



BLUFF POINT

Comparison of Planned Unit Development Submittal and By-Right Subdivision Development

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MASTER PLAN

PLANNED UNIT DEVELOPMENT SUBMITTAL

BY-RIGHT SUBDIVISION DEVELOPMENT

Proposed Uses

- **530 Residential Units**
 - 402 Single Family Units
 - 128 Multi-Family Units
- 90 Room Destination Resort & Spa Hotel
- Commercial/Retail Space
 - Country General Store with Soda Fountain
 - Boutique Retail
 - Sales Center
 - Chapel
 - Postal Center
 - Education Center
 - Dining Venues
- Recreational Facilities
- Private Club with Dining Facilities

- 98 Slip Marina and related Facilities
- 130 Rack Dry Stack Boat Storage
- Oyster House
- Community Recreation Facilities
- Farm & possible Commercial Plant Nursery

Approved Uses for all Parcels (Detailed by parcel below)

- **536 Residential Units**
- Two Swimming Pool Facilities
- Child-Care Center
- Country General Store
- Clinic
- Community Boat Ramp
- Mobile Home Sales Yard

North Parcel Subdivision

- 502 Residential Units
 - 394 Single Family Units
 - 108 Multi-Family Units
- Two Swimming Pool Facilities (allowable use in C-1, A-1 & R-2)
- Child-Care Center (allowable use in A-1)
- Country General Store (allowable use in A-1 and R-2)
- Clinic (allowable use in A-1)
- Mobile Home Sales Yard (allowable use in A-1)

Barnes Creek Parcel

- 1 Residential Unit

Bluff Point Subdivision

- 33 Residential Units

COMMUNITY CONCEPT

PLANNED UNIT DEVELOPMENT SUBMITTAL

BY-RIGHT SUBDIVISION DEVELOPMENT

- Designed to be a model waterfront community respecting the ecological environment of the property
- Recreational second home community
- Provides residents amenities ranging from private club facilities, multiple dining options including private dining, indoor and outdoor swimming pools, tennis and fitness facilities
- Provides multiple dining options, environmental education and arts/cultural activities to residents, guests and local citizens
- Destination resort & spa facilities will promote Northumberland County and tourism
- Education Center will provide support to local schools and positive recognition of Northumberland County
- Provide employment opportunities for Northumberland County citizens

- Workforce housing community
- Lower to middle income housing for families
- All residents will have water access
- Provide residents amenities such as; play grounds, swimming pools, club houses and ball fields

PUBLIC BENEFITS

PLANNED UNIT DEVELOPMENT SUBMITTAL

BY-RIGHT SUBDIVISION DEVELOPMENT

- **Estimated Fiscal Impact**
 - **\$2,040,000** in real estate tax revenue at build-out
 - **\$ 170,000** in personal property tax revenue and (County) sales tax revenue at build-out
 - **Positive \$1,710,000** in net fiscal impact to Northumberland County after full cost allocation
- **Estimated Employment Opportunities**
 - **141** annual full-time equivalent construction jobs on average over the 15 year build-out.
 - **210** annual full-time equivalent Bluff Point direct jobs, with over **\$8,050,000** in annual wages.
 - **105 – 175** annual full-time equivalent indirect jobs.
- **Promoting Environmental Stewardship.**
 - Utilizing Best Management Practices
 - Implementing a 200 foot buffer for 2,150 feet along the Chesapeake Bay shoreline for a total developed shoreline of 2,465 feet.
 - Creating buffers around all wetlands, including inland lakes.
 - Enhancing areas of non-tidal wetland for biodiversity.
 - Stabilizing the Chesapeake Bay shoreline which will improve water clarity.
 - Managing the open space timberlands as mature forest.
 - Strict property maintenance guidelines with monitoring and control systems to ensure compliance for both public and private spaces, including yards.
- **Environmental Outreach and Management Programs.**
 - Higher education environmental learning center.
 - Provide programs for county school children.
 - Environmental stewardship and education.
 - Develop resident and visitor education programs.
 - Develop contractor education programs (homebuilders, landscapers and other service providers).
 - Monitor contractor compliance.
- **Providing Recreational and Cultural Opportunities.**
 - Bluff Point will welcome the public's use of some recreational facilities, including:
 - Transient marina slips
 - Slips for area residents coming to enjoy dining and village amenities
 - As available, berths at the dry stack boat storage facility and wet slips.
 - Nature and education programs
 - Multiple dining and shopping venues.
 - A chapel for weddings and other private gatherings.
 - Events, concerts and other programs in the Harbor Village
 - Artistic and cultural programs.

