

DRAGON RUN SAMP  
FINAL REPORT  
VIRGINIA CZM PROGRAM  
GRANT #: NA05NOS4191180 FY 05 TASK 91



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PRODUCT 1

REPORT ON DEVELOPMENT AND IMPLEMENTATION OF  
COMPREHENSIVE PLAN AND/OR ZONING AMENDMENTS

PRODUCT 1A:

ANTICIPATED TIMELINE FOR ACTION FOR EACH LOCALITY

## Dragon Run Land-Use Policy Recommendation Implementation Timeline

### June 2007

**King and Queen County:** Primary direction of current action is to 1) seek adoption of zoning amendment to revise the Dragon Run Conservation District to remove reference to soil type and 2) essentially extend protection of Resource Protection Area by 200 ft in the Stream Buffer Zone

#### Timeline of Action

January 2007– FYI presentation of comp plan and zoning ordinance revisions to planning commission

June 2007– Introduction of revised zoning language to planning commission by Kempton Shields with DRSC staff support

July 2007 – Planning Commission will consider action on the amendment

August 2007 – Joint Public Hearing with zoning language amendment

September 2007 – Finish up adoption of zoning amendment

**Middlesex County:** Primary direction of action is pursue the adoption of comprehensive plan language for the Dragon Run during the county's update date cycle, which is underway. This initiative will be followed by the pursuit of the adoption of zoning language to increase protection of the Dragon Run watershed. Language for the streamside buffer, drainage overlay and conservation subdivision were all prepared with the input of the previous Zoning Director.

#### Timeline of Action

Currently undergoing comprehensive plan update; Dragon Run consultant previously submitted language recommendations to the consultant guiding the comprehensive plan revision. Adoption of comprehensive plan anticipated late spring 2008. It is expected that zoning recommendations will be considered in mid to late 2008.

**\*\*PENDING REVISED INPUT FROM NEW ZONING DIRECTOR\*\***

**Essex County:** Primary direction of action is to 1) seek to rezone all lands within the Dragon Run Watershed as A-1, Agricultural Preservation – this designation will limit the density of residential development to one dwelling per twenty acres, in contrast with the one unit per five acres in the A-2 District. Additionally, the A-1 District's Statement of Intent is more consistent with any comp plan or zoning ordinance amendment the County may adopt for protecting the Dragon Run; 2) provide comp plan language reflecting the need to protect the Dragon Run. Because the Resource Protection Area or Resource Management Area protects all of Essex County, Essex is not interested Stream Buffer Zone or the broader Conservation District

#### Timeline of Action

July 2007 – Presentation to the planning commission; may be joint with BOS

October 2007 through early 2008 – Start working with County on comp plan adoption process

April 2008 – Adoption of comp plan and revised zone change

**Gloucester County:** Primary direction of action is to create the Dragon Run Conservation Area Overlay District that provides for protection of the Dragon Run watershed both at the drainage wide level and at the streamside level. The Drainage Area Conservation Zone section of the ordinance would include a list of prohibited uses, special exceptions and special exception criteria that are based on performance standards. The Stream Buffer Zone section includes a list of permitted used in the zone, which extends 200 ft landward of the Resource Protection Area.

#### Timeline of Action

July 2007 – Gloucester planning staff will introduce Dragon Run aspect to Comp Plan Steering Committee

August 2007 – Presentation on the Dragon Run in August (third Thursday), DVD viewing  
Fall and Winter 2007, Spring 2008 – MPPDC staff provide input as required  
Summer 2008 – Final draft of Comp Plan expected for review  
2012 – Consider adoption of zoning recommendations

PRODUCT 1B:

ESSEX COUNTY RECOMMENDED COMPREHENSIVE PLAN AND ZONING  
LANGUAGE

ESSEX SUPPLEMENTAL MATERIAL

## **“Dragon Run Conservation District” and Other Amendments for the Essex County Comprehensive Plan:**

<To be inserted after the “Chesapeake Bay Preservation Areas” section on page 99>

### Dragon Run Conservation District

The Dragon Run is a special resource worthy of protection in Essex County. The Dragon Run Watershed and its surrounding landscape owe their extraordinary state of preservation to the landowners in the area that have pursued for generations the compatible land uses of farming and forestry on their land. Recent scientific study of the stream has also highlighted its critical ecological importance, including the purity of the water, the wealth of rare and unusual natural species it harbors, and the rural character of its watershed that has helped to keep it pristine. The rural way of life and traditional landscape in the Dragon Run area are valued by the residents of the area and are worthy of preservation.

Within the Dragon Run Watershed, 98% of the watershed is in the Countryside District and the remaining 2% is located in the Rural Residential District. Additionally, the Center Cross and Miller’s Tavern Rural Service Centers are on the edge of the Dragon Run Watershed as are portions of the U.S. Route 360 and U.S. Route 17 Highway Corridor Enhancement Districts.

In 2002, the County signed a Memorandum of Agreement, in concert with the other counties in the Dragon Run Watershed, to protect the natural resources and rural qualities of the area by participating in the Dragon Run Watershed Special Area Management Plan. In particular, one of the objectives of the Memorandum was to “Achieve consistency across county boundaries among land use plans and regulations in order to maintain farming and forestry and to preserve natural heritage areas by protecting plants, animals, natural communities, and aquatic systems.”

The overall intent for the Dragon Run Conservation District in this Comprehensive Plan is for it to remain largely rural, with low intensity uses, and to protect its key natural areas and its water quality. Specifically, the intent of this District is to:

- Maintain the health and quality of the Dragon Run stream system and associated natural areas.
- Achieve the objectives of the Memorandum of Agreement and reinforce the existing shared values for protecting the Dragon Run.
- Support the compatible economic base of the Dragon Run area and its rural businesses such as farming and forestry that are compatible with protecting the natural health of the stream system.
- Support new rural economic development and businesses that are compatible with the traditional pattern of rural land uses in the Dragon Run area.

The boundaries of the Dragon Run Conservation District are generally defined as the boundaries of the watershed of the Dragon Run. The watershed of the Dragon Run is the area where precipitation collects and funnels to end up in the Dragon Run stream. Conditions throughout the watershed affect the quality of the Dragon Run.

The following policies are intended to apply to the entire watershed of the Dragon Run. However, recognizing that the Essex County Comprehensive Plan has previously identified Center Cross and Miller’s Tavern as Rural Service Centers and U.S. Route 360 and U.S. Route 17 as Highway Corridor Enhancement Districts, the following District policies should be applied to Center Cross and Miller’s Tavern in concert with the policies for Rural Service Centers and those portions of the U.S. Route 360 and U.S. Route 17 corridors within the District in concert with the policies for Highway Corridor Enhancement Districts. The intent of the policies for this District is not to prevent development of those areas, but to ensure that they are developed in ways that are compatible with the basic intent of protecting the Dragon Run’s natural resources and low-intensity rural character. The following policies will guide the development of the District:

## **“Dragon Run Conservation District” and Other Amendments for the Essex County Comprehensive Plan:**

- The District should maintain its rural character through integrating new development with the existing rural economy and settlement patterns.
- Low intensity land uses that are consistent with the protection of the area’s natural resources should be the dominant land uses in the District and the County should promulgate zoning ordinances, residential and non-residential development standards, performance standards, and management practices that ensure compatibility with the natural resources and rural surroundings.
- The extension of central sewer and water is generally not considered consistent with preserving the area’s rural character and land uses.
- The County should enact policies, economic development plans, and ordinances that support the cornerstone rural businesses in the District, such as farming and forestry, and that encourage compatible new supportive businesses such as value-added farming and forestry, local specialties, handicrafts, small-scale workshops, and craft industries, while ensuring that these businesses are practiced in ways that are compatible with protecting the health of the natural resources.
- The County should protect the key natural resources in the District, including the ground and surface water quality, wetlands, and sensitive environmental features; native plant and animal species and their natural habitats; and the productive soils that support farming and forestry uses.
- The County should discourage the extensive use of the District for public recreation and large-scale tourism and encourage small scale and controlled tourism and recreation uses that conserve natural areas, respect property rights, and limit opportunities for trespassing on private properties in the District such as bed and breakfasts, private hunt clubs and preserves, and private tours.
- The County should implement programs and exhibits that interpret the natural and cultural heritage of the Dragon Run for both residents and visitors, without encouraging intense or incompatible recreational use of the District’s sensitive resources.
- The County should consider implementation strategies that conserve existing land uses and protect the natural resources in the District such as conservation zoning and subdivision approaches, additional stream buffers and setbacks, the purchase of development rights, donation of private easements, landowner compacts, and land use taxation.
- As an additional tool for protecting the Dragon Run, the County should also consider changing the Dragon Run Watershed’s land use designation to Agricultural Preservation District in its Land Use Plan Map.

It should be noted that these policies for the Dragon Run Conservation District are generally in concert with Essex County’s existing policies for the Countryside District, Rural Residential District, Rural Service Centers, and Highway Corridor Enhancement Districts.

<To be inserted in the “Growth Management & Land Use” goals section on page 71>

- Allow only low intensity rural land uses that are consistent with the conservation of the area’s natural resources in the Dragon Run Conservation District.

<To be inserted in the “Natural Resources & Environmental Quality” goals section on page 74>

- Protect the key natural resources in the Dragon Run Conservation District, including the ground and surface water quality; wetlands and sensitive environmental features; native plant animal species and their natural habitats; and the productive soils that support farming and forestry use.

**“Dragon Run Conservation District” and Other Amendments for the Essex County Comprehensive Plan:**

<To be inserted in the “Parks, Recreation, & Open Space” goals section on page 77>

- Encourage small-scale and controlled tourism and recreational uses of the Dragon Run Conservation District that conserve natural areas, respect property rights, and limit opportunities for trespassing on private properties in the area.

<To be inserted in the “Rural Character & Agricultural Preservation” goals section on page 78>

- Utilize strategies that conserve existing agricultural and forest land uses in the Dragon Run Conservation District and that protect the environmental resources of the stream system, such as conservation zoning and subdivision approaches, additional stream buffers and setbacks, the purchase of development rights, donation of private easements, landowner compacts, and land use taxation.

<To be inserted in the “Historic & Cultural Preservation” goals section on page 79>

- Implement programs and exhibits that interpret the natural and cultural heritage of the Dragon Run for both residents and visitors, without encouraging intense or incompatible recreational use of the area’s sensitive resources.

**A JUSTIFICATION FOR REZONING LANDS WITHIN THE  
DRAGON RUN WATERSHED  
AS A-1, AGRICULTURAL PRESERVATION**

In 2002, Essex County signed a memorandum of Agreement, in concert with the other counties in the Dragon Run Watershed, to preserve the natural resources and rural qualities of the area by participating in the Dragon Run Watershed Special Area Management Plan. One of the objectives of that plan was to “achieve consistency across county boundaries among land use plans and regulations in order to maintain farming and forestry and to preserve natural heritage areas by protecting plants, animals, natural communities, and aquatic systems.” Gloucester, King and Queen, and Middlesex Counties are all in the process of considering a Comprehensive Plan amendment that would either strengthen an existing Dragon Run Conservation District or create one for the first time and a Zoning Ordinance amendment that would create a Dragon Run Conservation Area Overlay District. The Middle Peninsula Planning District Commission is providing assistance to all of the Dragon Run Watershed Counties, including Essex County, as they seek to provide stronger protection to this special resource. In turn, the MPPDC has been assisted originally by Paradigm Design out of Reston, Virginia and currently by K. W. Poore & Associates, Inc. out of Richmond.

K. W. Poore & Associates has provided the County with the language of an amendment to the Comprehensive Plan creating a Dragon Run Conservation District and the language of an amendment to the Zoning Ordinance creating a Dragon Run Conservation Area Overlay District in keeping with the original recommendations of a Technical Memorandum provided to the County in September, 2005 by Paradigm Design. There was one additional recommendation made by Paradigm Design and it is addressed herein.

The vast majority of the Dragon Run Watershed within Essex County is zoned A-2, Limited Agricultural. There are also negligible amounts of R-2, Limited Residential, and MH-1, Mobile Home Park zoning in the watershed area. It is recommended that all lands within the Dragon Run Watershed within Essex County be rezoned as A-1, Agricultural Preservation. While the uses allowed in the A-2 and A-1 Districts are very similar, the density of residential development is significantly different. The A-1 District is more consistent with the overall goal of protecting the Dragon Run from incompatible development because it lowers the maximum density of residential development to generally one (1) dwelling unit per twenty (20) acres, in contrast to the current one (1) unit per five (5) acres in the existing A-2 District in the area. Additionally, the A-1 District’s Statement of Intent (Section 6.1) is more consistent with the intent and policies of any Comprehensive Plan amendment or Zoning Ordinance amendment the County might adopt for protecting the Dragon Run. Specifically it states, “The purpose of this District is to encourage continued agricultural and forest uses and preserve the natural beauty of rural areas of the county where urban services, such as sewer and water mains, are not planned.”

It is further recommended that if this rezoning is approved that the Land Use Plan Map of Essex County be amended so that the Dragon Run Watershed be designated as an Agricultural Preservation District and that the text defining the Agricultural Preservation District be amended as follows:

<To be added to the end of the first sentence under the definition of the “Agricultural Preservation District”, page 96 of the Essex County 2003 Comprehensive Plan>

...and established at the southern end of the County encompassing the extent of the Dragon Run Watershed that is also within the County.

**ARTICLE XV-4 DRAGON RUN CONSERVATION AREA OVERLAY DISTRICT  
DRCA - OD**

**Section 15-4.1 Title**

This Article shall be known and referred to as the “Dragon Run Conservation Area Overlay District” of Essex County.

**Section 15-4.2 Findings of Fact**

The Dragon Run is a special resource worthy of preservation. The Dragon Run area owes its extraordinary state of preservation to the landowners in the area that have pursued for generations the compatible land uses of farming and forestry on their land. Recent scientific study of the stream has also highlighted its critical ecological importance, including the purity of its water, the wealth of rare and unusual natural species it harbors and the rural character of its watershed that has helped to keep it pristine. The long-term quality of the Dragon Run and its landscape are of primary importance to Essex County. Maintaining these qualities also relies on maintaining the traditional pattern of rural land uses in the area even while maintaining the area as a “working landscape” where families have lived in and made a living from for generations. The key to preserving a rural landscape and way of life is to maintain the economic connections that residents have to their land. Compatible businesses such as farming and forestry, practiced according to responsible management practices, should remain as the mainstays of the local economy with the Dragon Run Watershed. The rural way of life, traditional landscape, and compatible businesses in the Dragon Run area are valued by the residents of the area and are worthy of preservation.

**Section 15-4.3 Purpose and Intent**

In 2002, Essex County signed a Memorandum of Agreement, in concert with the other counties in the Dragon Run watershed, to preserve the natural resources and rural qualities of the area by participating in the Dragon Run Watershed Special Area Management Plan. The purpose of the Dragon Run Conservation Overlay District is to conserve the natural qualities and important natural resources of the Dragon Run stream and its natural drainage area, and to:

- A. Protect the natural drainage area of the Dragon Run stream system from land uses with potential off-site impacts that could impair the water quality and ecological integrity of the stream system, and from land uses that inconsistent with the rural character and the compatible agricultural and forestry businesses of the area.
- B. Protect the physical and ecological integrity of the stream ecosystem.
- C. Retard runoff, prevent erosion, filter non-point source pollution from runoff, moderate stream temperature, and provide general environmental protection of the Dragon Run stream network.
- D. Provide a residential development option that permits flexibility of design in order to promote environmentally sensitive and efficient uses of the land.
- E. Preserve in perpetuity unique or sensitive natural resources such as groundwater, floodplains, wetlands, streams, steep slopes, woodlands, and wildlife habitat, through an alternative residential development option.
- F. Permit clustering of houses and structures in less environmentally sensitive areas, which will reduce the amount of infrastructure, including roads and utility easements, necessary for residential development.

**Section 15-4.4 Area of Applicability**

A. The Dragon Run Conservation Overlay District is generally defined as all lands in Essex County, Virginia that are also in the watershed of the Dragon Run stream. It is further defined as all lands within Essex County that naturally drain into the non-tidal freshwater stream system upstream of the U.S. Route 17 bridge which then flows into the tidal freshwater stream system from the U.S. Route 17 bridge to its mouth at Meggs Bay, generally referred to as Commonwealth Hydrologic Unit ID ‘CO2’ as described by the Virginia Department of Conservation and Recreation. It is finally defined as all lands identified as the Dragon Run Conservation Overlay District as designated by the Essex County Board of Supervisors and as shown on the Dragon Run Conservation Overlay District Map adopted by the Essex County Board of Supervisors on \_\_\_\_\_. The Dragon Run Conservation Overlay District Map, together with all explanatory material thereon, is hereby adopted by reference and declared to be a part of this Article.

B. The Stream Buffer Zone includes the land within the County that is a distance of 200 feet landward, measured horizontally, from the established Chesapeake Bay Resource Protection Area identified in Essex County under Article XV-1 of the Zoning Ordinance that is also within the Dragon Run Conservation Overlay District defined above.

C. The Dragon Run Conservation Overlay District Map shows the general location of the district and should be consulted by persons contemplating activities within Essex County prior to engaging in a regulated use. The site-specific boundaries of the Stream Buffer Zone for any parcel within the Dragon Run Conservation Overlay District shall be determined by the applicant concurrent with determining the Chesapeake Bay Resource Protection Area. Such determinations are governed by the requirements of Article XV-1 of the Zoning Ordinance.

#### **Section 15-4.5 Permitted Uses in the Stream Buffer Zone**

Only the following are permitted within the Stream Buffer Zone. The uses permitted in the base zoning district shall not be permitted in the Stream Buffer Zone unless they are included in the following list of permitted uses.

A. The construction and maintenance of non-commercial catwalks, piers, fences, and duck blinds, provided that such structures are so constructed on pilings as to permit the reasonably unobstructed flow of the tidal areas, or natural flow in non-tidal areas, and to preserve the natural contour of marshes, swamps, and water courses.

B. The cultivation and harvesting of shellfish and worms for bait.

C. Low intensity outdoor recreational activities, including hiking, boating, trapping, hunting, fishing, shellfishing, horseback riding, swimming, and skeet and trap shooting; provided that no structure shall be constructed except as permitted in subsection A. of this section.

D. Conservation, restoration, education, and research activities by private or public resource management agencies or organizations.

E. The normal maintenance, repair, or addition to existing roads, highways, or facilities of any person, firm, corporation, utility, or government abutting on or crossing wetlands or swamps, provided that no waterway is altered and no additional wetlands or swamps are covered or drained.

F. The normal maintenance of existing man-made drainage ditches, provided that no additional wetlands or swamps are covered or drained and provided further that this paragraph shall not be deemed to authorize construction of any new drainage ditch.

G. Agricultural management activities must incorporate the application of Best Management Practices in a plan approved by the Three Rivers Soil and Water Conservation District.

H. Forestry management activities must incorporate the application of Best Management Practices in a plan approved by the Virginia Department of Forestry.

#### **Section 15-4.6**

Where the standards and management requirements of this Article conflict with other laws, regulations, and policies regarding land use and development regulations, storm water management and erosion control, wetlands, floodplains, timber harvesting, land disturbance activities, or other environmental protective measures, the more stringent restrictions shall apply.

Essex Supplemental Material

## Sara Stamp

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**From:** Craig Wilson [cwilson@kwpoore.com]  
**Sent:** Thursday, March 01, 2007 12:34 PM  
**To:** gallen@crosslink.net  
**Cc:** Sara Stamp  
**Subject:** Dragon Run Materials

**To:** Gary Allen  
Sara Stamp

**From:** Craig Wilson

**Re:** Comprehensive Plan and Zoning Language for Dragon Run

Sara filled me in several days ago on her conversation with you about getting to you Comprehensive Plan language and zoning language that Essex County needs for Dragon Run. Based on her report, here is what I plan on providing to you over the next several days:

1. The first item is Comprehensive Plan language. That is done, formatted to the structure of your current Comprehensive Plan, and a copy is attached for your use. It contains both the main body of text that would go under a "Dragon Run Conservation District" and several objectives that could need to be added to the County's goals. It is based on the work of the former consultant, Vlad Gavrilovic. Obviously, you are free to edit it as needed, but if I need to help with a few edits just let me know.
2. Within several days I will send to you zoning language formatted particular to Essex County for a Dragon Run Conservation Overlay District that is based on the stream buffer concept that Vlad put forward in his former work.
3. Also, within several days I will provide to you a one page position paper on why Essex County should consider rezoning the portion of the County that lies in the Dragon Run Watershed from A-2, Agricultural Limited to A-1, Agricultural Preservation. This was another one of Vlad's recommendations and a brief piece that you can use with the Planning Commission and the Board of Supervisors might be helpful to that end.

Sara also mentioned that you might be interested in applying the streamside buffer to all of the County's tributaries, creeks, streams, etc. of significant value. That is extremely laudable, but I would approach it with some caution because that is a pretty big undertaking. Essex County's portion of the Dragon Run Watershed is rather small and the other watersheds in the County are probably quite large. Given how far west you are, I would assume they are probably more complex than some of the counties closer to the Bay. The only way I see that this could be done without creating the need to have more maps and the potential for confusion by having too many overlay districts related to water quality and rural quality preservation would be to add the language into your Chesapeake Bay Preservation Area Overlay District. You could define the Resource Management Area by not just floodplains, sensitive lands/soils, and steep slopes, but by adding the additional 200' buffer beyond the Resource Protection Area into the definition. You would then need to add in the language for the stream buffer land use which you have in the Technical Memorandum from Vlad and will see in the drafted zoning language that I will be sending. You have the typical CBPA Overlay District which does not address land use much at all, but by adding in the 200' buffer and limiting the uses in it you would add a significant piece to your CBPA Overlay District.

For now, if I was you, I would see how the Dragon Run piece works with your Planning Commission and Board of Supervisors before moving on to a larger piece. If they approve that and the rezoning, perhaps you could attempt to move to the next level. Folks at the Division of Chesapeake Bay Local Assistance at DCR would be of invaluable assistance if tweaking your CBPA language makes sense.

Let me know of any edits that I might need to do for the attached Comprehensive Plan language. I will send the other material along shortly. Thanks.

C. W. Poore & Associates  
2201 West Broad Street, Suite 204  
Richmond, VA 23220

**PARADIGM DESIGN FAX TRANSMITTAL**

Date: October 21, 2005  
Project Name/Number: Preservation and Progress in the Dragon Run  
Subject: Recommended Implementation Strategy  
From: Vlad Gavrilovic  
To: Gary Allen / Essex County Administrator  
cc: Sara Stamp / MPPDC

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As requested, following is a basic strategic outline for implementing the “Preservation and Progress in the Dragon Run” Task Force recommendations in Essex County. As we discussed, this outline is intended to ‘customize’ the recommendations of the Task Force so that they fit most effectively into Essex County’s planning and zoning framework. This memorandum addresses only specific implementation recommendations – for a broader discussion of the Task Force work and the project in general, please refer to the final project report, entitled, Recommendations for a Model Comprehensive Plan District and Zoning Options for the Dragon Run.

**SUMMARY OF RECOMMENDATIONS**

The overall intent of this project is to coordinate land use policies and practices across the four counties that encompass the Dragon Run watershed. The primary recommendations for Essex County are as follows:

Comprehensive Plan Recommendation:

1. Adopt a Model Dragon Run Comprehensive Plan District

Zoning Ordinance Recommendations:

2. Rezone the portion of the County that lies in the Dragon Run watershed from A-2 Agricultural district to A-1 Agricultural district.
2. Amend the Zoning Ordinance and Zoning Map to establish a new ‘Stream Corridor Overlay District’ to protect the immediate streamside areas of the Dragon Run and its tributaries.

**SCHEDULE**

It is anticipated that the Model Comprehensive Plan District can be considered for adoption at the time of the next County Comprehensive Plan update, scheduled to begin in 2007. The zoning revisions can either be

considered concurrently with the Comprehensive Plan update, or follow in a relatively short time frame (within one year of the Plan adoption)

#### IMPLEMENTATION OF THE COMPREHENSIVE PLAN RECOMMENDATIONS

The Future Land Use Map in the Essex County Comprehensive Plan designates the overwhelming majority of the Dragon Run drainage system as 'Countryside District.' The Plan's goals and objectives seek preservation of important natural resources, farm and forestry lands and overall rural character. The plan text also promotes clustering as a means of preserving open space.

The recommended policies in the proposed Dragon Run Compatible Economic Development and Preservation District are consistent with the overall intent and policies of the Comprehensive Plan for its rural areas. The proposed model District does not discourage residential development, but urges that it be done with densities and development patterns that serve to protect the overall rural character of the area. Thus the proposed District is compatible with the intent of the current County Comprehensive Plan.

In general, the model district language can be adopted by the County as a new district at the time of its next Comprehensive Plan update. The inclusion of the model district language can be adopted without any major change in policy direction from the current Comprehensive Plan.

One measure that would strengthen the effectiveness of the proposed new district would be to also show it as a mapped district in the County's updated Future Land Use Map. This map change could be accomplished in two ways:

1. Create a new district called the Dragon Run Compatible Economic Development and Preservation District; OR
2. Designate the entire watershed of the Dragon Run as an Agricultural Preservation Area, which is an existing district in the current Comprehensive Plan.

A proposed map of the recommended district is included at the conclusion of this memo. The district are the same as those recommended for a rezoning to A-2 in the zoning recommendations below.

#### IMPLEMENTATION OF THE ZONING ORDINANCE RECOMMENDATIONS

The current Zoning Ordinance standards, as pertaining to the Dragon Run watershed in Essex County, are as follows:

- The vast majority of the watershed is zoned A-2, Limited Agricultural. There are also negligible amounts of R-2, Limited Residential, and MH-1, Mobile Home Park, zoning in the watershed area.
- The purpose of the A-2 district is to protect existing and future farming operations and at the same time allow for low-density residential uses. This district generally corresponds to areas of the County represented as the Countryside District and Rural Residential District in the County Comprehensive Plan.
- The Essex County Zoning Ordinance includes a Chesapeake Bay Preservation Overlay District that is applicable to the immediate shoreline of the Dragon Run. While this district provides "streamside" protection measures, it does not address protection of the Dragon Run Watershed. In addition, only the first 100 feet from the stream edge is effectively protected from residential or other types of development (the Resource Protection Area). The remainder of the area (the Resource Management Area) has standards for development practices such as erosion control and vegetation, but is otherwise not precluded from potentially incompatible development that could affect the Dragon Run water quality.

The Zoning Ordinance recommendations for the Dragon Run watershed in the County are as follows:

1. Rezone Watershed Area to A-1 (Agricultural) District

The purpose of this recommendation is to strengthen the opportunities for conservation of the Dragon Run by rezoning its watershed area to A-1, the County's established Agricultural Preservation District (Article VI.). This district is more consistent with the overall goal of protecting the Dragon Run from incompatible development because it lowers the maximum density of residential development to generally 1 unit per 20 acres, in contrast to the current 1 unit per 5 acres in the existing A-2 zone in the area.

In addition, the A-1 District's Statement of Intent (Section 6.1) is more consistent with the intent and policies of the model Dragon Run Compatible Economic Development and Preservation District, to maintain the Dragon Run watershed as a low intensity rural area with farming and forestry uses predominating.

A proposed map of the recommended district is included at the conclusion of this memo.

2. Establish a new Overlay Stream Buffer Zone:

This recommendation calls for the establishment of a new overlay district for the Dragon Run stream and its direct tributaries. The purpose of this recommendation is to allow for additional protection against potentially incompatible streamside development along the Dragon Run stream system, while allowing for continued farming, forestry and private recreational uses in the area. A detailed description of the proposed Stream Buffer Overlay Zone is provided in the Final Report of the Preservation and Progress in the Dragon Run Task Force. Listed below is a summary of the key points of the proposed overlay zone:

- The proposed district is an Overlay Zone (it modifies, but doesn't eliminate the base zoning)
- It extends 200' landward from the Chesapeake Bay Resource Protection Area
- It allows only certain conservation & passive recreational uses as specified
- The District is primarily intended to protect stream ecology
- It generally permits Farming & Forestry with BMP's

The new Overlay Zone could be implemented through a text amendment that describes the boundaries and provisions of the new zone, by establishing an additional article in the zoning ordinance (for example, Article XV-4 Dragon Run Stream Buffer Overlay District). In general, the proposed Stream Buffer Overlay Zone has been designed so that it doesn't conflict with the provisions of the County Zoning Ordinance, including the Chesapeake Bay Preservation Overlay District (Article XV-1). However, it is strongly recommended that this and the other recommended implementation measures described above undergo a thorough legal review by the County attorney, before final adoption.

#### LONG TERM RECOMMENDATIONS

The Final Report of the Preservation and Progress in the Dragon Run Task Force includes additional zoning recommendations to further reinforce the conservation of the Dragon Run and its surrounding rural economy. These may be considered by Essex County for future implementation, if they become necessary due to increasing pressure for land conversion in the area. These recommendations include:

1. Establishment of a separate Dragon Run Drainage Area Overlay District to cover the whole drainage area of the Dragon Run in the County.
2. Establishment of a voluntary development option called the Conservation Subdivision Option.

It is recommended that all of the current and long-term recommendations be considered at the time of the next update of the County's Comprehensive Plan. At that time, the County can best determine which specific implementation mechanisms are most appropriate to ensure the continued conservation of the Dragon Run and its surrounding rural context.

PRODUCT 1C:  
GLOUCESTER COUNTY RECOMMENDED COMPREHENSIVE PLAN AND  
ZONING LANGUAGE  
GLOUCESTER SUPPLEMENTAL MATERIAL

## **“Dragon Run Conservation District” and Other Amendments for the Gloucester County Comprehensive Plan:**

<To be inserted before “and rural landscapes” in the first paragraph of the “Quality of the Natural Environment” section on page 12>

, Dragon Run

<To be inserted after the “Resource Conservation District” section on page 46>

### **DRAGON RUN CONSERVATION DISTRICT**

The Dragon Run is a special regional resource worthy of protection in Gloucester County. The Dragon Run Watershed is in the Rural Countryside District and includes the Glens Rural Service Center, a portion of the Highway Corridor Overlay District along U.S. Route 17, and shorelines and tributary streams protected by the Resource Conservation District. The Dragon Run and its surrounding landscape owe their extraordinary state of preservation to the landowners in the area that have pursued for generations the compatible land uses of farming and forestry on their land. Recent scientific study of the stream has also highlighted its critical ecological importance, including the purity of the water, the wealth of rare and unusual natural species it harbors, and the rural character of its watershed that has helped to keep it pristine. The rural way of life and traditional landscape in the Dragon Run Watershed are valued by the residents of the area and are worthy of conservation.

In 2002, the County signed a Memorandum of Agreement, in concert with the other counties in the Dragon Run Watershed, to protect the natural resources and rural qualities of the area by participating in the Dragon Run Watershed Special Area Management Plan. In particular, one of the objectives of the Memorandum was to “Achieve consistency across county boundaries among land use plans and regulations in order to maintain farming and forestry and to preserve natural heritage areas by protecting plants, animals, natural communities, and aquatic systems.”

The overall intent for the Dragon Run Conservation District in this Comprehensive Plan is for it to remain largely rural, with low

intensity uses, and to protect its key natural areas and its water quality. Specifically, the intent of this District is to:

- Maintain the health and quality of the Dragon Run stream system and associated natural areas.
- Achieve the objectives of the Memorandum of Agreement and reinforce the existing shared values for preserving the Dragon Run.
- Support the compatible economic base of the Dragon Run area and its rural businesses such as farming and forestry that are compatible with preserving the natural health of the stream system.
- Support new rural economic development and businesses that are compatible with the traditional pattern of rural land uses in the Dragon Run area.

The boundaries of the Dragon Run Conservation District are generally defined as the boundaries of the watershed of the Dragon Run. The watershed of the Dragon Run is the area where precipitation collects and funnels to end up in the Dragon Run stream. Conditions throughout the watershed affect the water quality of the Dragon Run.

