



Cabin John Creek Profile

The Cabin John Creek watershed has a drainage of approximately 26 square miles. Its headwaters begin in the heart of Rockville, near the intersection of Route 355 and Route 28, and the stream flows south for 11 miles into the Potomac River. The watershed has been strongly affected by development that took place around the I-270/I-495 transportation corridors before environmental regulations for stream buffers and stormwater management were put in effect. As a result, there are few onsite stormwater runoff controls in Cabin John.

The mainstem and a portion of the western tributaries do receive some protection in the form of buffers established as part of the County's stream valley park system; however, this is not enough to protect the habitat quality and stream conditions within the park from the detrimental impacts that have resulted from unmitigated flows from highly impervious areas located upstream. Several regional stormwater ponds were put in place to control drainage from Montgomery Mall, the office parks at Democracy, and I-270. This treats only a fraction of the total impervious area in this watershed. Impacts within this watershed include accelerated stream channel down-cutting and widening, as evidenced by toppled trees and exposure of sewer lines originally buried 10-20 feet below the bottom of stream channels. In the 1998 Countywide Stream Protection Strategy, there were only three tributaries identified in the Cabin John watershed that maintained a good resource condition capable of supporting a diverse fish community.

The County is developing a detailed implementation plan for the Cabin John Creek watershed to meet its stormwater permit requirements and watershed restoration goals. The State has established regulatory loading limits for bacteria and is currently developing loading limits for sediment entering Cabin John Creek. This overview profile contains a series of maps and tables that provide basic watershed information to support a general understanding of existing watershed features, conditions, and restoration opportunities.

Table 1: Watershed Profile

	Acres	Percent of Watershed
Total Watershed Acres	16,022	100%
Impervious Cover	3,402	21%
Stream miles	71 miles	
Watershed Area Subject to County Permit ¹	11,880	74%
Impervious Cover Subject to County Permit ¹	2,422	20%
Forest Cover¹	1,471	12%
Pervious Cover (e.g., turf, meadow, farm fields)¹	7,987	67%

¹ Excluded areas include rural zoning, all MNCPPC parks, Federal and State property, and Federal and State roads



Description of Map 1: Cabin John Watershed Existing Conditions

This map includes the following information based on the County Geographic Information System database:

- Pervious cover – Forest, turf, meadow, farm fields
- Impervious cover
- Rivers and streams
- Existing Best Management Practices (BMPs) providing water quality treatment to the maximum extent practicable (MEP) and completed stream restoration sites
- Table of impervious surface and the existing level of control

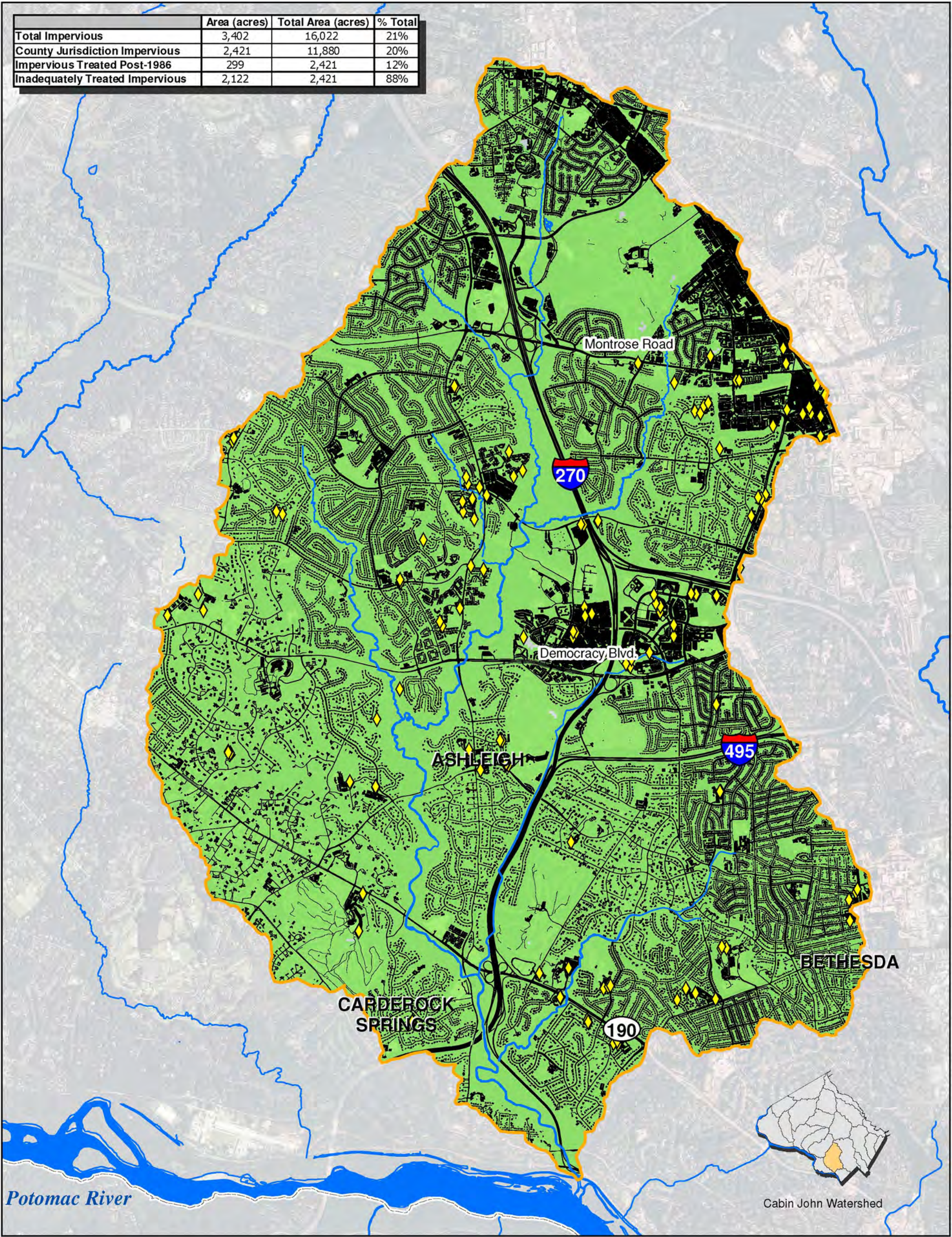
Description of Map 2: Cabin John Watershed Potential Restoration Opportunities

