

NA16NOS4190171, Task 14

8/1/2019

George Washington Regional Commission
Cedell Brooks, Jr. Park
Native Plant Demonstration Garden



Virginia Coastal Zone
MANAGEMENT PROGRAM

Table of Contents

Executive Summary.....	4
Introduction	5
Summary of Products.....	6
Product #1: Final Site Plan	6
A. Product Summary	6
B. Deliverables.....	6
Product #2: Demonstration Garden Site Preparation	6
A. Product Summary	6
Product #3: Demonstration Garden Final Plan and Plant Acquisition	6
A. Product Summary	6
B. Deliverables.....	6
Product #4: Demonstration Garden Signage	7
A. Product Summary	7
B. Deliverables.....	7
Product #5: Demonstration Garden Construction and Promotion.....	7
A. Product Summary	7
B. Deliverables.....	7
Product #6: Initial Care and Long-Term Maintenance.....	8
A. Product Summary	8
B. Deliverables.....	8
Product #7: Final Report	8
A. Product Summary	8
B. Deliverables.....	8
Appendix A: Preliminary Demonstration Garden Design/Planting Plan.....	9
Appendix B: Final Demonstration Garden Design/Planting Plan.....	10
Appendix C: Summary of Expenditures	11
Appendix D: Sign Designs.....	12
Entrance Sign	12
Rain Garden Sign.....	12
Meadow Garden Sign.....	13

Hillside & Streetside Plantings Sign 13

Pollinators Sign..... 14

Conservation Landscaping Sign..... 14

Appendix E: Brochure 15

Appendix F: Photos of Garden Construction and Dedication 16

 Garden Construction..... 16

 Final Garden 21

 Dedication Ceremony 24

Appendix G: Dedication Ceremony Flyer 28

Appendix H: Dedication Ceremony Press Release 29

Appendix I: Free Lance-Star Article..... 31

Appendix J: Maintenance Plan..... 33

This project was funded, in part, by the Virginia Coastal Zone Management Program at the Virginia Department of Environmental Quality through Grant # NA16NOS4190171 of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, under the Coastal Zone Management Act of 1972, as amended.

Executive Summary

This report describes the outcomes of the *Cedell Brooks, Jr. Park Native Plant Demonstration Garden* project conducted by the George Washington Regional Commission (GWRC) and Plant Central Rappahannock Natives Campaign.

This report fulfills the product requirements set forth in the FY 2016 Virginia Coastal Zone Management Program Grant Task # 14 for:

- Product #1: Final Site Plan
- Product #2: Demonstration Garden Site Preparation
- Product #3: Demonstration Garden Final Plan and Plant Acquisition
- Product #4: Demonstration Garden Signage
- Product #5: Demonstration Garden Construction and Promotion
- Product #6: Initial Care and Long-Term Maintenance
- Product #7: Final Report

These products reflect an extensive amount of work conducted by members of the Plant Central Rappahannock Natives Campaign Steering Committee, volunteers, and GWRC staff and consultants. The following organizations are represented on the Campaign Steering Committee:

- Caroline County
- Friends of the Rappahannock
- George Washington Regional Commission
- Hanover-Caroline Soil & Water Conservation District
- King George County
- Master Gardener Association of the Central Rappahannock Area
- Master Naturalists, Central Rappahannock Chapter
- Plants Map
- The Rappahannock Valley Garden Club
- Tri-County/City Soil & Water Conservation District
- University of Mary Washington
- USDA - Natural Resource Conservation Services
- Virginia Coastal Zone Management Program/Virginia Department of Environmental Quality
- Virginia Cooperative Extension
- Virginia Native Plant Society
- Virginia Natural Heritage Program/Virginia Department of Conservation & Recreation
- Virginia Nursery & Landscape Association

Steering Committee members and volunteers contributed their time, expertise, resources, and support, which resulted in the final products of this project.

Introduction

The George Washington Regional Commission (GWRC) received a grant through the Virginia Coastal Zone Management (CZM) Program in September 2018 that funded the design and construction of a native plant demonstration garden at Cedell Brooks, Jr. Park in King George County, Virginia. The demonstration garden was developed in concert with the Plant Central Rappahannock Natives Campaign, a regional marketing campaign to promote the use of plants native to the Central Rappahannock region. The campaign is part of a coast-wide effort by the Virginia CZM Program and its partners to drive the demand needed to increase the supply of Virginia-grown native plant stock, which will benefit both Virginia's environment and economy.

A regional multi-partner Campaign Steering Committee, made up of local government, non-profit, business, and other community representatives was formed in December 2015. The Steering Committee assisted with the research and strategy development of the campaign. Following the launch of the Campaign in April 2017 at the City of Fredericksburg Earth Day Festival, the Steering Committee began development of the demonstration garden.

The demonstration garden is intended to showcase landscaping strategies and native plant species to educate consumers on uses of native plants within the Central Rappahannock region.



Summary of Products

Product #1: Final Site Plan

A. Product Summary

Sherry Graham of Artwood Gardens, a local professional landscape designer, created a preliminary design/planting plan for the demonstration garden. The preliminary plan was completed in July 2018.

B. Deliverables

1. Digital copy of preliminary demonstration garden design/planting plan (Appendix A)

Product #2: Demonstration Garden Site Preparation

A. Product Summary

Campaign partners and volunteers prepared the site for planting. Site preparation was completed in October 2018.

Product #3: Demonstration Garden Final Plan and Plant Acquisition

A. Product Summary

GWRC staff coordinated with campaign partners to approve the garden design and native plant selection and order the plants. The design was reviewed and approved by campaign partners in September 2018. Plants for the initial planting were ordered in October 2018, and plants for the additional planting were ordered in April 2019. The final design/planting plan is attached to this Final Report.

B. Deliverables

1. Digital copy of final demonstration garden design/planting plan (Appendix B)
2. Digital copy of summary of expenditures (Appendix C)





Product #4: Demonstration Garden Signage

A. Product Summary

GWRC staff coordinated with campaign partners and CZM staff to produce signage for the garden. CZM staff designed six signs (signs for the entrance, rain garden, meadow garden, and hillside and streetside plantings as well as signs about pollinators and conservation landscaping). GWRC staff placed the order for the signs, which were delivered to and installed by King George Parks and Recreation in May 2019. CZM staff drafted the order for the plant ID markers (91 total), which were ordered by GWRC staff and installed by Master Gardener volunteers in June 2019.

B. Deliverables

1. Digital copy of sign designs (Appendix D)

Product #5: Demonstration Garden Construction and Promotion

A. Product Summary

GWRC staff provided project oversight and coordinated with campaign partners and volunteers to install the garden in October and November 2018. Additional plantings were installed in April 2019. Signage was installed in May/June 2019. Partners participated in five coordination calls between February and May 2019 to plan a dedication ceremony. CZM and GWRC staff wrote a press release to advertise the ceremony; an article about the garden and dedication ceremony appeared on the front page of the Free Lance-Star on June 4, 2019. The ceremony, which was held on June 8, 2019, included an introduction by Chris Clarke, Director of King George Parks & Recreation, a keynote address by Peggy Stevens, a retired land conservation professional, a ribbon cutting, and tours of the garden. Copies of the brochure, which was designed by a Master Naturalist volunteer, as well as maps of the garden were given to attendees.

