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## Executive Summary

The *Nichol Run and Pond Branch Watershed Management Plan* presents a strategy for preserving healthy ecosystems and improving the streams and natural environment within the watersheds. This plan was initiated by Fairfax County and developed with input from residents of these watersheds as part of a county-wide planning effort.

### Background

The Nichol Run and Pond Branch watersheds are located in northern Virginia, in the northern-most corner of Fairfax County. Both watersheds drain directly into the Potomac River, and are located within the larger Chesapeake Bay watershed.

In 1900 Fairfax County was largely agricultural, with dairy farming being the most important single industry. The population was just over 12,000. Beginning in the early 1940s, the County's economy shifted from agriculture to largely commercial. After World War II the population grew rapidly from roughly 50,000 to 500,000. By the mid-1990s the population of Fairfax grew to almost 900,000 residents, driven by technology-based businesses which were less dependent on urban centers than conventional industry, resulting in suburban expansion (Fairfax County, 2001). Today, Fairfax County is the most populous jurisdiction in Virginia as well as the Washington D.C. metropolitan area. The 2005 population was estimated at 1,047,500 and included 387,700 households (Fairfax County, 2006a). Most of the population expansion and associated development in Fairfax County occurred prior to the development and implementation of stormwater regulations that were promulgated to prevent flooding and protect water quality.

The Nichol Run and Pond Branch Watershed Management Plan was developed in response to the watersheds' continuing growth and need for updated stormwater and overall watershed management. This plan presents issues affecting the quality of the watersheds, builds on previous management efforts and presents a comprehensive strategy for mitigating and reducing the impacts of development.



Figure ES.1 Nichol Run and Pond Branch

## **Purpose**

Fairfax County has developed three primary goals to guide the progress of all county watershed management plans in the second phase of plan development. These goals were drafted by Fairfax County staff based on the goals and visions conceived by the watershed steering committees and watershed planning teams during the completion of the initial phase of watershed management plans. The countywide watershed planning goals are to:

- 1) Improve and maintain watershed functions in Fairfax County, including water quality, habitat, and hydrology.
- 2) Protect human health, safety, and property by reducing stormwater impacts.
- 3) Involve stakeholders in the protection, maintenance and restoration of county watersheds.

The *Nichol Run and Pond Branch Watershed Management Plan* provides a plan of action to meet these goals by identifying watershed impairments, evaluating solutions for watershed restoration and preservation and involving a Watershed Advisory Group in plan development and project selection and prioritization.

## **Existing Watershed Conditions**

The Nichol Run watershed was divided into four watershed management areas for watershed assessment purposes. Watershed management areas, or WMAs, are smaller subdivisions of a watershed used for planning and management purposes and typically range from two to five square miles in size. The Nichol Run watershed was further broken down into 29 subwatersheds for more detailed analysis. Subwatersheds are the smallest watershed division used in this watershed management plan and range in size from 100 to 300 acres. The Pond Branch watershed was divided into four WMAs and 33 subwatersheds for watershed management purposes.

Land use within Nichol Run and Pond Branch watersheds is primarily residential in nature with open space dominating the subwatersheds along the Potomac River. Low residential densities and high forest cover dominate the watersheds. However, few of the Resource Protection Areas (RPAs) within Nichol Run and Pond Branch watersheds are preserved by the County as open space. Resource Protection Areas are protected buffer areas established along the perennial streams in Fairfax County under the Chesapeake Bay Preservation Ordinance to improve the quality of streams and waterways draining to the Chesapeake Bay.

The Fairfax County Stream Protection Strategy (SPS) program was completed in 2001 and included detailed biological and habitat data for six locations within Nichol Run and Pond Branch watersheds. All of the sites surveyed received ratings of good, with the exception of the Mine Run Branch in the Pond Branch Watershed which received a rating of excellent. The watersheds represent some of the least degraded systems in Fairfax County. The goal for these watersheds is to preserve biological integrity by taking active measures to identify and protect, as much as possible, the conditions responsible for the high quality of this area of the County.