The following policies are intended to apply to the entire watershed of the Dragon Run. However, recognizing that the Gloucester County Comprehensive Plan has previously identified the Glens area within the watershed as a Rural Service Center and U.S. Route 17 as a Highway Corridor Overlay District, the following District policies should be applied to the Glens area in concert with the policies for Rural Service Centers and that portion of the U.S. Route 17 corridor within the District in concert with the policies for Highway Corridor Overlay Districts. The intent of the policies for this District is not to prevent development of those areas, but through policies and standards, to ensure that they are developed in ways that are compatible with the basic intent of preserving the Dragon Run’s natural resources and low-intensity rural character. The following

## **“Dragon Run Conservation District” and Other Amendments for the Gloucester County Comprehensive Plan:**

policies will guide the development of the District:

- The District should maintain its rural character through integrating new development with the existing rural economy and settlement patterns.
- Low intensity land uses that are consistent with the conservation of the area’s natural resources should be the dominant land uses in the District and new development should be compatible with surrounding rural areas as well as incorporate development standards and management practices that ensure protection of the area’s natural resources.
- With some exception, the extension of central sewer and water is not considered consistent with preserving the area’s rural character and land uses.
- The County should enact policies, economic development plans, and ordinances that support the cornerstone rural businesses in the District, such as farming and forestry, and that encourage compatible new supportive businesses such as value-added farming and timber products, local specialties, handicrafts, small-scale workshops, and craft industries, while ensuring that these businesses are practiced in ways that are compatible with protecting the health of the natural resources.
- The County should protect the key natural resources in the District, including the ground and surface water quality, wetlands, and sensitive environmental features; native plant and animal species and their natural habitats; and the productive soils that support farming and forestry uses.
- The County should discourage the extensive use of the District for public recreation and large-scale tourism and encourage small scale and controlled

tourism and recreation uses that preserve natural areas, respect property rights, and limit opportunities for trespassing on private properties in the District such as bed and breakfasts, private hunt clubs and preserves, and private tours.

- The County should implement programs and exhibits that interpret the natural and cultural heritage of the Dragon Run for both residents and visitors, without encouraging intense or incompatible recreational use of the District’s sensitive resources.
- The County should consider implementation strategies that conserve existing land uses and protect the natural resources in the District such as conservation zoning and subdivision approaches, additional stream buffers and setbacks, the purchase of development rights, donation of private easements, landowner compacts, and land use taxation.

It should be noted that these policies for the Dragon Run Conservation District are generally in concert with Gloucester County’s existing policies for the Rural Countryside District, Resource Conservation District, Rural Service Centers, and Highway Corridor Overlay Districts.

**“Dragon Run Conservation District” and Other Amendments for the Gloucester County Comprehensive Plan:**

<To be inserted in **Objective 2** of **APPENDIX B** on page 71>

- Protect the key natural resources in the Dragon Run Conservation District, including the ground and surface water quality, wetlands and sensitive environmental features, native plant animal species and their natural habitats and the productive soils that support farming and forestry use.

<To be inserted in **Objective 2** of **APPENDIX B** on page 71>

- Encourage small-scale and controlled tourism and recreational uses of the Dragon Run Conservation District that preserve natural areas, respect property rights, and limit opportunities for trespassing on private properties in the area.

<To be inserted in **Objective 3** of **APPENDIX B** on page 72>

- Allow only low intensity rural land uses that are consistent with the protection of the area’s natural resources in the Dragon Run Conservation District.

<To be inserted in **Objective 5** of **APPENDIX B** on page 72>

- Utilize strategies that conserve existing agricultural and forest land uses in the Dragon Run Conservation District and protect the environmental resources of the stream system, such as conservation zoning and subdivision approaches, additional stream buffers and setbacks, the purchase of development rights, donation of private easements, landowner compacts, and land use taxation.

## **ARTICLE X: DRAGON RUN CONSERVATION AREA OVERLAY DISTRICT**

### **Sec. x-1. Purpose.**

The purpose of the Dragon Run Conservation Overlay District is to conserve the natural qualities and important natural resources of the Dragon Run stream and its natural drainage area, and to:

- (1) Protect the natural drainage area of the Dragon Run stream system from land uses with potential off-site impacts that could impair the water quality and ecological integrity of the stream system, and from land uses that inconsistent with the rural character and the compatible agricultural and forestry businesses of the area.
- (2) Protect the physical and ecological integrity of the stream ecosystem.
- (3) Retard runoff, prevent erosion, filter non-point source pollution from runoff, moderate stream temperature, and provide general environmental protection of the Dragon Run stream network.
- (4) Provide a residential development option that permits flexibility of design in order to promote environmentally sensitive and efficient uses of the land.
- (5) Preserve in perpetuity unique or sensitive natural resources such as groundwater, floodplains, wetlands, streams, steep slopes, woodlands, and wildlife habitat, through an alternative residential development option.
- (6) Permit clustering of houses and structures in less environmentally sensitive areas, which will reduce the amount of infrastructure, including roads and utility easements, necessary for residential development.

### **Sec. x-2. District boundaries.**

The Dragon Run Conservation Overlay District is generally defined as the boundaries of the watershed of the Dragon Run stream. It is further defined as all lands within the County that naturally drain into the non-tidal freshwater stream system upstream of the U.S. Route 17 bridge and the tidal freshwater stream system from the U.S. Route 17 bridge to its mouth at Meggs Bay, generally referred to as Commonwealth Hydrologic Unit ID 'CO2' as described by the Virginia Department of Conservation and Recreation. It is finally defined as all lands designated by the Gloucester County Board of Supervisors and as shown on the Dragon Run Conservation Overlay District Map adopted by the Gloucester County Board of Supervisors on \_\_\_\_\_. The Dragon Run Conservation Overlay District Map, together with all explanatory material thereon, is hereby adopted by reference and declared to be a part of this Article.

### **Sec. x-3. Conflict with other regulations.**

Where the standards and management requirements of this overlay zone are in conflict with other laws, regulations, and policies regarding land use and development regulations, storm water management and erosion control, wetlands, floodplains, timber harvesting, land disturbance activities, or other environmental protective measures, the more restrictive shall apply.

#### **Sec. x-4. Drainage Area Conservation Zone.**

The land within the Dragon Run Conservation Area Overlay District as defined in Section x-2 of the Zoning Ordinance. The Dragon Run Conservation Overlay District Map shows the general location of the district and should be consulted by persons contemplating activities within Gloucester County prior to engaging in a regulated use.

#### **Sec. x-5. Permitted uses in the Drainage Area Conservation Zone.**

All land uses that are permitted or special exception uses in the base zoning district shall be allowed in the Dragon Run Conservation Overlay District; except as described below.

#### **Sec. x-6. Prohibited uses in the Drainage Area Conservation Zone.**

- (1) Commercial communication facility
- (2) Uses required for the provision and maintenance of public facilities and utilities
- (3) Uses required for the provision and maintenance of private wastewater facilities
- (4) Dredge spoil sites
- (5) Landfills
- (6) Application of biosolids
- (7) Automobile graveyard/junkyard
- (8) Marinas and boat yards
- (9) Yacht clubs
- (10) Country clubs and golf courses
- (11) Kennels
- (12) Airports
- (13) Commercial race tracks
- (14) Sawmills and planing mills
- (15) Commercial stables
- (16) Livestock markets and feedlots
- (17) Intensive livestock production
- (18) Public utility offices and government offices
- (19) Highway business
- (20) Truck and freight terminals
- (21) Automotive sales and services
- (22) Manufactured home and trailer sales
- (23) Farm, forestry, and construction equipments sales and service

- (24) Adult bookstore, adult mini-motion picture theater, adult motion picture theater, cabaret
- (25) Retail stores and shops with five thousand (5,000) square feet or more
- (26) Office, financial, institutional, service, and general businesses with five thousand (5,000) square feet or more
- (27) Self-storage buildings and warehouses with five thousand (5,000) square feet or more
- (28) Wholesale business with five thousand (5,000) square feet or more
- (29) Food processing and storage with five thousand (5,000) square feet or more
- (30) Light manufacturing with five thousand (5,000) square feet or more
- (31) Medium manufacturing
- (32) Extractive manufacturing
- (33) Seafood processing plants
- (34) Newspaper and commercial printing shops
- (35) Research institutions and laboratories
- (36) Hotels, motels, and motor lodges
- (37) General hospitals
- (38) Multifamily dwellings
- (39) Town houses
- (40) Manufactured home park
- (41) Planned unit development

**Sec. x-7. Special exception uses in Drainage Area Conservation Zone.**

- (1) Schools, libraries, museums
- (2) Campgrounds
- (3) Veterinary hospital
- (4) Child care centers
- (5) Adult day care centers
- (6) Nursing homes
- (7) Group homes
- (8) Lodge halls, social clubs, indoor theaters, auditoriums, music and dance studios
- (9) Schools, colleges, and universities
- (10) Service station garage
- (11) Restaurants
- (12) Recreation and amusement enterprises

- (13) Retail stores and shops with five thousand (5,000) square feet or less and no outside display or storage of materials or merchandise
- (14) Office, financial, institutional, service, and general businesses with five thousand (5,000) square feet or less
- (15) Self-storage buildings and warehouses with five thousand (5,000) square feet or less and no outside display or storage of materials or merchandise
- (16) Wholesale business with five thousand (5,000) square feet or less and no outside display or storage of materials or merchandise
- (17) Food processing and storage with five thousand (5,000) square feet or less and no outside operations or storage
- (18) Light manufacturing with five thousand (5,000) square feet or less and no outside operations or storage
- (19) Manufactured homes

**Sec. x-8. Special exception criteria in the Drainage Area Conservation Zone.**

The following criteria are established for the determination of special exceptions:

- (1) The use shall not cause degradation to the water quality of the Dragon Run stream system. A water quality impact assessment shall be required for any proposed land disturbance, development, or redevelopment within the Drainage Area Conservation Zone when required by the director or director's designee, because of the unique characteristics of the site or intensity of the proposed development or redevelopment or potential impact on the water quality of the Dragon Run stream system. The requirements of the water quality impact assessment are the same as the requirements outlined in Section 5.5-11 of the Gloucester County Code for the Chesapeake Bay Preservation Areas.
- (2) The use shall not create environmental or scenic degradation of the Dragon Run stream system.
- (3) The use shall preserve the rural and scenic quality of the landscape, particularly as viewed from public roads.
- (4) The use shall not have a degrading effect on an agricultural or forested area. For the purpose of this section, a property shall be deemed to be in an agricultural or forested area if fifty (50) percent or more of the land within one (1) mile of the border of such property has been in commercial agricultural or silviculture use within five (5) years of the date of the application for a special exception.
- (5) The use because of its nature, location, or manner of operation shall not be dangerous or noxious because of noise, odor, fumes, gas, glare, light, vibration, smoke, emission of particulate matter or effluents, or for other similar reasons.
- (6) The use shall not be located closer than five hundred (500) feet to any residential district.
- (7) The property shall abut an existing highway maintained by the Virginia Department of Transportation and would not in the opinion of the Virginia Department of Transportation:

- (i) Occasion the need for road improvement;
- (ii) Cause a tolerable road to become a non-tolerable road;
- (iii) Increase traffic on an existing non-tolerable road.

#### **Sec. x-9. Stream Buffer Zone.**

The land within the County that is a distance of 200 feet landward, measured horizontally, from the established Chesapeake Bay Resource Protection Area identified in the County under Section 5.5 of the Gloucester County Code that is also within the Dragon Run Conservation Overlay District defined in Section x-2 of the Zoning Ordinance. The Dragon Run Conservation Overlay District Map shows the general location of the district and should be consulted by persons contemplating activities within Gloucester County prior to engaging in a regulated use. The site-specific boundaries of the Stream Buffer Zone for any parcel within the Dragon Run Conservation Overlay District shall be determined by the applicant concurrent with determining the Chesapeake Bay Resource Protection Area. Such determinations are governed by the requirements of Section 5.5 of the Gloucester County Code.

#### **5-10. Permitted uses in the Stream Buffer Zone.**

Only the following are permitted within the Stream Buffer Zone. The uses permitted in the base zoning district shall not be permitted in the Stream Buffer Zone unless they are included in the following list of permitted uses.

- (1) The construction and maintenance of non-commercial catwalks, piers, fences, and duck blinds, provided that such structures are so constructed on pilings as to permit the reasonably unobstructed flow of the tidal areas, or natural flow in non-tidal areas, and to preserve the natural contour of marshes, swamps, and water courses.
- (2) The cultivation and harvesting of shellfish and worms for bait.
- (3) Low intensity outdoor recreational activities, including hiking, boating, trapping, hunting, fishing, shellfishing, horseback riding, swimming, and skeet and trap shooting; provided that no structure shall be constructed except as permitted in subsection A. of this section.
- (4) Conservation, restoration, education, and research activities by private or public resource management agencies or organizations.
- (5) The normal maintenance, repair, or addition to existing roads, highways, or facilities of any person, firm, corporation, utility, or government abutting on or crossing wetlands or swamps, provided that no waterway is altered and no additional wetlands or swamps are covered or drained.
- (6) The normal maintenance of existing man-made drainage ditches, provided that no additional wetlands or swamps are covered or drained and provided further that this paragraph shall not be deemed to authorize construction of any new drainage ditch.

(7) Agricultural management activities must incorporate the application of Best Management Practices in a plan approved by the Tidewater Soil and Water Conservation District.

(8) Forestry management activities must incorporate the application of Best Management Practices in a plan approved by the Virginia Department of Forestry.

## Gloucester Supplemental Material



County Building Three  
PHONE (804) 693-1224  
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## Department of Planning

6582 Main Street  
P. O. Box 329  
Gloucester, Virginia 23061

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### M E M O R A N D U M

**TO:** Vladimir Gavrilovic, Paradigm Design

**FROM:** Anne Ducey-Ortiz, AICP, Planner III

**DATE:** December 16, 2005

**SUBJECT:** Dragon Run Preservation and Progress

I apologize for the delay in responding to the recommendations you sent a few months ago. As you know, we've been busy working on other projects and this project was not a pressing from a County perspective as some of the others we are dealing with.

I went through your "Technical Memorandum: Implementation Recommendations for Gloucester." The two tiered approach appears reasonable to me - both a Streamside Buffer Zone and Drainage Area Zone. Since the Streamside Buffer Zone is similar to the Chesapeake Bay Ordinance requirements I did not really have too many comments. It is widely known that wooded buffers do help to protect water quality and a 300 foot buffer adjacent to the Dragon Run stream will go a long way in protecting water quality.

Therefore, I focused primarily on the Watershed / Drainage Area Zone and tried to compare it to what we currently have in our Ordinance. In addition, I tried to determine why you recommended what you did in this section and provide comments regarding this. I also recommended some new prohibited uses and have questions about some of the uses you propose for Special Exception (SE). In Gloucester County, SE's are reviewed by our Codes Compliance office and approved or denied through the Board of Zoning Appeals (BZA). Therefore, the criteria upon which these uses are to be approved or denied need to be pretty clear. In some instances I think that the uses and specific requirements should be more clearly defined and permitted as of right rather than requiring a special exception, Depending on what the perceived impacts to the watershed are, it

may be better to address them through specific performance criteria rather than the a review by the BZA.

I worked on this between other projects, so I may have missed some things, but thought this memo may be a good starting point for discussions. Possibly we can schedule a time to meet in January to go over the ideas. As you know, we are hoping to begin our process to revise our Comp Plan in January and we would hope to incorporate at least the Comp Plan recommendations into that plan.

**Comparison of Recommendations to GC’s existing Ordinance:**

Specific permitted or conditional uses that should be considered for prohibition in the Drainage Area Zone include the following. Note that, since this is an overlay zone, it would only modify the uses in those underlying zoning districts in which these uses are already permitted:

<b>Proposed Prohibited Use</b>	<b>Current Permitted Use</b>	<b>Comments</b>
Adult Bookstore, theater	Permitted by SE in I-1	Not in keeping w/ Rural Character
Airport, public	SE in RC-1	Not in keeping w/Rural Character
Auto/Truck Sales (new)	Permitted under Highway Business in I-1	Not in keeping w/Rural Character
Auto/Truck Sales (used)	Permitted under Highway Business <sup>1</sup> in I-1	Not in keeping w/Rural Character
Communication facility, radio or Television stations or towers	Type III and IV (structurally add to existing tower and new tower) permitted by SE in B-4 & RC-1	Not in keeping w/Rural Character
Eating Establishments with drive-in	Permitted as of right in B- 4	Not in keeping w/Rural Character
Hotel, Motel, Motor Lodge	Not currently permitted in B-4, RC-1 or I-1	Attract tourists?

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<sup>1</sup> *Business, highway*: Commercial uses which generally require locations on or near major thoroughfares and/or their intersections, and which tend to serve the motoring public. Highway businesses uses include, but need not be limited to, such activities filling stations; truck and auto sales and service, restaurants and motels.

<b>Proposed Prohibited Use</b>	<b>Current Permitted Use</b>	<b>Comments</b>
Landfill, public (county)	Debris Landfill permitted as SE in RC-1	Impact on water quality
Racetrack, Commercial	SE in RC-1	Not in keeping w/Rural Character
Seafood Processing Plant	SE in RC-1	Impact on water quality
Truck and Freight Terminal <sup>2</sup>	Permitted in I-1	Not in keeping w/Rural Character; potential pollution
<b>Other Potential Prohibited Uses</b>		
Intensive Livestock Production <sup>3</sup>	Permitted as of right in RC-1	Potential Water Quality Impacts?
Recreation and amusement enterprises: <sup>4</sup>	SE in B-4 and RC-1	Some uses permitted under this may not be consistent with Rural Character such as dance halls, nightclubs, video arcades, sports arenas
Extractive Manufacturing <sup>5</sup>	Permitted as SE in I-1	Water Quality Impacts?
Automobile Graveyard/Junkyard <sup>6</sup>	Permitted as SE in I-1	Water Quality Impacts? Not in keeping with the pristine nature of Dragon

<sup>2</sup> *Truck and Freight Terminal* - Storage facility for unloading, transferring and storage of goods and materials being transported by truck. May include facilities for repair & service of trucks.

<sup>3</sup> *Livestock production, intensive*: A feedlot for swine or poultry involving 300 or more animal units, where one swine equals 0.4 animal units, one turkey equals 0.02 animal units, and one chicken or other fowl equals 0.01 animal units. Such operations are further defined and regulated by the State Water Control law.

<sup>4</sup> *Recreation and amusement enterprises*: Participant and/or spectator uses operated as a business. Typical uses include: dance halls, nightclubs, game rooms; billiard and pool halls; video arcades; bowling alleys; ice and roller skating rinks; indoor and/or outdoor racquetball, swimming, and/or tennis facilities; sports arenas; outdoor amusement parks; driving ranges; archery ranges; and miniature golf. This definition includes wellness and fitness centers, whether operated for profit or as part of a non-profit organization.

<sup>5</sup> *Manufacturing, extractive*: Any mining, quarrying, excavating, processing, storing, separating, cleaning, or marketing of any mineral natural resource including but not limited to coal, oil, gasoline, bottled gas, wood and stone.

<sup>6</sup> *Automobile graveyard*: Any lot or place which is exposed to the weather and upon which more than one (1) motor vehicle of any kind, incapable of being operated, and which would not be economically practical to make operative, are placed, located or found, outside a fully enclosed building.

<b>Proposed Prohibited Use</b>	<b>Current Permitted Use</b>	<b>Comments</b>
Dredge Spoil Sites <sup>7</sup>	Permitted as SE in RC-1	Potential Water Quality Impacts? May not be applicable to the DR watershed
Sand and Gravel operations <sup>8</sup>	Permitted as SE in RC-1	Impacts to groundwater and water quality?
Campgrounds	Permitted as SE in RC-1	Increased Tourism Access, Potential Water Quality Impacts
Warehouse	Permitted in I-1	Rural Character?

**Proposed Conditional Uses – need to establish special exception criteria for each**

<b>Proposed Conditional Use</b>	<b>Current Ordinance</b>	<b>Comments</b>
Auto Service Station	Service Station Garage permitted in B-4, as Highway Business in I-1	
Contractor's Storage Yard/Office	Permitted in I-1	Conditions re: storage related to water quality/visual impacts
Convenience Store	Permitted in B-4 as Retail Stores and shops	Possibly permit as of right, but limit the sf
Eating Establishments/Restaurant	Permitted in B-4 as restaurant	Performance standards - size/sf
Financial Institution, Bank	Permitted in B-4	Why SE? What difference from Office?
Lawnmower/Equipment, sales, rental, repair	Permitted in B-4	Why SE ? - supports rural character -

<sup>7</sup> *Dredge spoil site*: An area specifically designated and designed effectively to contain dredged material from a dredging operation, and to prevent dredge spoil return to state waters or transport to areas beyond approved spoil site limits. Spoil sites and dredging operations covered by this definition are subject to approval by the local Wetlands Board, the Virginia Marine Resources Commission, the U. S. Army Corps of Engineers, and all other applicable requirements.

<sup>8</sup> *Sand and gravel operation*: Any operation involving the breaking or disturbing of the surface soil or rock, where the primary purpose of the operation is to extract or remove sand, soil, gravel, or other natural materials from the earth and to transport the material, or any portion thereof, off-site. Such operations which are incidental to and the result of other permitted uses are exempt from this definition.

<b>Proposed Conditional Use</b>	<b>Current Ordinance</b>	<b>Comments</b>
		performance standards for water quality
Library	Not listed in any of the 3 districts	Why not in B-4
Livestock, Intensive Dairy, Poultry	Permitted as of right in RC-1	performance standards for water quality? Or prohibit in the watershed?
Manufactured Home and trailer sales	Not listed in any of the 3 districts	
Manufacturing	Permitted in I-1 – also permitted are fiberglass molding and construction; cabinet, furniture and upholstery fabrication. Light and Medium Manufacturing permitted in I-1 and Light Manufacturing permitted as a SE in RC-1	Performance standards to protect water quality. Have to specify that manufacturing applies to light, medium and other specific types of manufacturing currently permitted in I-1.
Microbrewery	Permitted in I-1	What are the impacts from this use?
Monument Works	Permitted in I-1	What are the impacts from this use?
Museum	Permitted in B-4	Why SE? What impacts? Possibly limit size?
Nursing Home/Home for Elderly	Permitted in B-4	Limit size? Water quality impacts – septic.
Office, Business, Professional, Administrative	Permitted in B-4	Why SE- support rural community? Maybe limit size
Office, Medical/Dental	Permitted in B-4	Why SE- support rural community? Maybe limit size
Office, Public/Governmental	Permitted in B-4	Should continue to be as of right in B-4 – more performance standards
Post Office	Permitted in B-4	Should continue to be as of right in B-4 – more performance standards
Public Utilities	Permitted in B-4	Depends upon the type

Proposed Conditional Use	Current Ordinance	Comments
		of utilities - should continue to be permitted
Retail Sales Establishment	Retail stores and shops permitted in B-4	Possibly limit size of retail, no drivethrough, etc. to discourage big box (Walgreens, Wal-Mart) that would be against rural character
Sawmill	Sawmills and planing mills currently SE in RC-1	Not necessary? Already a SE & not permitted in other districts
Sawmill, Portable or Temporary	Permitted as of right in RC-1	Consistent with Forestry - Traditional Uses
Service business <sup>9</sup>	Permitted as of right in I-1	
Veterinary Clinic or Hospital	Permitted in B-4, Already a SE in RC-1	Why SE in B-4 ? Should be permitted - consistent with Rural Character - maybe limit the size
Wholesale Businesses <sup>10</sup>	Permitted as of right in I-1	

Section 4-13. Rural Business district (B-4) of the Zoning Ordinance states: “The intent of the B-4 district is to provide for the needs of the rural residential and farming communities and to allow for a combination of business and industrial uses necessary to support the rural population.” I think some of the uses proposed for SE should be permitted, but maybe limit the size or magnitude since this does support traditional uses in the area. I would be curious to understand your rationale for some of these recommendations.

The Board of Supervisors has asked the Planning Commission to go through the ordinance with regard to special exceptions as a result of a sand mining application that

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<sup>9</sup> *Business, service:* Any profit-making activity which renders services primarily to other commercial or industrial enterprises, which services and repairs appliances and machines used in homes and businesses.

<sup>10</sup> *Business, wholesale:* Business establishments that generally sell commodities in large quantities or by the piece to retailers, jobbers, other wholesale establishments, or manufacturing establishments. These commodities are basically for further resale, for the fabrication of a product, or for use by a business service.

was permitted by SE adjacent to residential area. In going through this list, I see where some of these uses within the districts could be incompatible with the intent of the district and may be changed during this evaluation.

Also, the Special Exceptions typically have criteria associated with them although some just indicate criteria “U” which would allow the BZA to impose any reasonable conditions. Do you have any suggestions on any of these for specific criteria that would address the intent of the Dragon Run Compatible Economic Development and Preservation District?

I was thinking that some of the uses (retail, restaurants, convenience business) could be permitted but possibly limit the maximum square footage and number of buildings per lot to reduce the potential for large shopping centers and/or big box stores in the B-4 district so that it would still serve the rural community, but wouldn’t turn into a “Tappahannock”. I would also suggest that single family homes be permitted in the B-4, but only on existing lots of record (or not part of a new subdivision) to allow mix uses in these areas.

Other examples or suggestions for performance standards or special exception criteria that would further provide the protection of the Dragon beyond that provided by the Chesapeake Bay Preservation Ordinance, E&S Ordinance and HCOD Ordinance (Section 6A of the Zoning Ordinance applies to parcels in the B-4 district) would be helpful particularly with respect to uses such as mining, manufacturing, or uses that produce a certain amount of waste water. Some ideas for performance standards/criteria:

- Minimum lot sizes for certain uses,
- submission of a water quality impact analysis,
- Traffic Impact Analysis (limit number of Vehicle Trips per day for certain uses),
- Visual Impact Analysis – increased buffers and screening for certain uses,
- no outdoor display visible from the right of way

While the conservation subdivision option is interesting, I don’t think it is something the County would be considering at this time. Also, I don’t know how viable it would be with the requirement for state roads. I think the current ordinance which limits major subdivision does a better job at protecting the rural character. A modified idea of the Conservation Subdivision which would allow an additional lot or two provided a certain minimum acreage is preserved in perpetuity may be appropriate, however, I think ten lots is too many to preserve the rural character and with land prices in our development district the way they are now, I would be afraid we would get more to this type of development than we want. Also, the submittal requirements for this district are more restrictive than what we require for major subdivisions. Unless we apply the same submittal requirements to all subdivisions (or to all cluster subdivisions) throughout the County, the incentive to implement a conservation subdivision would be reduced.

PRODUCT 1D:

KING AND QUEEN COUNTY RECOMMENDED COMPREHENSIVE PLAN  
AND ZONING LANGUAGE

KING AND QUEEN SUPPLEMENTAL MATERIAL

## **Dragon Run Conservation District Amendment for the King and Queen County Comprehensive Plan:**

<To replace item “e.” in the “Special Overlay Zones” section on page 8.

- e. **Dragon Run Conservation District:** The Dragon Run is a special resource worthy of protection. The Dragon Run and its surrounding landscape owe their extraordinary state of preservation to the landowners in the area that have pursued for generations the compatible land uses of farming and forestry on their land. In 2002, the County signed a Memorandum of Agreement, in concert with the other counties in the Dragon Run watershed, to protect the natural resources and rural qualities of the area by participating in the Dragon Run Watershed Special Area Management Plan. In particular, one of the objectives of the Memorandum was to “Achieve consistency across county boundaries among land use plans and regulations in order to maintain farming and forestry and to preserve natural heritage areas by protecting plants, animals, natural communities, and aquatic systems.”

The overall intent for the Dragon Run Conservation District in this Comprehensive Plan is for it to remain largely rural, with low intensity uses, and to protect its key natural areas and its water quality. Specifically, the intent of this District is to:

1. Maintain the health and quality of the Dragon Run stream system and associated natural areas.
2. Achieve the objectives of the Memorandum of Agreement and reinforce the existing shared values for protecting the Dragon Run.
3. Support the compatible economic base of the Dragon Run area and its rural businesses such as farming and forestry that are compatible with protecting the natural health of the stream system.
4. Support new rural economic development and businesses that are compatible with the traditional pattern of rural land uses in the Dragon Run area.

The boundaries of the Dragon Run Conservation District are generally defined as the boundaries of the watershed of the Dragon Run. The watershed of the Dragon Run is the area where precipitation collects and funnels to end up in the Dragon Run stream.

The following will guide the development of the District:

1. Low intensity land uses that are consistent with the conservation of the area’s natural resources should be the dominant land uses in the District and the County should promulgate zoning ordinances, residential and non-residential development standards, performance standards, and management practices that ensure compatibility with the natural resources and rural surroundings.
2. The development of central sewer and water is not considered consistent with preserving the area’s rural character and land uses and the County should work with other jurisdictions, regional authorities, and the Hampton Roads Sanitary District to find effective alternatives to central sewer and water facilities in the District.
3. The County should enact policies, economic development plans, and ordinances that support the cornerstone rural businesses in the District, such as farming and forestry, and that encourage compatible new supportive businesses such as local specialties, handicrafts, small-scale workshops, and craft industries, while ensuring that these businesses are practiced in ways that are compatible with the health of the natural resources.
4. The County should protect the key natural resources in the District, including the ground and surface water quality, wetlands, and sensitive environmental features; native plant and animal species and their natural habitats; and the productive soils that support farming and forestry uses.
5. The County should discourage the extensive use of the District for public recreation and large-scale tourism and encourage small scale and controlled tourism and recreation uses that preserve natural areas, respect property rights, and limit opportunities for trespassing on private properties in the District such as bed and breakfasts, private hunt clubs and preserves, and private tours.
6. The County should implement programs and exhibits that interpret the natural and cultural heritage of the Dragon Run for both residents and visitors, without encouraging intense or incompatible recreational use of the District’s sensitive resources.
7. The County should consider implementation strategies that conserve existing land uses and protect the natural resources in the District such as conservation zoning and subdivision approaches, additional stream buffers and setbacks, the purchase of development rights, donation of private easements, landowner compacts, and land use taxation.

## **ARTICLE 11 DRAGON RUN CONSERVATION OVERLAY DISTRICT**

### **3-250 Intent of District**

The purpose of the Dragon Run Conservation Overlay District is to conserve the natural qualities and important natural resources of the Dragon Run stream and its natural drainage area, and to:

- A. Protect the natural drainage area of the Dragon Run stream system from land uses with potential off-site impacts that could impair the water quality and ecological integrity of the stream system, and from land uses that inconsistent with the rural character and the compatible agricultural and forestry businesses of the area.
- B. Protect the physical and ecological integrity of the stream ecosystem.
- C. Retard runoff, prevent erosion, filter non-point source pollution from runoff, moderate stream temperature, and provide general environmental protection of the Dragon Run stream network.
- D. Provide a residential development option that permits flexibility of design in order to promote environmentally sensitive and efficient uses of the land.
- E. Preserve in perpetuity unique or sensitive natural resources such as groundwater, floodplains, wetlands, streams, steep slopes, woodlands, and wildlife habitat, through an alternative residential development option.
- F. Permit clustering of houses and structures in less environmentally sensitive areas, which will reduce the amount of infrastructure, including roads and utility easements, necessary for residential development.

### **3-251 District Boundaries**

The Dragon Run Conservation Overlay District is generally defined as all lands in King and Queen County, Virginia that are also in the watershed of the Dragon Run stream. It is further defined as all lands within King and Queen County that naturally drain into the non-tidal freshwater stream system upstream of the U.S. Route 17 bridge which then flows into the tidal freshwater stream system from the U.S. Route 17 bridge to its mouth at Meggs Bay, generally referred to as Commonwealth Hydrologic Unit ID 'CO2' as described by the Virginia Department of Conservation and Recreation. It is finally defined as all lands designated by the Board of Supervisors of King and Queen County, Virginia, and shown as the Dragon Run Conservation Overlay District on the "Official Zoning District Map of King and Queen County, Virginia." Said map, together with all explanatory material contained therein and attached thereto, is hereby adopted by reference and declared to be a part of this Article.

### **3-252 Conflict with Other Regulations**

Where the standards and management requirements of this overlay zone are in conflict with other laws, regulations, and policies regarding land use and development regulations, storm water management and erosion control, wetlands, floodplains, timber harvesting, land disturbance activities, or other environmental protective measures, the more restrictive shall apply.