This map includes the location of the following potential restoration opportunities, compiled from previous watershed restoration studies, reviewed for inclusion to the County's Capital Improvement Program fiscal years 2011-2016, and potential future projects:

- Retrofits of existing stormwater management practices
- New proposed stormwater ponds or wetlands
- Potential Low-Impact Development (LID) opportunities
- Stream restoration candidate sites
- Summary table of the total number of potential sites

MAP 1. CABIN JOHN WATERSHED EXISTING CONDITIONS

	Area (acres)	Total Area (acres)	% Total
Total Impervious	3,402	16,022	21%
County Jurisdiction Impervious	2,421	11,880	20%
Impervious Treated Post-1986	299	2,421	12%
Inadequately Treated Impervious	2,122	2,421	88%

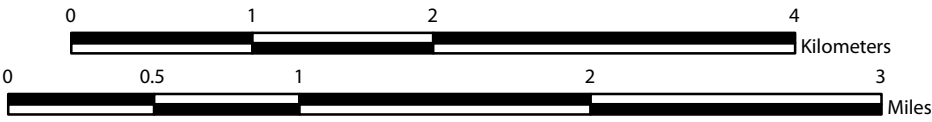
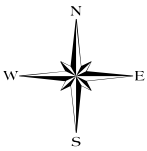


DRAFT

FEBRUARY 2010

Legend

- Existing Well-Performing Best Management Practices (151 sites)¹
- Streams
- Cabin John Watershed Boundary
- Pervious Surfaces
- Impervious Surfaces
- Montgomery County Boundary



