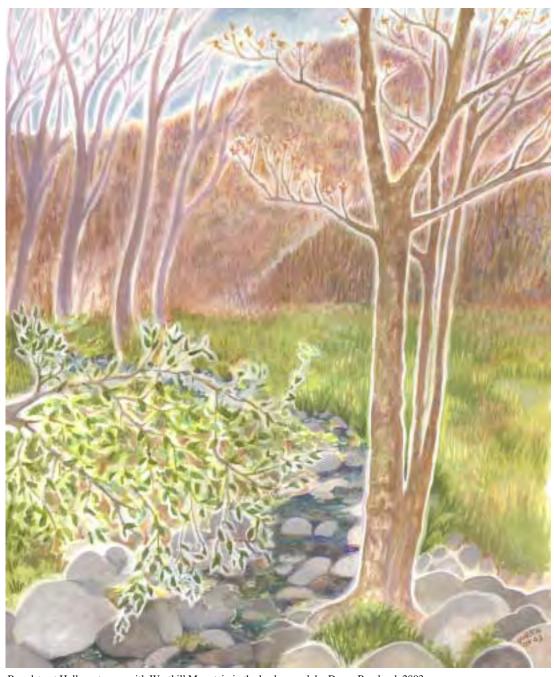
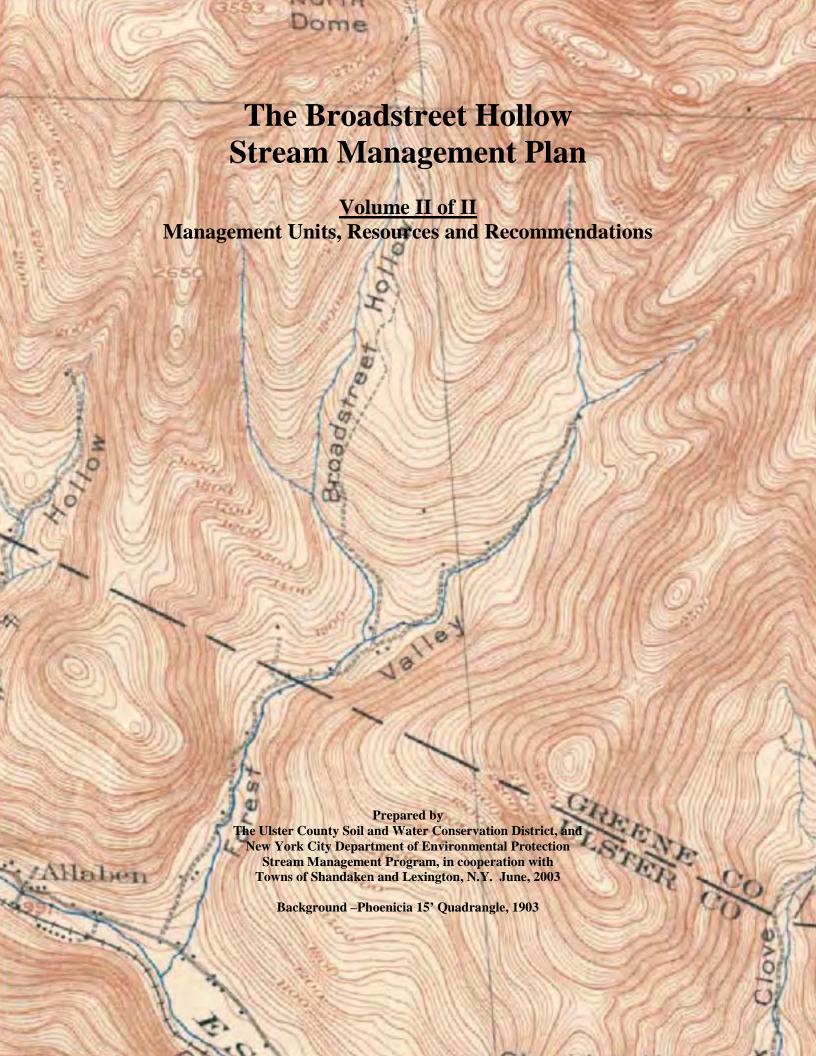
The Broadstreet Hollow Stream Management Plan

Volume II of II

Management Units, Resources and Recommendations



 $Broadstreet\ Hollow\ stream,\ with\ Westkill\ Mountain\ in\ the\ background,\ by\ Durga\ Bernhard,\ 2003$



i. Forward

We are proud to release Volumes I and II of the Broadstreet Hollow Stream Management Plan after years of effort and dedication by many hard working individuals who came together as a team.