- **Estimated Fiscal Impact**
 - **\$393,000** in real estate tax revenue at build-out
 - **\$ 57,000** in personal property tax revenue and (County) sales tax at build-out
 - **Negative \$ 1,440,000** in net fiscal impact to Northumberland County after full cost allocation
- **Estimated Employment Opportunities**
 - **22** annual full-time equivalent construction jobs on average over the 15 year build-out, with a potential **50** full-time equivalent construction jobs assuming custom construction labor.
 - **14** annual full-time equivalent Bluff Point direct jobs, with over **\$490,000** in annual wages.
 - **7 - 11** annual full-time equivalent indirect jobs.

FISCAL IMPACT

PLANNED UNIT DEVELOPMENT SUBMITTAL	BY-RIGHT SUBDIVISION DEVELOPMENT
<ul style="list-style-type: none"> ▪ \$2,210,000 in annual tax revenue at full build-out <ul style="list-style-type: none"> ○ \$2,040,000 in annual real estate tax revenue ○ \$ 170,000 in annual local (County) sales and personal property tax revenues • \$505,000 in estimated additional County costs associated with plan at build-out. <ul style="list-style-type: none"> ○ \$100,000 for additional County staff ○ \$110,000 allocated for additional emergency services ○ \$138,000 allocated for Public Education <ul style="list-style-type: none"> ▪ 27 school age children projected to live within the community ▪ \$ 5,184 projected County cost per student ▪ \$138,000 projected County cost for additional students ○ \$157,000 allocated for general services – based on estimated population ○ Residents are anticipated to be part-time and second home families • <u>Annual Net Fiscal Impact: Positive \$1,710,000</u> <p><i>NOTE: All figures are estimated values based on financial projections and have been rounded for the purpose of this document.</i></p>	<ul style="list-style-type: none"> • \$450,000 in annual tax revenue at built-out <ul style="list-style-type: none"> ○ \$393,000 in annual real estate tax revenue ○ \$ 57,000 in annual local (County) sales and personal property tax revenues • \$1,900,000 – (\$1,415,000 - \$3,290,000) in estimated additional County costs associated with plan at build-out. <ul style="list-style-type: none"> ○ \$ 100,000 for additional County staff ○ \$ 165,000² allocated for additional emergency services ○ \$1,480,000 allocated for Public Education <ul style="list-style-type: none"> ▪ 194 - 556 school age children will live in the subdivision¹ ▪ \$5,184 projected County cost per student ▪ \$1,000,000 - \$2,880,000 projected County cost for additional students ○ \$144,000² allocated for general services – based on estimated population ○ Residents are anticipated to be full-time lower to middle income families • <u>Annual Net Fiscal Impact: Negative \$1,440,000³ - (negative \$965,000 – negative \$2,840,000) depending on number of school age children</u> <p>¹See Appendix B-2: Student Generation Calculations ²Projected Public and General service costs are higher for the By-right Subdivision Plan due to increased population numbers and the permanent residence nature of the homes, as compared to the recreational nature of the homes in the PUD. ³See Appendix B-1: Key Assumptions and Sources</p> <p><i>NOTE: All figures are estimated values based on financial projections and have been rounded for the purpose of this document.</i></p>

TRAFFIC

PLANNED UNIT DEVELOPMENT SUBMITTAL	BY-RIGHT SUBDIVISION DEVELOPMENT												
<table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"></td> <td align="center" style="width: 30%; border-bottom: 1px solid black;">TIA Estimated Daily Generated Trips¹</td> <td align="center" style="width: 30%; border-bottom: 1px solid black;">Estimated Daily Generated Trips²</td> <td style="width: 25%;"></td> </tr> <tr> <td>Total Daily Generated Trips</td> <td align="center">7,204</td> <td align="center">4,762</td> <td></td> </tr> </table> <p>¹ TIA total daily trip generation rates are based on the ITE Trip Generation Manual (7th Edition – 2003), as required by VDOT ² Estimated daily trip generation rates are based on the ITE Trip Generation Manual (8th Edition – 2010)</p> <p>NOTE: See Appendix D: Traffic Comparison</p>		TIA Estimated Daily Generated Trips¹	Estimated Daily Generated Trips²		Total Daily Generated Trips	7,204	4,762		<table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 65%;"></td> <td align="center" style="width: 30%; border-bottom: 1px solid black;">Estimated Daily Generated Trips¹</td> </tr> <tr> <td>Total Daily Generated Trips</td> <td align="center">5,338</td> </tr> </table> <p>¹Estimated daily trip generation rates are based on the ITE Trip Generation Manual (8th Edition – 2010)</p> <p>Note: See Appendix D: Traffic Comparison</p>		Estimated Daily Generated Trips¹	Total Daily Generated Trips	5,338
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	Estimated Daily Generated Trips¹												
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ENVIRONMENTAL IMPACT