B. Deliverables

1. Digital copy of brochure (Appendix E)
2. Digital copy of photos of garden construction and dedication (Appendix F)
3. Digital copy of dedication ceremony flyer (Appendix G)
4. Digital copy of dedication ceremony press release (Appendix H)
5. Digital copy of Free Lance-Star article (Appendix I)

Product #6: Initial Care and Long-Term Maintenance

A. Product Summary

GWRC worked with campaign partners to finalize the long-term maintenance plan for the garden, which assigns responsible parties for various maintenance tasks including watering, replacement of plants, weeding, and mulching. The final maintenance plan is attached to this Final Report.

B. Deliverables

1. Digital copy of maintenance plan (Appendix J)

Product #7: Final Report

A. Product Summary

GWRC staff and consultants produced this final report, detailing the results of the project.

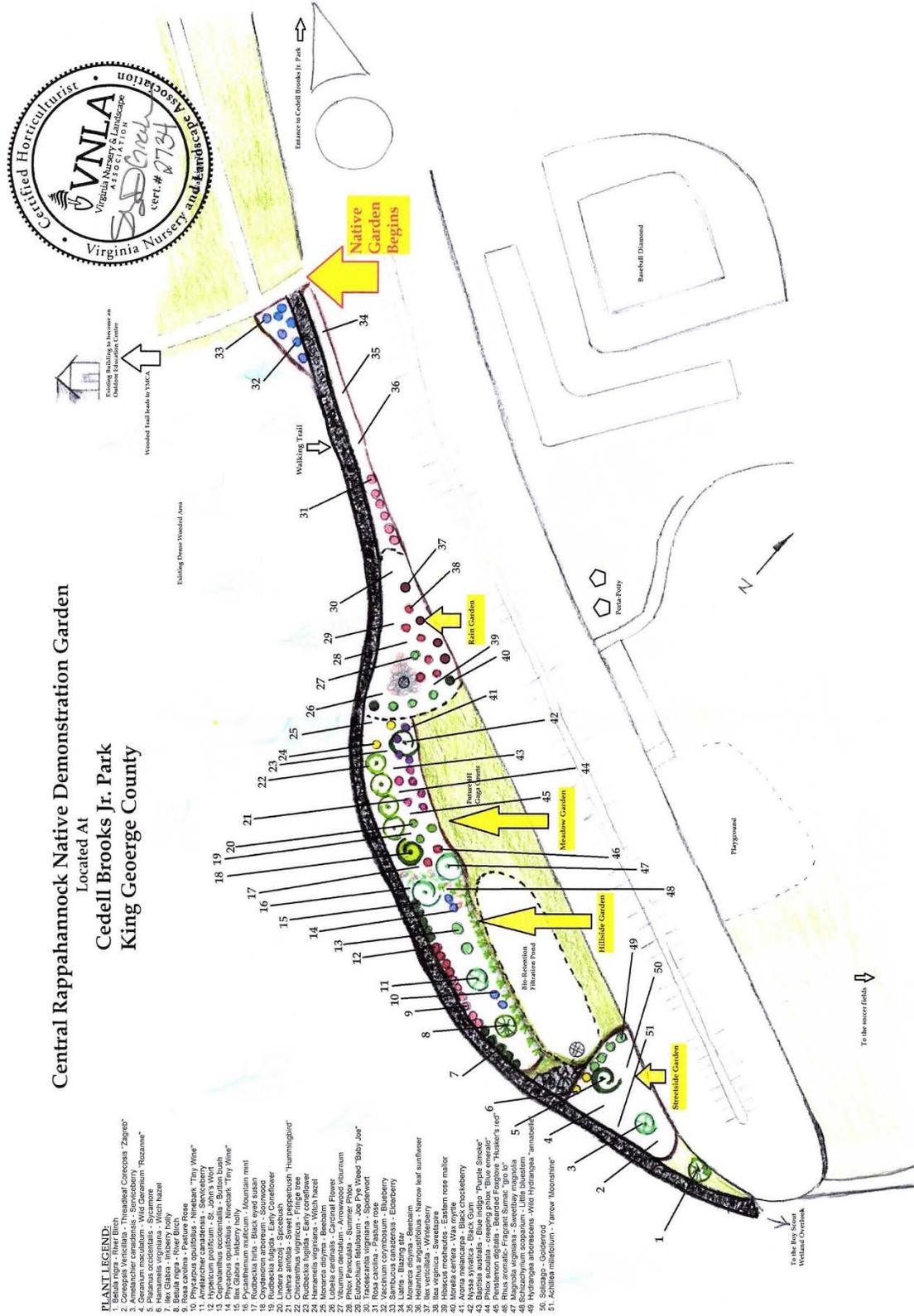
B. Deliverables

1. Digital copy of final report



Appendix A: Preliminary Demonstration Garden Design/Planting Plan

Central Rappahannock Native Demonstration Garden
 Located At
 Cedell Brooks Jr. Park
 King George County



- PLANT LEGEND:**
1. *Asplenium platyneuron* - Maidenhair Fern
 2. *Ceanothus velutinus* - Threadleaf Ceanothus "Zagoe"
 3. *Azalea canadensis* - Sweetgum
 4. *Phlox subulata* - Blue Ensign
 5. *Phlox subulata* - Blue Ensign
 6. *Phlox subulata* - Blue Ensign
 7. *Phlox subulata* - Blue Ensign
 8. *Phlox subulata* - Blue Ensign
 9. *Phlox subulata* - Blue Ensign
 10. *Phlox subulata* - Blue Ensign
 11. *Phlox subulata* - Blue Ensign
 12. *Phlox subulata* - Blue Ensign
 13. *Phlox subulata* - Blue Ensign
 14. *Phlox subulata* - Blue Ensign
 15. *Phlox subulata* - Blue Ensign
 16. *Phlox subulata* - Blue Ensign
 17. *Phlox subulata* - Blue Ensign
 18. *Phlox subulata* - Blue Ensign
 19. *Phlox subulata* - Blue Ensign
 20. *Phlox subulata* - Blue Ensign
 21. *Phlox subulata* - Blue Ensign
 22. *Phlox subulata* - Blue Ensign
 23. *Phlox subulata* - Blue Ensign
 24. *Phlox subulata* - Blue Ensign
 25. *Phlox subulata* - Blue Ensign
 26. *Phlox subulata* - Blue Ensign
 27. *Phlox subulata* - Blue Ensign
 28. *Phlox subulata* - Blue Ensign
 29. *Phlox subulata* - Blue Ensign
 30. *Phlox subulata* - Blue Ensign
 31. *Phlox subulata* - Blue Ensign
 32. *Phlox subulata* - Blue Ensign
 33. *Phlox subulata* - Blue Ensign
 34. *Phlox subulata* - Blue Ensign
 35. *Phlox subulata* - Blue Ensign
 36. *Phlox subulata* - Blue Ensign
 37. *Phlox subulata* - Blue Ensign
 38. *Phlox subulata* - Blue Ensign
 39. *Phlox subulata* - Blue Ensign
 40. *Phlox subulata* - Blue Ensign
 41. *Phlox subulata* - Blue Ensign
 42. *Phlox subulata* - Blue Ensign
 43. *Phlox subulata* - Blue Ensign
 44. *Phlox subulata* - Blue Ensign
 45. *Phlox subulata* - Blue Ensign
 46. *Phlox subulata* - Blue Ensign
 47. *Phlox subulata* - Blue Ensign
 48. *Phlox subulata* - Blue Ensign
 49. *Phlox subulata* - Blue Ensign
 50. *Phlox subulata* - Blue Ensign
 51. *Phlox subulata* - Blue Ensign