### **3-253 The Stream Buffer Zone**

All lands within King and Queen County, Virginia that are a distance of 200 feet landward, measured horizontally, from the established Resource Protection Areas within the Chesapeake Bay Preservation Overlay District as designated by the Board of Supervisors of King and Queen County, Virginia under Article 12 of the Zoning Ordinance that are also within the Dragon Run Conservation Overlay District as defined above. The “Official Zoning District Map of King and Queen County, Virginia” shows the general location of the Dragon Run Conservation Overlay District and should be consulted by persons contemplating activities within Middlesex County prior to engaging in a regulated use. The site-specific boundaries of the Stream Buffer Zone for any parcel within the Dragon Run Conservation Overlay District shall be determined by the applicant concurrent with determining the Chesapeake Bay Resource Protection Area. Such determinations are governed by the requirements of Article 12 of the Zoning Ordinance.

### **3-254 Permitted Uses in the Stream Buffer Zone**

Only the following are permitted within the Stream Buffer Zone. The uses permitted in the base zoning district shall not be permitted in the Stream Buffer Zone unless they are included in the following list of permitted uses.

- A. The construction and maintenance of non-commercial catwalks, piers, fences, and duck blinds, provided that such structures are so constructed on pilings as to permit the reasonably unobstructed flow of the tidal areas, or natural flow in non-tidal areas, and to preserve the natural contour of marshes, swamps, and water courses.
- B. The cultivation and harvesting of shellfish and worms for bait.
- C. Low intensity outdoor recreational activities, including hiking, boating, trapping, hunting, fishing, shellfishing, horseback riding, swimming, and skeet and trap shooting; provided that no structure shall be constructed except as permitted in subscription A. of this section.
- D. Conservation, restoration, education, and research activities by private or public resource management agencies or organizations.
- E. The normal maintenance, repair, or addition to existing roads, highways, or facilities of any person, firm, corporation, utility, or government abutting on or crossing wetlands or swamps, provided that no waterway is altered and no additional wetlands or swamps are covered or drained.
- F. The normal maintenance of existing man-made drainage ditches, provided that no additional wetlands or swamps are covered or drained and provided further that this paragraph shall not be deemed to authorize construction of any new drainage ditch.
- G. Agricultural management activities must incorporate the application of Best Management Practices in a plan approved by the Three Rivers Soil and Water Conservation District.
- H. Forestry management activities must incorporate the application of Best Management Practices in a plan approved by the Virginia Department of Forestry.

## King and Queen Supplemental Material

**AGENDA**  
**KING & QUEEN COUNTY PLANNING COMMISSION**  
**TUESDAY, JANUARY 2, 2007**  
**7:00 P.M.**  
**HEARING ROOM**

- ✓ 1. CALL TO ORDER *sub*
- ✓ 2. ROLL CALL/DETERMINATION OF QUORUM
- ✓ 3. APPROVAL OF AGENDA
- ✓ 4. ELECTION OF OFFICERS *Kempston New chairman*
- ✓ 5. APPROVAL OF MINUTES
  - A) December 4, 2006 – Regular Meeting
  - B) December 11, 2006 – Joint Public Hearing
6. ✓ CITIZENS COMMENT PERIOD – PLANNING RELATED ISSUES ONLY
7. ✓ DRAGON RUN PRESENTATION
  - A) Additional Steps to Implementing the Dragon Run Watershed Management Plan
8. NEW BUSINESS
9. UNFINISHED BUSINESS
  - A. Subdivision Ordinance
10. COMMISSIONER'S COMMENTS
11. MEETING SCHEDULE

There will be a joint public hearing with the Board of Supervisors on Lentz's Rezoning, Level 3 Site Plan and Conditional Use, Williams Rezoning, and Bohannon's Rezoning on Monday, January 8, 2007.

The next Planning Commission meeting will be on Monday, February 5, 2007.
12. ADJOURNMENT

**ADDITIONAL STEPS TO IMPLEMENTING  
THE DRAGON RUN WATERSHED MANAGEMENT PLAN**

**A PRESENTATION TO  
THE KING & QUEEN COUNTY PLANNING COMMISSION  
JANUARY 2, 2007**

**K. W. POORE & ASSOCIATES, INC.**

**Background**

The following steps have already been undertaken by the Middle Peninsula Planning District Commission and the four counties through which the Dragon Run flows, including King & Queen County, to better understanding the impact of development on the Dragon Run Watershed and to protect this important natural resource in the future:

- The adoption in the fall of 2002 of a Memorandum of Understanding by the Middle Peninsula Planning District Commission and by the four counties, including King & Queen County, committing the five entities to participate in the Dragon Run Watershed Special Area Management Plan.
- The development of the Dragon Run Special Area Management Plan program guided by the Dragon Run Advisory Group and the Dragon Run Steering Committee.
- The securing of funds from the National Oceanic and Atmospheric Administration's Office of Ocean and Coastal Resource Management through the Virginia Coastal Zone Management Program of the Department of Environmental Quality, from the Environmental Protection Agency's Chesapeake Bay Program through the Virginia Department of Conservation and Recreation, and from the Chesapeake Bay Restoration Fund Advisory Committee for gathering, analyzing, and publishing pertinent data; creating reports and recommendations for action; and working with the four Dragon Run counties to develop implementation strategies.
- The creation of a Geographic Information System (GIS) database on the Dragon Run.
- The completion of several reports: 1) *Dragon Run Land Use Policy Audit* (September, 2003); 2) *Dragon Run Watershed Management Plan* (November, 2003); and *Recommendations for Model Comprehensive Plan District and Zoning Options for the Dragon Run* (September, 2005).
- Additionally, each county was provided with a Technical Memorandum with implementation recommendations specific to the county's current comprehensive plan and zoning ordinance in September, 2005.

## Current Status

Paradigm Design moved off the scene in 2006 and utilizing the remaining available grant funds, the Middle Peninsula Planning District Commission secured the services of K. W. Poore & Associates, Inc., a planning, community development, and design firm established in 1978 in Richmond. The focus of K. W. Poore's work is:

- To work with county planning staff to utilize the recommendations to develop the specific comprehensive plan language needed by each Dragon Run county as it considers including the Dragon Run Watershed into its comprehensive plan with additional specificity through the inclusion of a "Dragon Run Conservation District"; and
- To work with county planning staff to utilize the recommendations to develop amendments to the zoning and subdivision ordinances of each Dragon Run county needed to implement a more precise strategy of land use, land development, and conservation for the Dragon Run Watershed to implement the Dragon Run Watershed Management Plan.
- To provide technical assistance to the county during the adoption and implementation process.

## Regarding King & Queen County

King & Queen County does have two references to the Dragon Run in its 2006 Comprehensive Plan under the heading "Special Overlay Zones" and one section in its Zoning Ordinance that delineates a Dragon Run Conservation District. The language in the Comprehensive Plan is as follows:

- e. **Dragon Run Conservation District** to protect Dragon Run wetlands.
- f. **The Dragon Run Watershed Management Plan** to protect this unique and pristine asset by providing guidance for appropriate development within the watershed and to provide coordination among the four counties which border the Dragon.

Item "e." is a reference to the Dragon Run Conservation District outlined in the County's Zoning Ordinance. As indicated below, the Dragon Run Conservation District as currently defined has several limitations to its usefulness as a tool in protecting the Dragon Run Watershed.

Item "f." is a reference to the *Dragon Run Watershed Management Plan* which is included in the Comprehensive Plan as Appendix C.

King & Queen County is to be applauded for its efforts at protecting the Dragon Run Watershed. However, additional work is needed to provide the full protections initially envisioned through this cooperative effort. These are specifically:

1. **Amending the Comprehensive Plan to include specific language that not only references a Dragon Run District, but also lays out the goals and policies for the district.** Utilizing the excellent work done by Vladimir Gavrilovic of Paradigm Design and attempting to abbreviate his work, the text of a draft amendment is included at the close of this outline for the Planning Commission's consideration at a future date.
2. **Adopting amendments to the Zoning and Subdivision Ordinances that provide greater protection to the Dragon Run Watershed.** Among several concerns Mr. Gavrilovic's addressed in his Technical Memorandum to the County of September, 2005 were that the Dragon Run Conservation District in the County's Zoning Ordinance is based on soil types and is therefore difficult to delineate and complicated to administer; addresses only "streamside" protection measures and does not protect the much larger Dragon Run Watershed; and is generally superceded by the County's Chesapeake Bay Protection Ordinance and therefore does not provide any additional protections to the Dragon Run Watershed. Changes in the Zoning Ordinance were recommended to take one or more of the following forms:
  - An overlay zone that extends over the entire Drainage Area or Watershed of the Dragon Run.
  - A Stream Buffer Zone that extends 200 feet landward from the Chesapeake Bay Resource Protection Area.
  - A Conservation Subdivision Ordinance that provides for cluster development of 10 lot subdivisions on larger tracts with 75% of the tract protected by a conservation easement.

At this point K. W. Poore & Associates has not yet written any amendments to the Zoning and Subdivision Ordinances for King & Queen County, but will do so in the near future with the guidance of the Planning Commission and County staff in keeping with the original goals and objectives of the Dragon Run Watershed Special Area Management Plan Memorandum of Agreement.

### **Future Steps**

The attached draft amendment to the Comprehensive Plan, or some version of it, should be considered by the Planning Commission and the Board of Supervisors with an appropriate public hearing in the fairly near future. With the Comprehensive Plan amendment in place, amendments to the Zoning and Subdivision Ordinances would and should necessarily be considered by the Commission and the Board in order to provide the implementing tools needed for the protection of the Dragon Run Watershed.

**AGENDA**  
**KING & QUEEN COUNTY PLANNING COMMISSION**  
**MONDAY, JUNE 4, 2007**  
**7:00 P.M.**  
**HEARING ROOM**

1. CALL TO ORDER
2. ROLL CALL/DETERMINATION OF QUORUM
3. APPROVAL OF AGENDA
5. APPROVAL OF MINUTES
  - A. May 7, 2007 – Regular Meeting
  - B. May 14, 2007 – Joint Public Hearing
6. CITIZENS COMMENT PERIOD – PLANNING RELATED ISSUES ONLY
7. NEW BUSINESS
  - A. SP06-02, Nick's Spaghetti & Steak House – Level 2 Site Plan
8. UNFINISHED BUSINESS
  - A. Resolution – Sludge – Text Amendment, Article 4, Permitted Uses
  - B. Discussion of Land Disturbance, Erosion & Sediment Control, & Chesapeake Bay Act
  - C. Discussion of future ordinances to be reviewed – Article 4, Article 11, & Article 18
9. COMMISSIONER'S COMMENTS
10. MEETING SCHEDULE

There will be two Joint Public Hearings with the Board of Supervisors on May 14, 2007:

  - A. RZ07-03, Frank & Anna Volo – Rezoning
  - B. RZ06-01 & SP07-02, Loving's Welding – Rezoning & Level 2 Site Plan
  - C. RZ07-02, Virginia Harris – Rezoning
  - D. ZA07-05, Text Amendment – To amend the Subdivision Ordinance & Chapter 6, Definitions.

The next regular Planning Commission meeting will be on Monday, July 2, 2007.
11. ADJOURNMENT

The following is a revised version of the Dragon Run District for King and Queen County developed and presented by the Planning Commission Chairman at the June 2007 Planning Commission meeting. MPPDC staff attended this meeting and provided information about the Dragon Run planning process:

## ARTICLE 11 DRAGON RUN CONSERVATION DISTRICT

### 3-250 Intent of District

The purpose of the Dragon Run Conservation District (DRCD) is to protect and conserve fragile resource areas which perform valuable functions in their natural state and which are unsuitable for development and intense use. Areas to be designed as the "DRCD" primarily include wetlands and swamps, but may include other areas deemed to be important for flood plain management, aquifer recharge, water storage, critical wildlife habitat, or similar functions.

### 3-251 Permitted Uses

The following uses, activities and structures are permitted within the "DRCD". Whenever these permitted uses are at variance with the requirements of any other lawfully adopted rules, regulations, ordinances, or resolutions, the most restrictive or one imposing the higher standards shall govern.

- (1) The construction and maintenance of non-commercial catwalks, piers, fences and duck blinds, provided that such structures are so constructed on pilings as to permit the reasonably unobstructed flow of the tide in tidal areas, or natural contour of marshes, swamps and water courses.
- (2) The cultivation and harvesting of shell fish and worms for bait.
- (3) Non-commercial outdoor recreational activities, including hiking, boating, trapping, hunting, fishing, shell fishing, horseback riding, swimming, and skeet and trap shooting; provided that no structure shall be constructed except as permitted in subsection (1) of this section.
- (4) Conservation, repletion, education and research activities of the Virginia Marine Resources Commission, the Virginia Institute of Marine Science, the Commission of Game and Inland Fisheries, and other related conservation agencies.
- (5) The normal maintenance, repair, or addition to existing roads, highways, or the facilities of any person, firm, corporation, utility, or government abutting or crossing wetlands or swamps, provided that no waterway is altered and no additional wetlands or swamps are covered or drained.
- (6) The normal maintenance of existing man-made drainage ditches, provided that no additional wetlands or swamps are covered or drained and provided further that this paragraph shall not be deemed to authorize construction of any drainage ditch.
- (7) Agricultural management activities must incorporate the application of Best Management Practices (BMPs) in a plan approved by the local Soil and Water Conservation District.
- (8) Forestry management activities must incorporate the application of Best Management Practices in a plan approved by the Virginia Department of Forestry.

### 3-252 District Boundaries

The boundary between the "DRCD" and other zoning districts shown on the Official Zoning Map shall consist, for the purpose of this ordinance, of the Resource Protection Areas adjacent to the boundary line between King and Queen County and the county or counties of Essex, Middlesex and Gloucester, plus an additional 200-foot revised setback measured horizontally from this RPA line. This additional 200-foot area shall have the same restrictions as all other Resource Protection Areas.

**3-253 Official District Map**

The official map showing the "DRCD" District is to be made part of and used as provided by Article 3 of this Zoning Ordinance.

---through 3-259 Reserved

PRODUCT 1E:

MIDDLESEX COUNTY RECOMMENDED COMPREHENSIVE PLAN AND  
ZONING LANGUAGE

MIDDLESEX SUPPLEMENTAL MATERIAL

**“Water Quality and the Dragon Run Watershed” and Other Amendments for the Middlesex County Comprehensive Plan:**

<To be inserted after the “11. Water Quality and Chesapeake Bay Conservation Act” section which concludes on page V-35>

**12. Water Quality and the Dragon Run Watershed**

The Dragon Run is a special regional resource worthy of protection in Middlesex County. The Dragon Run and its surrounding landscape owe their extraordinary state of conservation to the landowners in the area that have pursued for generations the compatible land uses of farming and forestry on their land. Recent scientific study of the stream has also highlighted its critical ecological importance, including the purity of the water, the wealth of rare and unusual natural species it harbors, and the rural character of its watershed that has helped to keep it pristine. The rural way of life and traditional landscape in the Dragon Run area are valued by the residents of the area and are worthy of conservation.

Within Middlesex County, the Dragon Run Watershed’s Existing Land Use is mainly Rural Open Space with limited areas designated as Rural Communities, Residential Communities, Commercial, and Industrial. The Future Land Use for the Dragon Run Watershed will continue to remain primarily Rural Open Space, but also includes Hamlet/Farmstead-Like Developments, a Transitional Development Commercial Center, Light Industrial, and Scenic Tourist Corridor along State Route 33. The Future Land Use Map also identifies two Industrial Opportunity Areas and one Water & Sewer Study Area that include portions of the Dragon Run Watershed.

The County has worked alongside the other counties in the Dragon Run Watershed through the Middle Peninsula Planning District Commission’s Dragon Run Steering Committee to protect the natural resources and rural qualities of the area by participating in the Dragon Run Watershed Special Area Management Plan. In particular, one of the objectives of this cooperative effort was to “Achieve consistency across county boundaries among land use plans and regulations in order to maintain farming and forestry and to protect natural heritage areas by protecting plants, animals, natural communities, and aquatic systems.”

Within this Comprehensive Plan, the overall objective for the Dragon Run Watershed is for it to remain largely rural, with low intensity uses, and to protect its key natural areas and its water quality. Specifically, the goals for the Watershed are to:

- a. Maintain the health and quality of the Dragon Run stream system and associated natural areas.
- b. Achieve the objectives of the Dragon Run Watershed Special Area Management Plan and reinforce the existing shared values for protecting the Dragon Run.
- c. Support the compatible economic base of the Dragon Run area and its rural businesses such as farming and forestry that are compatible with protecting the natural health of the stream system.
- d. Support new rural economic development and businesses that are compatible with the traditional pattern of rural land uses in the Dragon Run area.

The following policies are intended to apply to the entire watershed of the Dragon Run. However, recognizing that the Middlesex County Comprehensive Plan has previously identified some areas within the Dragon Run Watershed for Hamlet/Farmstead-Like

**“Water Quality and the Dragon Run Watershed” and Other Amendments for the Middlesex County Comprehensive Plan:**

Development, a Transitional Development Commercial Center, and Light Industrial Development, the following policies do not apply to those areas. The intent of these policies is for the area to remain largely rural, with low intensity uses, and to protect its key natural areas and its water quality. The following policies will guide the development of the Dragon Run Watershed:

- a. The Dragon Run Watershed should maintain its rural character through integrating new development with the existing rural economy and settlement patterns.
- b. Low intensity land uses that are consistent with the conservation of the area’s natural resources should be the dominant land uses in the Watershed and new development should be compatible with surrounding rural areas as well as incorporate development standards and management practices that ensure protection of the area’s natural resources.
- c. With some exception, the extension of central sewer and water is not considered consistent with protecting the area’s rural character and land uses.
- d. The County should enact policies, economic development plans, and ordinances that support the cornerstone rural businesses in the Watershed, such as farming and forestry, and that encourage compatible new supportive businesses such as value-added farming and timber products, local specialties, handicrafts, small-scale workshops, and craft industries, while ensuring that these businesses are practiced in ways that are compatible with the health of the natural resources.
- e. The County should protect the key natural resources in the Watershed, including the ground and surface water quality, wetlands, and sensitive environmental features; native plant and animal species and their natural habitats; and the productive soils that support farming and forestry uses.
- f. The County should discourage the extensive use of the Watershed for public recreation and large-scale tourism and encourage small scale and controlled tourism and recreation uses that conserve natural areas, respect property rights, and limit opportunities for trespassing on private properties in the Watershed such as bed and breakfasts, private hunt clubs and protects, and private tours.
- g. The County should implement programs and exhibits that interpret the natural and cultural heritage of the Dragon Run for both residents and visitors, without encouraging intense or incompatible recreational use of the Watershed’s sensitive resources.
- h. The County should consider implementation strategies that conserve existing land uses and protect the natural resources in the Watershed such as conservation zoning and subdivision approaches, additional stream buffers and setbacks, the purchase of development rights, donation of private easements, landowner compacts, and land use taxation.

It should be noted that these policies are in concert with Middlesex County’s priority on protecting its rural character, including its shoreline.

**“Water Quality and the Dragon Run Watershed” and Other Amendments for the Middlesex County Comprehensive Plan:**

<To be inserted in the “**4. Agriculture, Forestry, and Fishing**” section on page V-17>

Protect and support the compatible economic base of the Dragon Run Watershed and its rural businesses such as farming and forestry that are compatible with protecting the natural health of the stream system.

To be inserted in the “**5. Tourism**” section on page V-18>

The County should discourage the extensive use of the Dragon Run Watershed for public recreation and large-scale tourism and encourage small scale and controlled tourism and recreation uses that conserve natural areas, respect property rights, and limit opportunities for trespassing on private properties in the Watershed such as bed and breakfasts, private hunt clubs and protects, and private tours.

<To be inserted in the “**1. Environment**” Objectives section on page VI-3>

- Maintain the Dragon Run Watershed’s rural character into the future. It should adapt to changing times but do so as a predominantly rural area.

<To be inserted in the “**1. Environment**” Objectives section on page VI-4>

- Protect the key natural resources in the Dragon Run Watershed, including ground and surface water quality, wetlands and sensitive environmental features, native plant and animal species and their natural habitats, and the productive soils that support farming and forestry uses.

<To be inserted in the “**2. Residential Development**” Objectives section on page VI-6>

- Encourage low-intensity rural residential development in the Dragon Run Watershed, incorporating standards to ensure compatibility with the natural resources and rural surroundings.

<To be inserted in the “**5. Tourism**” Objectives section on page VI-9>

- Discourage the extensive use of the Dragon Run Watershed for public recreation and large-scale tourism and encourage small scale and controlled tourism and recreation uses that conserve natural areas, respect property rights, and limit opportunities for trespassing on private properties in the Watershed such as bed and breakfasts, private hunt clubs and protects, and private tours.

<To be inserted in the “**6. Commercial Development**” Objectives section on page VI-10>

- Support the rural businesses of the Dragon Run, such as farming and forestry, and enact policies and ordinances that help protect the long-term viability of these businesses.

***“Water Quality and the Dragon Run Watershed” and Other Amendments for the Middlesex County Comprehensive Plan:***

<To be inserted in the “**11. Water Quality**” Objectives section on page VI-15>

- With some exception, wastewater disposal in the Dragon Run Watershed should be on-site and generally of a type that causes the least impact on the quality and purity of ground and surface water.

## **ARTICLE 5: DRAGON RUN CONSERVATION AREA OVERLAY DISTRICT**

### **5.1. Purpose.**

The purpose of the Dragon Run Conservation Overlay District is to conserve the natural qualities and important natural resources of the Dragon Run stream and its natural drainage area, and to:

1. Protect the natural drainage area of the Dragon Run stream system from land uses with potential off-site impacts that could impair the water quality and ecological integrity of the stream system, and from land uses that inconsistent with the rural character and the compatible agricultural and forestry businesses of the area.
2. Protect the physical and ecological integrity of the stream ecosystem.
3. Retard runoff, prevent erosion, filter non-point source pollution from runoff, moderate stream temperature, and provide general environmental protection of the Dragon Run stream network.
4. Provide a residential development option that permits flexibility of design in order to promote environmentally sensitive and efficient uses of the land.
5. Preserve in perpetuity unique or sensitive natural resources such as groundwater, floodplains, wetlands, streams, steep slopes, woodlands, and wildlife habitat, through an alternative residential development option.
6. Permit clustering of houses and structures in less environmentally sensitive areas, which will reduce the amount of infrastructure, including roads and utility easements, necessary for residential development.

### **5-2. District Boundaries.**

The Dragon Run Conservation Overlay District is generally defined as the boundaries of the watershed of the Dragon Run stream. It is further defined as all lands within the County that naturally drain into the non-tidal freshwater stream system upstream of the U.S. Route 17 bridge and the tidal freshwater stream system from the U.S. Route 17 bridge to its mouth at Meggs Bay, generally referred to as Commonwealth Hydrologic Unit ID 'CO2' as described by the Virginia Department of Conservation and Recreation. It is finally defined as all lands designated by the Middlesex County Board of Supervisors and as shown on the Dragon Run Conservation Overlay District Map adopted by the Middlesex County Board of Supervisors on \_\_\_\_\_. The Dragon Run Conservation Overlay District Map, together with all explanatory material thereon, is hereby adopted by reference and declared to be a part of this Article.

### **5-3. Conflict with Other Regulations.**

Where the standards and management requirements of this overlay zone are in conflict with other laws, regulations, and policies regarding land use and development regulations, storm water management and erosion control, wetlands, floodplains, timber harvesting, land disturbance activities, or other environmental protective measures, the more restrictive shall apply.

### **5-4. Drainage Area Conservation Zone.**

The Drainage Area Conservation Zone is all lands within the Dragon Run Conservation Area Overlay District as defined in Section 5-2 of the Zoning Ordinance. The Dragon Run Conservation Overlay District Map shows the general location of the district and should be consulted by persons contemplating activities within Middlesex County prior to engaging in a regulated use.

**5-5. Permitted Uses in the Drainage Area Conservation Zone.**

All land uses that are permitted or special exception uses in the base zoning district shall be allowed in the Dragon Run Conservation Overlay District; except as described below.

**5-6. Prohibited Uses in the Drainage Area Conservation Zone.**

1. Surface mining and extractive manufacturing
2. Sanitary landfills
3. Golf courses and country clubs
4. Keeping of horses for commercial purposes and riding stables
5. Uses required for the maintenance and provision of public facilities and utilities
6. Facilities associated with the provision of central water and sewerage
7. Public utility offices and governmental offices
8. Publicly owned airports
9. Yacht clubs, marinas, boat yards, boats-for-hire
10. Cruise ship dockage
11. Wood landings
12. Boatbuilding and marine salvage
13. Automobile racetrack
14. Junkyards
15. Car wash
16. Highway businesses
17. Automobile, truck, and farm implement sales and service
18. Mobile home and manufactured home sales
19. Retail stores and shops with five thousand (5,000) square feet or more.
20. Self-storage buildings with five thousand (5,000) square feet or more.
21. Light manufacturing with five thousand (5,000) square feet or more.
22. Food processing with five thousand (5,000) square feet or more.
23. Seafood processing plants including shellfish and finfish
24. Warehouses
25. Veterinary hospitals and animal kennels
26. Hospitals
27. Hotels and motels
28. Research institutions and laboratories
29. Multi-family dwellings

**5-7. Special Exception Uses in Drainage Area Conservation Zone.**

1. Sawmills, planing mills, and lumber yards
2. Private landing strips for exclusive use of owners, clients and guests
3. Electric power transmission facilities, including substations
4. Public and private communications facilities
5. Repair garages, public garages, body shops
6. Retail fuel sales
7. Retail stores and shops with five thousand (5,000) square feet or less and no outside display or storage of materials or merchandise.
8. Self-storage buildings with five thousand (5,000) square feet or less and no outside display or storage of materials or merchandise.
9. Food processing with five thousand (5,000) square feet or less and no outside operations or storage.
10. Light manufacturing with five thousand (5,000) square feet or less and no outside operations or storage.
11. Newspaper and commercial printing shops
12. Restaurants
13. Homes for the aged, nursing homes, and child care centers
14. Family care homes, foster homes, and group homes
15. Indoor theaters, auditoriums, lodge halls, commercial entertainment facilities, and social clubs
16. Assembly and retreat facilities
17. Campgrounds
18. Museums
19. Manufactured homes

**5-8. *Special Exception Criteria in the Drainage Area Conservation Zone.***

The following criteria are established for the determination of special exceptions:

1. The use shall not cause degradation to the water quality or ecological integrity of sensitive environmental areas.
2. The use shall not create environmental or scenic degradation of the Dragon Run stream system.
3. The use shall not be located closer than five hundred (500) feet to any residential district.
4. The property shall abut an existing highway maintained by the Virginia Department of Transportation.

**5-9. Stream Buffer Zone.**

The land within the County that is a distance of 200 feet landward, measured horizontally, from the established Chesapeake Bay Resource Protection Area identified in the County under Article 4A of the Zoning Ordinance that is also within the Dragon Run Conservation Overlay District defined in Section 5-2 of the Zoning Ordinance. The Dragon Run Conservation Overlay District Map shows the general location of the district and should be consulted by persons contemplating activities within Middlesex County prior to engaging in a regulated use. The site-specific boundaries of the Stream Buffer Zone for any parcel within the Dragon Run Conservation Overlay District shall be determined by the applicant concurrent with determining the Chesapeake Bay Resource Protection Area. Such determinations are governed by the requirements of Article 4A of the Zoning Ordinance.

**5-10. Permitted Uses in the Stream Buffer Zone.**

Only the following are permitted within the Stream Buffer Zone. The uses permitted in the base zoning district shall not be permitted in the Stream Buffer Zone unless they are included in the following list of permitted uses.

1. The construction and maintenance of non-commercial catwalks, piers, fences, and duck blinds, provided that such structures are so constructed on pilings as to permit the reasonably unobstructed flow of the tidal areas, or natural flow in non-tidal areas, and to preserve the natural contour of marshes, swamps, and water courses.
2. The cultivation and harvesting of shellfish and worms for bait.
3. Low intensity outdoor recreational activities, including hiking, boating, trapping, hunting, fishing, shellfishing, horseback riding, swimming, and skeet and trap shooting; provided that no structure shall be constructed except as permitted in subsection A. of this section.
4. Conservation, restoration, education, and research activities by private or public resource management agencies or organizations.
5. The normal maintenance, repair, or addition to existing roads, highways, or facilities of any person, firm, corporation, utility, or government abutting on or crossing wetlands or swamps, provided that no waterway is altered and no additional wetlands or swamps are covered or drained.
6. The normal maintenance of existing man-made drainage ditches, provided that no additional wetlands or swamps are covered or drained and provided further that this paragraph shall not be deemed to authorize construction of any new drainage ditch.
7. Agricultural management activities must incorporate the application of Best Management Practices in a plan approved by the Tidewater Soil and Water Conservation District.
8. Forestry management activities must incorporate the application of Best Management Practices in a plan approved by the Virginia Department of Forestry.

## **New Boundary Definition for ARTICLE 5: DRAGON RUN CONSERVATION DISTRICT**

Streamside buffer only, no drainage option

< To replace the second paragraph under Section 5-1, Article 5 of the Zoning Ordinance.

The DRC shall apply to all lands within the County that are a distance of 200 feet landward (measured horizontally) from the established Resource Protection Areas within the Chesapeake Bay Preservation District identified under Section 4A-2 of the Zoning Ordinance that are also within the watershed of the Dragon Run stream. The Dragon Run Watershed is defined as land that naturally drains into the non-tidal freshwater stream system upstream of the U.S. Route 17 bridge, and the tidal freshwater stream system from the U.S. Route 17 bridge to its mouth at Meggs Bay, generally referred to as Commonwealth Hydrologic Unit ID 'CO2' as described by the Virginia Department of Conservation and Recreation.

### **Mapping Reference Alternative #1 (utilizing language in place in Section 4A-2):**

The DRC and the Resource Protection Areas within the Chesapeake Bay Preservation District are based upon the environmental data depicted on maps adopted by the Board of Supervisors that are on file in the office of the Planning Director.

### **Mapping Reference Alternative #2 (if you were to create a separate, DRC map):**

The DRC is further defined as all lands designated by the Board of Supervisors and as shown on the DRC Map adopted by the Board of Supervisors on \_\_\_\_\_. The DRC Map, together with all explanatory material thereon, is hereby adopted by reference and declared to be a part of this Article.

**ADDITIONS TO THE MIDDLESEX COUNTY SUBDIVISION ORDINANCE TO  
ALLOW CONSERVATION SUBDIVISIONS COUNTYWIDE**

The following language is to be inserted in **ARTICLE 5: REVIEW PROCEDURES**

<To be inserted in **Section 5-1. Classification of Subdivisions.**>

- C. Conservation Subdivision: A subdivision of a tract of fifty (50) acres or more into Conservancy Lots of twenty-five (25) acres or larger and ten (10) or fewer Cluster Lots with a minimum lot size of one (1) acre and a maximum lot size of two (2) acres that are developed as a single unit. The Conservancy Lots make up a Conservancy Area which must comprise at least 75% of the gross tract area. At least 75% of the Conservancy Area shall be in a contiguous tract. The Conservancy Lots must be protected and restricted in perpetuity through the use of an approved legal instrument. The tract of land to be subdivided may be held in single and separate ownership or in multiple owners. If held in multiple ownership the site shall be developed according to a single plan with common authority and common responsibility.

<To be inserted in **Section 5-2. Zoning Classification of Property.**>

All lots in a proposed conservation subdivision shall carry the zoning classification of either Resource Husbandry (RH), Low Density Rural (LDR), Residential (R), Village Community (VC), or Cluster Development (CD) as identified on the Official Zoning Map of the Middlesex County Zoning Ordinance.

<To be inserted in section title **Section 5-6. Procedure for Preliminary Review of Major Subdivisions.** and in section title **Section 5-7 Procedure for Final Plat Review of Major Subdivisions**>

At the end of each title add the words “**and Conservation Subdivisions**”

<An additional section to be inserted between **Section 5-9** and **Section 5-10**>

**5-x. Conservation Subdivision Special Requirements.**

- A. Cluster Lot permitted uses: single family home.
- B. Conservancy Lot permitted uses:
1. Single family home;
  2. Conservation of natural, archeological or historical resources;
  3. Meadow, woodlands, wetland, wildlife corridors, game preserves, or similar conservation-oriented areas;
  4. Walking or bicycle trails, provided they are constructed of porous paving materials;

5. Passive recreation areas, such as open fields, trails, and natural areas;
6. Agriculture, horticulture, silviculture, or pasture uses, provided that all applicable best management practices are used to minimize environmental impacts and such activities are not in conflict with the other provisions of the Zoning Ordinance or Subdivision Ordinance;
7. Easements for drainage, access, and underground utility lines;
8. Other conservation-oriented uses compatible with the purpose of the Zoning Ordinance or Subdivision Ordinance.

