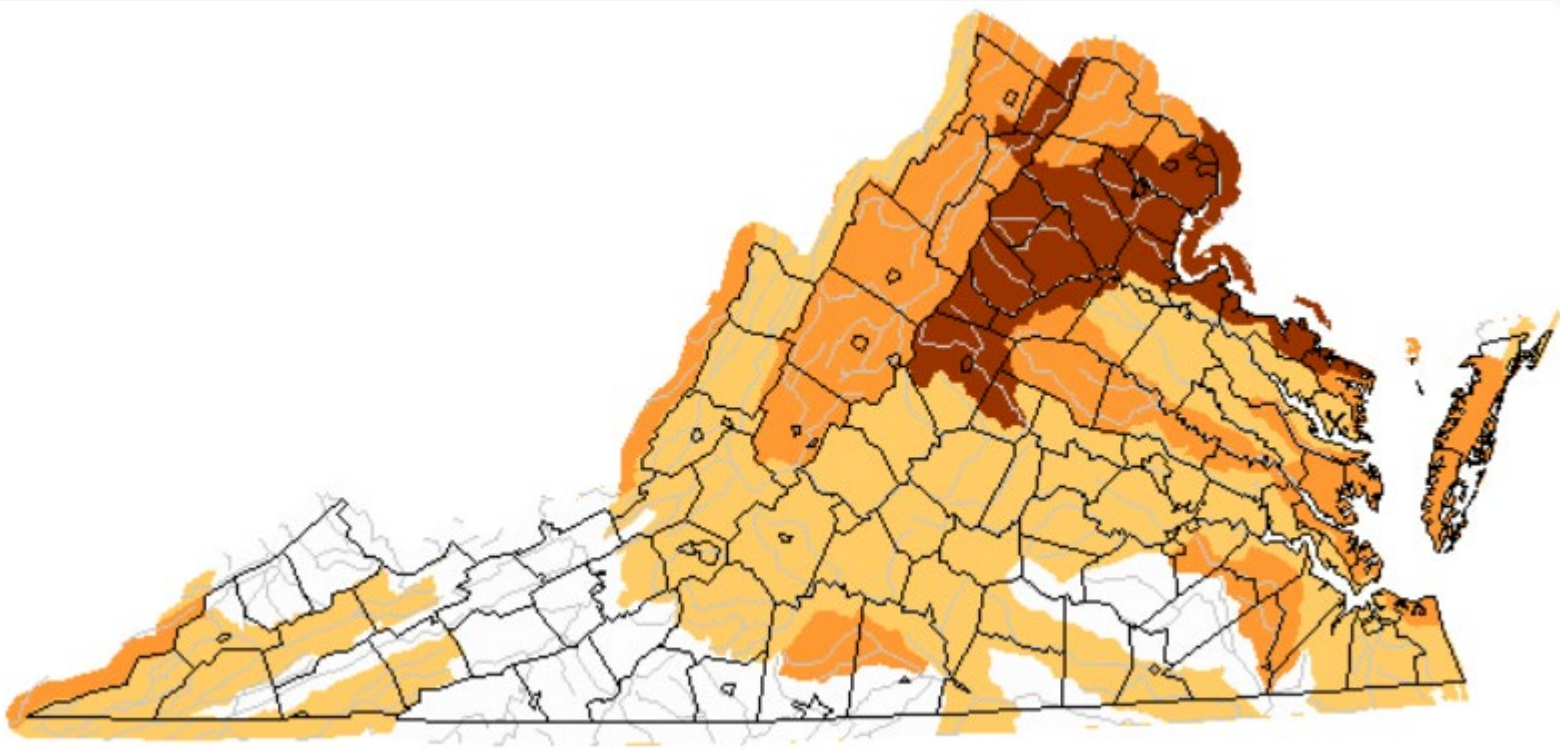
- Average annual precipitation = 43.49 inches





Drought in Virginia

(05/28/2023)



Explanation - Percentile classes			
Low	<=5	6-9	10-24
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal

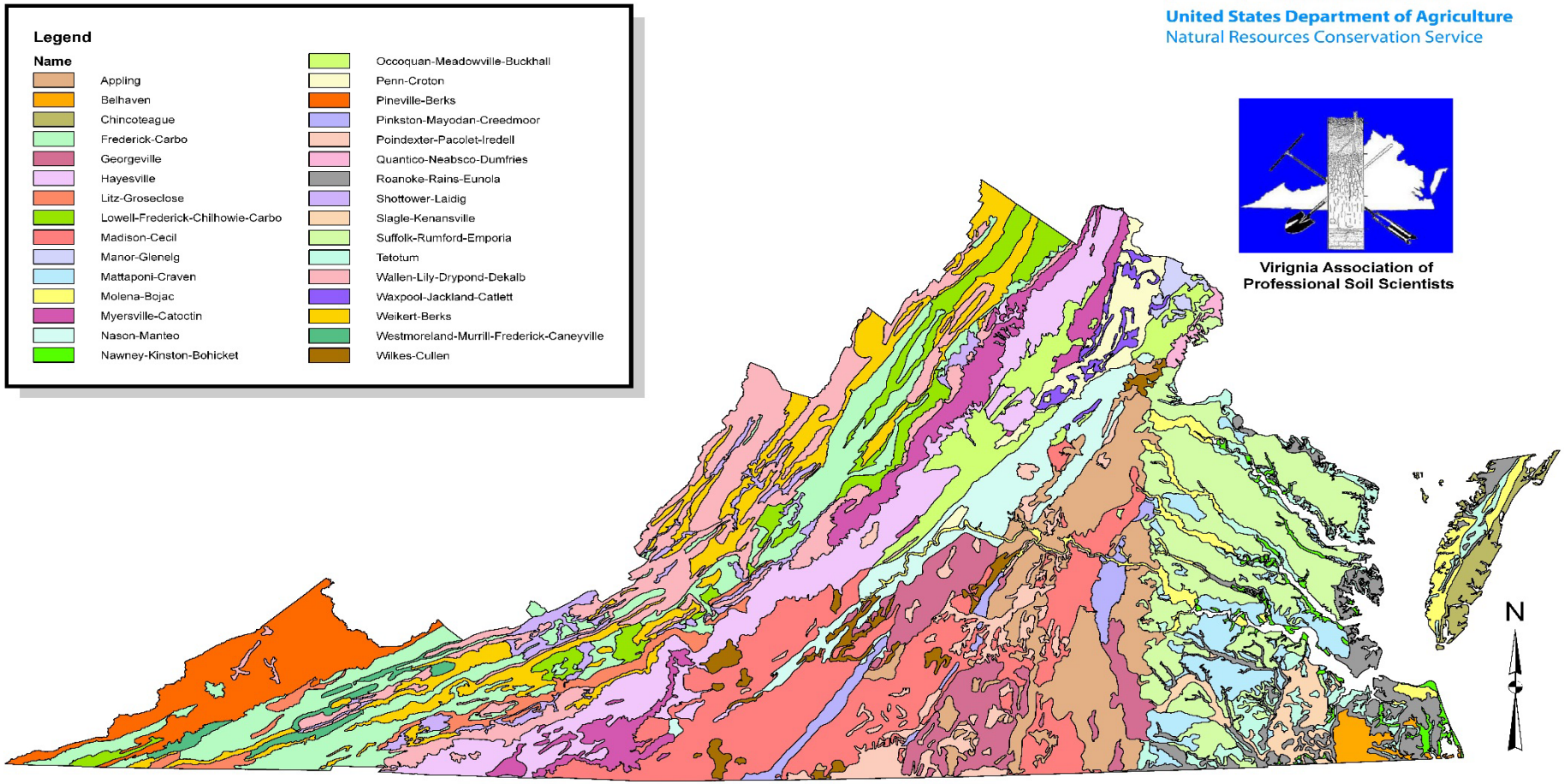
Virginia Soils

- Virginia soils are enriched by the complex river system running from the western mountains throughout the state, moving from west to east. These rivers carry soils throughout the state, leading to rich soils deposited in the lowlands near the rivers.
- Wide variety of soils in VA
  - ~415 types
  - Pamunkey being highly productive (state soil)

East of I-95	Piedmont	Mountain and Valley
Sandier in nature	highly weathered clays, long history of erosion	very rocky to deep clays

GENERALIZED SOILS MAP OF VIRGINIA

United States Department of Agriculture
Natural Resources Conservation Service



NRCS in Virginia

What is the Purpose of the Natural Resources Conservation Service?

NRCS is USDA's technical agency for providing assistance to private land managers, conservation districts, tribes, and other organizations in planning and carrying out conservation activities and programs

Environmental Evaluation (CPA-52) in Virginia

- Technical Service Providers who are certified conservation planners will provide NRCS with the information necessary to assess:
  - Identified natural resource concerns along with treatment alternatives, and
  - Special environmental concerns: Environmental Laws, Executive Orders, and policies.