Fairfax County conducted a stream physical assessment (SPA) in 2005 to obtain baseline data for the County's streams (CH2MHill, 2005). The streams were evaluated based on habitat conditions,



impacts to the stream from infrastructure and problem areas, general stream characteristics and geomorphic classification. The overall goal of the stream assessment program was to provide a consistent basis for protecting and restoring the receiving water systems and other natural resources in Fairfax County. Approximately 14 miles of stream were assessed in Nichol Run watershed and approximately 17 miles of stream were assessed in the Pond Branch watershed. Nichol Run was given a good overall habitat rating and Pond Branch was given fair overall ratings. Most of the streams in both Nichol Run watershed and Pond Branch watershed are classified as Stage 3 for stream morphology and show signs of active erosion. Stage 3 streams are the most unstable and typically exhibit steep banks, bank failures, channel widening and deepening.

Section 303(d) of the Clean Water Act requires a list of waters with impaired water quality for each state. Waters that are impaired due to human activities and pollutants require a total maximum daily load (TMDL) plan to restore their water quality. Once a TMDL is approved, a TMDL Implementation Plan is developed to restore impaired waters and maintain their improved water quality. A total of 0.9 miles of Mine Run Branch along the main stem and continuing downstream until the confluence with the Potomac River was listed as impaired for *Escherichia coli* bacteria (*E. coli*) in 2006.

## **Planning Process**

Additional field reconnaissance was conducted to update and supplement existing Fairfax County GIS data so current field conditions were accurately represented. The reconnaissance effort included the identification of pollution sources, current stormwater management practices and potential restoration opportunities across the various watersheds. There are 16 existing stormwater management facilities in the Nichol Run watershed; however, 85 percent of this area is untreated by any stormwater facilities. Correspondingly, there are 22 existing stormwater management facilities in the Pond Branch watershed, yet more than 90 percent of this area is without stormwater controls.

Successful management of a watershed requires the assessment of the interactions between pollutant sources, watershed stressors, and conditions within streams and other waterbodies. In addition to field reconnaissance and previous watershed assessments, water quality and water quantity modeling was conducted for existing and forecasted future conditions. The goal of watershed characterization is to identify existing and potential problem areas and evaluate subwatershed restoration and preservation opportunities.

A standardized method of subwatershed ranking was conducted as a means to provide a systematic method of compiling available water quality and natural resources information. Ranking subwatersheds based on watershed characterization and modeling results provides a tool for planners and managers to set priorities and identify candidate restoration and preservation areas.

Subwatershed ranking indicators were developed to assess the condition of the environment, as early-warning signals of changes in the environment, and to diagnose causes of ecological problems. The indicators used by Fairfax County may be grouped into the following categories:

- **Watershed Impact Indicators** – Measure the extent that reversal or prevention of a particular watershed impact, sought by the goals and objectives, has been achieved (“What’s there now, and how is it doing?”).
- **Source Indicators** – Quantify the presence of a potential stressor or pollutant source (“Is there a problem, and what’s causing it?”).
- **Programmatic Indicators** –After the plans are adopted, these will assess outcomes of resource protection and restoration activities (“What’s the County doing about the problem, and how is it doing?”).

Watershed impact indicators and source indicators were evaluated based on existing conditions. Future condition metrics and scores were also evaluated for a sub-set of predictive indicators and reflect the simulated conditions at ultimate build-out based on the County’s Comprehensive Plan. The resulting scores from the existing condition and future without projects condition were used to rank subwatersheds according to their problems and needs and to assist with candidate project identification.

### **Watershed Restoration Strategies**

Priority subwatersheds were identified based on the results of final subwatershed ranking, priority restoration elements from the SPA, problem areas identified during subwatershed characterization and field reconnaissance and input from the Watershed Advisory Group (WAG). General subwatershed characteristics and impairments were recorded for each priority subwatershed. Sources of subwatershed impairments were identified where evident and improvement goals/strategies were developed for each priority subwatershed.

**Subwatershed improvement strategies** are intended to reduce stormwater impacts for subwatersheds. Subwatershed improvement strategies may include a variety of project types including new stormwater ponds, stormwater pond retrofits, low impact development retrofits, culvert retrofits, outfall improvements and area-wide drainage improvements. **Stream restoration strategies** are targeted to improve habitat, to promote stable stream geomorphology, and to reduce in-stream pollutants due to erosion. **Non-structural measures and preservation strategies** can provide significant benefits by improving the water quality of stormwater runoff, by reducing the quantity of stormwater runoff, by improving stream and riparian habitat and by mitigating the potential impacts of future development.

A universe of potential projects was compiled as a result of these efforts. Watershed advisory group (WAG) members reviewed proposed candidate projects and discussed overall project selection methods and the location and scope of individual proposed projects. Field visits to candidate sites were conducted for all potential candidate structural projects to determine feasibility and modify project scopes based on site conditions.