C. Required Easements for Conservancy Lots: Conservancy Lot(s) shall be subject to a permanent conservation easement. Conservancy Lot(s) shall be permanently restricted from future subdivision and development, except for one single family home and accessory structures permitted on each Conservancy Lot as defined in the Zoning Ordinance and Subdivision Ordinance. Conservancy Lot(s) shall be protected in perpetuity by a binding legal instrument that is recorded with the deed. The instrument shall be one of the following:

1. A permanent conservation easement in favor of a bona fide land trust or similar conservation-oriented nonprofit organization in perpetual existence with legal authority to accept such easements. The conveyance instruments shall contain an appropriate provision for retransfer in the event the organization becomes unable to carry out its functions.
2. A permanent conservation easement in favor of a governmental entity with an interest in pursuing goals compatible with the purposes of this Subdivision Ordinance. If the entity accepting the easement is not the County, then a third right of enforcement favoring the County shall be included in the easement.
3. A permanent restrictive covenant for conservation purposes in favor of a governmental entity.
4. An equivalent legal tool that provides permanent protection, if approved by the Middlesex County Subdivision Agent.

D. Conservancy Area: The Conservancy Area is the portion of the Conservation Subdivision that has been set aside for permanent protection through subdivision into Conservancy Lots which are protected and restricted in perpetuity through the use of an approved legal instrument. The following are the requirements for the Conservancy Area:

1. The minimum restricted Conservancy Area shall comprise at least 75% of the gross tract area. All preliminary and final plats for the proposed subdivision shall delineate the Conservancy Area for the tract.
2. At least 75% of the Conservancy Area shall be in a contiguous tract. The Conservancy Area shall adjoin any neighboring areas of Conservancy Lots, other protected areas, and non-protected natural areas that would be candidates for inclusion as part of a future area of protected Conservancy Lots.

3. The following primary features are required to be included within the Conservancy Area, unless the applicant demonstrates that this provision would constitute an unusual hardship and be counter to the purposes of this article:
  - a. The 100-year floodplain;
  - b. All areas within the Chesapeake Bay Resource Protection Area (RPA);
  - c. All areas within the Dragon Run Conservation Area Stream Buffer Zone;
  - d. Slopes above 25%;
  - e. Populations of endangered or threatened species, or habitat for such species;
  - f. Known archaeological sites, cemeteries, and burial grounds;
  - g. Important known historic sites.
  
3. The following are important secondary features that should be included within the Conservancy Area to the maximum extent feasible:
  - a. Existing healthy, native forests of at least ten (10) acres contiguous area;
  - b. Individual existing healthy trees greater than twelve (12) inches caliper including the entire dripline area of the tree;
  - c. Other significant natural features and scenic viewsheds such as ponds and views to open water, particularly those that can be seen from public roads;
  - d. Prime agricultural lands of at least twenty (20) acres contiguous area;
  - e. Existing trails that connect the tract to neighboring areas.

<To be inserted in **Section 9-1. Definitions.**>

**CONSERVATION SUBDIVISION:** A subdivision of a tract of fifty (50) acres or more into Conservancy Lots of twenty-five (25) acres or larger and ten (10) or fewer Cluster Lots with a minimum lot size of one (1) acre and a maximum lot size of two (2) acres that are developed as a single unit. The Conservancy Lots make up a Conservancy Area which must comprise at least 75% of the gross tract area. At least 75% of the Conservancy Area shall be in a contiguous tract. The Conservancy Lots must be protected and restricted in perpetuity through the use of an approved legal instrument. The tract of land to be subdivided may be held in single and separate ownership or in multiple owners. If held in multiple ownership the site shall be developed according to a single plan with common authority and common responsibility.

<Additional insertions.>

The miscellaneous requirements for a Major Subdivision that are not required of a Minor Subdivision should also be the requirements for the Conservation Subdivision. Wherever the Zoning Ordinance references “Major Subdivision” the wording “and Conservation Subdivision” should be added.

## Middlesex Supplemental Material

## Sara Stamp

---

**From:** Craig Wilson [cwilson@kwpoore.com]  
**Sent:** Thursday, February 15, 2007 2:08 PM  
**To:** Matthew Higgins; Sara Stamp  
**Subject:** Follow-Up to Monday's Meeting  
**Attachments:** Middlesex Comprehensive Plan-Dragon Run District.doc; Middlesex ZO-New Boundary Definition.doc

### MEMORANDUM

**To:** Matt Higgins  
Sara Stamp

**From:** Craig Wilson

**Re:** Comprehensive Plan and Zoning Language for Dragon Run

It was good meeting with you this past Monday. I wanted to follow-up our meeting with a quick e-mail to make sure we are on the same page regarding what we will provide to you over the next several weeks.

1. I will continue to edit the Comprehensive Plan language per your input and as needed. I have gone ahead and attached the Word version of the CP material we left with you on Monday. Obviously, we included a significant number of objectives for the Dragon Run following your current CP format. As you indicated, the thrust this time is to have a more concise list of goals and objectives so the objectives we provided would have to be edited significantly.
2. You indicated that the CP planning process was just getting started, but the goal was to be finished by the fall of this year with a substantial Zoning Ordinance update in perhaps mid-2008.
3. You indicated that the Planning Commission was open to "tweaking" Zoning Ordinance language and that the definition of the current Dragon Run Conservation District by soil type was pretty unenforceable. Understanding that the Planning Commission might be open to tweaking the DRC boundary definition as early as April, per your suggestion, I have written a substitute paragraph defining the DRC boundary based on the Stream Buffer Zone concept put forward by the former consultant in his technical memorandums. The draft of that paragraph is attached with two options for referring to the mapping of the District. I tried to match the language up with what is in Article 5 and what is in Article 4. As with the CP language, it is open to editing as needed.
4. You indicated that you would have to save the Drainage Area Conservation Zone for a later push, but within several weeks I will provide you with a new ordinance that combines the Stream Buffer Zone and the Drainage Area Conservation Zone for later use.
5. We also discussed all the changes related to clustering and creating conservation subdivisions with much up in the air regarding those, but you indicated that you would like to have the language for a Conservation Subdivision Ordinance that could be implemented countywide. I will put that together for you as well over the next several weeks for potential use in the future.

Thanks for your time on Monday. It is a pleasure to get before you the material you need to protect Middlesex's portion of the Dragon.

K. W. Poore & Associates  
2201 West Broad Street, Suite 204  
Richmond, VA 23220  
804-204-1022 (phone)  
804-204-1024 (fax)

PRODUCT 2:  
REPORT ON EDUCATION PROGRAM

PRODUCT 2A:

NARRATIVE OVERVIEW OF PROGRAM (DVD, WEBSITE, BROCHURES)

SUPPLEMENTAL MATERIAL



The Dragon Run Steering Committee cordially invites you to join them January 17<sup>th</sup>, 2007 at 7:00 pm at St. Clare Walker Middle School for the release of the film:

*The Dragon Run: A Step into the Past, A Strategy for the Future*

Following the film,  
The Garden Club of the Middle Peninsula invites you to join them for a presentation by Mr. Doug Beisch:

*Watershed Protection and Low Impact Development*

Refreshments at 7:00pm

Film Premiere at 7:30pm

Presentation at 8:00pm

*Please RSVP to Sara Stamp by January 12<sup>th</sup> - (804) 758-2311*



**Virginia Coastal Zone**  
MANAGEMENT PROGRAM



## Watershed Protection and Low Impact Development

W. Douglas Beisch, Jr., P.E.

Senior Water Resources Engineer

5209 Center Street  
Williamsburg, Virginia 23188  
757-220-6869  
dbeisch@wegnet.com



## Williamsburg Environmental Group, Inc.



Stormwater  
Management &  
Water Resources

Environ-  
mental  
Planning



Williamsburg  
Environmental  
Group, Inc.



Stream &  
Wetland  
Assessments



Regulatory  
Permitting



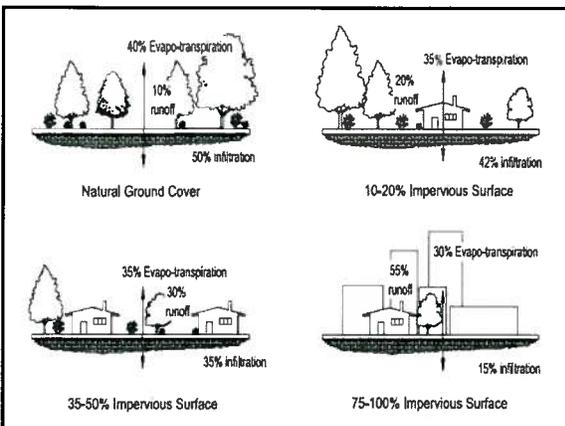
## Presentation Overview

- Overview of LID and LID Process
- Community and Watershed Planning
- Site and Subdivision Planning
- Integrated Management Practices Planning/Design
- Case Studies
- Conclusion



## What is LID?

- An Approach to Site Design and Stormwater Management that seeks to mimic the pre-development runoff characteristics on a development site:
  - Site-specific techniques
  - Alternative to conventional stormwater treatment



## Goals of LID

- Replicate pre-development conditions (flow rates, **volume, and timing**)
- Better protection of aquatic resources
- Avoid and Minimize impacts
  - Direct
  - Indirect



## Driving Forces Behind LID

- U.S. Army Corps of Engineers (USACE)
- Environmental Protection Agency (EPA)
- Chesapeake Bay Agreement
- Virginia Department of Environmental Quality (DEQ)
- Virginia Department of Conservation and Recreation (DCR)
- Executive Order 13148
  - The Army Strategy for the Environment

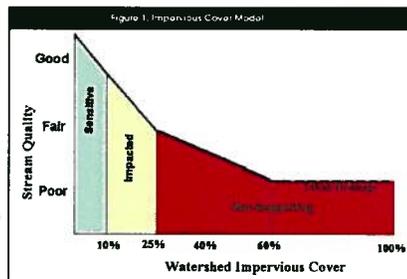


## New Approaches

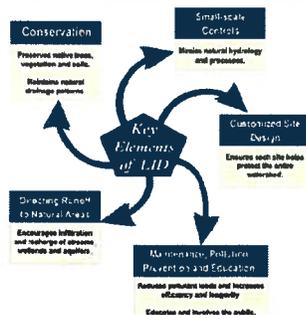
- Resource Based Approaches
- Low Impact Development – downstream channel protection
  - Small catchment approach
  - Aquatic resource protection (wetlands and waters)
  - Groundwater recharge/volume replication
  - Distributed controls
  - IC Disconnection
  - Hydrologically functional landscapes
- Enhanced sediment controls
- Flood Control & Channel Protection
- Resource Enhancement and Restoration



## Consequences if we Don't



## Key LID Elements



## Site and Subdivision Planning

- Resource Assessment
- Conservation/Preservation
- Resource Enhancement and Restoration
- Floodplain Protection
- Maintaining Natural Drainage Patterns
- Disconnecting Impervious Cover



## The Starting Point - Resource Assessment

- Aquatic Resources
    - Stream Channel Condition Assessments
    - Geomorphic – Channel Stability
    - Hydrologic/Hydraulic Modeling
    - Bioassessment - Macroinvertebrates
    - Stream Condition Units (mitigation/impacts)
    - Perenniality Studies
    - Wetland Functional Assessments
  - Terrestrial Resources
    - Forest Stand Delineations/Forest Cover Mapping
    - Buffer Assessments
    - Rare Plant Surveys
    - Inventory of existing erosional features




## Conservation/Direct Runoff to Natural Areas (Resource Enhancement)

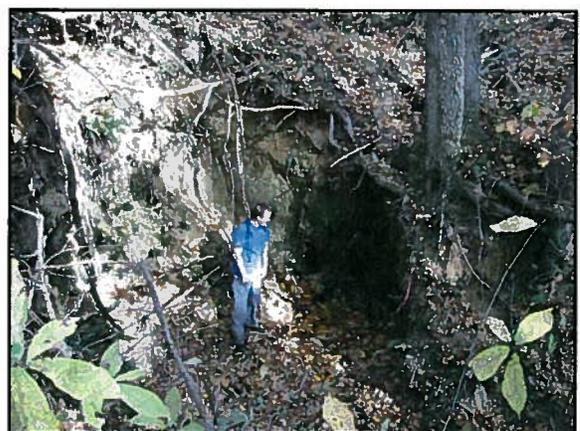
- Opportunities
    - Buffer Enhancement
    - Reforestation/Afforestation
    - Channel and Wetland restoration/enhancement
    - Soil amendments/restoration
  - All have measurable effects of runoff characteristics, erosion, sed. transport




## Maintain Natural Drainageways (Floodplain Management & Protection)

- Floodplain mapping and protection
  - Floodplain Conveyance - relief culverts and open bottom crossings
  - Floodplain Enhancements – reforestation, added flood conveyance, wetland creation, reconnection, removal of obstructions
  - Natural Channel design – stable sediment transport





## Enhanced E&S Approaches

- Conventional Controls
  - Enhanced Controls
    - Increased sed. basin sizing
    - Controls in series treatment train
    - Polymers
    - Enhanced surface treatments
    - Enhanced stabilization
  - Baseline Monitoring/Assessment
  - Compliance Monitoring/Assessment





## LID – Site Design Aspects

- Concentrate Development with Preserved Corridors
- Focus development on existing ag. fields to limit clearing and hydrologic changes
- Preservation of about 2/3 of the site
- Limited Impacts – Maintain Stream Corridors
- Restore Degraded Riparian Corridors
- Stream Restoration
- Open Bottom Crossings
- Enhanced Outfall Protection
- Multi-celled wetlands and ponds for major outfalls
- Use of IMPs to reduce runoff from small storms
- Biofiltration in Open Space Settings
- Rain barrels on residential structures
- Compost-amended soils
- Reuse of on-site wastewater & stormwater




## Benefits of Proper Planning

- No wetland impacts
- No wetland permit
- No mitigation costs
- Local approvals expedited
- Ahead of the game on stormwater compliance
- Demonstration site regionally and nationally
- LEED-ND




## Integrated Management Practices Planning/Design



## LID Techniques

- Referred to as Integrated Management Practices (IMPs):
  - Preserve natural cover on site
  - Minimize or disconnect impervious cover
  - Enhance infiltration
  - Maintain natural drainage-ways
- Integrated into Site Design




## LID Techniques & Practices

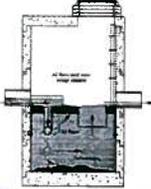
- Biofilter/Bioretention
- Infiltration Trenches and Basins
- Vegetated Swales
- Vegetated Buffers and Filter Strips
- Level Spreaders
- Enhanced Outlet Protection
- Soil Amendments
- Perforated Storm Sewer Systems
- Tree Box Biofilters
- Rain Barrels/Cisterns
- Porous Pavement
- Pocket Wetlands
- Green Roofs



## Pollution Prevention/Source Control



Proper Planning for Stormwater Hot Spots

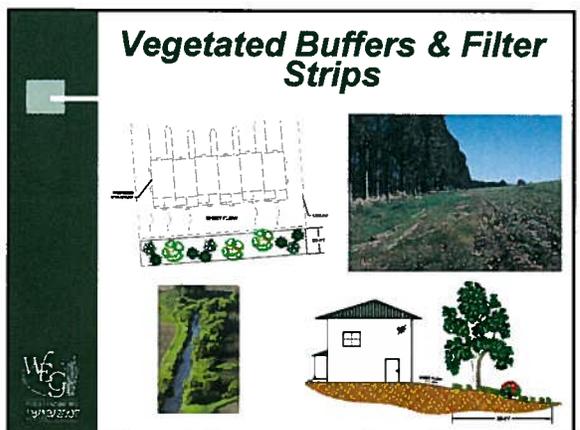
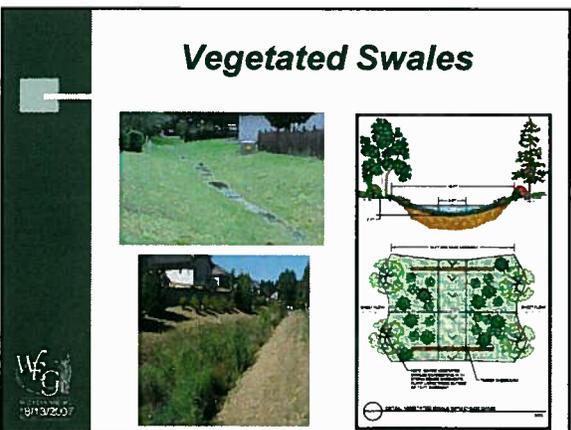
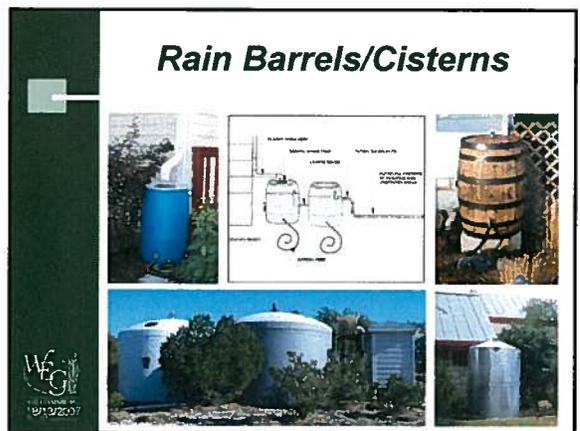
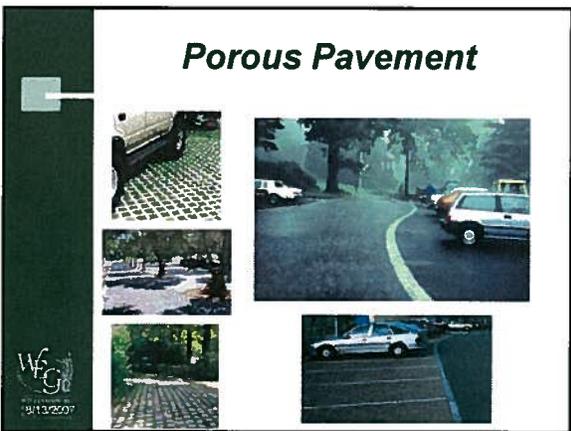
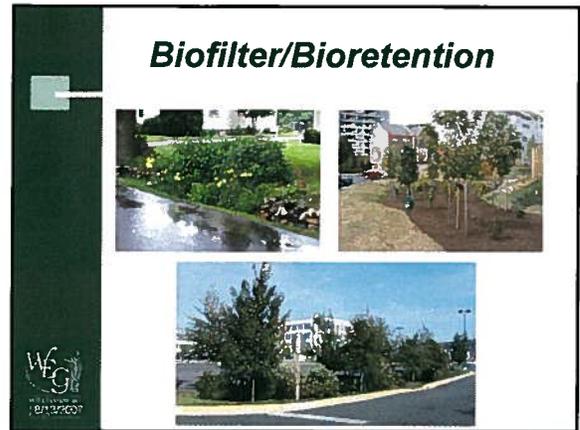
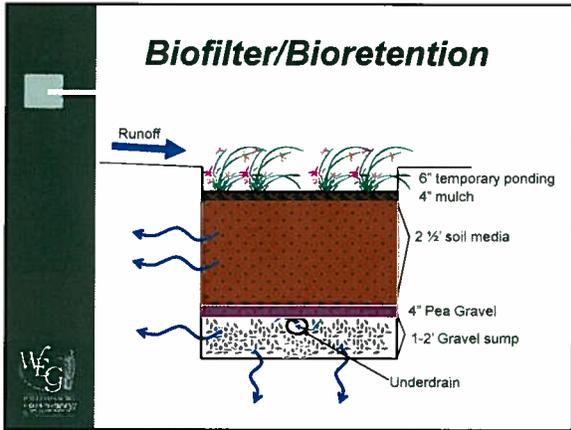


Oil-Water Separators



Catch Basin Inserts



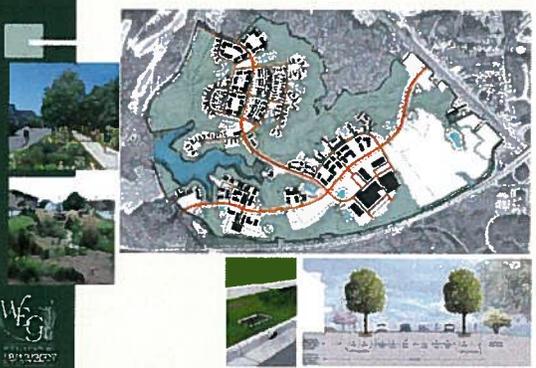


## Feasibility - Land Planning Compatibility

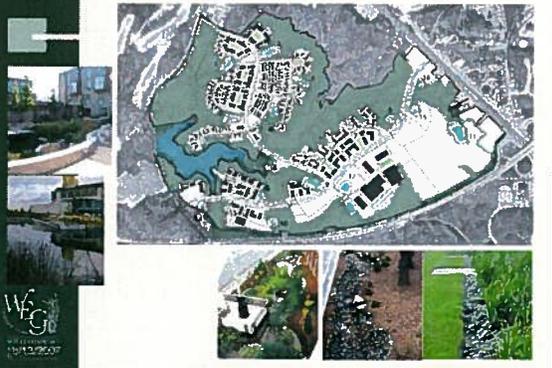
- Screen Practices versus Land Use Type
- Structural and Non-structural
- Opportunities in Landscape (template)
- Develop Standard Treatment Approaches



## STREETS




## PARKS

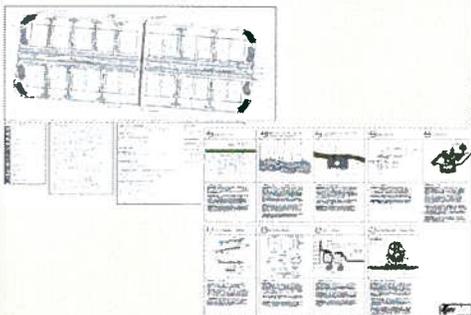



## Typical Practices – Residential

- Engineered Swales in Rear Yards
- Offline Biofiltration
- IMPs in common areas
- Permeable Pavements
- Polishing Filters on Conventional SWM Facilities



## Residential

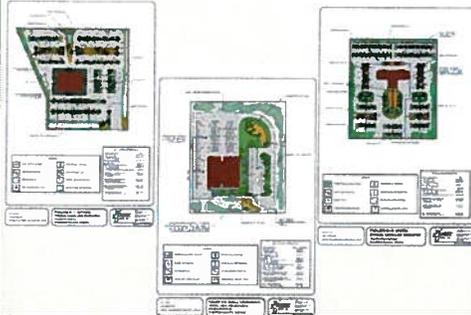



## Typical Practices - Commercial

- Parking Island Bioretention
- Permeable Pavements
- Cisterns
- Subsurface chamber systems for supplemental detention/retention
- Constructed Wetlands



## Office/Commercial



## Typical Practices – Low Density Residential

- Filter Strips
- Level Spreaders
- Enhanced Outlet Protection
- Vegetated Swales
- Stream Buffers and Conservation Areas
- Engineered Soils (Compost Amendments)
- Resource Conservation and Restoration



## Local Code Barriers

- On-lot Practices?
- Local SWM Codes
- Transportation
- Utilities
- Standards and Specifications
- Maintenance



## Tools in the Toolbox

- Structural Controls (BMPs)
- Non-structural measures (e.g. Soil Amendments, Functional Landscape Features)
- Distributed controls (LID IMPs)
- Resource Enhancement Measures (Terrestrial and Aquatic)
- Erosion and Sediment Control (Recommended Enhancements)



## Case Studies

- Haymount – IMP Techniques Selected
  - Green Roofs on Select Commercial Buildings
  - Soil Amendments on Residential Lots
  - Rain Barrels (test/pilot run)
  - Bioretention in Common Areas
  - Permeable overflow parking in community parking areas
  - Pocket Wetland Systems



## Stormwater Management Objectives

- Treatment at all major outfalls
- Preserve/improve runoff quality
- Preserve, enhance or restore resources
- Incorporate innovative treatment approaches
- Use a "treatment train" including interior management practices, stormwater mgmt. facilities, and resource restoration
- Incorporate bioengineered techniques that act as community amenities



## Tools in the Toolbox

- Structural Controls (BMPs)
- Non-structural measures (e.g. Soil Amendments, Functional Landscape Features)
- Distributed controls (LID IMPs)
- Resource Enhancement Measures (Terrestrial and Aquatic)
- Erosion and Sediment Control (Recommended Enhancements)



## Results

- *Site-specific* resource protection strategies
- Cost-effective approaches
- Multi-disciplinary approach
- Better overall resource quality

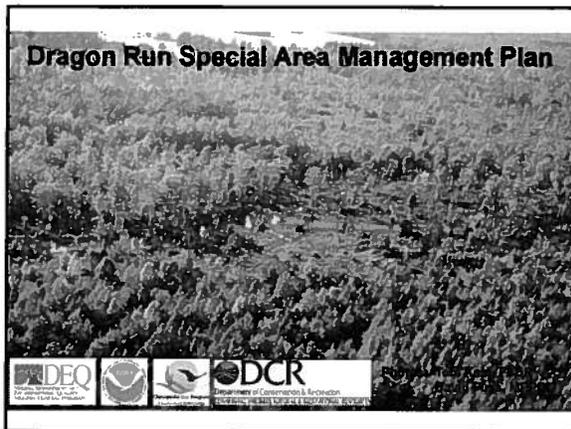


# Virginia Farm Bureau Meeting Gloucester and Mathews Counties March 13, 2006

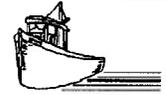
Presented by  
**Sara Stamp**  
Regional Planner  
MPPDC



Photos: Teta Kain, FoDR  
David Fuss, MPPDC



## What is the PDC?



- Regional government cooperation
- Essex, Gloucester, King and Queen, King William, Mathews, Middlesex & Tappahannock, Urbanna, West Point
- Supervisors/Councilors and citizens
- Staff – planners, administrative
- Transportation, business/economic development, environmental, housing, community services, technical assistance to local governments

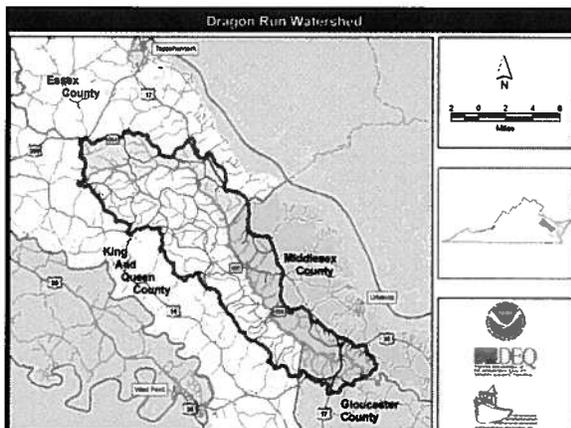
## What is the Dragon Run Steering Committee?

- Represents localities and landowners in efforts to preserve the natural and economic resources of the Dragon Run
- Formed in 1985 following Symposium
- Supervisors and landowners from Essex, Gloucester, King and Queen, and Middlesex Counties
- Staff support



## What is a watershed?

- A watershed is an area of land that drains to a particular body of water
- Within the watershed, the ways in which people live and the tools that they use to manage their land affects the water (quality and quantity) and the land (natural resources)

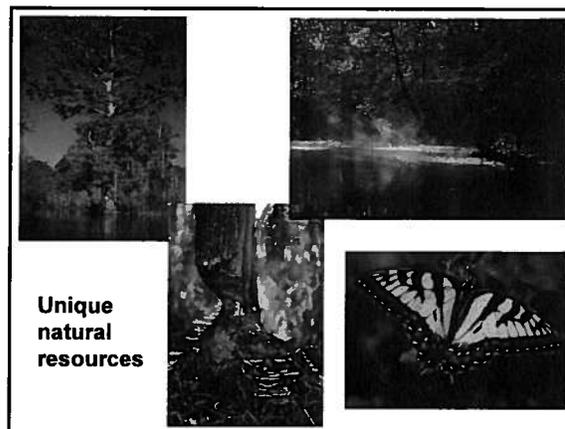


## What is the Dragon Run SAMP?

- Partnership of Dragon Run Steering Committee and Virginia Coastal Program
- 100% grant funded by NOAA
- Main focus: preserve unique cultural and natural heritage in the Chesapeake Bay region
  - Traditional uses (farming, forestry, hunting, fishing, boating)
  - Rare, threatened, and endangered species and natural communities (e.g. cypress-tupelo swamp, cypress-knee sedge, blackwater bluet)



**Cultural heritage and traditional uses**



**Unique natural resources**

### Mission

To support and promote community-based efforts to preserve the cultural, historic, and natural character of the Dragon Run, while preserving property rights and the traditional uses (farming, forestry, hunting, fishing) within the watershed



### Community-Based Effort

The Dragon Run Steering Committee's Advisory Group consists of Committee members, local officials, landowners, business & industry, non-profits, state agencies, educators




The project incorporates the work of more than 60 stakeholders at more than 30 meetings over two years

### Goals and Objectives

1. Establish a high level of cooperation and communication between the four counties within the watershed
2. Foster educational partnerships and opportunities to establish the community's connection to and respect for the land and water of the Dragon Run
3. Promote the concept of landowner stewardship that has served to preserve the Dragon Run as a regional treasure

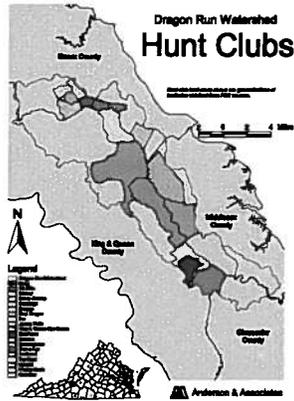



### Educate the community




## Traditional Uses

- >46 % of watershed is leased by hunt clubs
- >\$300,000 generated due to hunt club activity
- >\$1.6 million in fishing activity
- Agricultural Value = >\$3 million
- Timber Value = >\$68 million
- Additional value for direct and indirect costs



## Watershed Management Plan - Recommended Actions

- Phased strategy to designate the Dragon Run as a special planning area
- Implement Farm/Forest Preservation
- Address Public/Landowner Access
- Education
- Sustainable Economic Development
- Control Invasive Species
- Promote Action-based Projects
- Monitor Plan Implementation

## What Happens Next?

- Final Watershed Management Plan
- Outreach/public reaction
- PDC and Localities address watershed plan
- Adopt plan?
- Comp Plan/Zoning amendments?



## How Can You Get Involved?

- Anyone is welcome and everyone is encouraged to participate at any time
- Comment on watershed management plan or specific action plans
- Talk to your county's appointed representatives to the Dragon Run Steering Committee or to Planning District Commission staff to make sure your concerns and ideas are heard and used in the planning process



## Other Educational Materials

Dragon Run Watershed Management Plan Brochure

Dragon Run SAMP Brochure

SAMP Fact Sheets

Estate Planning Brochure

\*\*Education/outreach efforts were also conducted through the Dragon Run SAMP website ([www.mppdc.com/dragon](http://www.mppdc.com/dragon)) and through distribution of the Dragon Run DVD.\*\*

## Dragon Run Steering Committee © 2004

Middle Peninsula  
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# Dragon Run Watershed Management Plan

One of Chesapeake Bay's most pristine waterways, the Dragon Run plays a central role in the Middle Peninsula's culture and identity

### Partnerships and Funding

The Dragon Run Special Area Management Program (SAMP) is founded on **partnerships**. Partnerships build **group commitment** and direct collective funding and expertise toward project goals. The Dragon Run SAMP is a **locally-driven** effort that leverages funding from state and federal sources. It is essential to the project outcome that **strong local leadership** exists in the Dragon Run Steering Committee. This represents **passion and energy** on the part of community members. It is equally important that the project receives support from key state and federal agencies based outside of the watershed. External **funding** and **expertise** buoy the long-term commitment of the local community.