Appendix B: Final Demonstration Garden Design/Planting Plan

Central Rappahannock Native Demonstration Garden
 Located At
 Cedell Brooks Jr. Park
 King George County



Appendix C: Summary of Expenditures

GWRC Staff & Consultants	\$8,247.14
Plants	\$7,452.87
Compost	\$400.00
Mulch	\$1,280.00
Stone	\$306.70
Temporary Fencing	\$878.24
Signs	\$3,536.00
Plant ID Plaques	\$1,379.50
Bench	\$835.00
Other	\$400.55
Total	\$24,716.00

Appendix D: Sign Designs

Entrance Sign



**Plant Central
Rapp Natives**
BEAUTIFUL
BENEFICIAL
SUSTAINABLE

Welcome!

**EXPLORE THE NATIVE PLANT
GARDENS IN CEDELL BROOKS, JR. PARK**



The Native Plant Demonstration Gardens in Cedell Brooks, Jr. Park were installed by the **Plant Central Rapp Natives Campaign** to showcase the colorful, beautiful variety of plants native to the Central Rappahannock area – Caroline, King George, Spotsylvania, and Stafford counties and the City of Fredericksburg.

Whether you want to put in a flower garden or establish or restore the landscape around your home, there are a great variety of Central Rapp native plants from which to choose.

Native plants not only offer many practical, low cost, environmental benefits over non-native plants, many also offer an appealing display of foliage and flowers that surpass non-native ornamentals.

By planting natives, you will join an increasing number of gardeners who have discovered that wildflowers, trees, shrubs, grasses and annuals native to their region are not only important to protecting local water supply and wildlife, but are simply gorgeous.

Regardless of your gardening and landscaping plans, the native plants in Cedell Brooks, Jr. Park are worth checking out. We think you'll find just what you and the Central Rapp region need.

Map of Gardens



Partners



Some of the Many Native Plants You Will See

 Colubactis americana American Blackberry	 Genoples verticillata Three Leaf Clover	 Sambucus canadensis Common Highberry	 Ilex verticillata Winterberry	 Quercus macrocarpa White Trillium
 Andropogon scoparius Virginia Salswort	 Phlox pilularis Virginia Blue-Bird	 Magnolia virginiana Sweetbay Shrub	 Asplenium platyneuron Lemon Drop Cudweed	 Rhus typhina Sally Herring Tree
 Lonicera sempervirens Trumpet of Love	 Phlox pilularis Virginia Salswort	 Lonicera dioica Delaware Honeysuckle	 Symphyotrichum novae-angliae New England Aster	 Lobelia cardinalis Cardinal Flower

Download a copy of the guide on your phone to use during your walk through the gardens!
www.PlantCentralRappNatives.org

Rain Garden Sign

NATIVE PLANTS FOR CENTRAL RAPPAHANNOCK

Rain Gardens



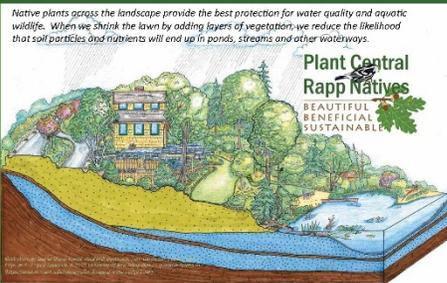
Rain gardens are planted in sunny or shady low areas - depressions about 6-8 inches deep - to collect and temporarily hold water that flows from hard surfaces like rooftops, sidewalks, driveways and patios, until it slowly soaks back into the soil. Pollutants are naturally filtered out of the water by native plants, soil, and microorganisms in the soil. The clean water then travels downward to recharge groundwater, or it evaporates. When considering native plants for a rain garden, remember that there are three planting zones—low (wettest area), middle, and high (driest upper-edge area). Select native plants based on the zone and on the size of the garden. Trees and larger shrubs may not be appropriate for smaller gardens.

Central Rapp Native Plants for Rain Gardens:

- Southern Arrow-wood *Viburnum dentatum*
- Cardinal Flower, *Lobelia cardinalis* L.
- Eastern Rosemallow, *Hibiscus moscheutos*
- Wild hydrangea, *Hydrangea arborescens*
- Winterberry, *Ilex verticillata*
- Sweetspire or Virginia Willow, *Itea virginica*
- Joe-pye Weed, *Eutrochium fistulosum*
- Pasture Rose, *Rosa carolina*
- Southern Wax Myrtle, *Morella cerifera*
- Summer Phlox, *Phlox paniculata*
- Virginia Spiderwort, *Tradescantia virginiana*

Learn more about designing a raingarden and natives plants for rain gardens at www.PlantCentralRappNatives.org.

Native plants across the landscape provide the best protection for water quality and aquatic wildlife. When we shrink the lawn by adding layers of vegetation, we reduce the likelihood that soil particles and nutrients will end up in ponds, streams and other waterways.



**Plant Central
Rapp Natives**
BEAUTIFUL
BENEFICIAL
SUSTAINABLE

Meadow Garden Sign

NATIVE PLANTS FOR CENTRAL RAPPAHANNOCK

Meadows

Meadows are extremely important habitats for wildlife and also serve as important preserves for native plants that were once common along woodland edges, open areas, and roadsides but are now increasingly rare. Meadows and open grassy areas are also important natural buffers in protecting waterways, wetlands, and water resources.



Planting a Meadow

- 1) Diversity attracts diversity; to attract a wide range of wildlife, offer a wide range of:
 - Bloom times (aim for May through October).
 - Plant heights (use short, medium and tall species).
 - Flower colors (different animals are attracted to different colors – butterflies prefer blue, pink and purple; bees, wasps and beetles like white and yellow; goldfinches like yellow; and hummingbirds look for red, orange and pink).
 - Diverse plant groups (mix it up with milkweeds, mints, legumes, goldenrods, violets, wild geranium, ironweed)
- 2) Use native grasses/sedges; a healthy meadow should be 30-70% native grasses to provide shelter, caterpillar food and seeds for birds and mammals.
- 3) Provide plant species eaten by caterpillars; a great way to bring moths and butterflies into your meadow is to provide food for their larval stage. (<http://audubonva.org/planting-native-meadow>)



Save Natives, Add Beauty, Mow Less!

Letting your lawn go and creating a meadow will take a little planning, but once your meadow is established, it will be much easier (and cheaper) to care for than a lawn. Plant it and the birds and butterflies will come for the food and cover that this type of habitat provides.

Meadow gardening is still gardening, but the beauty and environmental rewards are great!

Learn more about meadows and Central Rapp natives for meadows at www.PlantCentralRappNatives.org.