An initial feasibility analysis was conducted to reduce the initial list of candidate structural projects. Factors considered during the initial feasibility analysis included constraints identified during field reconnaissance, the size and scale of the projects, the location and distribution of projects within a subwatershed, existing stormwater treatment in the subwatershed, project

drainage area and specific WAG member comments. Candidate projects deemed viable were those which had few, if any, site constraints, would provide significant additional stormwater treatment to a subwatershed, and were considered to be of significant size and scope.

### **Project Prioritization**

Viable structural projects were prioritized and ranked according to a standardized method developed by Fairfax County in order to ensure that all projects across the County could be compared and ranked in a County-wide fashion. Structural projects were scored based on five factors:

1. Effect on watershed impact indicators
2. Effect on source indicators
3. Location within priority subwatersheds
4. Sequencing
5. Implementability

An initial ranking composite score was calculated for each project based on the weighted average of the five project scores described above. This score was used to determine the overall initial rank of each project.

In addition to the quantitative project prioritization method developed by the County, WAG member comments, evaluation of projects in water quality modeling, cost benefit analysis and best professional judgment were integrated into the final project scoring and ranking. The final ranking scores were used to determine the priority of each project for the implementation process.

The 36 projects ranked most beneficial comprise the 10-year “Priority” Implementation Plan. The remaining 34 projects make up the 11-25 year “Long-Term” Implementation Plan. The 10-year projects were further analyzed with water quality modeling and a detailed cost benefit analysis to refine the priority ranking within the 10-year implementation plan.

Project fact sheets were created for each of the 10-year projects and include basic information about the project location, a description of the project scope, project benefits, design considerations, itemized cost estimates and detailed project maps. Some projects contain multiple parts or sub-projects; these project “suites” are summarized and contained on a single project fact sheet.

### **Plan Costs and Benefits**

An integral element to evaluating the benefits of restoration strategies and projects is associated costs. Detailed cost estimates, as shown on the project fact sheets, were determined for structural projects in the 0-10 year implementation phase. The total cost of the 10-year implementation plan is \$9 million. Associated costs for structural projects in the 11-25 year implementation phase were roughly approximated based on the overall costs associated with similar projects in the 10 year implementation plan and are estimated at approximately \$4 million. Cost estimates were not calculated for non-structural projects, as they do not require traditional construction measures to be implemented and may be programmatic in nature. The 10-year implementation plan consists of

36 total structural projects. The 11-25 year implementation plan consists of 34 additional structural projects. There are 10 non-structural projects identified in the plan. The total cost for all structural projects in the plan is \$13 million.

Implementation of all projects and restoration strategies in the 10-year priority list will result in significant overall reductions in stormwater flows and pollutant loads with associated improvements to habitat and stream quality. Stormwater runoff volume from the 2-year and 10-year storm events would decrease by approximately 24 percent or 0.66 inches and 14 percent or 0.82 inches, respectively. The peak flow rates would also decrease by 34 percent, resulting in a reduction of 0.140 CFS per acre for the 2-year storm event, and 27 percent or 0.260 CFS per acre for the 10-year storm event. Total suspended solids would be reduced by 28 percent overall or 167 tons per year. Total nitrogen would be reduced by 5 percent or 1,113 pounds per year, and total phosphorus would be reduced by 9 percent or 290 pounds per year.

Implementation of all projects within the plan, including projects in the 25-year implementation plan will result in additional reductions in stormwater flows and pollutant loads. Total suspended solids would be reduced by 32 percent overall or 192 tons per year. Total nitrogen would be reduced by 8 percent or 1,714 pounds per year and total phosphorus would be reduced by 12 percent or 433 pounds per year.

The following provisions address the funding and implementation of projects and programs in Fairfax County watershed plans. These provisions as recommended by the Board were developed for the Popes Head Creek Watershed Management Plan in February 2006 and have been applied to the Sugarland Run and Horsepen Creek Watershed Management Plan:

- i. Projects and programs (both structural and non-structural) will first undergo appropriate review by County staff and the Board (please see iii below) prior to implementation. Board adoption of the Watershed Management Plan will not set into motion automatic implementation of projects, programs or initiatives that have not first been subject to sufficient scrutiny to ensure that the projects that are funded give the County the greatest environmental benefit for the cost.
- ii. Road projects not related to protection of streambeds or banks or water quality will not be funded out of the stormwater and watershed budget.
- iii. The Watershed Management Plan provides a conceptual master-list of structural capital projects and a list of potential non-structural projects for the watershed. Staff will, on a fiscal year basis, prepare and submit to the Board a detailed work plan to include a description of proposed projects and an explanation of their ranking, based on specific criteria. Criteria used to assemble this list will include, but are not limited to, cost-effectiveness as compared to alternative projects, a clear public benefit, a need to protect public or private lands from erosion or flooding, a need to meet a specific watershed or water quality goal and ability to be implemented within the same fiscal year that funding is provided. Staff also intends to track the progress of implementation and report back to the Board periodically.
- iv. Each project on the annual list of structural projects will be evaluated using basic value-engineering cost effectiveness principles before implementation and the

consideration of alternative structural and non-structural means for accomplishing the purposes of the project will be considered before implementation. This process will ensure the County's commitment to being a fiscally responsible public entity.

- v. Obstruction removal projects on private lands will be evaluated on a case-by-case basis for referral to the Zoning Administrator and/or County Attorney for action as public nuisances; and otherwise to determine appropriate cost-sharing by any parties responsible for the obstructions.

Stream restoration projects on private lands will be evaluated to determine means for cost-sharing by land owners directly responsible for degradation due to their land uses.

Table ES.1 provides a list of all projects in the 10-year implementation plan, the 25-year implementation plan and the non-structural projects.

<b>Table ES.1 Master Project List</b>				
<b>Priority Structural Projects (10 Year Implementation Plan)</b>				
<b>Project #</b>	<b>Project Type</b>	<b>WMA</b>	<b>Location</b>	<b>Cost</b>
NI9101	Stormwater Pond Retrofit	Nichol Run - Lower	Near the end of Jefferson Run Road	\$90,000.00
NI9106	Stormwater Pond Retrofit, BMP/LID	Nichol Run - Upper	Finger Lakes Estates Subdivision	\$260,000.00
NI9111	Stormwater Pond Retrofit	Nichol Run - Upper	Patrician Woods Subdivision, Patrician Woods Court & Springvale Road	\$210,000.00
NI9113	Culvert Retrofit	Nichol - Jefferson	Near Beach Mill Road & Pipestem	\$40,000.00
NI9118	Stormwater Pond Retrofit, BMP/LID	Nichol Run - Upper	Dogwood Farm Section 2 Subdivision	\$230,000.00
NI9119	Stormwater Pond Retrofit, Stream Restoration	Nichol Run - Upper	Near Falls Pointe Drive cul-de-sac	\$330,000.00
NI9201	Stream Restoration	Nichol Run - Upper	Woodleaf Subdivision	\$100,000.00
NI9202	Stream Restoration	Nichol Run - Upper	Spring Valley Woods Subdivision	\$580,000.00
NI9401	Culvert Retrofit	Nichol Run - Upper	Down Patrick Farms Subdivision	\$160,000.00
PN9100	New Stormwater Pond, BMP/LID	Pond Branch - Clark	Riverside Manor Subdivision	\$170,000.00
PN9101	New Stormwater Pond	Pond Branch - Clark	Eaton Court & Eaton Park Road	\$80,000.00
PN9102	Stormwater Pond Retrofit	Pond Branch - Clark	Near River Bend Road & Oak Falls Court	\$130,000.00
PN9103	New Stormwater Pond, BMP/LID, Stream Restoration	Pond Branch - Clark	Fitz Folly Farms Subdivision	\$620,000.00
PN9104	Stormwater Pond Retrofit, BMP/LID	Pond Branch - Clark	Golden Woods Subdivision	\$200,000.00
PN9105	Stormwater Pond Retrofit, BMP/LID	Pond Branch - Clark	Morison Estate Subdivision	\$200,000.00
PN9108	New Stormwater Pond, BMP/LID	Pond Branch - Mine Run	Near northern Deerfield Court cul-de-sac	\$410,000.00