- This information will be documented according to NRCS State-specific procedures (i.e., Environmental Evaluation Worksheet, NRCS-CPA-52).

- TSPs will sign the NRCS-CPA-52
  - NRCS will verify and sign the information provided is accurate

National Environmental Policy Act (NEPA)

- Enacted in 1970 – Result of the first "Green Movement."
- One of the most significant environmental legislation ever passed.
- Requires all federal agencies and TSP's to evaluate impacts of their actions on the environment.

Types of Analysis

- Environmental Evaluation (EE)
  - Used in most NRCS Conservation Planning (CPA-52 Form)
- Environmental Assessment (EA)
  - Developed when results of EE show potential adverse impacts
  - Results in FONSI or development of EIS
- Finding of No Significant Impacts (FONSI)
  - Developed when EA does not show significant impacts
  - Proceed with plan or action
- Environmental Impact Statement (EIS)
  - Developed when EA does shows significant impacts
  - Results will determine if federal plan or action can be implemented

NRCS in Virginia

- https://www.nrcs.usda.gov/conservation-basics/conservation-by-state/virginia#programs

Overview of Virginia

Find Your Local Service Center

- USDA Service Centers are locations where you can connect with Farm Service Agency, Natural Resources Conservation Service, or Rural Development employees for your business needs. Enter your state and county below to find your local service center and agency offices.

Visit offices.usda.gov

Additional Resources for use in Virginia

- USDA –NRCS VA Plant Establishment Guide
- State Specific Trainings and Assessment Tools
- CNMP Development Training
- National NRCS website- TSP Resources https://www.nrcs.usda.gov/getting-assistance/technical-assistance/technical-service-providers
- YouTube Training Videos (https://www.youtube.com/playlist?list=PL0Oy58bSZgQHf29xdF2IGavLtXWNG-erR)
- NRCS Science & Technology Training Library (Conservation Webinars) https://conservationwebinars.net/
- TSP Network (https://www.technicalserviceprovidernetwork.org/)

TSP Workflow

TSP Workflow

- Individuals interested in the TSP certification should work with the State TSP coordinator. TSP coordinator will assist individuals with the application/certification process.

- Sample plans will be reviewed by the discipline lead/State specialists. Sample plan deficiencies must be corrected before certification is recommended.

- Once TSP application is complete and sample plans have been reviewed/approved, TSP coordinator will discuss with the State Resource Conservationist (SRC) and will submit the State's decision to the Regional TSP coordinator for certification.

- The State Resource Conservationist (SRC) or designee will be responsible for reviewing TSP conservation planning for the National Planner Designation.

TSP Workflow

- Subsequent conservation plans will be reviewed by the Planning specialists at the local/area USDA Service Center. For Conservation Planning Activities related to Forestry, the regional forester will review CPA106/DIA165 documents.

- All EQIP Contract CPA and DIA Plans must be uploaded by the TSP into NRCS Registry. Hard copies must be provided to the local NRCS Field Offices and Producer by the TSP.

- The SRC/discipline lead/state specialists will be responsible for reviewing TSP completed work for TSP certification renewals and Quality Assurance Reviews.

- TSPs will work with the local District Conservationist/Area Planning Specialists to make sure the proper environmental evaluations (NRCS.CPA.52) are completed.

TSP Workflow

- **Local NRCS Field Offices** will complete proper Environmental Evaluations (VA-CPA-52) and consult with TSPs on projects, as necessary.
  - TSPs should request a copy of the completed VA-CPA-52 at the start of the project using the NRCS –CPA-70 for "Permission to access Program Participant NRCS National Conservation Planning (NCP) Database information for TSPs". The form must be signed by the producer and TSPs
  - TSPs are responsible for notifying local field offices on changes on planned project designs in order to update the VA-CPA-52.

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Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at How to File a Program Discrimination Complaint and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

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Certificate of Completion

After viewing the State Specific Training module, please print and sign the completion certificate on the following slide.

The certificate is your acknowledgement that based on the information provided in this module, you have the proper knowledge, skills and ability to conduct planning in this State.

Within your NRCS Registry profile, enter the training and upload the signed certificate to verify completion.

STATE SPECIFIC TRAINING MODULE COMPLETION CERTIFICATE

I, _____ hereby verify I have viewed and understand the content of *Virginia* State
TSP Name

Specific Training Module and affirm I have the knowledge, skills, and ability to conduct conservation planning services in this state.

_____ _____

TSP Signature Date