Hillside & Streetside Plantings Sign

NATIVE PLANTS FOR CENTRAL RAPPAHANNOCK

Challenging Terrains: Streetsides, Hillsides

Plants along roadways and walkways can experience dry, harsh conditions as well as saturation due to run-off. They are exposed to pollutants, dust, spray, salt, compacted soil and low oxygen. Soil pH can also be affected through leaching from concrete curbs and sidewalks. Hillsides are one of the most challenging terrains in landscaping. They are typically dry and erosion can become an issue.



Central Rapp Natives for Streetside Plantings:

- Common Yarrow, *Achillea millefolium*
- Serviceberry, *Amelanchier canadensis*
- River Birch, *Betula nigra*
- Threadleaf Coreopsis, *Coreopsis verticillata*
- Wild Geranium, *Geranium maculatum*
- Sycamore, *Plantanus occidentalis*
- Goldenrod, *Solidago*

Central Rapp Natives for Hillside Plantings:

- Serviceberry, *Amelanchier canadensis*
- River Birch, *Betula nigra*
- Buttonbush, *Cephalanthus occidentalis*
- Shrubby St. Johnswort, *Hypericum prolificum*
- Inkberry, *Ilex glabra*
- Ninebark, *Physocarpus opulifolius*
- Clustered Mountain-mint, *Pycnanthemum muticum*
- Pasture Rose, *Rosa Carolina*
- Little Bluestem, *Schizachyrium scoparium*

A complete list of Central Rappahannock natives suitable for use in these challenging spaces can be viewed at www.PlantCentralRappNatives.org.



Pollinators Sign

NATIVE PLANTS FOR CENTRAL RAPPAHANNOCK

Planting for Pollinators and Birds



Native plants attract a variety of birds, butterflies, and other wildlife by providing diverse habitats and food sources. Native plants feed the insects that are an especially important food for young songbirds. Native plants also feed pollinators. We may not notice the hummingbirds, bats, bees, beetles, butterflies, and flies that carry pollen from one plant to another as they collect nectar, yet without them, wildlife would have fewer nutritious berries and seeds and we would not have many fruits, vegetables, and nuts.



By planting a diverse palette of native plants, we invite not only the plant-eating insects, but also their predators, as well as pollinators, seed dispersers, and recyclers, which work together to make a garden function like a system. Because our native plants and animals have evolved together, they support each other, and we enjoy the beauty and fruits of their labor.



Native Trees found in the Central Rapp support hundreds of species of moth and butterflies!

Common Name Plant Genus # of species supported

Oak	Quercus	534
Black cherry	Prunus	456
Willow	Salix	455
Birch	Betula	413
Crabapple	Malus	311
Maple	Acer	285
Elm	Ulmus	213
Pine	Pinus	203
Hickory	Carya	200
Hawthorn	Crataegus	159
Alder	Alnus	156
Basswood	Tilia	150
Ash	Fraxinus	150
Walnut	Juglans	130
Beech	Fagus	126
Chestnut	Castanea	125

Learn more about planting for birds and butterflies, and other insects at www.PlantCentralRappNatives.org.



Conservation Landscaping Sign

NATIVE PLANTS FOR CENTRAL RAPPAHANNOCK

Conservation Landscaping: Planting for Wildlife and People



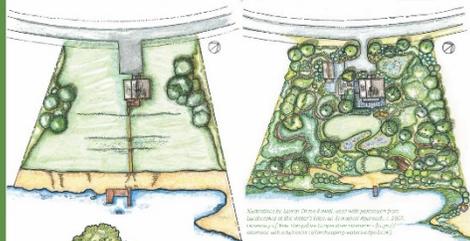
You can make a difference! There are so many places around our homes, neighborhoods and towns where we can make simple changes to improve habitat quality for a broad diversity of wildlife species. Will you join our call to share our suburban landscape with wildlife by planting more and a variety of Central Rapp native plants?



Here are just a few tips, to get you started:

- 1) Control or remove invasive species that are known to be problematic in the environment, such as English ivy, Japanese honeysuckle, periwinkle, privet, butterfly bush, nandina, barberry, tree-of-heaven, mimosa and Bradford pear.
- 2) Replace other non-native trees, shrubs and groundcovers in your landscape with plants native to the Central Rapp.
- 3) Recycle the leaves that trees give you for free in the fall by shredding them up with a leaf shredder or lawn mower, and use these as mulch around your landscape beds to build up organic matter and support a greater diversity of soil organisms.
- 4) Be strategic in reducing the size of your lawn; transition your landscape by gradually adding native shrubs and groundcovers in patches, which will require much less maintenance in the long run, once established.

Re-Thinking Landscape Choices



Group your landscape beds by placing shrubs adjacent to flowering perennials and by using groundcovers to fill all the spaces between the other plants. This creates a layered habitat for wildlife and also minimizes the amount of exposed mulch where weeds can invade.

Learn more about conservation landscaping at www.PlantVirginiaNatives.org.



Appendix E: Brochure

Whether you want to put in a flower garden or establish or restore the landscape around your home, there are a great variety of Central Rappahannock native plants from which to choose.

Native plants not only offer many practical, low cost, environmental benefits over non-native plants, but many also offer an appealing display of foliage and flowers that surpass non-native ornamentals.

By planting natives, you will join an increasing number of gardeners who have discovered that wildflowers, trees, shrubs, grasses, and annuals native to their region are not only important to protecting local water supply and wildlife, but are simply gorgeous.

Regardless of your gardening and landscaping plans, the native plants in Cedell Brooks, Jr. Park are worth checking out. We think you'll find just what you and the Central Rappahannock region need.

The Native Plant Demonstration Gardens in Cedell Brooks, Jr. Park were installed by the *Plant Central Rappahannock Natives Campaign* to showcase the colorful, beautiful variety of plants native to the Central Rappahannock area – Caroline, King George, Spotsylvania, and Stafford counties and the City of Fredericksburg.

Native Plant Demonstration Gardens Partners

Plant Central Rapp Natives
BEAUTIFUL
BENEFICIAL
SUSTAINABLE

Native Plant Demonstration Gardens
Cedell Brooks, Jr. Park
King George, Virginia

Plant Central Rapp Natives
BEAUTIFUL
BENEFICIAL
SUSTAINABLE

Garden Information

Rain Gardens

Rain gardens are planted in sunny or shady low areas - depressions about 6-9 inches deep - to collect and temporarily hold water that flows from hard surfaces like rooftops, sidewalks, driveways, and patios, until it slowly soaks back into the soil. Pollutants are naturally filtered out of the water by native plants, soil, and microorganisms in the soil. The clean water then travels downward to recharge groundwater, or it evaporates. When considering native plants for a rain garden, remember that there are three planting zones - low (wettest area), middle, and high (driest upper-edge area). Select native plants based on the zone and on the size of the garden. Trees and larger shrubs may not be appropriate for smaller gardens.