<b>Table ES.1 Master Project List</b>				
<b>Priority Structural Projects (10 Year Implementation Plan)</b>				
<b>Project #</b>	<b>Project Type</b>	<b>WMA</b>	<b>Location</b>	<b>Cost</b>
PN9109	New Stormwater Pond, Stormwater Pond Retrofit, BMP/LID	Pond Branch - Mine Run	Deerfield Pond Subdivision	\$280,000.00
PN9110	BMP/LID, Education	Pond Branch - Mine Run	Great Falls Elementary School	\$90,000.00
PN9111	New Stormwater Pond, Stormwater Pond Retrofit, Culvert Retrofit, Stream Restoration	Pond Branch - Mine Run	Marmota Farm Subdivision	\$830,000.00
PN9112	Stormwater Pond Retrofit	Pond Branch - Mine Run	Near Rossmore Court cul-de-sac	\$240,000.00
PN9113	New Stormwater Pond	Pond Branch - Mine Run	Arnon Lake Subdivision	\$100,000.00
PN9114	Stormwater Pond Retrofit, BMP/LID	Pond Branch - Mine Run	Arnon Ridge Subdivision	\$190,000.00
PN9116	Stormwater Pond Retrofit, Culvert Retrofit	Pond Branch	Near Beach Mill Road & Springvale Road	\$400,000.00
PN9117	New Stormwater Pond, Stormwater Pond Retrofit	Pond Branch - Mine Run	Monalaine Court & River Bend Road	\$360,000.00
PN9118	Stormwater Pond Retrofit, Culvert Retrofit	Pond Branch - Mine Run	Near River Bend Road & Hidden Springs Road	\$130,000.00
PN9119	Stormwater Pond Retrofit	Pond Branch - Mine Run	Fallswood Subdivision	\$100,000.00
PN9120	Stormwater Pond Retrofit	Pond Branch - Mine Run	Cornwell Farm Subdivision	\$150,000.00
PN9122	Stormwater Pond Retrofit, Stream Restoration	Pond Branch - Mine Run	Jackson Hills Subdivision	\$490,000.00
PN9123	Stormwater Pond Retrofit	Pond Branch	Near Bliss Lane & Commonage Drive	\$90,000.00
PN9124	Stormwater Pond Retrofit	Pond Branch - Mine Run	Jackson Hills Subdivision	\$80,000.00
PN9126	Stormwater Pond Retrofit	Pond Branch - Clark	Squire's Haven Section 2 Subdivision	\$250,000.00
PN9127	Stormwater Pond Retrofit, BMP/LID	Pond Branch - Clark	Eagon Hills & River Bend Estates Subdivision	\$340,000.00
PN9200	Stream Restoration	Pond Branch - Mine Run	Arnon Lake Subdivision	\$350,000.00
PN9201	Stream Restoration	Pond Branch	Riverbend Knolls Subdivision	\$160,000.00
PN9400	Culvert Retrofit	Pond Branch - Clark	Potomac Forest Subdivision	\$120,000.00
PN9408	Stream Restoration	Pond Branch - Clark	Fitz Folly Farms Subdivision & Riverside Manor Subdivision	\$510,000.00
<b>Total Cost:</b>				<b>\$9,070,000.00</b>

<b>Table ES.1 Master Project List</b>				
<b>Long Term Structural Projects (25 Year Implementation Plan)</b>				
<b>Project #</b>	<b>Project Type</b>	<b>WMA</b>	<b>Location</b>	
NI9100	New Stormwater Pond	Nichol Run - Lower	Near High Hill Court & Falcon Ridge Road	
NI9102	Stormwater Pond Retrofit	Nichol Run - Lower	Southdown Subdivision	