The Dragon Run Special Area Management Program is funded by the Virginia Coastal Program at the Department of Environmental Quality through Grant #NA03NOS4190104 of the National Oceanic and Atmospheric Administration, Office of Ocean and Coastal Resource Management, under the Coastal Zone Management Act of 1972, as amended. Additional funding includes funds generated from the sale of Chesapeake Bay license plates and from the Environmental Protection Agency's Chesapeake Bay Program through the Virginia Department of Conservation of Recreation, via grant agreement #BAY-2002-20-SR. The views expressed herein are those of the authors and do not necessarily reflect the views of NOAA, DEQ, or DCR.



The fresh and brackish Dragon Run makes its way through miles of intact cypress swamp before it reaches Chesapeake Bay

### Dragon Run Watershed

The Dragon Run watershed harbors some of the largest and most intact swamp forest and woodland communities in Virginia. It is mostly undeveloped and encompasses approximately 140 square miles (90,000 acres) of rural landscape – primarily forests, farms, and wetlands. The spring-fed fresh and brackish water stream meanders forty miles through nontidal and tidal cypress swamp in Essex, Gloucester, King and Queen, and Middlesex Counties before emptying into the Piankatank River and Chesapeake Bay.



### Mission

To support and promote community-based efforts to preserve the cultural, historic, and natural character of the Dragon Run, while preserving property rights and the traditional uses within the watershed

## Dragon Run - A Special Area

Natural resources—forestry and farming—have been the bedrock of the Dragon Run watershed's economy for centuries. These land uses, together with extensive swamps, are the main reasons that the Dragon Run remains wild and secluded.

While development pressure is currently low, the potential for significant land ownership changes threatens to disrupt the rural character and fragment productive farm and forest land. Likewise, habitat fragmentation jeopardizes the Dragon Run's unique natural communities.

The Dragon Run Special Area Management Program, a partnership between the Virginia Coastal Program and the Dragon Run Steering Committee, is designed to gather stakeholders to plan for the watershed's future. Substantial common ground defines the community's vision for proactively preserving the Dragon Run for future generations and safeguarding both natural resources and traditional uses, including landowners' property rights.



Extensive bald cypress and aquatic vegetation make the Dragon Run Swamp unique in the Chesapeake Bay watershed



A picturesque rural landscape contributes to a high quality of life in the watershed

### Watershed Goals

Establish a high level of **cooperation and communication** among the four counties within the Dragon Run watershed to achieve consistency across county boundaries

Foster **educational partnerships** and opportunities to establish the community's connection to and respect for the land and water of the Dragon Run

Promote the concept of **landowner stewardship** that has served to preserve the Dragon Run watershed as a regional treasure

### Watershed Actions

*Designate a **Unified "Planning Area"***

*Implement **Tools to Preserve Farm, Forest, and Natural Resources***

*Address **Public and Landowner Access Issues***

*Control **Invasive Species***

*Perform **Watershed Education and Landowner Stewardship***

*Encourage and Support **Sustainable Economic Development***

*Monitor **Watershed Management Plan Implementation***



Traditional uses like forestry and hunting work side-by-side to fuel the watershed's economy



The Dragon Run watershed encompasses 140 square miles of forests, wetlands, and farms



The Dragon Run Swamp offers spectacular and challenging recreational opportunities

## Mission

The SAMP project's mission is to support and promote community-based efforts to preserve the cultural, historic, and natural character of the Dragon Run, while preserving property rights and the traditional uses within the watershed.



**The Future of Your Community  
Depends on You!**

**For more information or to get  
involved, please contact:**

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## Dragon Run Watershed Special Area Management Plan (SAMP)

*A partnership of the Middle  
Peninsula Planning District  
Commission's Dragon Run  
Steering Committee and the  
Virginia Coastal Program*

## Goals

The Steering Committee and its SAMP Advisory Group are currently devising action plans to achieve three guiding goals:

### GOAL I

Establish a high level of cooperation and communication between the four counties within the Dragon Run Watershed to achieve consistency across county boundaries.

### GOAL II

Foster educational partnerships and opportunities to establish the community's connection to and respect for the land and water of the Dragon Run.

### GOAL III

Promote the concept of landowner stewardship that has served to preserve the Dragon Run Watershed as a regional treasure.



## Watershed Features

The Dragon Run is a fresh and brackish water stream that flows forty miles through the Virginia Middle Peninsula counties of Essex, King and Queen, Middlesex, and Gloucester (see map). The watershed is an ecologically unique system of streams, forests, and wetlands that is a central part of the region's culture and identity. It is ranked 2<sup>nd</sup> of 232 ecologically significant areas throughout the Chesapeake Bay region by the Smithsonian Institution.

The Dragon Run Watershed's pristine nature supports a high quality of life for its residents - hunting, fishing, and paddling are popular. This can be attributed, in large part, to exemplary landowner stewardship and a sense of wilderness. Characterized by extensive tidal and nontidal cypress swamps, the watershed boasts one endangered animal species, five rare animal species, eight rare plant species, and five rare natural communities.

## History and Participation

Formed in 1985 as a committee of the Middle Peninsula Planning District Commission, the Dragon Run Steering Committee consists of landowners and county elected officials concerned about the Dragon Run's natural and economic resources. The Dragon Run Watershed Special Area Management Plan (SAMP) is a partnership of the Steering Committee and the Virginia Coastal Program.

The Dragon Run Steering Committee's SAMP Advisory Group represents a cross-section of the community: Committee members; local government elected officials and staff; landowners; state agencies; representatives from farming, forestry, and ecotourism; educators; and non-profit conservation organizations.

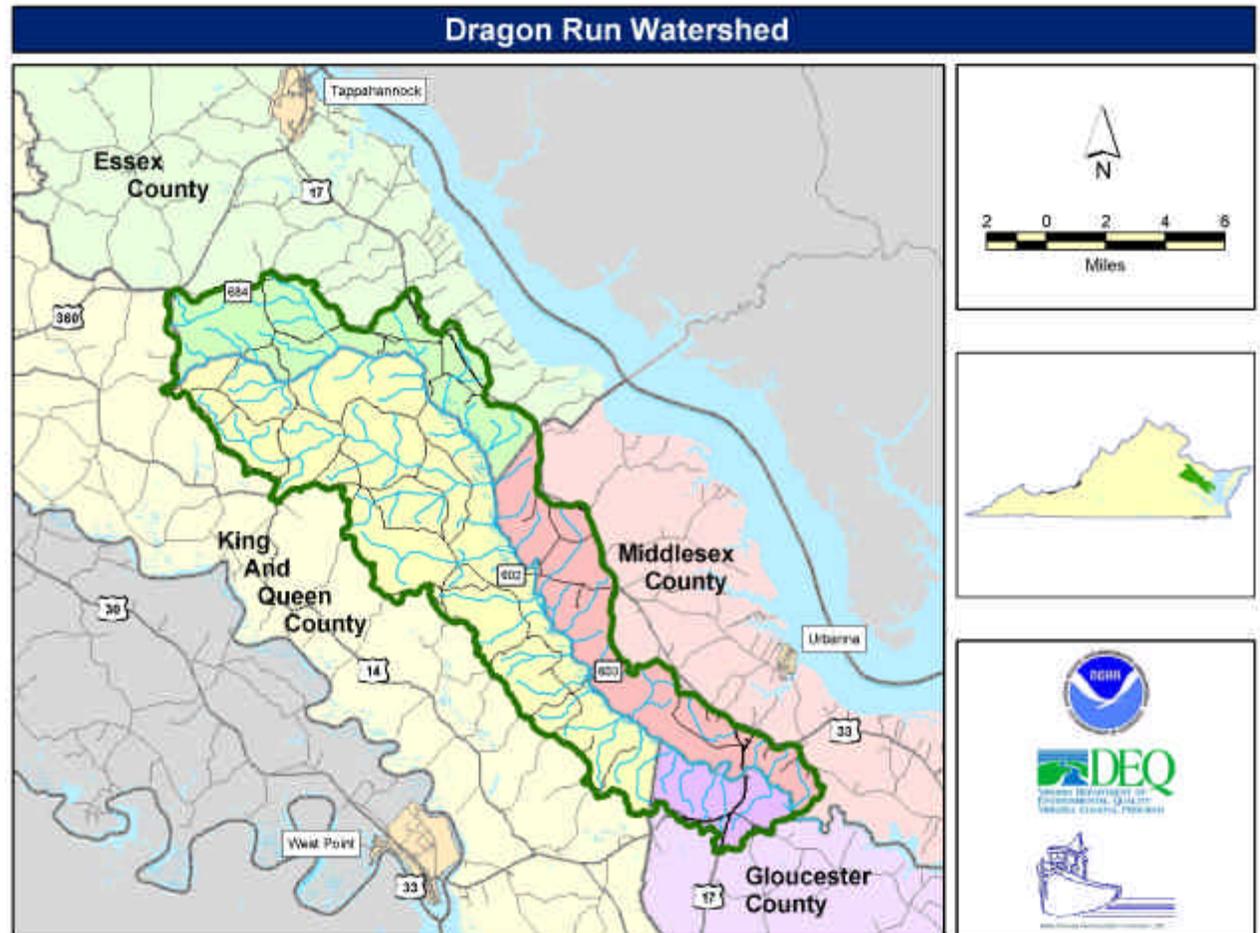
## Location

Located in the Middle Peninsula of Virginia, the Dragon Run Watershed encompasses parts of Essex, King and Queen, Middlesex, and Gloucester counties. The map below shows the location of the watershed boundary, including recognizable features.

## Funding

The Dragon Run Watershed Special SAMP is funded by a Virginia Coastal Program grant, authorized by the National Oceanic and Atmospheric Administration under authority of the federal Coastal Zone Management Act of 1972, as amended.

***A watershed is an area of land that drains to a particular body of water, in this case the Dragon Run. Within the watershed, the ways in which people live and the tools that they use to manage their land affects water quality and natural resources.***



# Dragon Run Special Area Management Plan

Series 1, Number 1

## Where is it and who is involved?

The Middle Peninsula Planning District Commission and the Dragon Run Steering Committee are sponsoring the development of a Special Area Management Plan, or SAMP, for the 140 square mile (90,000 acre) Dragon Run Watershed on the Middle Peninsula of Virginia (see map). Each of the watershed's four counties - Essex, Gloucester, King and Queen, and Middlesex - is represented by elected officials, citizen landowners, and stakeholders who have interests in the watershed.

## What is the mission?

The mission of the Dragon Run Special Area Management Plan is to support and promote community-based efforts to preserve the cultural, historic, and natural character of the Dragon Run, while preserving property rights and the traditional uses within its watershed. More than a paper document, the SAMP is a community effort to evaluate, integrate and coordinate policies and activities that affect the people and resources within the watershed.



## How is it funded?

Authorized by Section 309 (Enhancement Grants) of the Coastal Zone Management Act of 1972, the SAMP is funded by grants from the National Oceanic and Atmospheric Administration (NOAA), administered by the Virginia Coastal Program at the Department of Environmental Quality.

## How did it get started?

Authorized by the Dragon Run Steering Committee, the SAMP began with planning forums for stakeholders in the watershed. The purpose of these initial planning meetings was to solicit a broad range of visions and perspectives about the future of the Dragon Run Watershed.

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## **Issues**

Currently, an Advisory Group, consisting of three working groups, is focusing on the following key issues in topic areas identified during the stakeholder planning forums:

### ***Local Government and Policy***

- Property rights / landowner independence
- Consistency among comprehensive plans and ordinances
- Cumulative impacts and carrying capacity of development
- Tax revenues and public services affected by land use changes
- Similar planning programs as models
- Uncertainty about lawmaking process at local government level
- Sewage disposal

### ***Traditional Uses and Habitat Management***

- Preserve Dragon Run's condition/species
- Open space preservation—traditional uses (e.g. farming, forestry)
- Recreation—hunting, fishing, paddling
- Economic and tax forces – fragmenting working farms and forests
- Assessment of Dragon Run health – water quality, anadromous fish, etc.
- Best Management Practices (BMP's) for forestry, agriculture, and development
- Conservation easements
- State agency information/data
- Private sector information/data

### ***Educating the Public and Public Access***

- Public education (e.g. Supervisors, citizens, children) about unique natural resources
- Personal connection to Dragon Run
- Access vs. property rights
- Fear of “loving the Dragon to death”
- Education vs. publicity
- Carrying capacity of access/recreation
- Future ecotourism pressure
- Land management options for landowners (e.g. easements, tax incentives, programs)

## **What will happen in the future?**

To address these issues and others that may arise, the Advisory Group will work to develop goals and objectives and action plans to achieve them. The Advisory Group's recommendations to the Dragon Run Steering Committee will be considered and may be presented to each county's Board of Supervisors. Some recommendations may entail working outside of local government, such as directly working with landowners. Additional SAMP activities will include collecting information, analyzing ordinances, and providing technical assistance.

## **For More Information or To Get Involved**

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# Dragon Run Special Area Management Plan

Series 1, Number 2

## Where is it and who is involved?

The Dragon Run Steering Committee, the Middle Peninsula Planning District Commission, and the Virginia Coastal Program are co-sponsoring the development of the Dragon Run Special Area Management Plan, or SAMP, with funding from the National Oceanic and Atmospheric Administration. The 140 square mile (90,000 acre) Dragon Run Watershed encompasses parts of Essex, Gloucester, King and Queen, and Middlesex Counties on the Middle Peninsula of Virginia (see map). The Steering Committee includes elected officials and landowners from each county in the watershed and its SAMP Advisory Group represents a cross-section of the community, including: Steering Committee members; local government officials and staff; landowners; state agencies; farmers; foresters; educators; non-profit organizations; and ecotourism operators.

## What is the mission?

The project's mission is to support and promote community-based efforts to preserve the cultural, historic, and natural character of the Dragon Run, while preserving property rights and traditional uses within the watershed.



## What is the Memorandum of Agreement?

The signatories of the Memorandum of Agreement (i.e. the Counties and the Commission) agree to participate in the SAMP to promote the distinctive treatment deserving of the Dragon Run Watershed through the support and efforts of local government, the fostering of educational partnerships and grassroots support and the involvement of landowners whose stewardship has served to preserve the wonder of the Dragon. The signatories will consider the recommendations of the Steering Committee and its SAMP Advisory Group to achieve the project's goals and objectives.

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## **Goals and Objectives**

### **GOAL I**

Establish a high level of cooperation and communication between the four counties within the Dragon Run Watershed to achieve consistency across county boundaries.

#### *OBJECTIVE A*

Develop a plan to address the inevitable future development pressure to change the traditional use of land in the Dragon Run Watershed.

#### *OBJECTIVE B*

Achieve consistency across county boundaries among land use plans and regulations in order to maintain farming and forestry and to preserve natural heritage areas by protecting plants, animals, natural communities, and aquatic systems.

#### *OBJECTIVE C*

Provide ongoing monitoring of existing plans and planning tools in order to assess traditional land uses and watershed health and take action necessary to preserve the watershed.

#### *OBJECTIVE D*

Comprehensively implement Best Management Practices (BMPs) for water quality, wildlife habitat, and soil conservation.

### **GOAL II**

Foster educational partnerships and opportunities to establish the community's connection to and respect for the land and water of the Dragon Run.

#### *OBJECTIVE A*

Encourage experience-based education consistent with the Stewardship and Community Engagement goals of the Chesapeake 2000 Agreement.

#### *OBJECTIVE B*

Promote the community and economic benefits of the Dragon Run derived from its natural characteristics and traditional uses such as farming, forestry, hunting and fishing.

### **GOAL III**

Promote the concept of landowner stewardship that has served to preserve the Dragon Run Watershed as a regional treasure.

#### *OBJECTIVE A*

Address the potential dilemma of preserving the watershed's sense of peace and serenity by protecting open space and reducing fragmentation of farms, forests, and wildlife habitat versus the landowners rights in determining or influencing future land use.

#### *OBJECTIVE B*

Educate landowners about the regional importance of the Dragon Run.

## **What will happen in the future?**

The Dragon Run Steering Committee and its SAMP Advisory Group will develop recommendations to achieve the goals and objectives in the Agreement. The signatories of the Agreement will consider whether to implement these recommendations. The Middle Peninsula Planning District Commission has signed the Agreement and recommends that the four counties also sign the Agreement.

## **For More Information or To Get Involved**

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### **What are the next steps to promote estate planning?**

#### Identify a Range of Relevant Tools:

Some landowners may at first be reluctant to foreclose on future economic opportunities associated with their properties. Thus, the range of options available to them should be made clear at the outset. Some of these options include the right of first refusal, establishment of a community foundation, a conservation registry, and conservation easements.

Provide Public Relations Education: An important first step in this program is to establish within the community a shared sense of its goals. A public relations campaign that explains the opportunity to direct the course of future change is recommended. Landowners should be recognized and commended for the stewardship that has thus far preserved this regional treasure. At the same time, all should know that in the absence of an invigorated community effort, the operation of market forces would exert pressure and bring serious change. Again, the cooperative nature of the effort should be made clear very early on to avoid unnecessary resistance. The public relations campaign should serve the additional purpose of reaching and motivating non-landowning citizens to commit their time, effort and funding.

Develop a Donor Visitation Team: Appointed by the Steering Committee, the team comprised of individuals with estate planning, legal and fundraising expertise would conduct personal donor visits. The steering committee would also explore partnerships with the MP Land Trust and The Nature Conservancy. The donor visitation task force would undergo training, identify and develop a list of potential donors and identify additional resources and supporting institutions.



Management Program at the Department of Environmental Quality through Grant #NA05NOS4191180 of the National Oceanic and Atmospheric Administration, Office of Ocean and Coastal Resource Management, under the Coastal Zone Management Act of 1972, as amended. The views expressed are those of the author(s) and do not necessarily reflect the views of NOAA or any of its subagencies.

## Estate Planning & Conservation Tools



*Mission: To support and promote community-based efforts to preserve the cultural, historic, and natural character of the Dragon Run, while preserving property rights and the traditional uses within the watershed.*

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# DRAGON RUN SPECIAL AREA MANAGEMENT PROGRAM



## DRAGON RUN SPECIAL AREA MANAGEMENT PROGRAM

### **What is the Dragon Run Special Area Management Program (SAMP)?**

A partnership between the Virginia Coastal Zone Management Program and the Dragon Run Steering Committee of the Middle Peninsula PDC, is designed to address both the differing viewpoints and common ground that exist concerning the future of the watershed.

### **What is the Dragon Run Steering Committee?**

Formed in 1985, the Dragon Run Steering Committee consists of landowners and local elected officials and is the key vehicle for cooperation and coordination among the four counties concerning watershed issues.

### **What counties are in the watershed?**

The counties of Essex, Gloucester, King and Queen, and Middlesex contain the watershed.

## STEERING COMMITTEE

**Essex County** – Prue Davis (Chair)(S), Fred Hudson (P), Dorothy Miller, M. Scott Owen

**Gloucester County** – Charles “Rick” Allen (S), Dr. Eric Weisel (P), Robert Hudgins, Dr. Willy Reay

**King and Queen County** – Keith Haden (S), Kempton Shields (P), Robert Gibson, William “Frank” Herrin

**Middlesex** – John D. “Jack” Miller (S), John England (P), R. D. Johnson, Davis Wilson

(S) denotes Supervisor

(P) denotes Planning Commissioner

**Staff** – Sara Stamp

## ESTATE PLANNING, CONSERVATION TOOLS AND COMMUNITY FOUNDATIONS

### **Why was the *Opportunities for Sustainable Natural Resource-Based Development in the Dragon Run Watershed* study conducted?**

The overall purpose of the project was to identify and explore economic development activities and opportunities that sustain traditional land uses while enhancing the natural resource base or at least minimizing adverse impacts.

### ***What is estate planning?***

Estate planning begins with the identification of all the assets and liabilities of the estate. Its purpose is to leave detailed instructions pertaining to the distribution of assets and settlement of liabilities after the owner’s death. Estate planning is versatile and may use various instruments and strategies depending upon the needs and circumstances of the estate. The goals need not be limited to asset distribution and tax avoidance. The wealth of an estate may be used to achieve other specified objectives: education, start-up capital for a new business, donation to community or charitable organization. Goals may encompass broader horizons such as preserving a certain character to the land, certain uses and management regimes.

### ***What types of estate planning tools exist?***

**Conservation Easements:** An easement is a permission or restriction that attaches to a property in the form of deed covenants. It represents the permanent, legal conveyance of an agreed upon set of property rights to another party. A common permissive easement is the right of a utility company to run cable across

one’s property. A restrictive easement might preclude a property owner from further subdividing their land. A conservation easement may prohibit or limit certain land use activities such as residential development to preserve wildlife habitat.

Conservation easements are flexible and can be structured to meet the goals of both the landowner and the party to which the easement is being granted. The use restrictions contained in the easement are permanently attached to the title, otherwise ownership is unaffected. As with any property, it may be sold, bequeathed or donated to charitable causes. All uses permitted by zoning and not restricted by the easement may continue.

**Life Instruments:** These are easements or deed restrictions that come to force after the owner’s death or some other specified time. The current owner may continue to live on and use the property.

**Right of First Refusal:** A legal document entered into by the landowner and a second party whereby notice is given to the second party when the landowner intends to sell property or change land use. The second party may exercise the right to purchase the land at market value or refuse this right. This instrument serves primarily to notify and preserve purchase or lease options for the second party with no diminishment of land value or other cost associated with this instrument.

**Community Foundations:** These are 501(C)3 non-profit corporations that may receive charitable gifts, invest, manage and distribute them for community improvement.

**Conservation Registry:** The Registry shows appreciation and recognizes the landowner with the presentation of a plaque or framed certificate that could also serve the aims of the larger public relations effort to build momentum and strengthen the sense of community interest.

PRODUCT 2B:

DRAGON RUN DAY PLANNING SUBCOMMITTEE REPORT

**SUMMARY REPORT FOR**  
**3<sup>rd</sup> ANNUAL DRAGON RUN DAY PLANNING INITIATIVE**

*A Celebration of the Dragon Run Watershed's Natural, Cultural, and Historic Heritage*

June 30, 2007

SUBMITTED BY:

SARA STAMP  
DRAGON RUN SAMP DIRECTOR



This work was funded by the Virginia Coastal Zone Management Program at the Department of Environmental Quality through Grant #NA05NOS4191180 of the National Oceanic and Atmospheric Administration, Office of Ocean and Coastal Resource Management, under the Coastal Zone Management Act of 1972, as amended. The views expressed are those of the author(s) and do not necessarily reflect the views of NOAA or any of its subagencies.

## **REPORT FOR 3<sup>RD</sup> ANNUAL DRAGON RUN DAY PLANNING INITIATIVE**

### **Background:**

During the first two Dragon Run Day events, a professional coordinator was contracted to plan the logistics of the event and to coordinate the day utilizing grant funding from the Virginia Coastal Zone Management Program at the Virginia Department of Environmental Quality. In 2006, the Dragon Run Steering Committee decided that the watershed event merited continuance and formed a planning subcommittee to seek sponsorship for the event, contact potential demonstrators and vendors, and coordinate the event itself.

### **Planning Subcommittee:**

A Dragon Run Day Subcommittee was formed in April 2006, and the following were or later became members: Prue Davis (Dragon Run Steering Committee); Willy Reay (Dragon Run Steering Committee/Chesapeake Bay NERR in VA); Dorothy Miller (Dragon Run Steering Committee); Frank Herrin (Dragon Run Steering Committee); Davis Rhodes (Friends of Dragon Run); Terry DuRose (Dragon Run Steering Committee/General Manager, Thousand Trails Campground); Candie Newman (River Country Tourism Council); Pat Tyrrell (Tidewater RC&D). In order to provide for adequate planning, meetings were held quarterly in 2006 and monthly in 2007. The first was held on April 5, 2006 with the goal of brainstorming ideas for this year's festival, selecting a date/venue, discussing a budget, and considering additional project partners. The July 2006 meeting focused on identifying potential sponsors and demonstrators. While many of the demonstrations were derived from past event rosters, the planning subcommittee also added many new ideas. Subsequent meetings focused primarily on successes in locating sponsorship, demonstrators and logistics. In the March 2007 meeting, a new opportunity was identified. Terry DuRose, a new appointment to the Dragon Run Steering Committee and the General Manager of Thousand Trails Campground, joined the subcommittee and offered the campground as a potential venue for the event.

### **Date and Venue Selection:**

As Dragon Run Day has typically taken place in October, the subcommittee decided to continue this tradition. A date was selected that did not appear to be in conflict with any Jamestown 2007 events. The original date of October 20<sup>th</sup> was revised to October 13<sup>th</sup> to be able to take full advantage of the venue amenities at Thousand Trails.

Ms. DuRose reported that the campground hosts an annual seafood festival that is open to the public. For years, they have considered this to be an event without a cause and feels that the purpose of Dragon Run Day is congruous with the cause they are seeking. Therefore, she offered to merge the seafood festival, which has an estimated annual draw of 1,500 people, with Dragon Run Day. The event would become Dragon Run Day in name and purpose. The Subcommittee considered this offer and decided at their April 2007 meeting to change the venue and date to take

advantage of this offer and the accompanying benefits and amenities. All activities and demonstrations previously envisioned for Dragon Run Day are not anticipated to be impacted. In fact, due to increased space at the venue, some demonstrations that required too much space were now eligible. Amenities available at this new location have enabled the reduction of several facets of the budget and allowed for additional expenditures in others, i.e. t-shirts.

### **Promotion and Solicitation:**

During 2006 and 2007 previous and potential exhibitors, demonstrators, food vendors and clean-up crews were contacted, and are continuing to be contacted, to request their participation in the 3<sup>rd</sup> Annual Dragon Run Day. A sample version of the letters/forms sent to potential sponsors and demonstrators, as well as the list of potential demonstrators, are located in Attachment A.

Volunteers from the Friends of Dragon Run and the Boy Scouts, who were utilized during the first two Dragon Run Days, were or will be contacted to ask for their participation in this year's festival. Volunteers will be assigned to help with the following duties: set-up during the morning; greet visitors, answer questions and sell t-shirts and hats at the Information Tent; help the exhibitors and vendors as well as visitors while roaming the festival; direct cars in the parking lot; assist with nature walks and pond studies; and clean-up after the Day.

The Subcommittee has created a list of compatible activities for the event and has been and will continue to be contacting entities that provide these activities during the next several months. The Subcommittee is targeting activities, displays and vendors that are indigenous to the watershed. Some of these activities/demonstrations include Native American crafts or dancing, a portable sawmill demonstration, hunting exhibitions & competitions, retriever dog events, music, arts and crafts, local boat builders demonstration, oral history of the Dragon presentation, farm equipment displays, antique car display, antique assessments, and decoy making. Exhibitions at the event may also include educational nature walks, wildlife rehabilitation display, fish printmaking, a biodiesel display, estate planning information booth and other educational features. Many contacts for these activities and displays have been consulted and confirmed already.

Various advertising and promotional strategies for Dragon Run Day 2007 will be designed and implemented. Based on materials from previous years, invitations announcing the event will be developed, printed, and sent to the following: Middle Peninsula Planning District Commission members; Dragon Run Special Area Management Plan members; Dragon Run Steering Committee members; Essex, Middlesex, Gloucester, and King and Queen county officials and staff; Dragon Run Field Workshop participants; and landowners on the main stem of the Dragon Run. Approximately six hundred of these postcards will be mailed to the targeted audience listed above. Bookmarks will be created and distributed to local schools. Posters, sized 11" x 17", describing the festival will be designed and distributed throughout the four counties of the watershed. These posters will be displayed at businesses, schools, county offices, and other appropriate locations. Dragon Run Day Subcommittee

members will help to circulate this advertisement. A press release will be written and sent to all the local newspapers and radio stations. Several large banners will be produced and displayed at the entrance to the location the day of the event.

**Vendors:**

The seafood will be provided for sale by Thousand Trails. There may be another type of food vendor present as well. As crafts vendors (many of them primarily from this region) have previously had a presence at the seafood festival, Ms. DuRose is utilizing that list to solicit vendors. Other companies interested in setting up a vending booth may contact Ms. DuRose as well. Booth cost is minimal for all. Any vendor who has a display or demonstration that provides education about the watershed/watershed traditional uses, etc will have the booth fee waived.

**Logistics:**

T-shirts, polo shirts and hats will be ordered from Colonial Sports in Williamsburg costing \$1,500. The Dragon Run Subcommittee agreed to sell t-shirts to generate “seed money” for next year’s festival. After giving designated STAFF t-shirts to volunteers, the remaining t-shirts will be for sale in addition to the hats. The t-shirts will be similar to 2005’s design – with a large Dragon Run Day logo on the front, and on the back they say “Thanks to our sponsors” with the MPPDC, DEQ VA CZM Program, NOAA logos, and the logos/names of other “Bald Eagle” level sponsors. The polo shirts with the Dragon Run Day logo embroidered will be given to the Dragon Run Subcommittee. The ball caps were stone and light blue and had Dragon Run Day logo embroidered on them. No date will be used on the t-shirts, so that if they do not sell this year, they may be resold next year.

Clements Tent Rentals is being used for renting the tents and tables for exhibitors and demonstrators. A large tent will be used this year instead of smaller tents for each display. This, and the availability of some indoor space, should alleviate many problems regarding rain potential. The total cost of tents, including delivery and set up will be \$1,150.

Like last year, signage to direct visitors will be designed and printed at the MPPDC office on waterproof mapping paper. In addition to tent numbers, this year demonstrations that are indigenous to the Dragon Run Watershed will be distinguished with a dragonfly cut-out. This denotation will be noted in the brochure.

**Event Budget:**

Dragon Run Day Budget	2006 Original	2007 Revised
Office supplies (invitations, ink)	\$601.00	\$601.00
Hardware supplies (tape, garden stakes, batteries, trash bags, etc)	\$60.00	\$60.00
T-shirts for Volunteers, others*	\$750.00	\$1,500.00
Port-a-toilets and wash station rentals	\$425.00	
Security guard fee	\$165.00	
Tent and table rentals	\$1,500.00	\$1,150.00
Traffic control deputy fee	\$150.00	
Band	\$500.00	\$600.00
Volunteer Services from FODR donation	\$150.00	\$150.00
Fees for event attraction, activities and other services	\$800.00	\$500.00
<b>Total Anticipated Costs</b>	<b>\$5,101.00</b>	<b>\$4,561.00</b>
Amount received to date:		
Revenues from last year		\$601.00
Virginia Environmental Endowment (for tents, tables, t-shirts)		\$2,250.00
Other Sponsors:		
Catman Cats		\$250.00
Virginia Institute of Marine Science		\$250.00
Tappahannock-Essex Chamber of Commerce		\$200.00
Thousand Trails		\$100.00
Hampton Roads Clean Cities Coalition		\$100.00
Resource International		\$250.00
<b>Total Revenue to Date</b>		<b>\$4,001.00</b>

The T-shirt budget has increased due to a higher expected turn out than past years

Several items have been deleted from the budget because they are no longer required at the new venue

PRODUCT 3:  
REPORT ON TECHNICAL ASSISTANCE -  
DRAGON RUN STEERING COMMITTEE REPORT



## Dragon Run Steering Committee Fall Quarterly Meeting November 9, 2005

Cooks Corner County Complex  
Saluda, Virginia  
6:00 PM

### *AGENDA*

1. Social - Hors d'oeuvres - 6:00 PM
2. Welcome and Introductions - 7:00 PM
3. Sustainable Economic Development Study- Shanna Ratner, Yellow Wood Associates
4. 2<sup>nd</sup> Annual Dragon Run Day Summary
  - Future of Dragon Run Day?
5. Presentation to Jerry Horner, Former Steering Committee member
6. Other Business
7. Adjourn

#### **Attendance**

*Steering Committee:* Prue Davis (Essex), Dorothy Miller (Essex); Robert Hudgins (Gloucester); Eric Weisel (Gloucester); Fred Hutson (Essex); Frank Herrin (King and Queen); Jack Miller (Middlesex)

*Others:* Julie Bixby (Virginia Coastal Zone Management Program); Anne Ducey-Ortiz (Gloucester Planning Commission), Rachel and Russell Williams (Friends of Dragon Run-King and Queen); Sue Hertzler (Dragon Run Inn); Bobby Hart (King and Queen Planning Commission); Dick Brake (Brake and Associates); Billy Mills (Local Realtor); Pat Tyrrell (NRCS RC&D); Lewie Lawrence (MPPDC); Shanna Ratner (Yellow Wood Associates, Inc); Sara Stamp (MPPDC)

## **Welcome**

MPPDC staff, Lewie Lawrence welcomed everyone for refreshments and began introductions.

