Resource Links

- **Audubon at Home.** Audubon Society of Northern Virginia
  [https://www.audubonva.org/audubon-at-home](https://www.audubonva.org/audubon-at-home)

- **Best Bets: Plants for Particular Uses.** Master Gardeners of Northern Virginia.
  [https://mgnv.org/plants/best-bets/](https://mgnv.org/plants/best-bets/)

- **Native Plants for Conservation, Restoration and Landscaping.** Virginia Department of Conservation and Recreation

- **Native Plants for Wildlife Habitat and Conservation Landscape: Chesapeake Bay Watershed.** U.S. Fish & Wildlife Service
  [https://dnr.maryland.gov/criticalarea/Documents/chesapeakenatives.pdf](https://dnr.maryland.gov/criticalarea/Documents/chesapeakenatives.pdf)

- **Plant NoVA Natives**

- **Sustainable Landscaping Basics.** Master Gardeners of Northern Virginia.

- **Tried and True Native Plant Selections for the Mid-Atlantic.** Master Gardeners of Northern Virginia.
  [https://mgnv.org/plants/native-plants/](https://mgnv.org/plants/native-plants/)

Part 1 - Sustainability In The Landscape, The Role Of Soil And Water

**WHY Do We Begin with a Landscape Design?**

- Sustainability
- Organization
- Effective Use of Space
- Family Input
- Alternatives
- Increase Home Value
- Years of Enjoyment

You want your landscape to be:
Sustainable Landscape Design: Putting Principles into Practice

Kirsten Ann Conrad, Agent of Change (ANR), Virginia Cooperative Extension

- Functional and Useful
- Maintainable
- Environmentally Friendly
- Cost Effective
- Visually Pleasing, Cohesive

How do we Do this and Still have a Sustainable Landscape Design?

- What is Sustainability?
- What is the Ultimate Objective?
- Conventional vs. Sustainable Landscape
  - Soil
  - Water
  - Materials
  - Design
  - Stewardship

The Role of Soil in the Sustainable Landscape

- What is it and Why it is important
  - Absorbs rainfall and mitigates flooding
  - Removes pollutants and cleanses water
  - Stores water for plants, wildlife and people
  - Provides nutrients and oxygen for plants
  - Stores atmospheric carbon
  - Provides habitat for a variety of microbes, plants and animals
  - Compost Alternatives
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The Effects of Water in the Sustainable Landscape

- Landscape Practices that Contribute to Water Shortages
  - Poor plant selection
  - Wasteful irrigation practices
  - Degraded soil conditions
  - Impervious surfaces
  - Wasting on-site water resources such as stormwater runoff

- Conventional vs. Sustainable Practices

- Passive Rainwater Harvesting
  - Bioswales, swales
  - Raingardens

- Active Rainwater Harvesting
  - Cisterns
  - Rain Barrels
  - Greywater
  - AC Condensate

Part 2 – Sustainability In The Landscape, The Role Of Materials, And Plant Material

The Role of Materials in the Sustainable Landscape - Reduce, Reuse, Recycle

- Ways to Reduce Materials
  - Design landscape features using standard material sizes.
  - Select manufacturers and suppliers that reuse or eliminate packaging materials.
  - Use durable materials that will last the life of the project and can be reused in future projects.

- Strategies for Reuse of Materials
  - Consider the many options
  - Be creative
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- Locate materials early in the design process
- Select materials that can be reused
- Design for Deconstruction

- Recycled materials are those that are collected, reprocessed and used again to make a new product
- Pre vs. Post-Consumer Content

- Local Materials
- Certified Wood

The Role of Plants in the Sustainable Landscape

- Mitigate the urban heat island
- Cleanse air and water
- Provide fresh oxygen
- Control erosion
- Provide habitat
- Create restful settings
- Produce food and products

PART 3 - THE LANDSCAPE DESIGN PROCESS

The Principles of Landscape Design

- Balance & Unity
  - Harmony
  - Symmetrical/Asymmetrical
- Scale and Proportion
- Repetition and Rhythm
- Transition
- Focal Point(s)
Elements of Design

- **Line**

- **Primary (visual)**
  - **Time**
    - 4-Season Interest
    - Maturation
  - **Form and size**
  - **Texture**
  - **Color**
    - Hot
    - Cool
    - Neutral

- **Secondary**
  - **Motion**
  - **Sound**
  - **Touch**
  - **Fragrance**

**The Rule of Thumb - A Third A Third A Third**

**The Golden Mean**

Design Considerations:

**How Will the Property Be Used?**

- Create a Program of “Must-Haves”!