PLANNED UNIT DEVELOPMENT SUBMITTAL

BY-RIGHT SUBDIVISION DEVELOPMENT

Tidal Wetlands

- A total of 0.41 acres of tidal wetlands impact is projected from construction of the marina channel entrance.
- 0.82 acres of new tidal wetlands will be created in the marina channel and basin resulting in a 2-1 mitigation to impact ration.

Shoreline Stabilization (current estimated erosion 8' – 10' per year)

- Protect and restore approximately 3,500 linear feet of Chesapeake Bay shoreline
 - Create a series of offshore breakwaters combined with beach nourishment
 - Dune creating/restoration
 - Supplemental vegetation plantings (approximately 3 acres of tidal wetlands vegetation plantings)
 - Northeastern Tiger Beetle habitat creation
- Designed to protect the full Bay front and tidal salt marsh

Non-Tidal Wetlands

- A total of 1.54 acres of non-tidal wetlands are estimated to be impacted due to road access throughout the entire 898 acre site.
- 3.08 acres of new wetlands will be created from new interior lake construction resulting in a minimum of 2-1 mitigation to impact ratio.
- Non-tidal wetlands setbacks -
 - Wetlands shall be protected with buffers of native vegetation.
 - Nature trails are permitted in the wetland buffer.

Resource Protection Area

- Self imposed 200' RPA (versus the required 100' RPA) along 2,150 linear feet of the total 2,465 linear feet of Bay frontage.

Marina

- The inland marina will be created from highly disturbed forested uplands (approximatley15 year old pine forest).
- Will participate in the Virginia Clean Marina Program
- Pump-out facilities
- Wetlands (see tidal wetlands above)
- Oyster plantings are proposed in the marina (may be incorporated in the marina dock design)

Tidal-Wetlands

- Community boat ramp will have tidal wetlands impact, acreage to determined

Shoreline Stabilization – Individual homeowner responsibility

Non-Tidal Wetlands

- A total of 0.98 acres of non-tidal wetlands are proposed impacted due to road access
 - By-right subdivision – estimated 0.98 acres impact due to road access
 - Barnes Creek Parcel – no wetlands impact is estimated
 - Bluff Point Parcels – not determined at this time
- No required setbacks or vegetated buffers

Resource Protection Area – required 100' setback where applicable

Community Water Access

Barnes Creek Marina Channel

- Approximately 1 mile of channel within Barnes Creek is proposed for dredging
 - Dredge material from the channel will be dewatered on site and used for beach nourishment along the Bay front.
 - Oyster lease ground within Barnes Creek (in particular along west side of dredged channel) will be replanted and will become part of the environmental education program
 - Currently, Bluff Point Holdings, LLC has leased 62 acres of currently unproductive oyster grounds on Barnes Creek.
 - Submerged aquatic vegetation will be planted within Barnes Creek
 - Channel dredging will slightly increase Barnes Creek flushing
 - Portions of Barnes Creek are subject to seasonal shellfish condemnation which is speculated to be a result of aging septic systems.

Water/Wastewater Facilities• **Potable Water**

- Wells drilled to the Upper Potomac Aquifer
- Bluff Point Holdings, LLC has agreed to conduct aquifer testing in accordance with DEQ and the Virginia Department of Health’s standards as if Bluff Point was in a regulated Groundwater Management Area
- Conversations have been held with Indian Creek Yacht & Country Club to reduce their groundwater withdrawals by using Bluff Point’s greywater for golf course irrigation.
 - ICY&CC’s current estimated groundwater withdrawal is 23 million gallons annually or 100,000 gallons per day during the growing season.