## **Sustainable Economic Development Study Presentation**

Shanna Ratner, consultant from Yellow Wood Associates, Inc, presented a summary of the findings of their economic development study, *Opportunities for Sustainable Natural Resource-Based Development in the Dragon Run Watershed*. The report examined four enterprise papers and three learning papers. “Enterprise papers on utilizing biodiesel, recycling organic materials, showcasing local crafts and food products and producing white oak staves for wine barrels provided examples of enterprises that fit within the overall goal of sustainable natural resource-based economic development for the Watershed, whether carried out within the public or private sectors. The learning papers on estate planning, organic production, and controlling public access are intended to inform the Dragon Run Steering Committee and improve understanding at a conceptual level.”

After the summary of the papers, Ms. Ratner asked the attendees to divide into groups and discuss next steps toward potential implementation of some, all or none of these practices. Overall, there seemed to be a general leaning toward pursuing more information about recycling organic materials and utilizing biodiesel, however producing white oak staves was also discussed by some groups.

## **Summary of Dragon Run Day**

MPPDC staff, Sara Stamp told the Steering Committee that about 150 people attended the event, but because of inclement weather, the event was a moderate success. Due to the weather, the nature walks and pond study were cancelled. However, many exhibitors found that they were better able to discuss exhibits with visitors in more detail. It was noted that this rarely happens at other festival events.

Sara Stamp reported that sponsors and the sale of hats and t-shirts contributed (\$601) toward produce seed funds for a potential 3<sup>rd</sup> Dragon Run Day. At the time of the event, the sponsor who had previously submitted funds had their logo prominently printed on the back of the Dragon Run Day Brochure.

## **Where Do We Go From Here?**

Sara Stamp discussed some of the potential for an event next year. Because the Virginia Coastal Program will not be solely funding the event, other sources of funds would need to be sought. In addition to seeking sponsor, the option may be available to resell hats, which do not have a date printed on them and discounted shirts, which are dated. There has been an offer from the Chesapeake Bay Governor’s School to potential provide pond study leadership with their own equipment. If not enough funds for DRD3, sponsorship of an educational event with exhibits and a speakers’ seminar may be an option.

The Steering Committee decided to table a continued discussion of the potential for DRD3 until the next meeting.

### **Presentation to Jerry Horner**

Due to a family emergency, Mr. Horner was unable to attend.

### **Other Business**

The Dragon Run Steering Committee decided that it would be appropriate to get an appreciation gift for David and Karen Fuss for their hard work and dedication. It was recommended that a framed picture of the Dragon Run with a seal on it should be purchased and presented to the couple. Sara Stamp and Prue Davis will follow-up on this.

### **Adjourn**

The meeting was adjourned.



**Dragon Run Steering Committee  
Winter Quarterly Meeting  
February 15, 2006**

Middle Peninsula Planning District Commission  
Saluda, Virginia  
7:00 PM

***AGENDA Revised***

1. Welcome and Introductions
2. Recommendation on economic development study
3. Proposed scope of work for coming years
4. Potential for third Dragon Run Day Event
5. Setting Committee Priorities
  - Coordinating Land Use Policies
  - Access
6. Other Business
7. Adjourn

## Dragon Run Steering Committee Meeting – Minutes February 15, 2006



### **Attendance**

*Steering Committee:* Prue Davis (Essex), Dorothy Miller (Essex); Scott Owen (Essex); Rick Allen (Gloucester); Robert Hudgins (Gloucester); Willy Reay (Gloucester); Frank Herrin (King and Queen); R.D. Johnson, Jack Miller (Middlesex)

*Others:* Fred Hutson (Essex); Anne and Dan Ducey-Ortiz (Gloucester); Sara Stamp (MPPDC)

### **Welcome and Introductions**

Chair Prue Davis called the meeting to order and began introductions. Sara Stamp displayed an award from the Dragon Run Steering Committee to David Fuss for his service as the Director of the Dragon Run Steering Committee.

### **Recommendation on the Yellow Wood Economic Development Study**

After reviewing the purpose of the Yellow Wood report, the Steering Committee discussed the feasibility of each of the recommendations. Sara will coordinate with Prue to prepare a feedback report for the Commission to encourage them to acknowledge the Committee's recommendation referrals and work plan associated with implementing these recommendations. Each the following critical evaluations of the recommendations is based on Committee discussion:

#### Enterprise Papers

##### *Topic 1: White Oak Stave Use for Wine Barrel Production*

Although it acknowledges that sustainable harvesting of hardwoods is a valuable practice, the Committee felt that this venture was more destructive to the Dragon's ecosystem, and therefore in conflict with the goals of the Committee at this current point in time than they would prefer. The Committee discussed the current status of hardwood farming and the problems with it being a practice that is difficult to make sustainable and therefore perhaps detrimental to long term economic viability in the Dragon. The Committee does, however, want to remain open to educational opportunities regarding this potential recommendation in case opportunities present themselves in the future.

##### *Topic 2: Showcase for Local Foods and Crafts with Education Exhibits and Sales Opportunities*

With the limited number of craftspeople indigenous to the Dragon Run Watershed, the Committee believes that it would be difficult to attain the threshold identified by the report. Therefore, the Committee has decided to forego further efforts on this recommendation in lieu of pursuing more feasible/implementable ones.

##### *Topic 3: Biodiesel Utilization and Production for Municipal Vehicles*

The Committee showed a significantly positive response to the recommendation for a pilot locality to pilot a partnership program that would use biodiesel from a partnership between local soybean growers and the regional biodiesel company. Members of the committee had questions regarding the technology such as how long the fuel takes to gel, how much fuel does an acre of soybeans yield, etc. It was recommended that Sara consult Ellen Davis about a presentation she has on the technology. The Committee noted that there currently seems to be a local appetite for a move to biodiesel, both at the public and private levels. Many local farmers have shown interest in utilizing this technology. Essex County was promoted as a location that may be at a point where they are willing to pilot a program exploring this recommendation. Therefore, it is the recommendation of the Committee that future work include a plan to implement this pilot program at the local government level, particularly in Essex, and ultimately produce an educational report that highlights program successes but that can also be transferred to private industry.

#### *Topic 4: Municipal Recycling Center for Organic Materials*

One of the biggest problems the Committee identified with this recommendations is that it seems to be difficult to get people to recycle and that there may not be a strong enough market to justify the costs associated with start-up. While it was discussed that there is some experience in the area utilizing sludge and timber chips to produce sellable mulch, a feasibility study would be required to see whether the price of the technology is cost prohibitive. The Committee does, however, want to remain open to educational opportunities regarding this potential recommendation in case opportunities present themselves in the future.

### Learning Papers

#### *Topic 5: Organic Produce Production and Community Supported Agriculture*

The Committee noted several pros and cons with this recommendation. It saw more potential in exploring the “organic” market than Community Supported Agriculture. It recognized that there is a stronger market for the organic and niche farming industries in the metropolitan areas than in the local rural areas, creating additional costs through transportation. The Committee recognized that there are networks in place in these metropolitan areas that our local farmers would have to tap into. Also, the issue of receiving the proper certification and the requirements associated with it were discussed. Regardless, this recommendation seems to be a mid-level priority for the Committee.

#### *Topic 6: Estate Planning, Conservation Tools and Community Foundations*

The Committee identified this topic as the most important idea to pursue in the long-run. Due to the flexibility of the recommendation, the Committee believes that with the proper educational tools, this would be relatively easy to implement. It did, however, note that enrollment in estate planning, conservation tools and the like has experienced limited success in the past. It recognized that there are currently several organizations in the area operating in the conservation easement field and that there is a potential for implementing a communication network between this current operators and potential groups. The Committee identified potential groups as: local hunt clubs, Ducks Unlimited, Wild Turkey Foundation, Quail Unlimited, and the Virginia Deer Hunter Association.

### *Topic 7: Controlling Public Access*

This topic was discussed in detail under the agenda item #5, “Setting Committee Priorities” - “Coordinating Land Use Policy” and “Access”.

The Committee prioritized the topics as follows:

#### Priorities

*High Priority: Committee would like to see implementation of these recommendation*

Estate planning program

Biodiesel

*Mid Level Priority: Committee does not have current plan for implementation, but would be interested in actively supporting these activities*

Organic produce/niche market

*Committee believes these activities have potential to be pursued in future and would like to maintain awareness of status and participate in educational opportunities involving these topics*

Organic waste recycling

White oak staves for wine barrels

*Low Priority: Committee feels that there is not a threshold capacity to make this a viable activity*

Local crafts network

The Steering Committee would like for the Planning District Commission to endorse the preceding prioritization stemming from the economic study.

### **Proposed Scope of Work for Coming Years**

The Committee reviewed and discussed the 309 Implementation Strategy drafted and submitted by Dave Fuss and Sara Stamp to the Virginia Coastal Zone Management Program. The Implementation Strategy changes the focus from funding development ideas to funding implementation ideas. The following tasks were identified for implementation:

1a. Provide technical assistance for adopting Comprehensive Plan and zoning amendments

1b. Implement adopted Comprehensive Plan and zoning changes after they have been approved by the locality

2a. Pilot feasibility study and adoption plan in Essex County for biodiesel use in county bus fleet and provide implementation assistance

2b. Implement economic partnerships stemming from sustainable economic development study

3. Develop 2-4 management plans for public and/or nongovernmental organization holding acquired for conservation

4. Produce signs at current public access sits to warn users about public safety and trespassing threats; develop detailed brochures and identification markers for public take-out points **(It was**

**clarified here that this task is not aimed at creating public access sites, but rather working with those in existence and any others that come online.)**

### **Setting Committee Priorities: Coordinating Land Use Policies and Access**

The discussion on the fourth Implementation Strategy task initiated the discussion on public access, moving it up in the agenda. The Committee recognized that efforts could be taken to better communicate and work with users to properly use public access sites and avoid trespass on private lands. The Committee identified the following concerns with public access:

1. Abuse of private lands – trash
2. Abuse of public lands – trash and the necessity for someone to manage these lands and use of these lands
3. Public access points may create draw for development pressures
4. Counties may not have manpower to support trespassing claims of landowners
5. Use conflicts – between private land owners and people on the Dragon; between various public land/water users
6. More people=more problems

The Committee would like more information on the following items:

1. Use estimates of the lands and waters of the Dragon
2. Locations of true public access points
3. Definition of the private property line against public waters

The Committee would like:

1. To enable a landowner feedback communication network to track abuse
2. Education opportunities for land owners to discuss public and private land facts, as well as how private land owners can deter or encourage various degrees of public use of private lands

### **Potential for Third Dragon Run Day Event**

The Steering Committee would still like to host an event to celebrate the heritage and watershed of the Dragon Run. With the understanding that the Steering Committee would need to generate the sponsorship for the event (rather than from Virginia Coastal Zone Management Program grant funds), the Committee decided that it would prefer to host an event every other year, with the next one occurring in October, 2007. The Committee will coordinate with other Jamestown events happening in the region. The Committee discussed an event that would be cross educational and social event. Chair Davis will select the sub-committee members and it will begin to meet monthly beginning as soon as possible. The Committee also noted that they would like to coordinate with the Friends of Dragon Run for this event.

### **Other Business**

A member of the Steering Committee inquired as to whether there had been any feedback from the Dragon Run Landowners Association in Middlesex. Ms. Stamp replied that no further communications had been received.

### **Adjourn**

Chair Davis called for adjournment of the meeting.



**Dragon Run Steering Committee  
Spring Quarterly Meeting  
May 10, 2006**

Middle Peninsula Planning District Commission  
Saluda, Virginia  
7:30 PM

***AGENDA \*Revised 5/10/2006***

1. Welcome and Introductions
2. Legislative Review
3. Draft recommendations for management of public and nongovernmental organization holdings acquired for conservation
4. Dragon Run Day overview
5. Land-use planning consultant and economic development consultant review process
6. Dragon Run DVD development
7. Summer quarterly meeting
8. Other Business
9. Adjourn

# Dragon Run Steering Committee Meeting – Minutes May 10, 2006



## Attendance

*Steering Committee:* Prue Davis (Essex), Dorothy Miller (Essex); Rick Allen (Gloucester); Frank Herrin (King and Queen); R.D. Johnson (Middlesex), Eric Weisel (Gloucester), Robert Gibson (King and Queen), and Robert Hudgins (Gloucester)

*Others:* Anne and Dan Ducey-Ortiz (Gloucester); Sara Stamp (MPPDC)

## Welcome and Introductions

Chair Prue Davis called the meeting to order and began introductions.

## Legislative Review

Ms. Stamp reviewed some potentially relevant legislative updates, highlighting the following:

### Signed Into Law:

**HB 78 Zoning ordinance; reconstruction/restoration of involuntarily damaged or destroyed nonconformities.** Permits property owners to reconstruct or restore involuntarily damaged or destroyed nonconforming real property to its original, nonconforming condition. *Passed House with Amendment; Passed Senate with Amendments; House Agreed to Senate Amendments; Signed by Governor.*

**HB 93 Environmental site assessments; local government to adopt ordinances requiring.** Clarifies the authority of local governing bodies to adopt ordinances to require site assessments and to record notice as a part of a rezoning or subdivision approval process. The bill also clarifies that the residential property disclosure statement provided by the owner of residential real property to a purchaser includes disclosure of adverse environmental site conditions. *Approved by House, Passed Senate with Substitute; House agreed to Senate changes; Signed by Governor.*

**HB 132 Eminent domain; jury to determine just compensation.** Removes the option of the landowner to choose commissioners to hear an eminent domain case. Allows only jurors or the court to hear such a matter and requires all jurors in an eminent domain proceeding to be freeholders in the jurisdiction of the land in question. *Passed House with Substitute; Passed Senate; Signed by Governor.*

**HB 552 Regional water supply plans.** Allows a town to enter into a regional water supply plan with an adjacent county. *Passed House; Passed Senate; Signed by Governor.*

**HB 684 Erosion & Sediment Control & Stormwater Management Acts; clarifies.** Provides definitions of terms in the Erosion and Sediment Control and Stormwater Management Acts that

clarify what are acceptable flow rates from storm runoff at sites where land development projects are occurring. *Passed House; Passed Senate with Amendments; House Adopted Senate Amendments; Signed by Governor.*

**HB 1150 Chesapeake Bay Clean-up Authority and the Chesapeake Bay Clean-up Fund.** establishes the Virginia Chesapeake Bay Clean-up Authority to develop, through the Department of Environmental Quality, the Chesapeake Bay Clean-up Strategic Plan (Plan) and to oversee the execution of the Plan by the Department, including the approval of any major alterations or modifications. The bill also creates the Chesapeake Bay Clean-up Fund to be administered by the Virginia Resources Authority and used to fund the Plan. The bill has a sunset of 2017. *Reported from Committee with Substitute; Passed House; Passed Senate with Amendments; House Agreed to Senate Amendments.*

**HB 1435 Zoning; agricultural districts; farm wineries.** Provides that production agriculture shall include the activities of a farm winery licensed in accordance with alcoholic beverage control law, including the making of wine and the conduct of activities having the purpose of promoting the sale of Virginia wines, including without limitation wine tastings, wine tasting lunches and dinners, musical presentations at which wine is marketed, and similar agritourism activities whether conducted in the vineyards or on the grounds of the farm winery, which activities are designed to increase agricultural sales at the farm winery and increase tourism in the Commonwealth. The bill provides that farm wineries are required to comply with any applicable local noise ordinance or setback requirements. *Passed House With Substitute; Passed Senate with Substitute; House Agreed to Senate Substitute; Signed by Governor.*

**SB 224 Environmental site assessments; localities to adopt ordinances requiring.** Allows localities to include in their subdivision or zoning ordinances provisions for requiring environmental site assessments prior to approval of subdivision and development plans or land use, rezoning, subdivision, or development applications. A reasonable fee may be charged for the review of such environmental assessments. Such ordinances may also include provisions for requiring remediation and disclosure of adverse environmental conditions of the property prior to approval of subdivision and development plans, or land use, rezoning, subdivision, or development applications. *Passed Senate With Substitute; Passed House; Signed by Governor.*

**SB 373 Development rights; localities provide for transfer thereof from parcel located in another locality.** Allows localities to provide for the transfer of development rights from a parcel of property located in the locality to another parcel of property located elsewhere in the locality. *Passed Senate; Passed House with Substitute; Senate Agreed to House Substitute; Signed by Governor*

**SB 634 Subaqueous permits.** Exempts L or T head construction platforms or protrusions of 250 square feet or less that extend over state-owned, subaqueous lands from having to obtain a permit from the Virginia Marine Resources Commission so long as the platform or protrusion serves a water-dependent use such as the docking of vessels. *Passed Senate; Passed House with Amendments; Senate Agreed to House Amendments; Signed by Governor.*

***Passed Resolutions – Studies, First Readings of Constitutional Amendments, etc.:***

**HJ 133 Development rights; joint subcom. to study funding sources for purchase thereof to preserve land.** Establishes a joint subcommittee to study long-term funding sources for the purchase of development rights to preserve open-space land. *Passed House; Passed Senate with Substitute; House Agreed to Senate Substitute.*

**SJ 94 Farmlands; joint subcommittee to study financing & programmatic options for preserving.** Establishes a six-member joint subcommittee to study the financing and programmatic options for preserving Virginia's farmlands. *Passed Senate with Amendments; Passed House with Substitute; Senate Agreed to House Substitute.*

### **Draft Recommendations for Management of Public and NGO holding acquired for Conservation**

Ms. Stamp reviewed the draft report on recommendations for management of public and NGO holding acquired for conservation in the Dragon Run Watershed. The goal of this report is to provide NGO and public entities of Steering Committee expectations land management. The report focuses on the need for a management plan/strategy and the elements to be contained therein. Items to be addressed include aquatic and wildlife habitat protection, water quality protection, appropriate multi-use/recreation planning, maintenance of traditional uses, establishment of conservation easements, participation with regional conservation area coordination efforts, threat mitigation (including invasive species control) and identification of funding resources

### **Dragon Run Day Planning Overview**

Ms. Stamp provided an update on Dragon Run Day Subcommittee planning efforts. The committee decided on October 20<sup>th</sup>, 2007 as the date and the location as RCC Glens Campus. The committee has begun to put together a list of potential sponsors to contact as well as a list of calendars to get the event on, including the various counties. The subcommittee has also begun a list of potential activities to include in the day. The subcommittee will meet quarterly until the end of 2006 and monthly in 2007.

### **Land-use Planning Consultant and Economic Development Consultant**

Ms. Stamp reviewed the status of the request for qualifications for the consultant work to continue the efforts for land-use planning and economic development. She reported that Paradigm Design's contract had been terminated and that the MPPDC was looking for a new contractor.

### **Dragon Run DVD**

Ms. Stamp reported that due to the loss of Paradigm Design, the scope of work for the project had been shifted and that funds were going to be used to develop a DVD to provide an overview of the planning initiative and highlight efforts underway.

### **Summer Quarterly Meeting**

The Steering Committee discussed the format for the upcoming summer meeting and decided to do a more informal gathering with a brief meeting after dinner. The meeting will be at the Majors' in August about 5:30 or 6

**Other Business**

A member of the Steering Committee suggested communicating with a group in the Great Dismal Swamp area that was in the paper in the March-April

It was recommended that we get a speaker from the corn growers/soybean association or Ellen Davis to come speak.

Ms. Stamp informed the group that an educational opportunity on land-use, LID and water quality is coming up and to see her for information.

**Adjourn**

Dorothy Miller called for adjournment of the meeting.



## You're Invited!

**What:** Dragon Run Steering Committee Annual Picnic

**When:** Wednesday, August 2, 2006, 6 pm

**Where:** The home of Robert and Carolyn Major in Stormont (direction on reverse)

**Why:** Eat, drink, mingle! The Steering Committee likes to provide this opportunity to informally discuss the happenings in the Dragon Run Watershed and the issues of the community.

Feel free to bring a guest!  
Please RSVP by July 31<sup>st</sup> to Sara Stamp  
[sstamp@mppdc.com](mailto:sstamp@mppdc.com) or (804) 758-2311.

**Directions:** From Saluda, take Rt. 33 East towards Urbanna. After ½ mile, turn right on Rt. 629 towards Stormont. After ¼ mile, turn *right* on Rt. 641 (Meggs Bay Rd). Go about a mile (as far as you can), and the Majors are the last house.

This report was funded, in part, by the Virginia Coastal Zone Management Program at the Department of Environmental Quality through Grant #NA05NOS4191180 of the National Oceanic and Atmospheric Administration, Office of Ocean and Coastal Resource Management, under the Coastal Zone Management Act of 1972, as amended.



**Dragon Run Steering Committee  
Middle Peninsula Planning District Commission  
Steering Committee Meeting Minutes  
November 8, 2006 7:00pm  
Saluda, Virginia**

**Agenda**

1. Welcome and Introductions
2. Dragon Run DVD viewing
3. Dragon Run Day planning updates
4. Review of final NGO/Public land acquisition report
5. Biodiesel pilot program
6. Other Business
7. Adjourn

**Attendance**

*Steering Committee:* Willy Reay (Gloucester County), Jack Miller (Middlesex County), Frank Herrin (King and Queen County), Robert Gibson (King and Queen County) and Eric Weisel (Gloucester County)

*Others:* Sara Stamp and Russell and Rachel Williams

**Welcome and Introductions**

Vice Chair Frank Herrin called the meeting to order and began introductions.

**Dragon Run DVD Viewing**

The Dragon Run Steering Committee viewed the final version of the Dragon Run DVD, Dragon Run: A Step into the Past, A Strategy for the Future. Ms. Stamp noted that the release for the Dragon Run DVD will be coming up in January and that there is a potential to partner with the Middle Peninsula Garden Club to host a forum at the event as well. Additionally, Ms. Stamp noted that the DVD will be on the Planning District Commission's agenda for the December meeting.

The list of invitees to the viewing should at least include interviewees, funders, MPLT, FODR, DRLA, and RC&D. If it a dual event with the MP Garden Club, then the general public should be invited as well.

Ms. Stamp distributed the DVD and reiterated that the target audience for the DVD is people in the watershed, including local governments, and other watershed groups interested in doing similar work. Mr. Herrin and other members of the Steering Committee recommended that the schools be given a copy and also the county libraries. Perhaps even a viewing at some of the libraries would be a good idea.

Additionally, for the long-term, the SWCDs, DoF, DCR, VA Farm Bureau, and RC&D should also receive copies.

**Dragon Run Day Update**

Ms. Stamp distributed copies of the meeting notes from the October Dragon Run Day Subcommittee meeting.

**Review of Final NGO/Public Land Acquisition Report**

Ms. Stamp reviewed the final draft of the report and requested edits. The Steering Committee requested a review period, but decided to approve the report pending the incorporation of feedback by the end of the following week. Mr. Herrin made a motion to accept the report with aforementioned stipulations; Mr. Miller seconded; motion carried.

**Biodiesel Pilot Program**

The Steering Committee discussed a strategy for initiating the biodiesel feasibility study/pilot program. The Steering Committee discussed the timing of the project, the upcoming Request for Qualifications that is being issued by the MPPDC and the specifics of how the project should unfold. Mr. Weisel provided input on the feasibility study process and agreed to potentially provide input on the review of proposals.

**Other Business**

Mr. Gibson reported that Cobalt has been founding test wells near the old landfill on Route 603 over the last year. He expressed concerns over the health and environmental impacts of this finding. Dr. Reay volunteered to check on the drinking standards with regard to Cobalt and report back at the next meeting.

**Adjourn**

The next meeting is scheduled for February 7th, 2007.

**Dragon Run Steering Committee  
Middle Peninsula Planning District Commission  
Steering Committee Meeting Minutes  
February 15, 2007 7:00pm  
Saluda, Virginia**

**Agenda**

1. Welcome and Introductions
2. Biodiesel Feasibility Study and Pilot Program
3. Land Use Policies Update
4. Discussion on Purchase of Development Rights – Tabled for May 2007
5. Other Business
6. Adjourn

**Attendance**

*Steering Committee:* Frank Herrin (King and Queen County), Fred Hutson (Essex County), Robert Hudgins (Gloucester County), Robert Gibson (King and Queen County), Prue Davis (Essex County), Dorothy Miller (Essex County), and Terry DuRose (Gloucester County)

*Others:* Sara Stamp and Al Christopher

**Welcome and Introductions**

Chair Prue Davis called the meeting to order and began introductions. Ms. Stamp introduced Terry DuRose, the new landowner representative from Gloucester County. She also noted that Mr. William "Bill" Bagby is the newly appointed landowner representative from Middlesex County.

**Biodiesel Feasibility Study and Pilot Program**

Mr. Al Christopher, Virginia Clean Cities, presented an overview of biodiesel, the supply chain and the refining process. He discussed what types of projects other localities are participating in, such as use in school bus fleets. He discussed how flexibility can be built into fuel contracts (such as Northumberland County is doing) to allow for the use of biodiesel when economically feasible and regular petroleum when cost is prohibitive. One of the practices is to use a lower percentage of biodiesel (such as B5 or B2) to lower the cost. He reported that Arlington County is an excellent example. They have biodiesel performance listing by car model. It was noted that Phillips Oil and Thrift Oil sell biodiesel in this region. Biodiesel can also be used in as heating fuel. Mr. Christopher reported that biodiesel is still a small, but growing market in the Northern Neck and James City County. Also, there are three refineries operating in Virginia, including the one in Eltham. The price of biodiesel is reasonable because of a blender's tax credit that goes to the distributor.

Mr. Christopher discussed examples in other areas, such as Eufaula, AL, where a champion was essential to the success of the project. He also discussed several other biodiesel production interests and concurrent project occurring in throughout the state. He also provided an overview with some of the issues associated with the DEQ regulatory process for this fuel and its by-products.

In Virginia, there is no surplus of corn and Virginia doesn't make enough to satisfy the demand. Therefore, there is a need for a crop that would provide more "bang for the buck". Mr. Christopher provided information on other biofuel crops that can be utilized in addition to or instead of soybeans, including Canola oil.

Included in the discussion was an overview of the partnerships that would be analyzed during the feasibility study. He requested input from Steering Committee members regarding potential stakeholders and county bus fleet information. For the county fleets, he inquired about which government vehicles use diesel and how many/how much centralized fueling occurs. Ms. Davis recommended addressing the Planning District Commission and conducting one-on-one meetings with distributors. Ms. Davis invited Mr. Christopher to attend the annual farmers meeting hosted by Riverland Insurers on February 21<sup>st</sup>. She also recommended that Ms. Ellen Davis be contacted regarding potential funding for this type of initiative through USDA. It was also noted that James Walsey and Dick Atkinson should be included on the stakeholder list.

**Land Use Policies Update**

Sara Stamp provided an update of the status and timeline estimate of land-use policy language development for each watershed locality.

**Purchase of Development Rights Discussion**

This item was tabled for May 2007 at which time a speaker would present information.

**Other Business**

No other business

**Adjourn**

The next meeting is scheduled for May 9th, 2007.

PRODUCT 4:

REPORT ON RECOMMENDATIONS FOR MANAGEMENT OF PUBLIC AND  
NON-GOVERNMENTAL ORGANIZATION (NGO) HOLDINGS ACQUIRED  
FOR CONSERVATION PURPOSES

PRODUCT 4A:

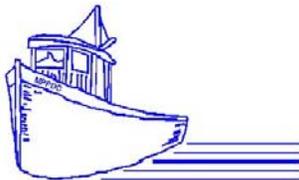
DRAGON RUN STEERING COMMITTEE RECOMMENDATIONS FOR  
MANAGEMENT OF PUBLIC AND NON-GOVERNMENTAL ORGANIZATION  
(NGO) HOLDINGS ACQUIRED FOR CONSERVATION PURPOSES

# Recommendations for Management of Public and Non-governmental Organization (NGO) Holdings Acquired for Conservation Purposes in the Dragon Run Watershed

Dragon Run Steering Committee  
Middle Peninsula Planning District Commission  
October 2006

***Mission:*** *To support and promote community-based efforts to preserve the cultural, historic, and natural character of the Dragon Run, while preserving property rights and the traditional uses within the watershed.*

This work was funded by the Virginia Coastal Zone Management Program at the Department of Environmental Quality through Grant #NA05NOS4191181 Task 91 of the National Oceanic and Atmospheric Administration, Office of Ocean and Coastal Resource Management, under the Coastal Zone Management Act of 1972, as amended. The views expressed are those of the author(s) and do not necessarily reflect the views of NOAA or any of its subagencies.



**Virginia Coastal Zone**  
MANAGEMENT PROGRAM



## Introduction

As one of the Chesapeake Bay watershed's most pristine waterways, the spring-fed Dragon Run flows forty miles along and through nontidal and tidal cypress swamp situated in portions of Essex, King and Queen, Middlesex, and Gloucester Counties. The Dragon Run plays a central role in the Middle Peninsula's culture and identity. Natural resources - forestry and farming - have been the bedrock of the watershed's economy. These land uses, together with extensive swamps and unique natural resources, are the main reasons that the Dragon Run remains wild and secluded.

The Dragon Run's unique character evokes strong feelings to protect the pristine watershed in both long-time residents and first-time visitors alike. Yet, opinions differ about how to address the threats of encroaching development and habitat fragmentation. An innate difference in point of view between property rights advocates and conservationists centers on how to maintain a pristine watershed into the future. Yet, substantial common ground exists for proactively preserving the Dragon Run for future generations that safeguards both natural resources and traditional uses of the land and water, including the property rights of landowners.

The Dragon Run Watershed Special Area Management Plan (SAMP), a partnership between the Virginia Coastal Zone Management Program and the Dragon Run Steering Committee of the Middle Peninsula Planning District Commission, is designed to address both the differences of opinion and the common ground that exist concerning the future of the watershed. Neither the MPPDC nor its Dragon Run Steering Committee has regulatory authority. Rather, they serve to encourage and facilitate local-local and state-local government cooperation in addressing regional issues. Consisting of elected officials and citizens appointed by member local governments, the MPPDC and the Dragon Run Steering Committee offer recommendations and technical assistance and are the key vehicles for cooperation and coordination among the four counties concerning watershed issues. The Steering Committee's approach to the SAMP is to stimulate and coordinate community involvement in the proactive development and implementation of goals, objectives, and action plans captured in the Dragon Run Watershed Management Plan.

The following report includes Dragon Run Steering Committee recommendations of goals and policies consistent with the Dragon Run Watershed Management Plan for managing public and NGO holdings acquired for the primary purpose of conservation in the Dragon Run watershed. Intended to communicate DRSC and Virginia Coastal Zone Management Program expectations for conservation management in the watershed, this report outlines management practices that aim to protect the natural resources of the Dragon Run, allow for compatible uses and provide consistency in management throughout the watershed.

The Dragon Run Steering Committee offers governmental and non-governmental agencies guidance through the following report and is depending on these

organizations to further the goals of watershed-wide cooperation, communication and consistency in management of conservation acquisition. By participating in regional conservation area coordination efforts, these organizations can better ally efforts and partner to effectively maximize conservation goals beyond the boundaries of specific sites into the entire watershed.

## Recommendations

1. Identify a managing entity: Whether the site is acquired by a public entity or a non-governmental organization, an entity should be identified to oversee the management of the site. This entity will be responsible for the development and implementation of the management strategy, the site assessment and the management plan.

2. Develop a management strategy: When land is considered for acquisition in the Dragon Run Watershed for conservation purposes, the managing entity should first develop a management strategy. It is highly recommended that the entity submit the management strategy to the DRSC for review and comment as the DRSC may be able to provide valuable feedback. A conservation management strategy provides a guide for both managers and the public about what the land-holding entity intends to do, how it will set priorities about management activities to be undertaken and how it can respond to requests to use the natural resources it manages. Both long range and short term management goals should be developed in the strategy. See Attachment A for a sample management strategy.

3. Conduct a site assessment: Once the entity completes the acquisition, a thorough site assessment should be conducted to identify, quantify, and qualify key (or unique) habitats and species. The site assessment should be conducted to provide baseline data for comparison purposes in the future. These key habitats and species should be mapped on the site and addressed in the management plan. The site assessment should also include a summary of potential threats to the site, such as invasive species, development pressure and water quality.