Volume I offers the rich Broadstreet Hollow history, background and watershed description, and Volume II provides Management Units, resources and recommendations specifically tailored to the ongoing stewardship of the Broadstreet Hollow sub-basin.

This plan is not complete, as it is our hope that this plan grows and changes through the comments, input, concerns, suggestions and needs of the watershed community. Volume II, Section 2.3, *Amending and Updating the Plan* gives suggestions on how to incorporate these new ideas for the evolution of this Plan.

We hope that this Plan will serve as a reference and as a guide for many years to come!

Gary M. Capella Executive Director Ulster County Soil and Water Conservation District June, 2003

ii. Acknowledgments

This comprehensive endeavor has been enabled by the concentrated efforts of many people, some working as part of their day to day jobs, but many others entirely on a voluntary basis, over the past three years. We especially appreciate the efforts of Sarah Miller, NYC DEP and Lori Kerrigan, UCSWCD, who have overseen the field effort and the project coordination, and drafted many sections of this management plan. We wish to thank the Broadstreet Hollow Project Advisory Committee - a team of 30, including the Towns of Shandaken and Lexington and the Broadstreet Hollow Watershed Landowner's Association, who are identified in Section 2.0. We greatly appreciate the efforts of Christine Baltz who has served as liaison to and representative of the landowners to the PAC, SWCD and DEP, with co-representatives Debra Spivak and David Channon. We also wish to acknowledge the contributions of local artists, Mark McCarroll and Durga Bernhard whose efforts have personalized this management plan for the Broadstreet Hollow. Trout Unlimited volunteers have made significant contributions in managing and planting streamside vegetation over the years. We wish to recognize the contribution of the Ulster County Community College for providing interns to assist with field work, the staffs of the Ulster County SWCD and the DEP Stream Management Program who were called on to support their colleagues in a number of ways, and of course, we thank the Greene County SWCD for kicking off this management planning process with the successful restoration of Management Unit 3 in the upper watershed in 2000. This project would not have been possible without its funders, and we thank the NYC DEP Stream Management Program, the US Army Corps of Engineers under the Watershed Environmental Assistance Program, and Trout Unlimited. Finally, thanks to the UCSWCD Staff who negotiated and managed the four contracts needed to fund and facilitate this entire effort and help make the Broadstreet Hollow Stream Management Plan a reality.

	Broad. e 2003	street Hollow Stream Management Plan: Volume II Page #	
i.	Forw	ard1	
ii	. Ackn	owledgments2	
ii	i. Table	e of Contents3	
iv	v. List o	of Figures and Tables5	
1.0	Broa	dstreet Hollow Stream Management Units8	
	1.1	Management Unit 1	
	1.2	Management Unit 2	
	1.3	Management Unit 3	
	1.4	Management Unit 4	
	1.5	Management Unit 5	
	1.6	Management Unit 6	
	1.7	Management Unit 7	
	1.8	Management Unit 8	
	1.9	Management Unit 9	
	1.10	Management Unit 10	
	1.11	Management Unit 11	
	1.12	Management Unit 12	
	1.13	Management Unit 13	
	1.14	Management Unit 14	
	1.15	Management Unit 15	
	1.16	Management Unit 16	
	1.17	Management Unit 17	
	1.18	Management Unit 18	
	1.19	Management Unit 19	
	1.20	8	
	1.21	Public Infrastructure	
2.0	Stream Management Plan Recommendations150		
	2.1	Stream Stewardship Recommendations – Management Unit Summary 151 Tables	
	2.2	Watershed Management Recommendations	
	2.3	Amending and Undating the Plan	

