

IV. Wetland Creation and Riparian Reforestation Opportunities

Like most urban watersheds, the Cabin John Creek study area has seen many of its former natural wetland and riparian forestland fragmented, modified and/or destroyed. The ecological importance and value of each of these inter-related systems is well-known. As part of its holistic watershed restoration approach, COG staff performed field surveys to identify both potential non-SWM wetland creation and riparian reforestation sites. The following sections summarize the major findings and recommendations of this effort.

A. Non-SWM Wetland Creation Opportunities

As the term implies, non-SWM wetland creation projects are those which are not specifically designed to provide SWM water quantity or quality controls. Rather, their intended primary purpose is to provide a diversity of wildlife habitat benefits and opportunities. Generally included among these is the provision of requisite, temporary (vernal) and/or permanent wet pool breeding habitat for a variety of native amphibian species.

Given the general scarcity of these habitats in the Cabin John Creek watershed, COG staff placed a high priority on identifying sites which could potentially expand upon and complement the existing wetland/wildlife habitat base. In an effort to meet this overall objective, the following site selection criteria were employed: 1.) the site should be located immediately adjacent to a wooded area, 2.) should ideally be within "colonizable" distance of an existing wetland area containing a diverse amphibian/wildlife population, 3.) should have a relatively reliable source of water and 4.) should be located in either a public or private open space area not dedicated to active recreational uses.

As seen in Figure 18, a total of five potential non-SWM wetland creation sites were identified and evaluated. All of the sites are: a.) within close proximity of an existing major wetland complex (present within the Cabin John Creek/Wootton Parkway area), b.) either part of, or adjacent to, existing riparian woodland and c.) located in existing parkland or private open space. While no actual geo-technical studies were performed, each of these floodplain-located sites appear to be within close proximity of the normal water table. As seen in Table 9, with the exception of proposed wetland creation site no. 4 (Tower Oaks no. 1), all of these COG recommended sites involve the excavation of relatively small, vernal pools. Vernal pools normally hold water long enough into the year, usually into late June or July, to allow most amphibians to complete their egg→larva→adult form metamorphosis. Also, most created vernal pools typically have a maximum wet pool depth of 12-24 inches. However, should adequate water supplies exist, the proposed vernal pools would in all likelihood remain wet throughout the year. Last, it should be noted that wetland creation site no. 4 is in the process of being converted into a wetland mitigation site by the Tower Oaks developer. As seen in Table 9, the estimated total cost for all five wetland creation projects is \$54,700.