Meadows

Meadows are extremely important habitats for wildlife and also serve as important preserves for native plants that were once common along woodland edges, open areas, and roadsides, but are now increasingly rare. Meadows and open grassy areas are also important natural buffers in protecting waterways, wetlands, and water resources. When planting a meadow, remember that diversity attracts diversity. To attract a wide range of wildlife, offer a wide range of bloom times (aim for May through October), plant heights (use short, medium, and tall species), flower colors (different animals are attracted to different colors), and diverse plant groups. Mix it up with natives like milkweeds, mints, legumes, goldenrods, violets, wild geranium, and ironweed. For flower colors, butterflies prefer blue, pink, and purple; bees, wasps and beetles like white and yellow; goldfinches like yellow; and hummingbirds look for red, orange, and pink. Use native grasses/sedges; a healthy

meadow should be 30-70% native grasses to provide shelter, caterpillar food, and seeds for birds and mammals. Provide plant species eaten by caterpillars; a great way to bring moths and butterflies into your meadow is to provide food for their larval stage. (<http://audubonva.org/planting-native-meadow>).

Hillside/Streetside Gardens

Plants along roadways and walkways can experience dry, harsh conditions as well as saturation due to run-off. They are exposed to pollutants, dust, spray, salt, compacted soil and low oxygen. Soil pH can also be affected through leaching from concrete curbs and sidewalks. Hillside are one of the most challenging terrains in landscaping. They are typically dry and erosion can become an issue.

Visit www.PlantCentralRappNatives.org for a list of Central Rappahannock natives suitable for use in these challenging spaces.

Native Pollinators

Native plants attract a variety of birds, butterflies, and other wildlife by providing diverse habitats and food sources. Native plants feed the insects that are an especially important food for young songbirds. Native plants also feed pollinators. We may not notice the hummingbirds, bats, bees, beetles, butterflies, and flies that carry pollen from one plant to another as they collect nectar, yet without them, wildlife would have fewer nutritious berries and seeds and we would not have many fruits, vegetables, and nuts. By planting a diverse palette of native plants, we invite not only the plant-eating insects, but also their predators as well as pollinators, seed dispersers, and recyclers, which work together to make a garden function like a system. Because our native plants and animals have evolved together, they support each other, and we enjoy the beauty and fruits of their labor.

Conservation Landscaping

You can make a difference! There are so many places around our homes, neighborhoods and towns where we can make simple changes to improve habitat quality for a broad diversity of wildlife species.

Here are just a few tips, to get you started:
Control or remove invasive species that are known to be problematic in the environment, such as English Ivy, Japanese Honeysuckle, Periwinkle, Privet, Butterfly Bush, Nandina, Barbary, Tree-of-Heaven, Mimosa, and Bradford Pear.

Replace other non-native trees, shrubs and groundcovers in your landscape with plants native to the Central Rappahannock area.

Recycle the leaves that trees give you for free in the fall by shredding them up with a leaf shredder or lawn mower, and use these as mulch around your landscape beds to build up organic matter and support a greater diversity of soil organisms.

Be strategic in reducing the size of your lawn. Transition your landscape by gradually adding native shrubs and groundcovers in patches, which will require much less maintenance in the long run, once established.

NATIVE PLANTS FOR CENTRAL RAPPAHANNOCK VIRGINIA

Download a copy of the guide on your phone as you walk through the gardens at: www.PlantCentralRappNatives.org

Appendix F: Photos of Garden Construction and Dedication

Garden Construction











Final Garden







Dedication Ceremony









Appendix G: Dedication Ceremony Flyer

Please join the Plant Central
Rappahannock Natives Campaign for the

***Cedell Brooks, Jr. Park
Native Plant Garden
Dedication Ceremony***



Saturday, June 8, 2019 - 1 PM

Brief Ceremony and Garden Tours

**Cedell Brooks, Jr. Park
11259 Henry Griffin Road
King George, VA 22485**

**For more information, contact
Kate Gibson at 540-642-1579.**

Appendix H: Dedication Ceremony Press Release

FOR IMMEDIATE RELEASE

New Community Gardens in King George Showcase Native Plants

Media Contact:

Kate Gibson
(540) 642-1579
gibson@gwregion.org

FREDERICKSBURG, VA., May 23, 2019 – On June 8, the Plant Central Rappahannock Natives Campaign will dedicate a series of native plant demonstration gardens at Cedell Brooks, Jr. Park in King George County. Five gardens, including over 70 species and 650 plants, showcase the color, variety, and multiple benefits of plants native to this region.

Visitors will find a meadow garden, pollinator garden, rain garden, and gardens demonstrating native plants suitable for difficult-to-landscape areas like hillsides and streetsides. The educational experience of the gardens is enhanced by interpretive signs and plant ID markers, which include a description and engraved drawing of the plant as well as a QR code linked to the regional plant guide, “Native Plants for Central Rappahannock Virginia.” The campaign is also planning to produce a brochure to encourage local organizations and schools to use the gardens as an outdoor classroom and community resource.

The Plant Central Rappahannock Natives Campaign promotes the use of plants that are native to the City of Fredericksburg and the counties of Caroline, King George, Spotsylvania, and Stafford, and is part of a larger effort by the Virginia Coastal Zone Management (CZM) Program to increase the demand and supply of Virginia native plants through public-private collaboration.

“Collaboration was key to the installation of the gardens at Cedell Brooks, Jr. Park,” shares Kate Gibson, Deputy Director with the George Washington Regional Commission (GWRC). “It has been such a pleasure to work with the various partners that have come together for the campaign and to make the demonstration gardens a reality.” GWRC received multiple NOAA grants through the Virginia CZM Program to develop and implement the campaign and to install the gardens.

Artwood Gardens, Master Gardeners, Master Naturalists, Rappahannock Valley Garden Club, King George County, and others have so far contributed 577 volunteer and staff hours, valued at \$13,871, to install and maintain the gardens. This helps to match a \$24,716 grant from the Virginia CZM Program for the gardens.

“The county envisioned the park as an educational, discovery, and demonstration facility where visitors can learn about the flora and fauna of our region, and the conservation practices that can be applied at home,” explains Chris Clarke, Director of the King George Parks and Recreation Department. “We’re excited that these new native plant gardens help us fulfill that mission.”

The dedication ceremony will be held on June 8, 2019 at 1 PM at Cedell Brooks, Jr. Park, 11259 Henry

Griffin Road, King George, VA 22485. There will be a brief ceremony, followed by guided tours of the gardens. This event is free and open to the public.

More information on the Plant Central Rappahannock Natives Campaign, as well as a free digital copy of the plant guide are available at <https://www.plantvirginiannatives.org/plant-central-rappahannock-natives>.

###

Appendix I: Free Lance-Star Article

D-DAY ITEMS COME HOME
BEDFORD BOYS' FAMILIES SHARE MEMENTOES
B1
< T&C

SOFTWARE UPDATE
APPLE UNVEILS NEW WAYS TO OPERATE
A7
< BUSINESS

SOCCER IS THEIR REFUGE
BROTHERS ARE STANDOUTS AT MASSAPONAX
B3
< SPORTS

The Free Lance-Star

SERVING FREDERICKSBURG, SPOTSYLVANIA, STAFFORD, KING GEORGE, CAROLINE, ORANGE, CULPEPER AND SURROUNDING COUNTIES \$2.00

WEATHER: HIGH 79, LOW 61. B10 FREDERICKSBURG, VA. FOR 24-HOUR UPDATES, GO TO FREDERICKSBURG.COM TUESDAY, JUNE 4, 2019

VIRGINIA PLANTS PROVIDE 'SPECTACULAR COLOR'



PHOTOS BY MIKE MORONES / THE FREE LANCE STAR

A bumblebee buzzes among penstemon, or beardtongues, in one of the native plant gardens at Cedell Brooks Jr. Park.