• **Wastewater**

- State of the art wastewater treatment facility
 - Zero direct discharge into public waters
 - Discharge will be sub-surface drip irrigation and seasonal spray irrigation
 - ICY&CC may use greywater for golf course irrigation and reduce their groundwater withdrawal
- Conversations have held with ICY&CC to provide wastewater treatment for their failing clubhouse/commercial facilities
 - ICY&CC’s current system uses drain fields located adjacent to Indian Creek
- Bluff Point Holdings, LLC has agreed to provide wastewater treatment to Monarch Shores subdivision
 - Currently the 13 homes within Monarch Shores are using conventional individual septic systems

Environmental Management

- Bluff Point is a registered member of the Audubon International Gold Signature Program
 - The Gold level is the highest possible achievement for a new development
 - Guidance through the program has been conducted by Audubon Environmental, Inc.
 - Audubon Environmental, Inc has prepared an Ecological Design (Appendix 6 of the submittal for the PUD)
 - Audubon International has approved the Submittal Plan and has issued a letter stating that the Submittal Plan for Bluff Point has the designation of an “Audubon International Approved Land Plan”
- Higher education research facility will assist in monitoring and providing new/better environmental protection and stewardship

NOTE: See Appendix C: Environmental Comparison

Water/Wastewater Facilities• **Potable Water**

- Wells drilled to Upper Potomac Aquifer

• **Wastewater**

- State of the art wastewater treatment facility, and or
 - Zero direct discharge into tidal waters
 - Discharge designed to sub-surface drip irrigation and seasonal spray irrigation
- Septic system
 - Individual and or mass drain fields as allowed

Environmental Management – As supported by residents through a HOA

NOTE: See Appendix C: Environmental Comparison

PUBLIC SAFETY

PLANNED UNIT DEVELOPMENT SUBMITTAL

BY-RIGHT SUBDIVISION DEVELOPMENT

Traffic

- Area traffic will increase upon the start of construction and infrastructure installation
- Traffic will increase slowly as the project moves forward, residential/commercial traffic will increase and construction traffic will stabilize and then decrease as the project nears completion.
- Residential traffic will steadily increase with the greatest increase in the summer and over weekends as most residents are anticipated to be seasonal part-time.

Marina

- Boat traffic will increase in the marina channel on Barnes Creek.
- Some increase of boats going further up Barnes Creek will occur. Will take all measures possible to reduce boat traffic beyond marina

Fire and Safety

- **\$110,000** allocated in fiscal impact

Traffic

- Construction traffic will be minimal upon completion of the infrastructure and residential traffic will rise quickly as units are sold. It is anticipated that most residents will be fulltime.

Community Boat Ramp

- A substantial increase in small boat/watercraft is anticipated in all areas of Barnes Creek.

Fire and Safety

- **\$165,000¹** allocated in fiscal impact

¹Projected Public and General service costs are higher for the By-right Subdivision Plan due to increased population numbers and the permanent residence nature of the homes, as compared to the recreational nature of the homes in the PUD.

OPEN SPACE

PLANNED UNIT DEVELOPMENT SUBMITTAL

BY-RIGHT SUBDIVISION DEVELOPMENT

583 acres Open Space¹ or 65% of the total 898.34 acres
 315 acres Development Area or 35% of the total 898.34 acres

¹Open Space is community common area not a part of any homeowner/commercial lot and held by a Home Owners Association or other group for the common benefit

Total Open Space¹: 345.06 acres or 38.6% of the total 898.34 acres

- **North Parcel Subdivision**
 - 344.39 acres Open Space¹ or 55% of the total 626.16 acres
 - 281.77 acres Development Area or 45% of the total 626.16 acres
- **Barnes Creek Parcel**
 - Single residential lot of 13.3 acres
- **Bluff Point Parcel Subdivision**
 - .67 acres Open Space¹ or 0.27% of the total 258.88 acres
 - Tax Map # 54 (1) 56 W - .20 acres
 - Tax Map # 54 (1) 56 Y - .47 acres
 - 33 residential lots with salt marsh subject to HOA covenants but not as Open Space

¹Open Space is community common area not a part of any homeowner/commercial lot and held by a Home Owners Association or other group for the common benefit

RECREATION

PLANNED UNIT DEVELOPMENT SUBMITTAL

BY-RIGHT SUBDIVISION DEVELOPMENT

- Harbor Village
 - Restaurants
 - Shopping
 - Nature and Education Center
 - Outdoor Entertainment Area
 - Community Gathering Space
- Marina
 - Oyster House
 - Swimming Pool
 - Fishing Center
 - Kayak Launch
- Inn and Spa
 - Swimming Pool (indoor & outdoor)
 - Lawn Game Area
 - Fire Pit Area
 - Fitness/Spa Facilities
 - Children's Play Area
 - Walking Trails
- Bay Club Area
 - Bluff Point Community Clubhouse
 - (2) Swimming Pools
 - Fitness Facility
 - Tennis Courts

