

Ponds and Waterways Committee

Master Plan Appendix 5 – Environmental Studies

ENVIRONMENTAL STUDIES OF SUDBURY'S WATER RESOURCES

Inventory prepared by Susan Crane Sudbury Ponds and Waterways Committee July 7, 2006

Natural Resources Program of the Town of Sudbury, Phase I Study and Evaluation of Sites with Natural Resource Potentials, by Natural Resources Technical Team of Middlesex County, 10/71 [PB]

Sudbury Master Drain Plan, prepared for the Highway Commission by Weston and Sampson, 2/74 [PB]

Sudbury Open Space and Recreation Plan, 1978-1993 [PB]

Report on the Raymond Road Aquifer, H2O Engineering for the Sudbury Water Dist., 1/85 [PB]

Report Relative to the Water Needs and the Long Range Water Resource Plan, H2O Engineering for the Sudbury Water Dist., 3/86 [PB]

Town of Sudbury Trail Linkage Plan, Appendix to 1984-88 Open Space and Recreation Plan, dated 5/89 [PB]

MetroWest Water Supply Protection Study, Metropolitan Area Planning Council, 6/89 [PB]

Hop Brook Ponds System Study, Sudbury, MA, Prepared by Whitman & Howard, Inc., for Board of Health, Town of Sudbury, July 1989 [HBPA] [PB]

Study of Local Sources, prepared by Jonathan L. Yeo, MWRA, and Claudia N. Murray, Stone and Webster 1992 [SWD]

MWRA Study of Local Water Supply in Non-MWRA Supplied Communities, Stone & Webster, 1/16/92 [PB]

Report of the Land Use Priorities Committee, May 1992 [CC]

Well 5 Zone II Delineation, prepared by Edward T. T. Chiang, Ph. D., H2O Engineering , 1993 [SWD]

Report on Well No. 5 Zone II Delineation, Sudbury Water District, Aug. 1993 [PB]

2

¹ The following abbreviations are used to identify report locations: PB (Planning Board); CC (Conservation Commission); HBPA (Hop Brook Protection Association); and SWD (Sudbury Water District). The Board of Health has no additional documents, according to Bob Leupold.

In-stream Phosphorus Reduction and Restoration of the Hop Brook Ponds System, prepared by Stephen Meyer, Hop Brook Ponds Study Committee, Sudbury, MA, 1993 [HBPA]

Nitrogen Loading Analysis for Groundwater Supplies, prepared by Edward T. T. Chiang, Ph.D., H2O Engineering, 1993 and 1994 revision [SWD]

Reports on Nutrient Loading Analysis for Groundwater Supplies, H2O Engineering for the Sudbury Water Dist., 12/93, 5/94 [PB]

An Algae Harvesting System for the Hop Brook Protection Association, Inc., prepared by Tomas Matusaitis, Environmental Engineering Clinic, MIT, 1994 [HBPA]

Improving the Water Quality of the Hop Brook Watershed through Aggressive Algal Harvesting, July-August, 1994, prepared by John P. Gambino, Environmental Engineering Clinic, MIT 1994 [HBPA]

Report for Sudbury Water Dist. on Nitrogen Loading Analysis for Groundwater Supplies, prepared by H2O Engineering Consulting Assoc., 5/94 [PB]

Algae Harvesting Experiments Report on Grist Mill Pond, Sudbury, Massachusetts, prepared by Francis T. Lyons and Lael M. Meixsell, Hop Brook Protection Assn., Inc., June -August 1994 [HBPA]

A Natural History of the Hop Brook, prepared by Marilyn Novak, Hop Brook Ponds Study Committee, Sudbury, MA, November, 1994 [HBPA]

Shoreline Survey of Hop Brook, Sponsored by the Hop Brook Protection Association with the Sudbury Conservation Commission and under the auspices of the MA Riverways Program, fall 1994 and spring1995 [HBPA]

Nitrate Loading Analysis for Well 5, prepared by Edward T. T. Chiang, Ph. D., H2O Engineering, 1995 [SWD]

A Study of the Upper Sudbury River Watershed, prepared for MDC by CE Maguire, (investigation of water supply development), 1995 [PB]

Shoreline Survey Summary - State of the Hop Brook, 1994-1995, prepared by Karen Riggert, Supported by Hop Brook Protection Association, Inc., Sudbury Conservation Commission, Massachusetts Riverways, Adopt-A-Stream Program, June 26, 1995 [HBPA]

Middlesex County Massachusetts Interim Soil Survey Report, prepared by USDA Natural Resources Conservation Service, 7/95 [CC]

Rt. 20 Wastewater Disposal Options, 8/95 [PB]

Algae Harvesting Experiment on Grist Mill Pond, Sudbury, Massachusetts, prepared by Robert S. Egan, Hop Brook Protection Association, Inc., October 23, 1995 [HBPA]

Use of Barley Straw as an Algal Inhibitor to Improve Pond Water Quality, prepared by Edward Hermeno, Environmental Engineering Clinic, MIT, May 15, 1996 [HBPA]

Sudbury, Assabet & Concord Wild & Scenic River Study, DRAFT 9/96
[PB]

Nitrate Loading Analysis Well. No. 5, DEP letter to Sudbury Water Dist., 10/10/96 [PB]