2.4	List o	f Stream Related Activities and Permit Requirements193
2.5	Fundi	ng Sources and Agency Contacts199
3.0 Supporti	ng Doci	mentation and Appendices214
3.1 A	ppendi	ces
	3.1.1	Landowner's Guide - Landowner Maintenance Guide for the
		Restoration Demonstration Project
	3.1.2	List of Native Plants for Use in Riparian Buffers
	3.1.3	Useful Resources
	3.1.4	Operation and Maintenance of Broadstreet Hollow Demonstration
		Restoration Project
	3.1.5	Management Unit Workbooks
3.2 Gl	lossarv	of Terms280
0,2 0,2	Joseph J	Italicized words are defined within the glossary, at the end of each
		Volume.
		, 0 , 0 , 0 , 0 , 0 , 0 , 0 , 0 , 0 , 0

i.v. List of Figures and Tables

Figures by Section

1.0 Management Unit

Unit Maps	
MU-All	Broadstreet Hollow Watershed all Management Units (MU)
MU1	Broadstreet Hollow Management Unit 1
MU2	Broadstreet Hollow Management Unit 2
MU3	Broadstreet Hollow Management Unit 3
MU4	Broadstreet Hollow Management Unit 4
MU5	Broadstreet Hollow Management Unit 5
MU6	Broadstreet Hollow Management Unit 6
MU7	Broadstreet Hollow Management Unit 7
MU8	Broadstreet Hollow Management Unit 8
MU9	Broadstreet Hollow Management Unit 9
MU10	Broadstreet Hollow Management Unit 10
MU11	Broadstreet Hollow Management Unit 11
MU12	Broadstreet Hollow Management Unit 12
MU13	Broadstreet Hollow Management Unit 13
MU14	Broadstreet Hollow Management Unit 14
MU15	Broadstreet Hollow Management Unit 15
MU16	Broadstreet Hollow Management Unit 16
MU17	Broadstreet Hollow Management Unit 17
MU18	Broadstreet Hollow Management Unit 18
MU19	Broadstreet Hollow Management Unit 19
Figure 1.	Design Plan Drawings for Demonstration Restoration Project-MU3

2.0 Stream Management Plan Recomendations

- Figure 1. Final Score (BEHI x SNB x Area) for Monitoring Cross-sections,
 - mainstem Broadstreet Hollow, 2001
- Figure 2. Final Score for Monitoring Cross-sections by stable and unstable stream

types, mainstem Broadstreet Hollow, 2001.

Tables by Section

1.0 Management Units

Altered Banks Broadstreet Hollow

MU2 Table 1.

MU4 Table 1.

MU9 Table 1.

MU10 Table 1.

MU18 Table 1.

2.0 Stream Management Plan Recommendations

ream Managen	nent Plan Recommendations
Table 1.	Management Unit 1 Recommendations and Intervention Level
Table 2.	Management Unit 2 Recommendations and Intervention Level
Table 3.	Management Unit 3 Recommendations and Intervention Level
Table 4.	Management Unit 4 Recommendations and Intervention Level
Table 5.	Management Unit 5 Recommendations and Intervention Level
Table 6.	Management Unit 6 Recommendations and Intervention Level
Table 7.	Management Unit 7 Recommendations and Intervention Level
Table 8a.	Management Unit 8 (Downstream) Recommendations and Intervention
	Level
Table 8b.	Management Unit 8 (Upstream) Recommendations and Intervention Level
Table 9.	Management Unit 9 Recommendations and Intervention Level
Table 10.	Management Unit 10 Recommendations and Intervention Level
Table 11.	Management Unit 11 Recommendations and Intervention Level
Table 12.	Management Unit 12 Recommendations and Intervention Level
Table 13.	Management Unit 13 Recommendations and Intervention Level
Table 14.	Management Unit 14 Recommendations and Intervention Level
Table 15.	Management Unit 15 Recommendations and Intervention Level
Table 16.	Management Unit 16 Recommendations and Intervention Level
Table 17.	Management Unit 17 Recommendations and Intervention Level
Table 18.	Management Unit 18 Recommendations and Intervention Level
Table 19.	Management Unit 19 Recommendations and Intervention Level
Table 20.	Broadstreet Hollow Monitoring Cross Sections Prioritization – Summary
	by MCS #, No Prioritization
Table 21.	Broadstreet Hollow Monitoring Cross Sections Prioritization – Bank
	Location
Table 22.	Broadstreet Hollow Monitoring Cross Sections Prioritization – Final
	Score
Table 23.	Broadstreet Hollow Monitoring Cross Sections Prioritization – Stream
	Type
Table 24.	Broadstreet Hollow Monitoring Cross Sections Prioritization – NRCS
	Hazard Class
Table 25.	Broadstreet Hollow Monitoring Cross Sections Prioritization –
	Exposed Clay

2.5 Funding Sources and Agency ContactsTables 1-6 Funding Sources and Agency Contacts