**What is the Desired Style of your Garden?**
Questions to Consider:
- What is the architectural style of your home?
- What sustainable practices can you incorporate into your design?
- Who will PAY for this job? What is your Budget and Time Frame?
- Who will INSTALL this garden? You or a Contractor?
- Who will take CARE of the garden after it is installed?

There is no such thing as a no or low maintenance garden!

Important Points:
- Call Miss Utility to mark all of the utility lines!
- Check with your HOA for any limitations.
- Check local government regulations.
Steps to Drawing Your Design:

Be sure to use a pencil and trace paper to make changes and play around with all of the steps!

Step 1 - Soil Analysis

Step 2 - Property Plat/Survey

Step 3 - Base Map - Start Drawing!

Step 4 - Site Analysis
- Views/Screening
- Existing Plant Material/Hardscapes
- Wind, Sun, Shade (Temperature Zones)
- Slopes/Grade Changes
- Downspouts/Run-off/Drainage
- Water Collection Zones
- Utilities
- Traffic Flow (Human and Animal)
- Trash Can/Recyclables/Storage
- Woodland Areas/Streams

Step 5 - Sustainability
- Limit or Eliminate the Turf
- Install a Rain Garden or Green Roof
- Install a Cistern or Rain Barrel
- Native Plants
- Recycled Materials
- Permeable Materials
- Re-use Existing Plant Material

Sustainability Guidelines:
- The Sustainable SITES Initiative.
  https://www.sustainablesites.org/
- Landscape for Life
  https://landscapeforlife.colostate.edu/

Step 6 - Bubble Diagrams and your Concept
- Develop the theme of your garden!
- Bubble diagrams will help you see where different elements of your garden will go.

Step 7 - Paths, Bedlines, and Hardscape Plan
- Walking Paths
- Garden Beds
- Hardscapes
- Water Features
- Focal Points

Drawing Plants in to your Design - Consider:
- Right Plant, Right Place!
- Plan for Year 5, Not Year 1 for spacing
- Plant Needs/Requirements
• Layering, Massing, Grouping of Plants
• Principles and Elements of Design
• Maintenance

Step 8 - Generic Plant Plan Order

- Evergreen Trees
- Deciduous Trees
- Evergreen Shrubs

- Deciduous Shrubs
- Perennials
- Annuals
- Vegetable/Herb Garden
- Pots/Planters

Step 9 - Specific Planning (species/cultivars)
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Final Plan

- Design with Coded Plant Labels (i.e. *Hydrangea macrophylla* = HM)

- Plant List to Include:
  - Plant Code
  - Latin Botanical Name in Alphabetical Order, Broken Down by Type
  - Cultivar
  - Common Name
  - Quantities
  - Sizes
  - Special Notes

- Other Drawing Items Can Include, but Are Not Limited to:
  - Plant Pictures
  - Northern Arrow
  - Your Name
  - Date
  - Scale (1” = 8’)
  - Title or Type of Drawing
  - Version

Installation Order:

- Permits/Utilities
- Site Clearing
- Soil Grading
- Drainage Systems
- Masonry/Wood Projects
- Soil Amendments
- Edging
- Irrigation and Lighting
- Large Plants: Trees to 1 Gallon Plants
- Small Plants: Bedding, Groundcover, Turf
- Water
- Mulch

There can be more than one solution for most situations... there is an allowance for personal taste. Your needs and wants are unique.

The answer to most questions in landscape design is... “It Depends”!

ENJOY CREATING A SUSTAINABLE LANDSCAPE!
20 Tips and Tricks for making the most of your landscape plantings

1. Plant in odd numbers
2. Choose plants of the appropriate scale
3. Vary textures of plants
4. Use 30-50% evergreen plants
5. Mass plants together
6. Know your site conditions before planting and select plants accordingly
7. Plant taller plants towards the back or center of a bed.
8. Use color wisely
9. Plan and plant for 4 season landscape
10. Keep records, photos
11. Avoid the use of pesticides
12. Do soil test at least once.
13. Promote air and light circulation/access, discourage crowding.
14. Be deliberate in designing the ‘bones’ of the garden.
15. Make plant selections do double- or triple duty.
17. Use native plants whenever possible.
18. Remove invasive plants.
20. Have fun!