King George takes native approach in park gardens

BY CATHY DYSON
THE FREE LANCE-STAR

Just like the bees busily buzzing in the new gardens, a swarm of volunteers has descended on the Cedell Brooks Jr. Park in King George County in recent months and put in place flowers, grasses and trees that showcase the color and benefits of native plants.

Five different gardens—all with plants that grew naturally in the region before they were lost to development—have been arranged next to the walking path that runs along the parking lot. The gardens feature more than 70 species of 1,000 plants that are favorites of birds and insects or known for their ability to resist drought or filter runoff before it enters waterways.

The demonstration garden plots are being dedicated during a ceremony on Saturday,



Master naturalist Cindy Sexton and King George Parks and Recreation Director Chris Clarke examine some of the more than 1,000 native plants in the county park.

and Peggy Stevens, a retired land conservationist, will give the keynote address. When she recently visited the area for the first time, she was delighted by its scope. Because of space limitations, plots of native plants often are squeezed into small, curbside spaces.

"I just wasn't prepared for how large the garden is," Stevens said. "It gives an oppor-

Shooter's email did not raise red flags

VIRGINIA BEACH OFFICIAL SAYS RESIGNATION DID NOT FORESHADOW MASSACRE A FEW HOURS LATER

BY BEN FINLEY AND ALAN SUDERMAN
ASSOCIATED PRESS

VIRGINIA BEACH—The Virginia Beach employee who shot and killed 12 people at a municipal building gave no hint of the massacre to come when he emailed his resignation letter earlier in the day, saying that he was leaving for "personal reasons" but that "it has been a pleasure to serve."

The gunman's two-sentence emailed resignation letter—released by city officials Monday, three days after the shooting—put authorities, the community and victims' families no closer to understanding why the engineer with 15 years on the job would go on a rampage at work.

Investigators seem stymied. There are no indications the 40-year-old Craddock left notes, manifestos, social media screeds or any other obvious signs of what motivated him.

Craddock's resignation email

SEE SHOOTING, A5



PATRICK SEMANSKY / ASSOCIATED PRESS

Patricia Olds touches a cross bearing the name of a slain Virginia Beach co-worker.

Guard general from Stafford to help France mark D-Day

BY CATHY JETT
THE FREE LANCE-STAR

The U.S. Army's 29th Infantry Division faced what would turn out to be a devastating situation as it neared Omaha Beach on D-Day.

Reeves faces GOP primary challenge from Breeden

BY SCOTT SHEKIN

defamation if he did not stop with that," Breeden said.

FROM THE FRONT PAGE

FREDERICKSBURG, VA.

TUESDAY, JUNE 4, 2019 THE FREE LANCE-STAR A5

NATIVE PLANTS

FROM A1

gional Commission. The GWRG received multiple grants through the Virginia Coastal Zone Management program to develop the campaign and purchase the plants.

Workers with Artwood Gardens, the Rappahannock Valley Garden Club, King George County and local chapters of master gardeners and master naturalists contributed more than 577 volunteer and staff hours, valued at almost \$14,000, to get the beds in place, according to a GWRG press release.

Their efforts helped match a grant from the Virginia CMZ program for \$24,716. The display is set up to give visitors a sampling of the type of plants that can be used in meadows or rain gardens, to attract native pollinators or to showcase how native grasses and flowers can survive in the harsh world along hillsides or streets.

The plants also give visitors a sampling of the "spectacular color and texture" they offer with something blooming in every season, Stevens said.

Witch hazel, a small tree, has a yellow flower in the winter. The crested dwarf iris is about 8 inches high and packs the same impact as its cultivated cousin; it blooms in April.

From June to October, the bright yellow petals of the black-eyed Susan will be open for the world to see and its ripened seeds will attract goldfinches and chickadees. In the fall, various types of goldenrod will fill the garden with color.

"I think it shows that using native plants is possible, and that you can get similar rewards in beauty



PHOTOS BY MIKE MORONES / THE FREE LANCE-STAR

Master naturalist Cindy Sexton and King George Parks and Recreation Director Chris Clarke discuss plans to renovate the former animal shelter.

and satisfaction from using native plants that you would use in horticultural varieties," she said.

Cindy Sexton, a master naturalist, and Chris Clarke, director of the King George Department of Parks and Recreation, gave visitors a tour of the gardens last week. As the group walked along the pathway, dozens of bumblebees buried themselves in the white buds of the penstemon flower, a variety also called "beard-tongues." Other insects flitted along the path.

"Something's working because we didn't have these little guys before," Clarke said about the pale blue butterflies fluttering at his feet.

The ceremony to dedicate the gardens is planned at 1 p.m. at the park, off State Route 205 at 11259 Henry Griffin Road in King George. It's next to the convenience center.

The site of the 33-acre park has come a long way this century. The area had been used as the county dump until the 1990s,



Achillea blooms in one of the new native plant gardens at Cedell Brooks Jr. Park in King George.

when new regulations would have brought about expensive changes to the facility. Instead, King George opened a new landfill at the current site, off State Route 3, and eventually removed all the trash that had been deposited off Henry Griffin Road.

Former Supervisor Cedell Brooks Jr. had campaigned to turn the dump into a park, and Shiloh Park opened in 2014. Three

years later, when Brooks retired after 26 years on the Board of Supervisors, the county renamed the park in his honor.

"They've done such wonderful things with this park," Sexton said about the playground and ball fields, which get a lot of traffic. "It's close to a lot of things in King George, yet it's kind of hidden away."

Cathy Dyson: 540/574-5425 cdyson@freelancestar.com

SHOOTING

FROM A1

gave his two weeks' notice but no clues that he was unhappy at work or held a grudge against anyone. Because the email is partially redacted, it's unclear how long before the shooting it was sent. Officials wouldn't say why they redacted it, and they declined to give an update on the investigation Monday.

Craddock's email reads: "I want to officially put in my (2) weeks' notice to vacate my position of Engineer III with the City of Virginia Beach. It has been a pleasure to serve the City, but due to personal reasons I must relieve my position."

Sometime later that day, police say, Craddock went from floor to floor of the building, firing from two .45-caliber pistols, killing 11 of his co-workers and a building contractor he encountered in the parking lot. He was killed in a gunbattle with police.

Police Chief James Cervera has said investigators are retracing the gunman's activities on the day of the attack, using his electronic keycard to track his movements through secure areas of the building. They are also reviewing his personal and professional lives.

"Right now we do not have anything glaring," Cervera said Sunday. "There's nothing that hits you right between the eyes. But we are working on it."

Officials also have said there's no indication Craddock targeted anyone specifically; shortly after the shooting, Cervera described him as firing

"indiscriminately."

Cervera has described a chaotic scene as officers entered the building and pursued the assailant through a tightly packed warren of offices that the chief likened to a maze or a honeycomb. They exchanged fire in a protracted gunbattle. Cervera said he did not know how many rounds were fired but called it "well into the double digits." Craddock was shot and taken by ambulance to the hospital, where he died.