Figure 18: Cabin John Creek: Proposed Non-SWM Wetland Creation Sites

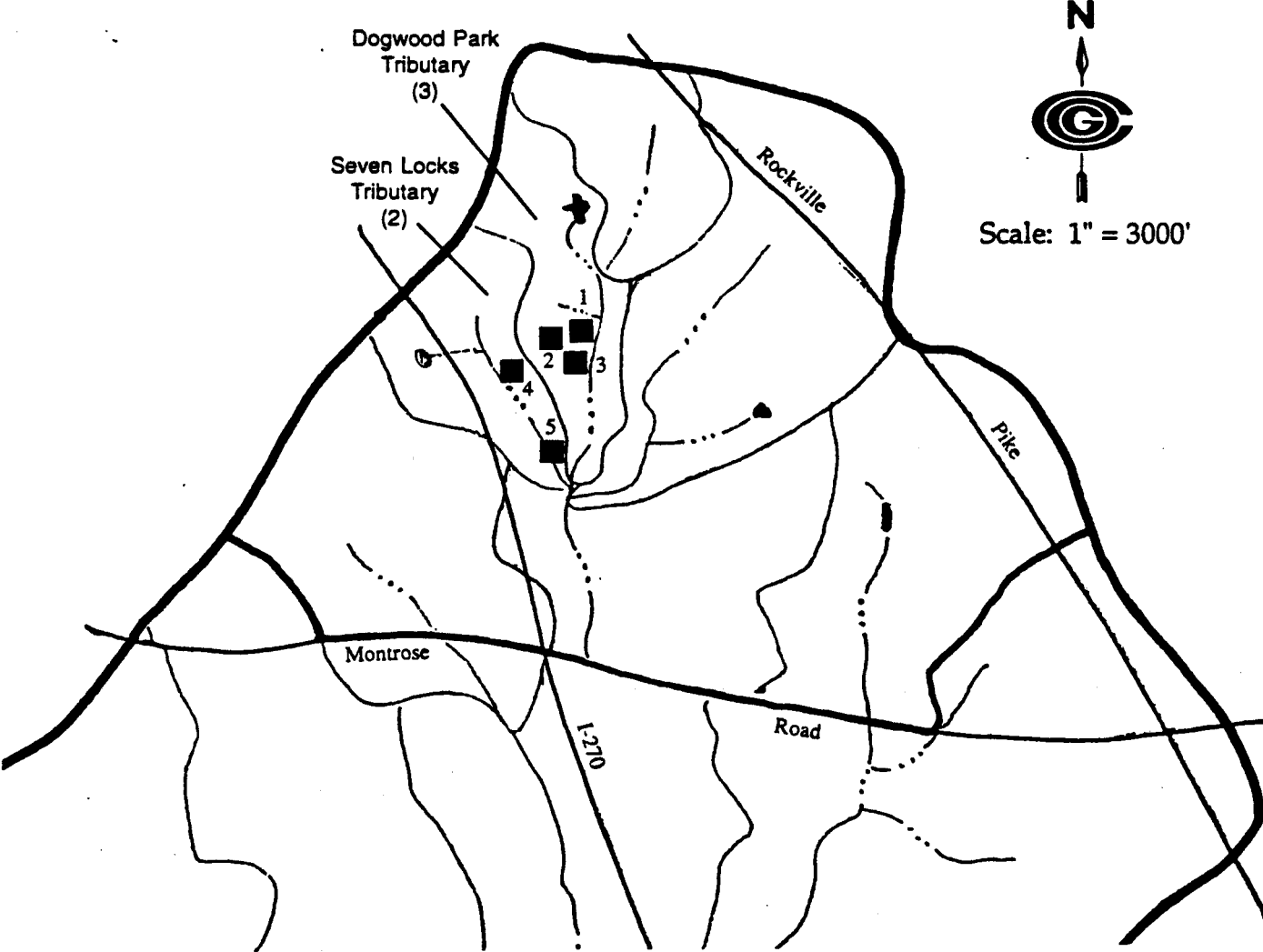


Table 9. Recommended Non-SWM Wetland Creation Areas

Stream	Location	Land Ownership	Preliminary Recommendation(s)	Wet pool Area Created (ac)	Wetland/Wildlife Habitat Value	Estimated Construction Cost (\$1000) 1/
1.	Cabin John Creek	Dogwood Park #1	Vernal Pool Creation	0.10	Moderate/High	15 K
2.	Cabin John Creek	Dogwood Park #2	Vernal Pool Creation	0.05	Moderate	4.5 K
3.	Cabin John Creek	Dogwood Park #3	Vernal Pool Creation	0.16	High	5.3 K
4. *	Seven Locks Trib.	Tower Oaks #1	Off-line Buttonbush Marsh Creation	0.82	High	26 K
5.	Seven Locks Trib.	Tower Oaks #2	Vernal Pool Creation	0.12	High	3.9 K
Total				1.25 ac		54.7 K

1/Construction costs also include landscaping

* Existing wetland mitigation site (Tower Oaks). Note, additional excavation and landscaping may also be required to meet MWCOG concept.

B. Recommended Riparian Reforestation Areas

During the course of its field surveys, COG staff encountered several stream reaches where shading (canopy coverage), riparian vegetation composition (e.g., woods, grass, shrubs or combinations thereof) and/or riparian buffer widths were inadequate for stream protection and/or wildlife habitat. As seen in both Figure 19 and Table 10, eight recommended riparian reforestation sites, comprising approximately 3.5 acres in total were identified. The largest of these, a 1500 foot long strip along the Cabin John Creek mainstem, is approximately 0.9 acres in size. Unfortunately, because of uncertainties dealing with desired plant material type, size and spacing density, site preparation needs and labor, no cost estimates were prepared. It is also COG staff's opinion, that several of the smaller identified sites would be excellent candidates for citizen-volunteer tree planting projects.

