Appendix A: Public Engagement Plan

**Butternut Creek Watershed Engagement Plan**

**Plan Overview**

In June 2019, the Otsego County Conservation Association ("OCCA"), in partnership with the New York State Department of Environmental Conservation ("DEC"), began the development of the Butternut Creek Watershed Management Plan ("BCWMP"). Located in western Otsego County, the Butternut Creek watershed spans approximately 130 square miles across 11 municipalities. The watershed is home to an estimated 4,500 people.[1] On August 23 2019, the DEC released its Final Phase III Watershed Implementation Plan (WIP). This document is intended to describe how New York State plans to meet its nutrient and sediment reduction targets established in the 2010 Chesapeake Bay Total Maximum Daily Load (TMDL). The purpose of the BCWMP is to develop a stakeholder-driven plan which effectively ties into the Phase III WIP while addressing matters related to water supply, flooding, recreation, and invasive species management.

In July 2019, OCCA formed the BCWMP Steering Committee ("Committee"). The Committee is comprised of the following organizations[2]:

- **Otsego County Conservation Association, Inc. (OCCA)-Lead Agency:** OCCA is a countywide environmental organization addressing a broad spectrum of basic environmental concerns. OCCA plays a key role in initiating and carrying out programs designed to improve or protect Otsego County's air, land, and water. Wide support from county residents enhances our ability to accomplish our mission. More information about OCCA can be found at: http://occainfo.org/

- **Otsego County Planning Department (OCPD):** The department is responsible for a wide array of functions including administration of housing and transportation grants, managing solid waste and recycling, GIS services, and administering economic development initiatives. More information about OCPD can be found at: https://www.otsegocounty.com/departments/planning_department/index.php

- **Otsego County Soil and Water Conservation District (SWCD):** The staff at Otsego Soil and Water Conservation District works with landowners, land managers, local government agencies, and other local entities in addressing a broad spectrum of resource concerns: erosion control, flood prevention, water conservation and use, wetlands, ground water, water quality and quantity, non-point source pollution, forest land protection, wildlife, recreation, wastewater management and community development. More

[1] This data were prepared using ArcGIS. Census data were gathered from the U.S. Census Bureau

[2] Additional organizations and/or agencies can be added to the Committee on an as-needed basis.

information about SWCD can be found at: https://www.otsegosoilandwater.com/.

- **New York State Department of Environmental Conservation (DEC):** The DEC's mission is to conserve, improve and protect New York's natural resources and environment and to prevent, abate and control water, land and air pollution. In order to enhance the health, safety and welfare of the people of the state and their overall economic and social well-being. More information about the DEC can be found at: http://www.dec.ny.gov/.

- **Otsego Land Trust (OLT):** Otsego Land Trust conserves our natural heritage of woodlands, farmlands, and waters that sustain rural communities, promote public health, support wildlife diversity, and inspire the human spirit. More information about OLT can be found at: http://www.otsegolandtrust.org/

- **Butternut Valley Alliance (BVA):** The Butternut Valley Alliance is a 501(c)(3) organization. Its mission is to protect and conserve the environmental qualities, farming, economic development and cultural heritage in the Butternut Creek watershed. More information about the BVA can be found at: https://butternutvalleyalliance.org/content.aspx?page_id=0&club_id=791986.

The Committee has elected to utilize a horizontal governance structure to ensure consensus-driven decision making during the planning process. A horizontal governance structure trades a traditional hierarchical management structure and replaces it with a flat management structure. Horizontal governance prioritizes collaboration, coordination, shared responsibility for decisions and outcomes, and a willingness to work through consensus. At this time, there has been discussion related to adding Otsego County Representatives serving the 11 municipalities within or adjacent to the Butternut Creek Watershed and members of the Otsego County Farm Bureau.

Moving forward, the planning process will involve five general steps: 1) Identifying stakeholders and engaging the public; 2) Gathering data and estimating pollution loads; 3) Assessing challenges within the Butternut Creek watershed and evaluating the capacity of local governments to address said challenges; 4) Identifying appropriate Best Management Practices ("BMPs") and prioritizing key projects throughout the watershed; and 5) Implementing the plan.