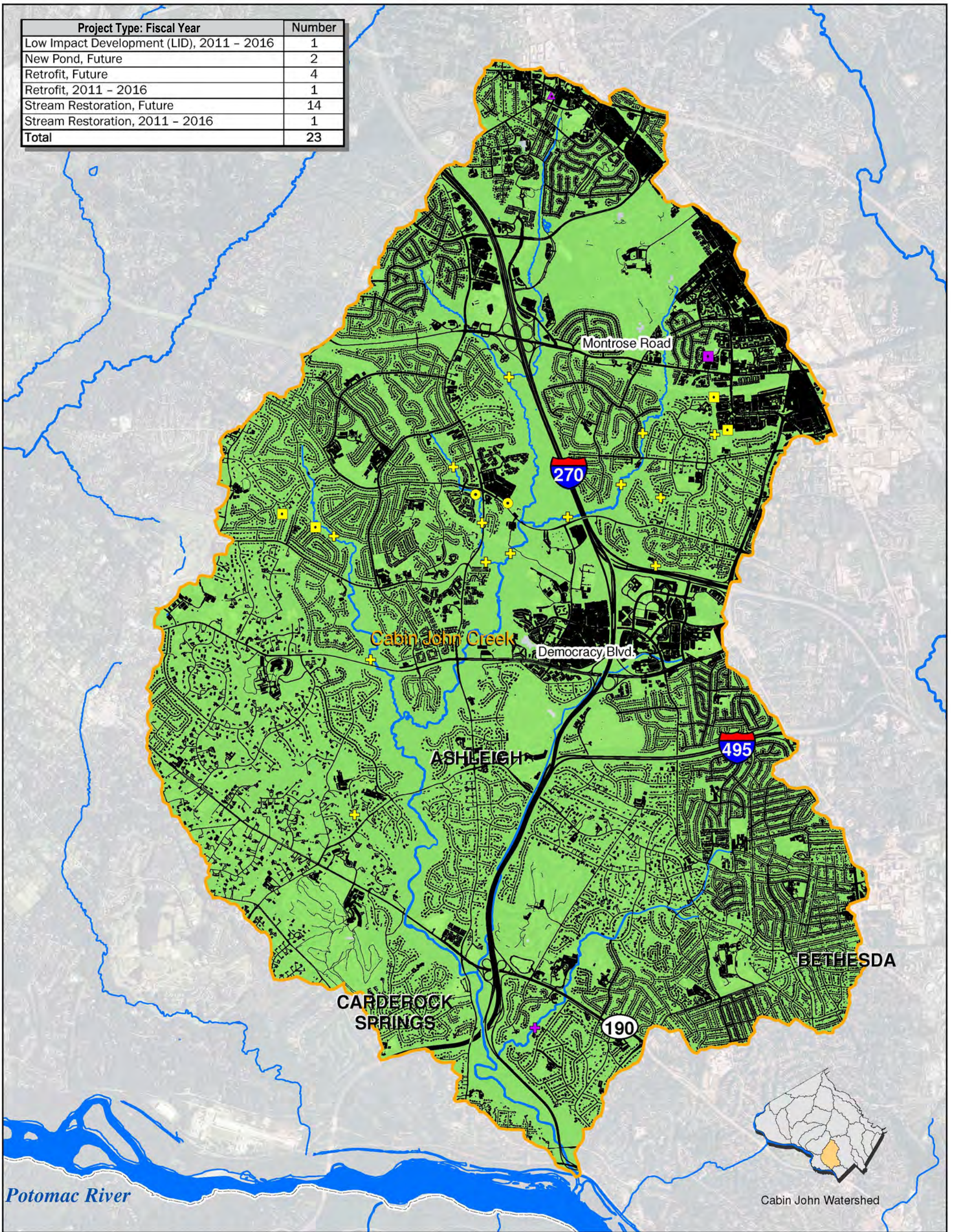
Location



1 Excludes rural zoning, all MNCPPC lands, Federal and State property, and Federal and State roads.

MAP 2. CABIN JOHN WATERSHED RESTORATION OPPORTUNITIES¹

Project Type: Fiscal Year	Number
Low Impact Development (LID), 2011 - 2016	1
New Pond, Future	2
Retrofit, Future	4
Retrofit, 2011 - 2016	1
Stream Restoration, Future	14
Stream Restoration, 2011 - 2016	1
Total	23



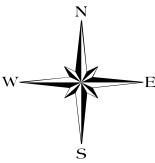
Legend

Restoration Opportunities

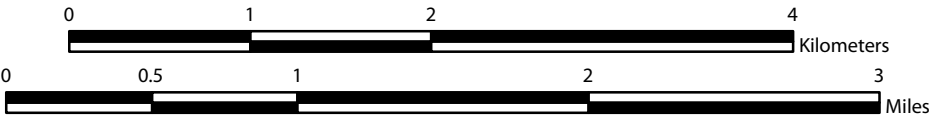
- ▲ Low Impact Development (LID), 2011 - 2016
- Pond, Future
- Retrofit, 2011 - 2016
- Retrofit, Future
- ✚ Stream Restoration, 2011 - 2016
- ✚ Stream Restoration, Future
- ~ Streams
- ▭ Cabin John Watershed Boundary
- Pervious Land Cover (forest, turf, meadow, farmfields)
- Impervious Surfaces
- ▭ Montgomery County Boundary

DRAFT

FEBRUARY 2010



Location



¹Excludes Rural Areas, all MNCPPC lands, Federal and State Property, and Federal and State Roads