- Salt Marsh Area
 - Kayak Launch on Barnes Creek
- Central Area
 - Walking Trails
 - Campsite/Outdoor Education Center
 - Kayak Launch on Barnes Creek
 - Ball Field
 - Green/Open Space
 - Kayak Launches on Inland Lakes
- Jarvis Creek Area
 - Community Recreation Center
 - Swimming Pool
 - Children's Play Area
 - Walking Trails
 - Green/Open Space
 - Tennis Courts
 - Kayak Launch Site on Jarvis Creek
 - Kayak Launch on Inland Lake
 - The Farm
- All Areas
 - Green/Open Space Areas
 - Wildlife Experiencing/Viewing Stations

- Two Private Swimming Pools and Related Facilities
- Two Children's Play Areas
- Children's Ball Field
- Community Boat Ramp on Barnes Creek
- Community Water Access for Kayaks on Barnes Creek and Jarvis Creek

INFRASTRUCTURE

PLANNED UNIT DEVELOPMENT SUBMITTAL

Potable Water

- Drilling of wells, usage and any mitigation to be conducted pursuant to DEQ & Virginia Department of Health Groundwater Management Area requirements with additional voluntary tests to provide needed aquifer data
- Wells will be drilled to the Upper Potomac Aquifer
- Average daily water usage projected to be: **147,694 gallons per day**

Wastewater Treatment

- State of the art wastewater treatment system
 - Estimated greywater capacity (based on DEQ estimating usage standards): **194,060 gallons per day**
 - No discharge into public waters
 - Discharge by sub-surface drip irrigation and spray irrigation systems located throughout the upland areas of the project.
 - Average annual need projected to be: 147,694 gallons per day (gpd)

Note:

An agreement has been executed with homeowners in the Monarch Shores subdivision whereby Bluff Point agrees to provide potable water and wastewater connections to these residents.

Stormwater Management

Bluff Point will endeavor to exceed the stormwater management requirements of the Virginia Department of Conservation and Recreation (VA DCR); Northumberland County and the EPA NPDES requirement to develop and implement a Stormwater Pollution Prevention Plan.

Notes:

Sherwood Design Engineers, PUD stormwater engineers presented the Bluff Point PUD Stormwater Plan to the American Society of Civil Engineers Annual Conference in 2010.

The presentation was “focused on work which exemplifies low impact development in many aspects from the integration with and restoration of natural resources along the Chesapeake Bay to the project vision of a pedestrian oriented community where learning and education will be paramount. The presentation related to the water management systems which are designed to minimize the ecological footprint of the community by preserving the natural water flow patterns; protecting the quality and integrity of the Chesapeake Bay and; by integrating all components of the design with the natural environment. Beyond water management, Sherwood highlighted some of the best practices employed at Bluff Point toward pedestrian oriented circulation and sustainable material implementation.”

Full-time resident usage will likely be higher in the BRSD than the PUD due to the part-time residents and required water conservation measures of the PUD.

Subject to a mutually satisfactory commercial agreement Bluff Point is willing to provide the Creek Yacht & Country Club clubhouse facility with wastewater capacity. In addition, Bluff Point will provide greywater to be used to for irrigation of their golf course, thereby reducing their groundwater withdrawals. Their current ground water withdrawals for golf course irrigation is estimated to be approximately 100,000 gpd or 23,000,000 annually.

BY-RIGHT SUBDIVISION DEVELOPMENT

Potable Water

- Wells drilled to the Upper Potomac Aquifer
- Water connections will be limited to property owned by Bluff Point Holdings, LLC
- Average daily water usage projected to be: **163,390 gallons per day**

Wastewater Treatment

- ,Wastewater Treatment System
 - Water connections will be limited to property owned by Bluff Point Holdings, LLC
 - Average daily usage projected to be: **163,390 gallons per day (gpd)**
- Onsite septic will be used where economically prudent and allowable, balance will use community wastewater system

Stormwater Management

- Will meet required regulations of the Virginia Department of Conservation and Recreation (VA DCR), Northumberland County and the EPA NPDES requirements to develop and implement a Stormwater Pollution Prevention Plan.

Notes:

Full-time resident usage will likely be higher in the BRSD than the PUD due to the part-time residents and required water conservation measures of the PUD.

Subject to a mutually satisfactory commercial agreement Bluff Point is willing to provide Indian Creek Yacht & Country Club greywater from the Bluff Point wastewater system for golf course irrigation thereby reducing groundwater withdrawals for irrigation of their golf course. The current ground water withdrawals for golf course irrigation are estimated to be approximately 100,000 gpd or 23,000,000 gallons annually.