4. Develop a management plan: The conservation management plan should be a “living” document designed to implement the conservation management strategy and to establish detailed objectives for the integrated management of natural resources within a particular area over a specified time span. The management plan should provide an overview of management activities to be implemented on the site. Implementation activities that should be discussed as different chapters or sections in the plan may include (as applicable):

- **Introduction**
- **Aquatic and Wildlife Habitat Protection**
- **Water Quality Protection**
- **Cultural/Historic Site Protection**
- **Use and Public Access Planning**
- **Plan for Consistency with Surrounding Properties**
- **Establishment of Conservation Easements**
- **Participation with Regional Conservation Area Coordination Efforts**
- **Plan for Management Sustainability and Funding**

The DRSC recommends that the managing entity implement some or all of the following practices for each category of management activities:

**1. Introduction:** The introduction should include information about the managing entity, the management strategy and the site assessment, including any site maps.

**2. Aquatic and Wildlife Habitat Protection:** The plan should include management elements designed to protect and conserve the ecological features of the site. As previously discussed, a thorough site assessment should be conducted to establish baseline data and document the status of the natural resources. Objectives to be considered when developing the Aquatic and Wildlife Habitat Protection portion of the management plan include:

2a. Identification and management of key habitats: Key habitats and species should be identified in the management plan, both qualitatively and quantitatively. For example, the plan could reference that the site contains 6 acres of pristine wetlands, etc. If possible, a map denoting key habitats should be created. The management plan should describe specific management regimes for specific key habitats or species. Some of these key habitats and species (such as endangered or threatened species) may be identified as requiring special protection and should be discussed individually in this section of the management plan. More information about habitat management can be found at: <http://www.ext.vt.edu/pubs/forestry/420-138/420-138.html> or [http://www.dgif.virginia.gov/wildlife/habitat\\_partners/](http://www.dgif.virginia.gov/wildlife/habitat_partners/)

2b. Habitat rehabilitation: If an acquired site contains degraded ecosystems, it is recommended that the managing entity create a long-term plan for the restoration/rehabilitation of these areas of the site to return them to natural functioning capacity.

2c. Create corridors and areas for wildlife movement: The Aquatic and Wildlife Habitat Protection portion of the management plan should include an overview of the connectivity of wildlife corridors within the site and with the current land-use surrounding the site.

2d. Establish larger resource protection zones and special management areas: For larger sites with a diversity of land-uses and habitat types, the managing entity may consider the creation of resource protection areas and special management areas. Resource protection areas are special zones whose primary goal is the protection of resource-rich or sensitive ecosystems on the site. The goal of special management areas is to demonstrate best management practices for managing timber and other natural resources in the area.

2e. Threat Mitigation:

*2e-1. Invasive species:* The management plan should contain information on invasive species prevention and control on the site. An "invasive species" is defined as a species that is 1) non-native (or alien) to the ecosystem under consideration and 2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

Common guidelines utilized to manage invasive species can be found in the Virginia Invasive Species Council Management Plan (<http://www.dcr.virginia.gov/dnh/vaisc/plan.htm>). Some key elements of invasive species management include the consideration of species prevention, early detection, monitoring, control, and restoration and mitigation of key habitats impacted by invasive species.

*2e-2. Wildfire Management:* As wildfire threats are a significant concern throughout Virginia, the DRSC recommends that the management plan contain a plan for wildfire management and control. The DRSC recommends that the managing entity coordinate with a representative from the Virginia Department of Forestry to develop this portion of the management plan and to create an action plan for fire prevention and fire control. More information about the fire prevention programs can be found at: <http://www.dof.virginia.gov/fire/intro-forest-prot.shtml>.

**3. Water Quality Protection:** The management plan should include a strategy to monitor water quality and to protect water quality from run-off from the site. Objectives to be considered when developing the water quality protection portion of the management plan may include:

3a. Install best management practices (BMPs):

*3a-1. Agricultural BMPs:* Nonpoint source pollution caused, in part by agricultural run-off contributes to the degradation of water quality in the Chesapeake Bay and its tributaries. The managing entity should partner with the local Soil and Water Conservation District (SWCD) to develop specific best management practices for agricultural portions of the acquired site. Non-governmental organizations may be able to utilize state funding through the SWCD to establish BMPs. More information on agricultural BMPs and cost share programs is available at:

<http://www.dcr.virginia.gov/sw/costshare.htm> or <http://www.va.nrcs.usda.gov/programs/>

*3a-2. Forestry BMPs:* If forestry is practiced on the site, the managing entity should outline and implement BMPs to protect water quality. The Virginia Department of Forestry has developed the following guide outlining BMPs:

<http://www.dof.virginia.gov/wq/index-bmp-guide.shtml>

Additional information on sustainably managing timber lands from the Virginia Cooperative Extension can be found at:

<http://www.ext.vt.edu/pubs/forestry/420-139/420-139.html>

*3a-3. Erosion and sediment control plans:* Land-disturbing activities near streams, rivers, and lakes have the potential to cause water pollution and stream degradation if erosion and sediment controls are not properly installed and maintained. In order to effectively reduce erosion and sedimentation impacts, Best Management Practices (BMP's) must be designed, installed, and maintained during land disturbing activities.

Some sites, especially those with steep slopes or uncontrolled run-off, will need an erosion control plan. Any applicable land disturbing activities should be conducted under the requirements of the Erosion and Sediment Control Law and Regulations. Additional guidance on erosion control and sediment reduction can be found at the Virginia Department of Conservation and Recreation website: <http://www.dcr.virginia.gov/sw/e&s.htm>

*3a-4. Establish and/or maintain a riparian buffer.* All sites acquired for conservation purposes along streamsides should include a riparian buffer. The riparian forest supports a greater diversity of wildlife than nearly all non-aquatic or upland forests. It functions to protect water quality by removing nutrients and minerals. The managing entity should partner with the Natural Resources Conservation Service or the Virginia Department of Forestry to ensure that a functioning riparian buffer is present. More information on riparian buffers and the plants that go in them can be found at the following websites:

<http://www.ext.vt.edu/pubs/forestry/420-155/420-155.html> or

<http://www.dof.virginia.gov/rfb/index.shtml> or

<http://www.chesapeakebay.net/pubs/subcommittee/nsc/forest/handbook.htm> or

<http://www.dcr.virginia.gov/dnh/natvripa.htm>

For state agencies acquiring lands, Governor's Executive Order 91 (2005) provides guidance on riparian buffers. The executive order calls upon all land-holding state agencies, including public institutions of higher education, to demonstrate leadership in this initiative by working to conserve existing riparian buffers and develop new riparian buffers on state-owned property throughout the Commonwealth, particularly in the Chesapeake Bay watershed. This Executive Order can be found at on the following website under the link for "Preserving Water Quality by Establishing Riparian Buffers in the Chesapeake Bay Watershed:"

[www.dof.virginia.gov/rfb/resources/EO\\_91.pdf](http://www.dof.virginia.gov/rfb/resources/EO_91.pdf)

3b. Maintenance of BMPs: While the installation of BMPs is imperative to the improvement of water quality, the maintenance is equally as important for ensuring that BMPs operate correctly to reduce pollution. The management plan should address the long-term maintenance of BMPs.

3c. Establishment of a water quality monitoring program: Either conducted by a representative from the managing entity or by a citizen monitoring group, the DRSC recommends participation in water quality monitoring. The information collected should be provided to the state water quality monitoring program. More information on the state monitoring program and the development of a water quality monitoring system can be found at:

<http://www.deq.state.va.us/cmonitor/guidance.html>

**4. Cultural and Historic Site Protection:** In addition to ecological resources, the DRSC supports the preservation of the regions cultural and historic resources throughout the Dragon Run Watershed. Therefore, the DRSC recommends that the management plan contain a section addressing and cultural or historic resources found on the site.

4a. Identification of historic/cultural sites: The DRSC recommends that the management plan identify cultural or historic sites.

4b. Plan for maintenance of cultural/historic resources: The DRSC recommends that these resources be managed in such a way as to protect the values that contribute to their uniqueness.

**5. Use and Public Access Planning:** The DRSC recognizes that while the primary goal of conservation acquisitions is natural resource protection, other uses may be compatible with this goal, including traditional uses (agriculture, forestry, hunting and fishing) and some recreational uses. The DRSC recommends that the land acquirer ensure that any land uses considered for the site are compatible with the land-uses of the surrounding areas. Objectives to be considered when developing the use and public access planning portion of the management plan may include:

5a. Maintenance of traditional uses: The mission of the DRSC is to support and promote community-based efforts to preserve the cultural, historic, and natural character of the Dragon Run, while preserving property rights and the *traditional uses within the watershed*. In support of this mission, the DRSC recommends that the practice of traditional uses (agriculture, forestry, hunting and fishing) on acquisitions is compatible with the goals of conservation as long as sustainable and best management practices are utilized. The DRSC recommends that the management plan identify lands on the site that will be leased or managed for traditional uses.

<http://www.ext.vt.edu/pubs/forestry/420-139/420-139.html>

5b. Recreation and public access: The DRSC consider some no and low impact recreational opportunities compatible with conservation goals. However, if public access/recreation is going to be permitted on the acquired site, the DRSC recommends that the management plan addresses the implementation of the following standards:

*5b-1 Develop a list of permitted and prohibited activities*: The DRSC recommends that the managing entity create a list of permitted activities, as well as a list of prohibited activities. The managing entity may consider a system of allowing specific activities and prohibiting all others or, conversely, listing prohibited activities and allowing all others. Any activities that that may be permitted/prohibited that are temporal in nature should also be defined in the management plan. The goal of recreation should be secondary to the primary goal of resource conservation. Therefore, the site assessment map and data should be utilized to locate recreational activities in a way that minimizes conflict with key habitats and species.

*5b-2. Designate recreational use zones and trail networks*: Depending on the specifics of the site, use zones may be helpful for addressing multi-use conflicts across the site. The management plan should detail use zones to geographically/ temporally separate activities that have a high potential for conflict. It should also discuss existing trail networks and the creation new trails to establish linkages and accommodate compatible uses. The site assessment map and data should be utilized to locate use zones and trails in a way that minimizes conflict with key habitats and species.

*5b-3. Install interpretive and directional signs and kiosks, education and outreach*: The DRSC recommends the use of interpretive and directional signs and kiosks to denote the use code of conduct, provide guidance on site boundaries, enhance the recreational and educational experience of visitors, and control visitation in high-use areas.

*5b-4. Develop site maintenance regime*: The DRSC recommends that sites permitting public access and recreation address appropriate maintenance of the site in the management plan. Some of the items to consider include:

- Trail upkeep
- Waste disposal sites and waste removal
- Maintenance of any facilities

*5b-5. Provide handicap accessible opportunities*: The DRSC supports the integration of handicap accessibility in the

development of recreational facilities. The management plan should specify accessibility efforts planned for the site.

*5b-6. Address use liability:* The DRSC recommends that the management plan address use liability (such as hunting activities). The DRSC recommends that the managing entity consider carrying insurance and/or turning over maintenance of some of the site (ie a hunting or forestry use zone) to organizations, such as a hunt club or forest land owners' association.

*5b-7. Create game species management plan:* For sites that permit hunting, the DRSC recommends that the management plan include guidance for the management of game species. The populations of game species should be managed in such a way that use is not detrimental to the species' survival. More information:

<http://www.ext.vt.edu/pubs/forestry/420-138/420-138.html>

**5c. Sustainable economic development uses:** In its report developed by Yellow Wood and Associates, "Opportunities for Sustainable Natural Resource-Based Development in the Dragon Run Watershed," the DRSC identified several recommendations that may have some viability in the Dragon Run Watershed. The DRSC recommends that the managing entities consider applying one or more of these recommendations as uses on the site.

**6. Plan for Consistency with Surrounding Properties:** The DRSC recommends that public and NGO entities acquiring lands in the Dragon Run Watershed address their plans for consistency with surrounding properties in their management plan. Some objectives to be addressed in this portion of the management plan include:

**6a. Set backs from water:** The DRSC recommends that any facilities constructed to support the site (restrooms, etc) are set back out of the view from the water.

**6b. Architectural standards:** It is recommended that constructed facilities are consistent with those found in the surrounding area.

**7. Establishment of Conservation Easements:** The DRSC highly recommends that the site acquired for conservation purposes be placed entirely or in part in a conservation easement to prevent change in the future. The DRSC feels that conservation easements are an important part of ensuring that the site will remain undeveloped in perpetuity. If the managing entity decides not to place the entire property in an easement, the DRSC recommends that the key habitats and areas with key species identified in the site assessment be placed in an easement to prevent development of that land.

**8. Participation with Regional Conservation Area Coordination Efforts:** The DRSC recommends that conservation site management plans contain a section detailing planned efforts to coordinate with other entities in the region with conservation goals.

8a. Allow opportunity for input and feedback to/from the DRSC: The DRSC recommends that the managing entity provide an opportunity for feedback to/from the DRSC regarding the management plan and information about the site, including, but not limited to:

- Use and user statistics, if collected
- Use zone updates/maps
- Any studies conducted at the site
- Reports on changes from baseline site assessment data (habitat gain, loss, quality changes, threat changes, etc)
- Facility improvement or changes
- Summary of profitability of sustainable, natural resource-based economic development pursuits

8b. Participate in any roundtables/discussions: The DRSC recommends that the managing entity participate in roundtables or other discussions relevant to conservation holdings in the Dragon Run Watershed, including, but not limited to:

- Conservation easement
- Invasive species
- Green infrastructure
- Public access

**9. Plan for Management Sustainability and Funding:** The management plan should also contain a chapter detailing the managing entity's strategy for long-term oversight to fulfill the primary goal of conservation on the acquired site, as well as address a plan for securing future funding to allow for site maintenance.

PRODUCT 4B:

MANAGEMENT RECOMMENDATION SUPPLEMENTAL INFORMATION

## Management Plan Follow-up Initiative

MPPDC staff identified and targeted four public or non-governmental entities currently acquiring conservation holdings in the Dragon Run watershed. These entities include: Middle Peninsula Chesapeake Bay Public Access Authority, The Nature Conservancy, Friends of Dragon Run, and the Virginia Institute of Marine Science. Each of these entities has a different focus, different program purpose and a different management system, while they all are currently participating in the acquisition of land for conservation purposes in the Dragon Run watershed. It is expected that MPPDC will facilitate the development, adoption and implementation of management plans for holdings of each of these entities during subsequent grant periods.

Attached is the Resolution from the Middle Peninsula Planning District Commission to approve the Dragon Run Steering Committee management recommendations. Also attached is a presentation of general benefits to the entity for developing management plans implementing the. Following is a brochure of low cost and no cost services that are available through various state agencies that will be utilized in the development of site specific management plans. Representatives from many of these agencies have been contacted and have indicated that they would be willing project partners in the development and implementation of conservation management plans.

# MIDDLE PENINSULA PLANNING DISTRICT COMMISSION

Saluda Professional Center, 125 Bowden Street, P.O. Box 286, Saluda, VA 23149-0286

Toll Free: 1-888-699-1733 Phone: (804) 758-2311 FAX: (804) 758-3221

E-mail: mppdc@mppdc.com Webpage: www.mppdc.com



January 24, 2007

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Hon. Edwin E. Smith

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Hon. Steven Hollberg

### Secretary/Director

Mr. Dan Kavanagh

## RESOLUTION TO APPROVE THE RECOMMENDATIONS FOR THE MANAGEMENT OF PUBLIC AND NON-GOVERNMENTAL ORGANIZATION (NGO) HOLDINGS ACQUIRED FOR CONSERVATION PURPOSES IN THE DRAGON RUN WATERSHED

**WHEREAS** the Middle Peninsula Planning District Commission recognizes the value of the Dragon Run Watershed as a primary core of rural character, a base for traditional natural resource-based industries and a regional treasure that has been maintained in a near pristine state due principally to land-owner stewardship; and,

**WHEREAS** the Middle Peninsula Planning District Commission recognizes the importance of Dragon Run Steering Committee feedback and guidance in supporting and promoting community-based efforts to preserve the cultural, historic, and natural character of the Dragon Run, while preserving property rights and the traditional uses within the watershed; and,

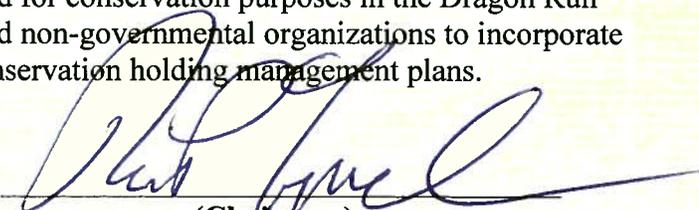
**WHEREAS** the Middle Peninsula Planning District Commission recognizes the value of consistent and compatible management practices in maintaining the pristine character of the Dragon Run across the Watershed; and,

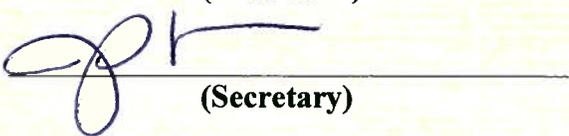
**WHEREAS** the Middle Peninsula Planning District Commission recognizes the importance of regional cooperation in facilitating communication between diverse entities;

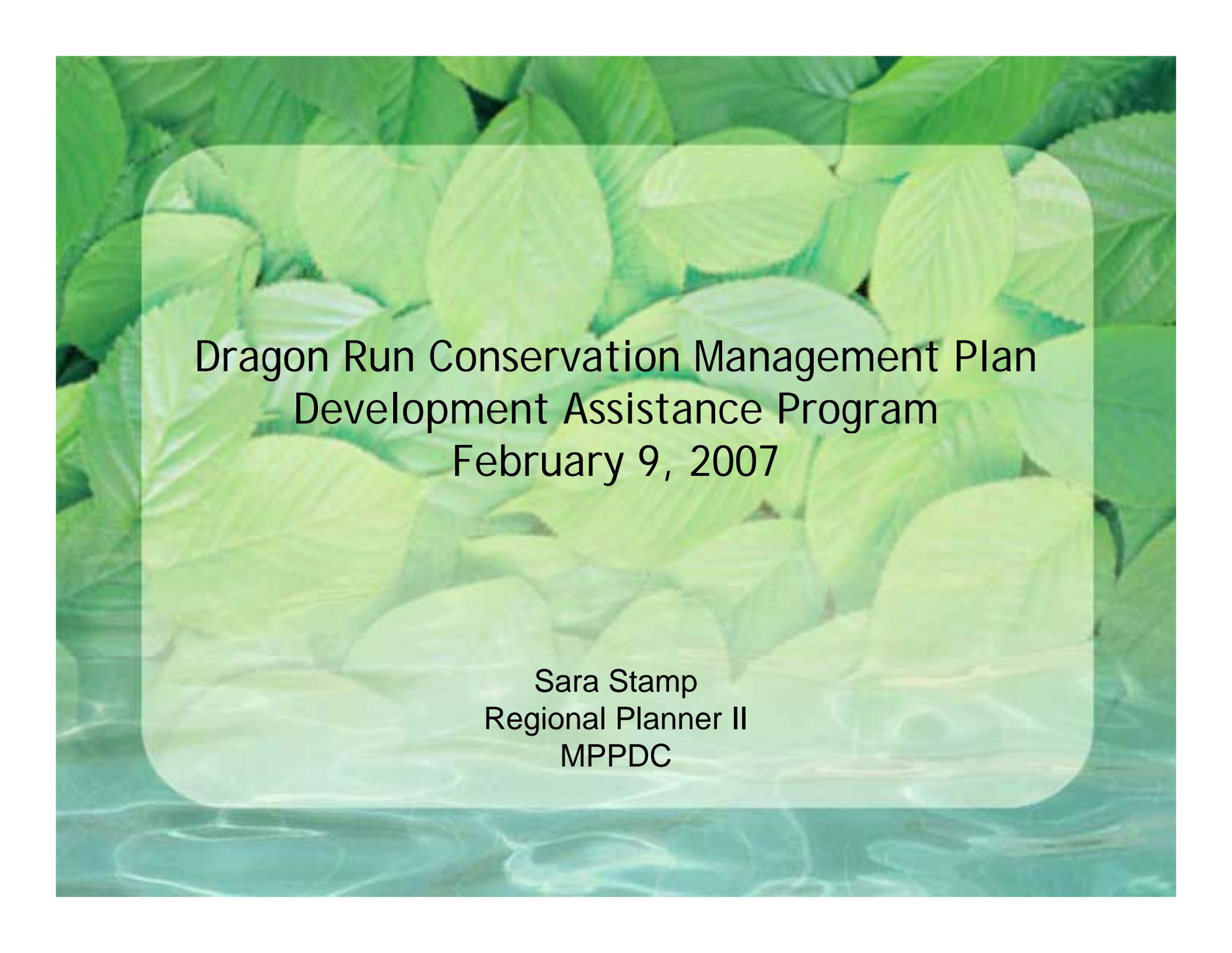
**WHEREAS** the Dragon Run Steering Committee has developed a program which values watershed protection which includes the acquisition of lands by public and non-governmental organization entities throughout the Dragon Run for the purposes of conservation; and,

**NOW THEREFORE BE IT RESOLVED** that the Middle Peninsula Planning District Commission approves the Dragon Run Steering Committee recommendations for the management of public and non-governmental organization holdings acquired for conservation purposes in the Dragon Run Watershed and asks public and non-governmental organizations to incorporate these recommendations in conservation holding management plans.

COPY TESTES:

  
\_\_\_\_\_  
(Chairman)

  
\_\_\_\_\_  
(Secretary)

The background of the slide features a dense pattern of vibrant green leaves in various shades and textures, overlaid with a translucent, light blue-green area at the bottom that shows soft, circular ripples, suggesting water. The text is centered within a white, rounded rectangular box.

Dragon Run Conservation Management Plan  
Development Assistance Program  
February 9, 2007

Sara Stamp  
Regional Planner II  
MPPDC



# Management Plan Benefits

- Assures quality of environment
- Provides benchmarks to measure success
- Assesses all values of the resource
- Outlines how the resource is to be used and protected
- Provides a roadmap for long-term viability



# Assistance Program Incentives

- Assistance available NOW for the development of management plans
- Someone else can do most of the work
- Plans will be specific to your site
- Plans will link you to no-cost or cost-share state/local agency programs



# Networking Benefits

- Cooperation, communication and consistency in management to maximize conservation benefits regionally
- Enables strategic selection of future acquisition sites
- Idea exchange
- Identification of potential funding sources



# Questions?

Sara Stamp

Regional Planner II

Middle Peninsula PDC

(804) 758-2311

[sstamp@mppdc.com](mailto:sstamp@mppdc.com)

# LAND CONSERVATION

Assistance from Virginia State Agencies for

## Virginia's State Agencies Helping Property Owners Conserve Their Land and Land-Based Resources.

Virginia's state agencies provide a variety of programs to assist property owners with the conservation of their lands and land-based resources. Property owners pre-serve open space for many reasons. Some do so because of their love of land, others for historic or cultural reasons. Still others

recognize the recreational and conservation benefits that result from conservation. In short, land conservation preserves our heritage and improves our waters, our wildlife and our quality of life.

As a property owner, you have a number of options available to you to preserve land and resources. You can donate the land, sell the land at a reduced price or pursue a conservation or "open-space" easement. Each has potential tax benefits associated with it. Donating land to a state agency, local government, land trust or conservation organization is one way to share its beauty with future generations. A donation of land can be set up in a way that allows you to continue to live on the land or to receive a life income. Selling land to a conservation or preservation entity (at less than its fair market value (bargain sale) can make it affordable for you. Placing an easement on your property involves completing a legal agreement with a land trust or government agency that permanently protects land while you continue to own the property.

Easements certainly offer a number of benefits to property owners wishing to conserve their natural and historic resources. Easements allow owners to ensure their property remains largely undeveloped as a farm, a woodland, an urban historic dwelling or a natural area permanently. Additionally, land protected by a conservation or historic preservation easement is still private property. These easements also have the flexibility to meet the specific desires of property owners and fit the property they protect. They provide financial benefits to property owners who protect their land and resources. They can reduce state and federal income taxes. Easements may also lower property taxes. The tax advantages of easements can make it possible for another generation to keep a family's land. They can make affordable conservation and historic preservation goals that would otherwise be beyond the means of many people. Virginia's state agencies are available to help you explore conservation and preservation options. They have information, tools and funding alternatives that can assist property owners in protecting their valued lands

and resources. A list of these agencies and their programs is provided in this brochure. For further links to information on state agencies, federal agencies, land trusts and conservation groups involved in Virginia's land conservation efforts, visit the Department of Conservation and Recreation's Land Conservation website at:  
[www.dcr.state.va.us/dlc](http://www.dcr.state.va.us/dlc)  
 or e-mail the DCR Land Conservation Office at:  
[landcon@dcr.state.va.us](mailto:landcon@dcr.state.va.us)

### The Commonwealth of Virginia's Resource Conservation Offerings

Agency	Funding	Mapping/Data Resources	Types of Lands to be Conserved	General Information
Virginia Department of Conservation and Recreation (804) 225-2048 <a href="http://www.dcr.state.va.us">www.dcr.state.va.us</a>	Virginia Land Conservation Fund Virginia Outdoors Fund Virginia Recreational Trails Fund Conservation Reserve Enhancement Program	Conservation Lands Database	natural, historic, recreational, scenic and cultural resources	land conservation, recreation, open space, natural areas, state parks, soil and water conservation
Virginia Outdoors Foundation (804) 225-2147 <a href="http://www.virginiaoutdoorsfoundation.org">www.virginiaoutdoorsfoundation.org</a>	Open-Space Lands Preservation Trust Fund	open-space easements	natural, scenic, historic, open-space and recreational areas	open-space easements
Virginia Department of Forestry (434) 977-6555 <a href="http://www.dof.state.va.us">www.dof.state.va.us</a>	Forest Legacy Program	Forest Resource Assessment, forest land use, forest property inventory, riparian buffers	forest easements and acquisitions	forestry, riparian buffers, land use
Virginia Department of Agriculture and Consumer Services (804) 786-2373 <a href="http://www.vdacs.state.va.us">www.vdacs.state.va.us</a>		agricultural purchase-of-development rights, Farmlink	agricultural purchase-of-development rights	agriculture, consumer services, agribusiness, markets
Virginia Department of Game and Inland Fisheries (804) 367-1000 <a href="http://www.dgif.state.va.us">www.dgif.state.va.us</a>	Wetland Conservation Projects, Small Game and Quail Habitat Costshare	hunting, fishing, boating, wildlife management areas	wetlands, habitat and wildlife management areas	hunting, fishing, boating, wildlife habitats
Virginia Department of Historic Resources (804) 367-2323 <a href="http://www.dhr.state.va.us">www.dhr.state.va.us</a>	Historic Preservation Grants, State Rehabilitation Tax Credits, Threatened Sites, and Survey and Planning Cost Share Grants	Virginia Historic Resources Survey Data, Virginia Landmarks Register	architectural, archaeological, cultural resources, battlefields, and historic landscapes	historic preservation and related disciplines

## Virginia Department of Conservation and Recreation (DCR)

The Virginia Department of Conservation and Recreation offers localities and landowners advice on land conservation strategies, recreational planning, protecting Natural Areas and conserving land for State Parks. The Department provides staffing for the Virginia Land Conservation Foundation that provides grants to public and private entities. The Department maintains a Conservation Lands Database and produces the Virginia Outdoors Plan every five years.

### DCR programs include:

**Office of Land Conservation:** DCR's Office of Land Conservation provides information and contacts for individuals interested in protecting their land. The Office serves as a central contact, repository and clearinghouse for land conservation interests in Virginia. It connects individuals with the information and agency, land trust or organization that best addresses specific land conservation needs. The Office also facilitates cooperative ventures, provides technical assistance, and conducts workshops and training events.

**Conservation Reserve Enhancement Program:** CREP aims to improve Virginia's water quality and wildlife habitat by offering rental payments to farmers who voluntarily restore riparian buffers, filter strips and wetlands through the installation of approved conservation practices. CREP has a goal to establish 8,000 acres of easements statewide.

**Natural Heritage Area Dedications and Registry:** Natural Area Dedications and Registry are conservation options available to landowners of highly significant natural areas. Landowners participating in these programs agree to voluntarily preserve and protect rare plants, animals and natural communities on their land and receive management assistance.

**Grants Programs:** DCR administers several grant and planning programs related to land conservation. The Virginia Land Conservation Foundation provides matching grants to localities and conservation organizations for purchasing land or for acquiring easements on land for the protection of historic, conservation, forestal, agricultural and recreational values. The Virginia Outdoors Fund, which includes funds from the federal Land and Water Conservation Fund, provides a grants-in-aid program for the acquisition and development of public outdoor recreation areas and facilities. The Virginia Recreational Trails Fund provides grants for developing and maintaining recreational trails and trail related facilities.

**Additional Programs:** The Department also has information on Scenic Rivers, Byways and Highways Programs, Virginia's Conservation Lands Database that includes mapped boundaries and information on public and certain permanently protected lands, Cave Protection and the Virginia Outdoors Plan, which is the state's primary document regarding Virginia's outdoor recreation and open-space needs.



For more information call (804) 225-2048 or visit the DCR website at <[www.dcr.state.va.us](http://www.dcr.state.va.us)>.

## Virginia Department of Forestry (VOF)

One of the Virginia Department of Forestry's primary goals is the conservation of Virginia's forestland base. DOF manages more than 50,000 acres of state forestland and helps other state agencies manage state-owned forestland. The agency's mission is to "protect and develop healthy, sustainable forest resources for all Virginians." This statement indicates the agency's dedication to conserving "working forests" that provide forest products, wildlife habitat, water quality protection, recreation opportunities and aesthetic benefits. DOF professionals work with private, non-industrial landowners, localities and other stakeholders to conserve, manage and protect Virginia's forests.

### DOF programs include:

**Forest Stewardship:** DOF has professional foresters who can provide guidance and direction to landowners in setting forest management objectives. DOF will work with landowners to develop a Forest Stewardship Plan giving consideration to overall landowner goals and objectives.

**Forestry Legacy:** This program aims to protect and conserve important forests threatened by conversion to non-forest uses, such as development. Virginia may use Forest Legacy funds to purchase conservation easements or land. DOF plans to focus most of its efforts on purchasing conservation easements to enable conservation of the greatest amount of forestland.

**Riparian Restoration:** DOF works with organizations, businesses and private landowners to establish, enhance and maintain riparian buffers. The program also promotes and conducts educational and outreach activities.

**Urban and Community Forestry:** This program encourages projects that promote tree planting, the care of trees, the protection and enhancement of urban and community forest ecosystems, and education on tree issues in communities. Grants are awarded to encourage local government and citizen involvement in creating and supporting long-term and sustained urban and community forestry projects and programs at the local level.



For more information call (434) 977-6555 or visit the DOF website at <[www.dof.state.va.us](http://www.dof.state.va.us)>.

## Virginia Department of Game and Inland Fisheries (DGIF)

Land conservation work is consistent with meeting a fundamental goal of the Virginia Department of Game and Inland Fisheries – wildlife habitat management. DGIF's 30 wildlife management areas, comprising about 190,000 acres, provide a rich variety of wildlife habitat suitable for hunting and fishing as well as viewing wildlife, unique plant communities and spectacular scenery. In addition to habitat management on its property, DGIF professionals share with other state agencies, schools, private citizens, farmers and corporations the technical know-how in restoring and preserving habitat. The agency offers various programs, information, workshops, publications and technical assistance on land management and conservation.

### DGIF programs include:

**Habitat Partners®:** Habitat Partners offers a Corporate Certification Program that is open to businesses and industries interested in habitat improvement projects on their lands that will make a substantial contribution to the welfare of wildlife communities. By encouraging companies to establish or improve wildlife conservation practices and by providing a framework for recognition of these corporate conservation projects, DGIF hopes to improve wildlife education opportunities for a company's employees as well as for the citizens of the community.

**Forest Stewardship:** DGIF employs a "Forest Stewardship" approach to resource management. Forest Stewardship recognizes that forest products do not have to be obtained at the expense of wildlife, clean water, recreation or endangered species.

**Wetlands Restoration and Preservation:** DGIF works with the Migratory Bird Conservation Commission, North American Wetlands Conservation Council and North American Wetlands Conservation Act funding to purchase land for approved wetland conservation projects.

**Habitat At Home®:** DGIF helps homeowners create mini-sanctuaries for birds, butterflies, frogs and other wild creatures by improving the habitat elements found in backyards. A landowner might plant a shrub border or a ground cover, add a few climbing vines or a perennial bed of native wildflowers, or install a small water feature.