**Table ES.1 Master Project List**

NI9103	Stormwater Pond Retrofit	Nichol Run - Lower	Near Springvale Road & Allenwood Lane
NI9104	Stormwater Pond Retrofit	Nichol Run - Upper	Near Beach Mill Road & Springvale Road
NI9105	Stormwater Pond Retrofit	Nichol Run - Upper	Near Beach Mill Road & Springvale Road
NI9107	Stormwater Pond Retrofit	Nichol - Jefferson	Near Potowmack Street & Montpelier Road
NI9108	New Stormwater Pond	Nichol Run - Upper	Mulmary Subdivision
NI9109	Stormwater Pond Retrofit	Nichol - Jefferson	Near Montpelier Road & Potowmack Street
NI9110	Stormwater Pond Retrofit	Nichol Run - Upper	Near Creamcup Lane cul-de-sac
NI9112	New Stormwater Pond	Nichol - Jefferson	Near Richland Grove Drive & Donmore Drive
NI9115	Stormwater Pond Retrofit, BMP/LID	Nichol - Jefferson	Near Elmview Place & Seneca Knoll Drive
NI9116	Stormwater Pond Retrofit	Nichol Run - Upper	Near Woodland Falls Drive cul-de-sac
NI9117	Stormwater Pond Retrofit	Nichol Run - Upper	Green Branch Court & Utterback Store Road
NI9120	Stormwater Pond Retrofit, BMP/LID	Nichol Run - Upper	Near Farm Road & Utterback Store Road
NI9200	Stream Restoration	Nichol Run - Lower	Great Falls Hills Subdivision
NI9300	Culvert Retrofit	Nichol - Jefferson	Near Rich Meadow Drive & Richland Valley Drive
NI9301	Stream Restoration	Nichol - Jefferson	Richland Meadows Subdivision
NI9400	Culvert Retrofit	Nichol Run - Upper	Springvale Knolls Subdivision
NI9402	Culvert Retrofit	Nichol Run - Upper	Martin Redmon Subdivision
NI9403	Culvert Retrofit	Nichol Run - Upper	Ross F. Rogers Subdivision
NI9404	Stormwater Pond Retrofit, Culvert Retrofit	Nichol Run - Upper	Near Utterback Store Road & Wolfe Hill Lane
NI9405	BMP/LID	Nichol Run - Upper	Springvale Knolls Subdivision
NI9500	BMP/LID	Nichol Run - Lower	Near Patowmack Drive cul-de-sac
PN9106	Stormwater Pond Retrofit	Pond Branch - Potomac	Riverbend Subdivision
PN9107	Stormwater Pond Retrofit	Pond Branch - Potomac	St. Francis Episcopal Church
PN9121	Stormwater Pond Retrofit	Pond Branch - Mine Run	Jackson Hills Subdivision
PN9125	Stormwater Pond Retrofit, Culvert Retrofit	Pond Branch - Clark	Near Walker Road & Forest Brook Lane
PN9401	Culvert Retrofit	Pond Branch - Clark	Near Carrwood Road & Bell Drive
PN9402	Stream Restoration, Culvert Retrofit	Pond Branch - Clark	Near Potomac Ridge Road & Potomac Forest Drive
PN9403	Culvert Retrofit	Pond Branch - Potomac	Great Falls Heights Subdivision
PN9404	Culvert Retrofit	Pond Branch - Mine Run	Great Falls Park
PN9405	Culvert Retrofit	Pond Branch - Clark	Near Walker Road & Forest Brook Lane
PN9406	New Stormwater Pond	Pond Branch - Clark	Riverside Manor Subdivision
PN9407	Culvert Retrofit	Pond Branch	Near River Park Drive & River Park Lane

<b>Table ES.1 Master Project List</b>			
<b>Non-Structural Projects</b>			
<b>Project #</b>	<b>Project Type</b>	<b>WMA</b>	<b>Location</b>
NI9900	Buffer Restoration	Nichol - Jefferson	Patowmack Farm
NI9901	Conservation	Nichol Run - Lower	Riparian Areas in Lower Reaches of Nichol Run
NI9902	Buffer Restoration, Conservation	Nichol Run - Upper	Gas Line Easement between Patowmack Drive & Beach Mill Road
PN9900	Conservation, Buffer Restoration	Pond Branch	Riparian Areas along Headwaters of Pond Branch
PN9901	Rain Barrel Program	Pond Branch	Deepwoods Hollow, Riverbend Knolls, Riverbend Farm, Riverbend Farm Sec. 1, Merryelle Acres, Rector, & Falcon Ridge Subdivisions
PN9902	Conservation, Buffer Restoration	Pond Branch - Clark	Riparian Areas along Lower Reaches of Clarks Branch
PN9903	Rain Barrel Program	Pond Branch - Clark	Club View Ridge, Beach Mill Farms, Eagon Hills, Dogwood Hills, Riverbend Estates, Walker Hill Estates, & Arnon Meadow Subdivisions
PN9904	Conservation, Buffer Restoration	Pond Branch - Mine Run	Riparian Areas along Headwaters of Mine Run Branch
PN9905	Rain Barrel Program	Pond Branch - Mine Run	Jackson Hills, Great Falls Estates, Weant, Riverside Meadow, Potomac Meadows, Laylin Family Trust, John W. Hanes Jr. Gunnell's Run Farm, Arnon Ridge, River Bend Forest Sec. 2, Cornwell Farm, Marmota Farm, Deerfield Farm & Deerfield Pond Subdivisions
PN9906	Obstruction Removal	Pond Branch - Mine Run	Cornwell Farm Subdivision



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