Sudbury Open Space and Recreation Plan, 1997-2002 [PB]

Mechanical Harvesting to Control Algal Blooms of the Green Algae Hydrodictyon reticulatum, prepared by Rick Haywood, Hop Brook Protection Association, Inc., 1997 [HBPA]

Assessing the Role of Sediments as a Phosphorus Source in the Eutrophication of Ponds along Hop Brook, Sudbury, MA, prepared by Laurel Schaider, Environmental Engineering Clinic, MIT, 1997 [HBPA]

Pilot Plan for Phosphorus Removal from the Effluent of the Easterly Wastewater Treatment Plant in the City of Marlborough, MA, prepared by Barbara Keesler, MIT Plasma Science and Fusion Center and Micromag Corporation, Wayland, MA, September, 1997; and Notification of Test Results, Addendum to September, 1997 Report, prepared by Barbara Keesler, October 29,1997 [HBPA]

Marlboro/Sudbury Pilot Study Phosphorus Removal Project Update and Extension Proposal for the Marlboro Easterly Wastewater Treatment Plant by Ronald L.Lavigne PhD MPH, Principal Investigator, Department of Plant and Soil Sciences, University of Massachusettts, Amherst (this was the constructed wetlands study begun in 1995), February 1998 [HBPA]

Remediation Options for Elodea Dominated Ponds Along Hop Brook, MA, prepared by Weslynne Ashton, Environmental Clinic, Massachusetts Institute

of Technology, Final Report, Spring 1998 [HBPA]

Micromag Wastewater Treatment Phosphate Control Project Pilot Plant, June, 1998 [HBPA]

Test Report, by Ionel Wechsler and Peter G. Marston (results and discussion of the "Co-Mag Process" Pilot Plant demonstration series at the Marlborough,

Massachusetts Easterly Wastewater Treatment Plant during the period November1997 to June1998) [HBPA]

Problems and Solutions for Hop Brook, prepared by Tara Cargill, Wentworth Institute of Technology, 1999 [HBPA]

Effects of Phosphorus Contamination on Species Diversity in Hop Brook, prepared by Edward Cavallerano of Lincoln-Sudbury Regional High School, May 1999 [HBPA]

Aerial Photo Survey of Potential Vernal Pools in Middlesex County, prepared by Natural Heritage, Spring 2000 [CC]

Greenways Plan for the SuAsCo Watershed, by SVT, 4/00 [PB]

SuAsCo Biodiversity Protection and Stewardship Plan, by Frances Clark 8/00 [CC]

Nutrient Impact Evaluation of Hop Brook in Marlborough and Sudbury, MA, prepared by ENSR Corporation for the Commonwealth of Massachusetts DEP, October 2000 [HBPA]

Assessment of Wastewater Management Needs for the Route 20 Business District [DRAFT], prepared by Weston & Sampson, 4/01 [CC]

SuAsCo Watershed Archeological Inventory Project: Exploring the Cultural Resources of a Suburban Area, by Dr. Curtiss Hoffman and Adrienne Edwards, 2002 [PB]

Town of Sudbury Report of the Land Use Priorities Committee, 5/02 [PB]

SuAsCo Wild & Scenic Rivers: Unprotected Land Inventory, SVT 1/03 [PB]

Town-wide map of drainage structures produced by the Sudbury Engineering Department, May 2003 [CC]

Town-wide inventory of drainage structures (on CD) produced by the Sudbury Engineering Department, May 2003 [CC] Phase II Storm Water Management Program, included in the Sudbury Conservation Commission's Annual Report, July 30, 2003 [CC]

Bio Map and Living Waters: Core Habitats of Sudbury, prepared by Natural Heritage and Endangered Species Program, 2004 [CC]

Supplemental Nutrient Loading Evaluation of Hop Brook (Draft), by ENSR, prepared for MassDEP, April 2004 [HBPA]

Letter from Maureen Valente, Sudbury Town Manager, to the Mass. Bureau of Resource Protection and EPA, regarding the MS4 Phase II Storm Water Permit for the Town of Sudbury, April 24, 2004 [CC]

Town of Sudbury Master Plan, 6/3/04 [CC]

Hop Brook Protection Association 2004 Harvesting Report for Carding Mill Pond, HBPA Annual Report, 10/04 [HBPA]

Hydrogeological Site Investigation and Analysis, Town of Sudbury, prepared by Earthtech, 9/17/04 [PB]

SuAsCo River Project: Analysis of Existing Protection [DRAFT], 10/04 [CC]

Letter from Maureen Valente, Sudbury Town Manager, to the Mass. Bureau of Resource Protection and EPA, regarding the MS4 Phase II Storm Water Permit for the Town of Sudbury, April 28, 2005 [CC]

2005 Harvesting Report for Carding Mill Pond, HBPA Annual Report, prepared by Hop Brook Protection Association 10/05 [HBPA]

Letter from Maureen Valente, Sudbury Town Manager, to the Mass. Bureau of Resource Protection and EPA, regarding the MS4 Phase II Storm Water Permit for the Town of Sudbury, April 28, 2006 [CC]

<u>Undated</u>:

Numerous maps, set #193, showing surface waters and groundwater favorability [PB]