Craddock appeared to have had no felony record, making him eligible to purchase guns. Government investigators identified two .45-caliber pistols used in the attack, and all indicators were that he purchased them legally in 2016 and 2018, said Asian Benedict, the regional special agent for the Bureau of Alcohol, Tobacco and Firearms. The police chief said at least one had a noise suppressor.

James Alan Fox, a criminologist at Boston's Northeastern University, said finding the motive in mass shootings is sometimes impossible, noting the FBI was never able to pin down exactly what drove a gunman to kill 58 country music fans in Las Vegas in 2017. And while knowing the reason may offer the public a sense of closure, he said, it doesn't necessarily help in preventing future shootings.

"There are countless Americans who are angry, who don't have lots of close friends, who are socially isolated, who are frustrated, who own guns and admire killers in the past who got even," Fox said. "But few may pick up a gun and shoot people."

EPPERLY

FROM A1

pre-invasion bombardment had largely overshoot the German divisions," said Maj. Gen. John Epperly of Stafford County, who is the commander of the 20th Infantry Division in the Virginia National Guard based at Fort Belvoir. "There was no cover. The beach was mined."

More than 800 members of the 20th Infantry Division's 116th Infantry Regiment were killed, wounded or went missing on D-Day. Company A from the Virginia National Guard in Bedford was nearly annihilated.

"It was a worst-case scenario," said Epperly, "but not only did they get to the beach, they took the German positions—albeit with heavy casualties."

Epperly, who is also president of DMI's federal practice, will speak at a ceremony Thursday at the National Guard monument on Omaha Beach to honor soldiers with the 20th Infantry Division on the 75th anniversary of D-Day. They were among the first wave of Allied forces to break through German defenses.

"I will try to speak to



Brig. Gen. John Epperly of Stafford speaks at last year's D-Day ceremony in Vierville-sur-Mer, France.

and the incredible appreciation they have for the Americans who helped."

He said that it was "very emotional" when he shook hands with many of the Frenchmen who held the historical unit colors of the French Army and the French Resistance during the ceremony. Most, he said, were crying.

Epperly said he wore his uniform when he gave his talk, and the French know the 20th's insignia represents and seek out those who wear it.

"The French that live in different parts of the Normandy coast, they know who came ashore and thank you for that," he said. "Obviously I wasn't born then, but there's just

deal for him that DMI supports his work with the National Guard. He's been deployed twice overseas, and has had a chance to work with French forces in the war on terror.

"If I deploy, they cover my family's health care, and I get paid time off for training and duty," he said. "I never miss a chance to thank them."

DMI, which is based in Bethesda, Md., specializes in mobile enterprise solutions, including web and app development, digital commerce, internet of things, analytics, brand and marketing, artificial intelligence and secure device and app management. Epperly is a West Point graduate and combat veteran of Operation Iraqi Freedom who has commanded troops in the U.S. Army for nearly 30 years.

"What DMI gets from the Army are all our veterans, folks that tend to be mature, have a great work ethic and do well as leaders," Epperly said. "It's a very symbiotic relationship."

Cathy Jett: 540/574-5407 cjet@freelancestar.com

deal for him that DMI supports his work with the National Guard. He's been deployed twice overseas, and has had a chance to work with French forces in the war on terror.

"If I deploy, they cover my family's health care, and I get paid time off for training and duty," he said. "I never miss a chance to thank them."

DMI, which is based in Bethesda, Md., specializes in mobile enterprise solutions, including web and app development, digital commerce, internet of things, analytics, brand and marketing, artificial intelligence and secure device and app management. Epperly is a West Point graduate and combat veteran of Operation Iraqi Freedom who has commanded troops in the U.S. Army for nearly 30 years.

"What DMI gets from the Army are all our veterans, folks that tend to be mature, have a great work ethic and do well as leaders," Epperly said. "It's a very symbiotic relationship."

"The French that live in different parts of the Normandy coast, they know who came ashore and thank you for that," he said. "Obviously I wasn't born then, but there's just



After lighting 12 candles, Veronica Coleman offers a prayer during a vigil for shooting victim Ryan Keith Cox at Piney Grove Baptist Church.

APPALACHIAN TRAIL GROUP REVISES SAFETY GUIDELINES

After a fatal stabbing on the Appalachian Trail this month, the nonprofit that manages the trail has streamlined its safety reporting web page.

The Appalachian Trail Conservancy has redesigned the way hikers can report incidents, from suspicious activity to vandalism to encounters with bears.

A bright red 911 button, a National Park Service phone number, an email address and online reporting forms are included on the site.

"We still had links in there,

but it was not as visually clear," said Jordan Bowman, communications manager for the conservancy. "The way we designed it now... their eye will immediately jump to the big red '911' if there's an emergency."

Bowman said the changes were prompted by the attacks that culminated in the death of Ronald Sanchez Jr., a 43-year-old Army veteran. Another hiker, James Louis Jordan, 30, is charged with his death and with assault with intent to commit murder on another hiker.

In the weeks leading up to the May 11 attack, Jordan had been a source of fear to hikers as he made his way on the Appalachian Trail.

—The Roanoke Times

WESTERN CAROLINE DISTRICT

Appendix J: Maintenance Plan

MAINTENANCE PLAN
FOR
PLANT CENTRAL RAPP NATIVES CAMPIGN
NATIVE PLANT DEMONSTRATION GARDEN
AT CEDELL BROOKS JR PARK
KING GEORGE, VA

**Prepared by the Plant Central
Rapp Natives Campaign**

August 1, 2019

1

INTRODUCTION

This plan outlines maintenance activities for the Cedell Brooks, Jr. Park (Brooks Park) Native Plant Demonstration Garden. These activities will include watering during the initial years of the garden, weeding, trail maintenance, litter control, pruning and other maintenance. The Plant Central Rappahannock (Rapp) Natives Campaign will be responsible for the maintenance of the native plant demonstration garden. The campaign members include:

- Caroline County
- Friends of the Rappahannock
- George Washington Regional Commission
- Hanover-Caroline Soil & Water Conservation District
- King George County
- Master Gardener Association of the Central Rappahannock Area
- Master Naturalists, Central Rappahannock Chapter
- Plants Map
- The Rappahannock Valley Garden Club
- Tri-County/City Soil & Water Conservation District
- University of Mary Washington
- USDA - Natural Resource Conservation Services
- Virginia Coastal Zone Management Program/Virginia Department of Environmental Quality
- Virginia Cooperative Extension
- Virginia Native Plant Society
- Virginia Natural Heritage Program/Virginia Department of Conservation & Recreation
- Virginia Nursery & Landscape Association

The Cooperative Extension Master Gardeners will coordinate the maintenance effort. This will include scheduling maintenance activities, assuring maintenance is conducted and contributing a portion of the labor required.

The plan also outlines the responsibility of the County of King George as the owner and operator of the park. In the sections below, an overview of the Plant Central Rapp Natives Campaign and the intentions for the demonstration garden are provided, the overall consideration and rationale for the level of maintenance of the demonstration garden are explained and the tasks associated with maintenance are outlined.