**Wildlife Habitat Technical Assistance:** Rural landowners can receive onsite habitat technical assistance to improve land management practices for a wide variety of upland wildlife species. Technical assistance includes recommendations for wildlife plantings and maintenance of existing habitats. Landowners will receive a written habitat management plan. Cost-share programs that help landowners implement habitat management vary considerably. Biologists can provide up-to-date information on the various programs available.



For more information call (804) 367-1000 or visit the DGIF website at <[www.dgif.state.va.us](http://www.dgif.state.va.us)>.

## Virginia Outdoors Foundation (VOF)

The primary mission and purpose of the Virginia Outdoors Foundation is statewide land conservation through accepting donations of open-space easements. VOF now holds easements on more than 224,500 acres in 76 localities. These easements protect a variety of scenic, natural and cultural resources, including watershed areas, the settings for historic houses and Civil War sites, agricultural lands, mountain views and land adjacent to parks. Through gifts of property, the VOF also owns approximately 3,500 acres of open land and one historic site. These sites help meet demand for public access and low intensity recreational use. In addition to the conservation easement program, VOF manages the Open-Space Lands Preservation Trust Fund, a grant program that provides funds to assist landowners with the cost of donating an easement.

### VOF programs include:

**Conservation Easement Holding and Assistance:** The primary mechanism for accomplishing VOF's mission is open space easements. VOF staff responds to questions from landowners, prospective buyers, real estate agents and attorneys regarding conservation easements. Staff also reviews forestry plans, building plans and Virginia Department of Transportation road projects to make sure easements remain protected. This stewardship function of the conservation easement program is crucial to overall success of the program.

**Open-Space Lands Preservation Trust Fund:** This fund is used to help landowners with the costs of conveying conservation easements and to purchase all or part of the value of easements. Funding priority is given to applicants owning family farms and demonstrating financial need, and funds are for cost-only reimbursement projects.

**Historic Aldie Mill:** VOF has successfully restored Aldie Mill to serve as an operating example of an early 19th century manufacturing wheat and corn mill. A volunteer program has been started and the Mill is open for tours and to the general public seasonally on weekends.



For more information call (804) 225-2147 or visit the VOF website at <[www.virginiaoutdoorsfoundation.org](http://www.virginiaoutdoorsfoundation.org)>.

## Virginia Department of Agriculture and Consumer Services (VDACS)

The Virginia Department of Agriculture and Consumer Services (VDACS) administers the Virginia Agricultural Vitality Program. Established in 2002, this new program contains a farmland preservation component. VDACS, working cooperatively with agricultural, business, local government and conservation community members, is developing a model purchase of agricultural development rights (PDR) program to assist localities in the development of their own agricultural PDR programs. Development of this model vision for farmland preservation was based on input from localities with PDR programs.

### VDACS programs include:

**Agricultural Vitality:** The purpose of this initiative is to create programs to educate the public about the importance of farmland preservation to the quality of life in the Commonwealth and to provide technical, professional and other assistance to farmers on matters related to farmland preservation.

**Farmland Preservation:** VDACS is developing model policies and practices that may be used as a guide to establish local PDR programs. This includes the development of criteria for the certification of local purchase of development rights programs as eligible to receive grants, loans or other funds from public sources for the purchase of agricultural conservation easements.

**Farmlink:** This program provides assistance to retiring farmers and individuals seeking to become active farmers in the transition of farm businesses and properties from retiring farmers to active farmers. Assistance includes help in the preparation of business plans for the transition of business interests; assistance in the facilitation of transfers of existing properties and agricultural operations to interested buyers; information on innovative farming methods and techniques; and research assistance on agricultural, financial, marketing and other matters.



For more information call (804) 786-2373 or visit the VDACS website at <[www.vdacs.state.va.us](http://www.vdacs.state.va.us)>.

## Virginia Department of Historic Resources (DHR)

The Virginia Department of Historic Resources is the State Historic Preservation Office. Its mission is to foster, encourage and support stewardship of Virginia's significant historic, architectural, archaeological and cultural resources. The department provides a range of programs and services, technical assistance, and financial incentives to property owners for public and private benefit.

### DHR programs include:

**National and state registers:** Private property owners, local governments, and nonprofit organizations seek designation of historic sites on the National Register of Historic Places and Virginia Landmarks Register, the official listings of significant structures, sites, objects, and districts that embody the historical and cultural foundations of the nation and state, respectively. Properties listed on the National Register may be eligible for historic rehabilitation tax credits.

**Historic Resources Survey:** Private property owners, local and state governments, and consultants research the comprehensive DHR database of landscapes, districts, and historic sites. More than 150,000 architectural and archaeological properties have been recorded and added to the inventory of sites.

**Historic Rehabilitation Tax Credits:** For owners of income producing properties, a federal tax credit of 20% is available for the rehabilitation of commercial historic properties that are listed on the National Register. For homeowners as well as other property owners, a state tax credit of 25% is available for the rehabilitation of historic properties that are listed on, or meet the criteria for, the National Register.

**Threatened Sites:** Private property owners, local government agencies, and nonprofit organizations seek Threatened Sites funding to excavate archaeological sites of statewide significance that are under threat of destruction. These sites are ones for which no other sources of funding are available. Potential eligible sites are evaluated both by department teams and a Threatened Sites Committee composed of members of the archaeological community. Funds are committed for assessment, excavation, laboratory processing and analysis, and reporting.



For more information call (804) 367-2323 or visit the DHR website at <[www.dhr.state.va.us](http://www.dhr.state.va.us)>.

PRODUCT 5:  
REPORT ON SUSTAINABLE ECONOMIC DEVELOPMENT INITIATIVE -  
CONSULTANT REPORT

# Biodiesel and Sustainable Economic Development in Dragon Run Watershed

**Task 1, Identify stakeholders, communicate project objectives, collect stakeholder input and generate ideas, conduct general and targeted outreach meetings**

## **Deliverables 1-6:**

- **Summary of initial stakeholder session**
- **Summary of follow-up meetings**
- **Summary of public and targeted outreach**
- **List of ideas**
- **List of stakeholders for PDC review**
- **Newsletter for stakeholders**

**For additional background, see *Opportunities for Sustainable Natural Resource-Based Development in the Dragon Run Watershed*, an economic development study, which can be found on the Dragon Run Special Area Management Plan website: [www.mppdc.com/dragon](http://www.mppdc.com/dragon))**

**Date: March 31, 2007**

**Contract No: C07-02-05 Dragon Run**

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## **Background**

The Dragon Run Watershed Special Area Management Plan (SAMP) project's mission is to support and promote community-based efforts to preserve the cultural, historic and natural character of the Dragon Run, while preserving property rights and the traditional uses within the watershed.

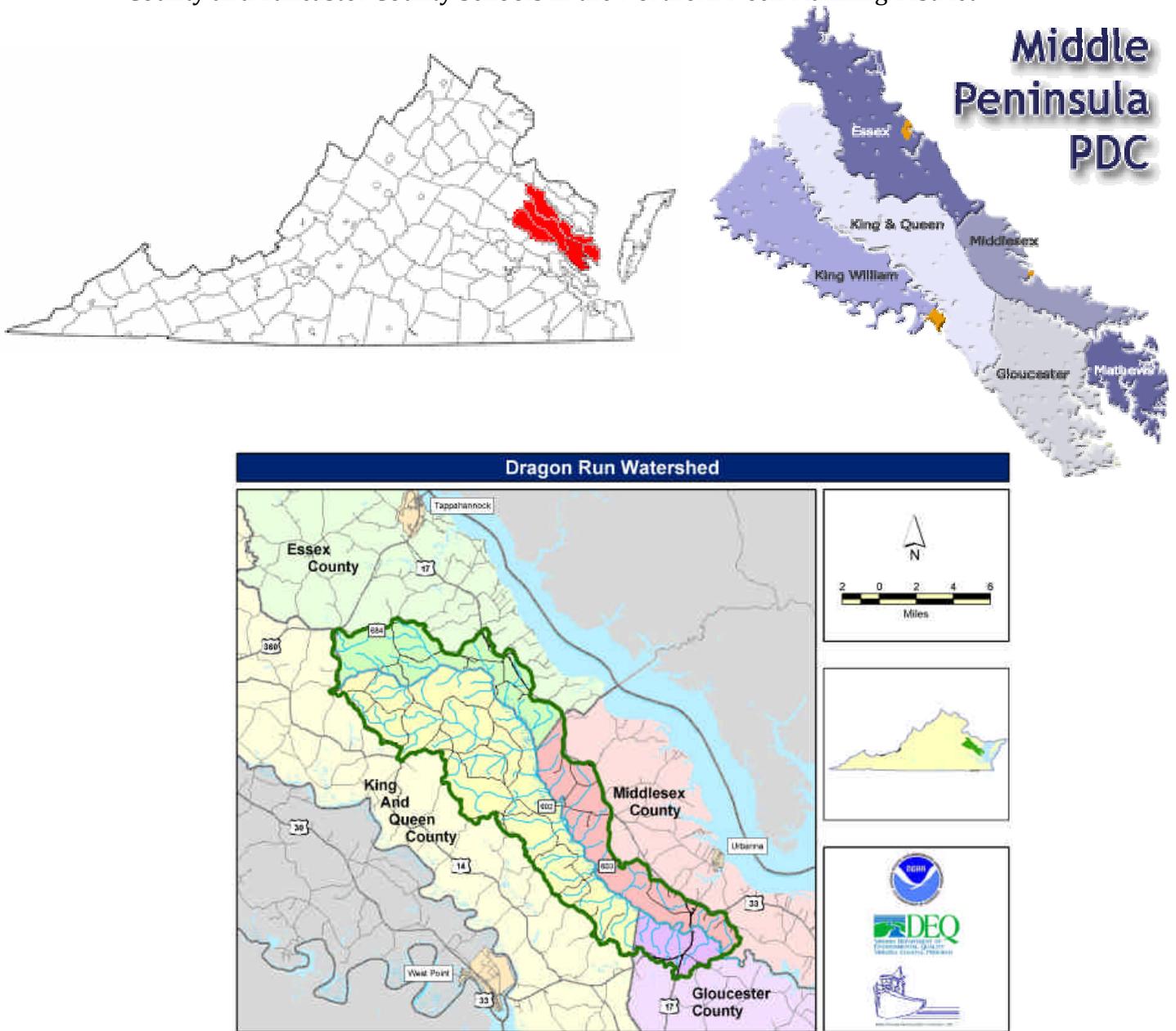
As part of the Dragon Run Special Area Management Plan managed by the Middle Peninsula Planning District Commission (MPPDC), a study titled "Opportunities for Sustainable Natural Resource-Based Development in the Dragon Run Watershed" (referred hereafter as the Yellow Wood study) was conducted in October 2005. The overall purpose of the project was to identify and explore economic development activities and opportunities that sustain traditional land uses while enhancing the natural resource base or at least minimizing adverse impacts. Seven areas were selected for further exploration, including biodiesel utilization (and production) for municipal vehicles. The Yellow Wood study found biodiesel utilization to be an example of enterprise that fits within the overall goal of sustainable natural resource-based economic development for the Watershed, whether carried out within the public or private sectors.

The Yellow Wood study reviews the basics of biodiesel including a description of fuel properties, storing the fuel, operations and maintenance considerations, engine warranty concerns, converting diesel fueling stations to biodiesel, environmental benefits of biodiesel, and other applications of biodiesel. The study concluded that because biodiesel involved relatively minor changes compared to other alternative fuels, and has documented environmental and health benefits, biodiesel is a logical choice for communities that are interested in promoting sustainability. Furthermore, the raw materials for biodiesel are primarily soybeans, which are grown extensively in the region. This study did not, however, delve into the deeper implications of how biodiesel could potentially impact traditional land uses in the Dragon Run Watershed, namely farming, forestry and recreation.

Virginia Clean Cities was contracted by the MPPDC to continue further exploration of biodiesel market viability and present recommendations based on survey summaries and stakeholder interest detailing potential to fulfill the goal to provide sustainable natural resource-based economic benefit to the watershed community centered around the use or production of biodiesel as a cleaner, healthier, domestic alternative to fossil fuel.

## The Dragon Run Watershed and Geographic Boundaries for Biodiesel Utilization

Located in the Middle Peninsula of Virginia, the Dragon Run Watershed encompasses parts of Essex, King and Queen, Middlesex, and Gloucester Counties. The geographic boundaries of this analysis include the Dragon Run Watershed counties, as well as Mathews and King William Counties, which also are in the Middle Peninsula Planning District, and regions surrounding the Middle Peninsula which include key stakeholders such as Virginia Biodiesel Refinery LLC in New Kent County and Lancaster County Schools in the Northern Neck Planning District.



*Figure 1. Middle Peninsula (top) in Virginia and Dragon Run Watershed (bottom)*

## **Introduction**

Central to the Dragon Run project and this report on early-stage project preparation work tasks and deliverables is a question. How can development of the biodiesel market and production industry achieve two goals: provide economic benefit to the watershed community and help to preserve natural resources in the sensitive watershed by sustaining current land uses, predominantly agriculture, forestry and outdoor recreation?

### **Summary of “brainstorming” session with Dragon Run Steering Committee and PDC staff**

1-18-07 Initial PDC project kickoff meeting following contract award. Present: consultants, Sara Stamp and Lewis Lawrence. Reviewed schedule of early deliverables and upcoming meetings and considered upcoming opportunities for outreach to community and stakeholders.

2-7-07 Dragon Run Steering Committee meeting at Cook’s Corner. First meeting with DRSC included consultant presentation on basics of biodiesel, possible funding sources, review of Virginia biodiesel projects and other agricultural initiatives that offer potential applications to Dragon Run or collaborative opportunities. Several DRSC members and project manager Sara Stamp suggested names of stakeholders to contact and upcoming opportunities for community outreach and additional stakeholder identification.

### **Summary of follow-up meetings and other outreach and Summary of targeted stakeholder and public meeting outreach (Combined Deliverables 2 and 4 from SOW)**

2-5-07 Jon Turkel of parks service in Frederick County contacted by consultant regarding possible collaboration with Dragon Run stakeholders if small-scale production from waste vegetable oil is considered in the Dragon Run. Turkel is studying the feasibility of municipal-scale production of biodiesel and expressed an interest in possible collaboration with other groups exploring the idea.

2-21-07 Lowery’s Restaurant annual Riverland Insurance farmer meeting was attended by Sara Stamp and consultant, who made brief presentation to 100 or more farmers and handed out notice of March 19 stakeholder meeting.

2-21-07 June Parker Oil Company in Tappahannock was visited by Sara Stamp and consultant to gauge the owner’s interest in retailing biodiesel blends at the Mobil gas station and offering biodiesel blends in home heating oil. Owner was interested, but had concerns about cost and lack of consumer awareness and education about the benefits of biodiesel.

2-22-07 Shenandoah Waste Solutions Forum-sponsored symposium in Harrisonburg. Consultant staffed informational booth, monitored presentations to farmers and networked with attendees. Result was contact with Chris Bachmann of JMU alternative fuels lab regarding potential farm-scale technology licensing opportunity for biodiesel production. Also, learned of portable oil seed press concept under exploration by a group in western Virginia.

3-1-07 PDC office meeting to review initial strategy, refine stakeholder list and prepare for March and April outreach opportunities.. Consultant, MPPDC Executive Director Dan Cavanaugh, Sara Stamp attended meeting.

3-9-07 Local County Government Administrators (LCGA) regular meeting at PDC. Consultant briefed government administrators and asked for support to use biodiesel in school bus fleets and other diesel vehicles operated by local government and private fleets.

3-19-07 First biodiesel project stakeholder meeting at PDC office in Saluda. The manager of the biodiesel refinery in New Kent County, members of DRSC, PDC staff and other key stakeholders discuss how to increase use of biodiesel by fleets and private vehicle owners and ways to communicate to the public. Ideas include creation of a biodiesel quick guide that explains the benefits of using biodiesel.

3-28-07 Piankatank River Golf Club annual dinner meeting. Primarily a social event, but consultant made brief presentation about next phases of Dragon Run feasibility project. Sara Stamp and consultant made contact with Ellen Davis and Kent Ware of USDA Rural Development Richmond office and Jeff Jobs of USDA in MidWest region, who expressed interest in assisting project with grant funding search support.

### **List of ideas from stakeholders, PDC staff and consultant**

#### **1.) Trust Fund**

A trust fund finance mechanism could be created to buy down cost of biodiesel relative to cost of petroleum for farmers. This proposal was offered by Sara Stamp. It could take many forms, but the underlying premise is to secure a source of funds to generate interest income that could be used to provide economic benefit to Dragon Run farmers in the form of more competitive biodiesel prices. Biodiesel typically costs about the same or slightly more than conventional petroleum diesel, but there are times when the differential cost can be unfavorably high for biodiesel.

#### **2.) EPA Clean School Bus Grant**

The Clean School Bus USA grant program offers financial support to reduce unhealthy exhaust emissions from school buses. The current round of proposals is

due no later than June 26, 2007. Consultant recommends that consultant and stakeholders assemble a grant proposal for one or more school districts in Dragon Run. The EPA Clean School Bus program encourages emissions reductions practices including: use of biodiesel, addition of after-market particulate traps and diesel oxidation catalysts, repowering school buses with cleaner engines and bus replacement. The program also accepts proposals that would use grant funds to equalize the cost of alternative fuels like biodiesel with conventional petroleum fuels to encourage wider use of the cleaner alternatives to reduce emissions.

### **3.) Hybrid Co-operative**

Buyer and Producer Co-ops have been parts of successful programs to develop the biodiesel market in many areas of the country. Consultant recommends a hybrid co-operative approach that partners a retailer, fuel distributor, Virginia Biodiesel Refinery LLC and end users of biodiesel blends. This mechanism is less costly in capital equipment because no small tanks and pumps would be supplied or purchased, which typically is the case for user co-operatives. It would reduce the chance of poor quality issues that can result when inexperienced users store, handle and dispense biodiesel blends, especially during cold weather. Economic risk would be widely spread and the key risk takers also would have the opportunity to reap economic rewards in exchange for their risk. It should be possible to design a hybrid biodiesel co-op that could take great advantage of the type of marketing discussed next:

### **4.) Branding the Idea (not the product)**

The difficulty of creating a direct economic benefit to farmers and a possible indirect approach employing the concept of "Branding" the act of purchasing biodiesel as an idea was presented by consultant and described here in the text of an email from consultant to PM Sara Stamp:

On the matters of a refinery partnership and direct benefit to farmers:

The owners and managers of Virginia Biodiesel Refinery LLC in the town of Eltham in New Kent County have indicated that they will be active Dragon Run partners and help out in any way.

The refinery has a self interest in any effort to encourage greater use of biodiesel. But a direct link and direct benefit going the other way --- from refinery to farmer -- is much harder to find or create. The refinery does not buy soybeans from farmers. It buys refined soybean oil from Perdue, which produces the oil from soybeans grown in Dragon Run and elsewhere. (Part of the feasibility study includes a look at whether soybeans or another potential feedstock such as Canola could be crushed locally to produce oil, but it is not now known whether that might be practical and make economic sense.)

The most direct linkage, refinery to Dragon Run farmer, I can think of is not direct enough to base a valid calculation of potential economic value to the farmer. The link as I see it is: Demand for biodiesel results in demand for soybean oil. Demand for soybean oil results in demand for soybeans, which results in higher revenues for farmers who grow soybeans. Therefore, farmers should work to increase demand for biodiesel by using it and encouraging others to use it. The analogy often used to describe this indirect economic link is “a rising tide raises all ships.” You could apply this indirect link to any soybean region, whether or not it has a biodiesel refinery. The presence of a refinery offers advantages of biodiesel supply security and lower transportation costs, but otherwise doesn’t change the indirect nature of the link from refinery to farmer very much, unless local farmers own the local refinery. Even then the refinery probably would not buy soybeans directly from farmers.

I think other linkages and connections might be as important as or more important than the refinery-farmer link. Farmers who grow or could grow soybeans have a fairly clear but still indirect financial stake in any effort to encourage greater use of biodiesel. The many other potential users and supporters of biodiesel who live and work in Dragon Run also have stakes, but it is harder to put an economic value on the benefits they could derive from greater use of biodiesel. What is the value of cleaner air and water? What is the value of a rural and native resource-based lifestyle? How much is energy diversification, resource sustainability and increased domestic energy security worth?

In order to communicate the linkages between biodiesel and Dragon Run preservation, one path we might want to consider is to “brand” the use of biodiesel (the concept not the actual product) in a way that associates the use of biodiesel with the preservation of Dragon Run and all that that means in terms of keeping more open space, fostering a more vital farm economy, preserving a rural lifestyle, sustainable use of native natural resources, cleaner air, domestic sustainable and renewable fuel production, etc. This approach might make it easier to reduce a complex linkage to a simple idea to communicate, which could make the project easier to replicate in other regions and possibly easier to implement here.

The hard part is getting the message down to a simple concept to make the “brand” catch on and “catchy.” Some initial ideas for a branding tag line concept and language to get across the message that there is a linkage between the use of biodiesel and preserving Dragon Run:

Save the dragon  
Run with the Dragon  
Dragon Power  
Put a dragon in your tank  
Dragon Fire  
Taste of the Dragon  
Drink from the Dragon

Something like one of the above (but better) could be the tag line or basis for a simple marketing campaign that attempts to sell folks on the benefits of using biodiesel. Other parts of the message would work off of the tag line:

Use Dragon Power in your truck because:

It's good for our farmers

It's good for our energy security

It's good for our air and water

It's good for our children

A tag line – It's good to use Dragon Power -- could be incorporated into just about everything associated with the Dragon Run project: stationary used in newsletters, posters distributed to partners, decals and other point-of-sale materials used by biodiesel retailers.

### **Newsletter to stakeholders**

Electronic communications were employed, but at this early stage of project development it was premature to use a newsletter for some of the intended purposes enumerated in the scope of work agreement, which states that a periodic newsletter “will be used in addition to or in lieu of an in-person presentation to increase outreach to additional stakeholders and communicate efforts to date. The intent is to develop a mechanism to provide good internal communication among stakeholders and make it easy for new stakeholders – organizations and individuals – to learn about, influence and support the implementation of recommendations.”

Communications efforts during this phase of work included:

- A full-color brochure created by Sara Stamp, project manager, which provides background on the Dragon Run watershed and biodiesel. The cover page of the brochure was modified so that it could serve as a way to announce several stakeholder meetings and as an attachment with other communications.
- Meeting announcements and agendas
- LCGA meeting handout
- Handout for annual farm insurance breakfast at Lowery's Restaurant
- Chevron ULSD elastomer failures white paper for school bus fleet meeting
- Biodiesel Quick Guide created by Chelsea Jenkins

## **Stakeholder list**

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**Objective:** Sustainable natural resourced-based economic benefit to the watershed community – farmers, business owners and residents.

**Study Path:** The use and possible production of biodiesel as a cleaner, healthier, domestic alternative to imported oil.

**First Step:** Identify stakeholders from the ranks of:

- Local government
- Biodiesel supply chain, including refiners, distributors, retailers and users
- Soybean producers/farmers in the Dragon Run Watershed
- Other supporters and interested partners

**First Meeting: March 19 at 6:30 pm in Saluda at the Planning District Commission**

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## Dragon Run Action List

LGA Meeting 3/9/07

Attachments: Stakeholder March 19 Meeting Poster  
Stakeholder List

### Project Objectives:

- Support and promote community-based efforts to preserve the cultural, historic and natural character of the Dragon Run, while preserving property rights and the traditional uses of farming, forestry and outdoor recreation.
- Promote sustainable natural resource-based economic development to benefit the watershed community of farmers, business owners and residents

### Initial Path:

- Study the feasibility of expanding the use and possible production of biodiesel as a means to achieve both objectives

### Goal Deliverable (Pre-feasibility study):

- A formal partnership of municipal government, key members of the biodiesel supply chain, including refiners, distributors, retailers and users, and Dragon Run farmers and landowners

### Current Steps:

- Expand/improve draft list of potential project stakeholders
- Identify local government fleet managers and other “champions” who will consider using biodiesel
- Obtain metrics of potential diesel usage by government and private fleets
- Seek suggestions for community outreach opportunities such as public meetings or community events that might provide ways to carry the Dragon Run “message” to government, business, news media and other community leaders.
- Promote the March 19 stakeholder meeting within your organization

**MIDDLE PENINSULA LOCAL GOVERNMENT  
COUNTY ADMINISTRATORS and TOWN MANAGERS**

**March 9, 2007  
9:00 A.M.**

**Middle Peninsula Planning District Commission  
Regional Board Room  
Saluda, Virginia**

**AGENDA**

- 1) Discussion of Utilization of Biodiesel to Support Sustainable Agriculture in the Dragon Run
  - Sara Stamp, MPPDC, and Al Christopher, Virginia Clean Cities
- 2) Discussion of Regional Aging Issues Task Force
- 3) Discussion of Virginia's Water Cleanup Plan
- 4) Review of Water Supply Planning Grant Application Process
  - Lewie Lawrence, MPPDC
- 5) Review of Wetlands In-Lieu and Permit Fees by Locality
- 6) Local/Regional Budget Issues
- 7) Other Business
- 8) Adjourn

Biodiesel Stakeholder Meeting  
March 19, 2007

Agenda

1. What are the Dragon Run Steering Committee and Dragon Run Special Area Management Plan?
2. What is biodiesel?
3. How can biodiesel help our local agriculture community?
4. Who are potential stakeholders? Partners?
5. Ideas
6. Next steps

Biodiesel Stakeholder Meeting  
March 19, 2007

Sign-in Sheet

	Name	Phone	Email/Address
1.	Al Christopher	804-436-3857	al.christopher@HACC.ORG
2.	DENNIS SOLICK	804-435-1126	DJS@VirginiaBiodiesel.com
3.	POWELL DAVIS	443-2028	powell.davis@gmail.com
4.	Patricia Tyrell	443-1118	pat.tyrell@va.usda.gov
5.	Wayne Pickson	443-2327	
6.	John Fleet	513-9364	fb@KIVNET.NET
7.	JERRY WALKER	804-353-2635	JWALKER@WORLEY ASSOCIATES.COM
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Biodiesel Stakeholder Meeting – March 19, 2007

Gloucester County – cleaning tanks over spring break, planning on using biodiesel again

Va Biodiesel – owned by Faulkner family in Northern Neck

Dennis Sulik, VA Biodiesel, LLC, discussed federal excise tax \$1.00/gal blended; glycerin burners get \$.50/gal rebate; state level incentives coming; no excise tax for producers; can get tax credits for B20 tanks

John Fleet discussed the 25x25 initiative, which promotes the idea of using 25% fuels from renewable resources by 2025

Discussion on the practicality of using biodiesel and any problems:

- There may be some issues with warranties
- Because biodiesel acts as a solvent, filters need to be changed initially and more often
- Farmers especially have noted problems if they don't clean their tanks before putting in biodiesel

Perennial cover crop – biodiesel crops

USDA forecast of spring plantings – soybeans anticipated to lose 7-9 million acres to corn

Refined soybean oil at a six year high today

Stakeholders/Needs

- Need direction as to the pitfalls/strengths of biodiesel
- Need outreach to help people get over their trepidation of using biodiesel
- Handout/comprehensive brochure for distribution
- Consistent advertisement to general public
- Need local suppliers to serve Middle Peninsula
- Education for school age group
- Have presence at Agriculture events, festivals

Tryde Parker – interested in using biodiesel as heating fuel, which may be marketable to homeowners w/o biodiesel vehicles; tax free if off-road or home heating; also capture truckers

Capacity of Eltham plant

- currently at 1/3 capacity
- high peak last summer 60-70% capacity

How do we get back to farmers? Marketing, education, branding; farmers need to receive some economic benefit

Need more suppliers in Middle Peninsula

Overall needs:

1. Distributors
2. Outreach
3. Market



**How can biodiesel support local farmers?**

By increasing the market for biodiesel, the market for soybeans will also increase.

**How do we increase the market in the watershed?**

In order to communicate the linkages between biodiesel and Dragon Run preservation, one path to consider is to “brand” the use of biodiesel (the concept not the actual product) in a way that associates the use of biodiesel with the preservation of Dragon Run and all that means: keeping open space, fostering a more vital farm economy, preserving a rural lifestyle, sustainable use of native natural resources, cleaner air, domestic sustainable and renewable fuel production.

Some additional next steps:

- Add biodiesel retail pumps
- Encourage “marquee” fleets
- Monitor canola pilot by Virginia State University
- Explore Mobile Oil-seed press concept
- Integrate with state efforts

Next Stakeholder Meeting: April 19<sup>th</sup> at 6:30 at the Regional Boardroom at the MPPDC.



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# Biodiesel Partnerships



*Mission: To support and promote community-based efforts to preserve the cultural, historic, and natural character of the Dragon Run, while preserving property rights and the traditional uses within the watershed.*

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# DRAGON RUN SPECIAL AREA MANAGEMENT PROGRAM



## DRAGON RUN SPECIAL AREA MANAGEMENT PROGRAM

### ***What is the Dragon Run Special Area Management Program (SAMP)?***

A partnership between the Virginia Coastal Zone Management Program and the Dragon Run Steering Committee of the Middle Peninsula PDC, is designed to address both the differing viewpoints and common ground that exist concerning the future of the watershed.

### ***What is the Dragon Run Steering Committee?***

Formed in 1985, the Dragon Run Steering Committee consists of landowners and local elected officials and is the key vehicle for cooperation and coordination among the four counties concerning watershed issues.

### ***What counties are in the watershed?***

The counties of Essex, Gloucester, King and Queen, and Middlesex contain the watershed.

## STEERING COMMITTEE

**Essex County** – Prue Davis (Chair)(S), Fred Hudson (P), Dorothy Miller, M. Scott Owen

**Gloucester County** – Charles “Rick” Allen (S), Dr. Eric Weisel (P), Robert Hudgins, Dr. Willy Reay

**King and Queen County** – Keith Haden (S), Kempton Shields (P), Robert Gibson, William “Frank” Herrin

**Middlesex** – John D. “Jack” Miller (S), John England (P), R. D. Johnson, Davis Wilson

(S) denotes Supervisor

(P) denotes Planning Commissioner

**Staff** – Sara Stamp

## BIODIESEL PARTNERSHIPS

### ***Why was the Opportunities for Sustainable Natural Resource-Based Development in the Dragon Run Watershed study conducted?***

The overall purpose of the project was to identify and explore economic development activities and opportunities that sustain traditional land uses while enhancing the natural resource base or at least minimizing adverse impacts. The Steering Committee feels that one of the best ways to protect the watershed from development pressures is to keep the farmer in the business of farming.

### ***What exactly is biodiesel?***

Biodiesel is a domestically produced, renewable fuel that is manufactured from vegetable oils, recycled cooking grease, or animal fats. Pure biodiesel, referred to as “neat” biodiesel, contains no petroleum and is completely biodegradable. Biodiesel is most commonly blended with petroleum diesel or standard diesel for use in vehicle fleets. The blend percentage is indicated by the number after the letter “B.” For example, B20 refers to a blend of 20% biodiesel and 80% standard diesel, which is the most common application of the fuel.

### ***What is the availability of biodiesel in the area?***

In March 2004, a biodiesel refinery opened in Eltham, Virginia. Virginia Biodiesel, LLC produces approximately 2.5 million gallons of biodiesel annually from soybeans grown in Virginia. Local communities near the refinery may stand to benefit from this refinery by paying less for transportation costs associated with hauling the biodiesel to fueling stations.

### ***What action is required to convert diesel fueling stations to biodiesel?***

There are no changes required to the physical infrastructure of diesel fuelling stations (pumps, storage tanks, etc.) in order to switch to using biodiesel; however, it is advisable to take the following precautions before receiving the first shipment of biodiesel:

1. Thoroughly clean diesel storage tanks
2. Add fuel filters at dispensers, or, if dispensers have fuel filters, switch to < 10 micron filters

### ***Which vehicles should consider using biodiesel?***

One of greatest advantages of biodiesel is that there are no modifications required to convert a standard diesel vehicle to one that will run on a biodiesel blend. Communities often choose to introduce biodiesel into their bus fleets (either school buses or transit buses). Also, many local farmers are already using biodiesel in their farming equipment.