Figure 19: Cabin John Creek: Recommended Reforestation Areas

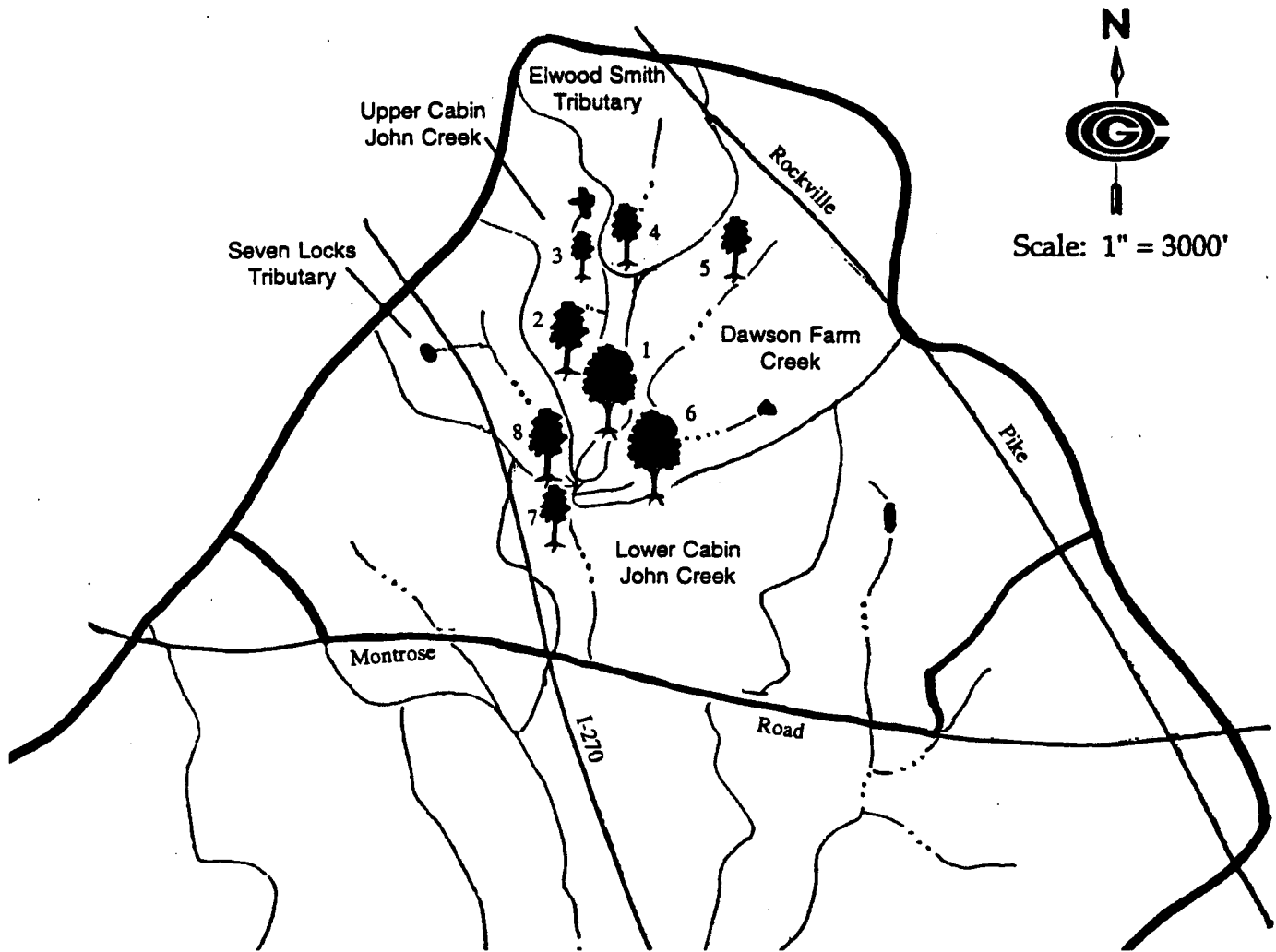


Table 10. Recommended Riparian Reforestation Sites

	Stream	Reach	Land Ownership	Approx. Stream Length (ft)	Reforestation Acreage (ac)
1.	Upper/Middle Cabin John Cr. Mainstem	Edmonston Dr. to Leverton Rd.	Public	1500	0.86
2.	Upper/Middle Cabin John Cr. Mainstem	Dogwood Park	Public	200	0.91
3.	Upper Cabin John Cr.	Elwood Smith Park	Public	500	0.29
4.	Elwood Park Trib. & Cabin John Cr.	Confluence Area	Public	200	0.17
5.	Upper Dawson Farm Cr.	Jefferson St. Area	Public	200	0.10
6.	Dawson Farm Cr.	Wootton Pkwy. Area	Private	800	0.36
7.	Middle Cabin John Cr.	Wootton Pkwy. Area	Private	200	0.50
8.	Seven Locks Trib.	Wootton Pkwy. Area	Private	400	0.28
		Total	4000 ft		3.47 ac