OVERVIEW OF THE PLANT CENTRAL RAPP NATIVES CAMPAIGN

The Plant Central Rapp Natives Campaign was launched to promote the use of native plants indigenous to the area in residential and commercial landscapes. Native plants reduce the requirements for irrigation, fertilization and maintenance including use of fertilizers and herbicides. The increased use of native plants in this area has a good potential of reducing fertilizer and insecticide pollution into the Chesapeake Bay.

The Plant Central Rapp Natives Campaign is part of a coast-wide, regional native plant marketing initiative being coordinated and funded by the Virginia Coastal Zone Management (CZM) Program/Virginia Department of Environment Quality through funds from the U.S. Department of Commerce, National Oceanic and Atmospheric Administration under the Coastal Zone Management Act. The George Washington Regional Commission administered the CZM funding for the Plant Central Rapp Natives Campaign, which was matched in kind by the time and expertise of the campaign's partners.

Development of the campaign strategy, whose primary audience is the general public, was informed by research of citizen knowledge, attitudes, and interest in using native plants for landscaping. The strategy includes:

- Multi-media components to educate the public about which plants are native to the Central Rappahannock region and the many benefits of native plants, including publication of a regional native plant guide providing descriptions and photographs.
- Point of sale marketing materials and partnership with local plant nurseries to help promote the use of native plants, such as signage and plant tags.
- Identifying and establishing demonstration gardens in the Central Rappahannock region where the public can see native plants and learn about the beauty and ease of maintenance of these plants compared to many traditional nonnative ornamental plants.

OVERVIEW OF THE PLANT CENTRAL RAPP NATIVES DEMONSTRATION GARDEN IN BROOKS PARK

The George Washington Regional Commission and the Plant Central Rapp Natives Campaign received an additional grant from the Virginia Coastal Zone Management Program to install a demonstration garden in Brooks Park to advance the goal of the campaign to provide a publicly owned and accessible, centralized landscape for public and community use. These grant funds were sufficient to provide plants and other materials for the demonstration garden, but assumed that labor would be conducted on a volunteer basis.

Brooks Park is an ideal location for a native plant demonstration garden. Brooks Park is an existing regional park with ball fields, a playground and an existing approximately one-half mile long trail that is located along a portion of the perimeter of the park. Native vegetation will be planted in locations along the beginning portion of the trail. The Plant Central Rapp Natives demonstration garden will visually sell the appeal of native plants as not only beneficial to the environment but as colorful, beautiful additions to any home garden.

Encouraging citizens to increase and maintain native vegetation for its ecological and aesthetic benefits is essential to protecting the ecological integrity of the Central Rappahannock region. The garden and interpretive signage will convey the message that native plants have adapted to the local environment and have numerous environmental benefits including requiring little irrigation beyond normal rainfall, and little to no fertilizer and pesticide use. Additionally, native plants absorb stormwater runoff and nutrients, which helps to protect water quality. They also provide critical wildlife habitats, since many species of Virginia wildlife rely exclusively upon native flora to provide food and shelter.

The Plant Central Rapp Natives Garden is located in Brooks Park, along a portion of the Brooks Park Trail System. A local landscape designer, Sherry Graham, drew the garden design with input from the Plant Central Rapp Natives Campaign regional team. The garden includes distinct sections, along the entrance portion of the pathway, to illustrate native plant groupings and layering for specific landscaping themes and growing conditions, such as rain gardens, street-side spaces, woodland edges and planting for pollinators. All native plant species that were installed in the demo garden are featured in the regional native plant guide “Native Plants for Central Rappahannock Virginia,” published by the campaign.

Signage at the site includes an entrance sign and interpretive signage, as well as plant ID markers. The plant ID markers include a description and engraved drawing of the plant, the Plant Central Rapp Natives Campaign logo and a QR code linking smart phone users to a downloadable copy of the regional plant guide, available at <https://www.plantvirginiannatives.org/native-plants-for-central-rapp/>. These plant ID markers have been used by other regional native plant campaigns and help to visibly connect the regional campaigns as a coast-wide effort.

A brochure was also produced to guide visitors through the garden. This brochure will be distributed to local organizations and schools to encourage the use of the garden as an outdoor classroom and community resource.

MAINTENANCE OF THE NATIVE PLANT DEMONSTRATION GARDEN

The overall marketing message of the Plant Central Rapp Natives Campaign is that the use of native plants in landscaping will reduce the requirement for irrigation, curtail pesticide use and reduce garden maintenance. Native plants will also provide habitat for pollinators and other wildlife. The demonstration garden will serve as a

living laboratory to demonstrate to the public the beauty of native plants as well as the lower irrigation and maintenance requirements. Campaign partners plan to provide educational programs in the garden on the types of native plants and on the care of those plants. Maintenance will reflect the care that is required for native plants. This will not include highly manicured gardens or pruning of trees in a manner used for parkways or similar locations.

The extent and timing of the maintenance activities are described in the following sections:

Monitoring

The native plant demonstration garden will be inspected at a minimum of twice per week year-round. The volunteer inspector will note and correct, if possible, any condition including plant tags, plant damage, litter and overall condition of plants. When necessary, the inspector will notify members of the maintenance team and/or King George Parks & Recreation of issues. It is anticipated that this will take four hours per week.

Irrigation

Irrigation of new plantings will be substantial in the first three years when the plants are established. Each plant will be watered at least twice per week during the growing season. Watering will be accomplished through hand watering. Watering will be reduced after periods of rain or during cool weather. Watering will be conducted more frequently during periods of high heat, low humidity and high winds. It is anticipated that this task will require 20 hours per week.

Watering will be substantially reduced after the first three years. Watering will be conducted in areas where there are new plantings, in the rain garden areas and in other areas where plants may be water-stressed. Additional irrigation will be conducted during periods of severe drought. Normal watering will be four hours per week.

Weeding

Full weeding of the demonstration garden will be conducted throughout the growing season. Weeding will include cultivation and hand weeding. Glyphosate will be sprayed by a certified pesticide applicator on the trails and around the beds to control grasses and weeds. Mulch will also be used to reduce weed growth and conserve water. It is anticipated that this will require 30 hours per month.

Trail Maintenance

Trails in the demonstration garden will be maintained at least twice per year in the spring and fall. This will include spraying with Glyphosate, addition of trail material

and filling any potholes. Additional spraying will be conducted during the summer if weed growth reappears. This will require about 50 hours during the year.

Pruning

The Cooperative Extension Agent will evaluate trees yearly. Pruning will be conducted as needed to remove dead branches and suckers and address other issues, including crossing limbs. Remedial pruning will be conducted to prevent future damage to the trees. This will require 10 hours per year.

Shrubs and larger perennials will be pruned as needed in order to reduce encroachment with other plants, prevent growth into trails and remove of dead plant materials.

Litter

Litter will be removed during inspections and other routine maintenance operations. It is expected that the County of King George will remove the litter once it is gathered.

COUNTY RESPONSIBILITIES

- The County will provide water to the site at all times.
- The County will provide grass mowing in areas outside of the demonstration garden.
- The County will provide security for the park.
- The County will remove trash and other material once it is collected.
- The County will maintain the parking lots of Brooks Park.