**Public Engagement Plan Overview**

Considering the geographic scope and diverse array of stakeholders living in the Butternut Creek Watershed, it is critical to develop a coordinated, inclusive Engagement Plan. An effective Engagement Plan can ensure that an adequate cross section of the population in the watershed is engaged, and can allow for public feedback to be tracked, analyzed, and incorporated into future planning documents. At the same time, Engagement Plans can be utilized to empower local citizens to participate in decision-making efforts related to the management of the Butternut Creek Watershed. More specifically, the Engagement Plan utilizes three guiding principles

which were derived from the City of Seattle's Inclusive Outreach and Public Engagement Guide[3]:

1. Enhance Relationships & Engagement - This principle recognizes the importance of establishing trust with the populations that the Committee is trying to serve. Creating trusting relationships, increasing accessibility to information, and providing diverse opportunities to become involved in the planning process, are key actions that will help ensure a long-lasting public engagement effort.

2. Enrich Knowledge Gathering - Establishing a strong connection with communities with respect to data gathering allows constituents to play a key role in determining relevance and appropriateness of organizational programming. Public engagement efforts should focus on a two-way delivery of information whereby the Committee shares vital information about the plan to the public, while receiving watershed-specific information from members of the public.

3. Embrace Organizational Change - For community engagement to be successful, organizations (and individuals who represent those organizations) must be open to organizational changes that are responsive to community insight and allow for shared power between communities and the organizations that serve them.

The goal of the Engagement Plan is to empower communities to make decisions for themselves, increase the capacity and potential of communities in the Butternut Creek valley to manage their watershed, and to improve the relationships between local and state agencies, community organizations, municipalities and the public while advancing regional, state and national goals for public good.

The public engagement strategies enumerated below are subject to change based on input from members of the Committee, the public, and other interested parties in the planning process. The Committee reserves the right to improve upon, add, or remove public engagement strategies to ensure the feasibility of the overall plan.

Publication of Materials

For the purposes of this project, plan-related documents (papers, reports, maps, etc.) will be located on a shared Google Drive folder until the Committee approves the distribution of said documents to the public. All partners and members of the Committee will have access to the Google Drive folder. Copies of plan documents can be provided via Compact Disc (CD) to individuals who lack high-speed internet. Final copies of plan documents are intended to be publicly distributed and posted by any interested party. OCCA and BVA will maintain pages on their respective websites dedicated to the Butternut Creek Watershed Management Plan.

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3 https://www.seattle.gov/Documents/Departments/ParksAndRecreation/Business/RFPs/Attachment5%20_InclusiveOutreachandPublicEngagement.pdf

When planning documents are released for public comment, the public shall be afforded 60-days to provide written comments to the Committee. The Committee shall provide hard-copy or CD-based versions of planning documents upon request. Publication of planning documents shall be listed on all partners' social media accounts. OCCA shall distribute notices of the release of planning documents in the official newspaper of record in the Butternut Creek Watershed.

Interested Groups/Plan Partners

The Committee is actively seeking organizations and/or individuals interested in participating the planning process. Currently, the Committee has identified several interested organizations who could provide valuable expertise throughout the planning process. These include:

- The Otsego County Agricultural and Farmland Protection Plan Implementation Committee
- The Otsego County Planning Department
- The Susquehanna River Basin Commission
- The New York Chapter of the Choose Clean Water Coalition
- The U.S. Department of Agriculture Natural Resources Conservation Service (NRCS)
- The U.S. Department of Agriculture Farm Services Agency
- The Otsego County Farm Bureau
- The United States Fish and Wildlife Service (USFWS)

The Committee will work with the BVA to identify and recruit interested parties. It is important to note that watershed planning expertise is not required to join the group.

Messaging

The Committee will endeavor to communicate matters related to the Butternut Creek Watershed Management Plan in a way that is: considerate of the audience being engaged by the Committee; inclusive of differing viewpoints and value systems; and is accessible by individuals with varying levels of education or familiarity with watershed management techniques.

The Committee recognizes that watershed management strategies require input from people of all walks of life. The Committee will focus on describing how the plan will benefit municipalities, businessowners, and residents of the watershed. When controversial matters are discussed such as land-use regulations, the Chesapeake Bay Total Maximum Daily Load, and the role of government in watershed management, the Committee will provide clear information geared toward achieving consensus whenever possible.

The Committee shall take a unified position when communicating about matters related to the plan. Information regarding outreach materials, public presentations, and plan-related feedback shall be circulated amongst the Committee whenever possible.

Public Engagement Tracking

OCCA and the Committee shall utilize sign-in sheets, Google and social media analytics, log all comments received on the plan to gather public engagement data. All data shall be stored on the Committee's shared Google Drive folder, with a collated version being included in the Plan

itself. Tracking both numerical and spatial data related to the Committee's public engagement efforts will allow for the Committee to continuously evaluate the efficacy of the Engagement Plan This data can also inform changes to the Committee's Engagement Plan should adjustments be deemed necessary and feasible.

Event-Based Outreach

Event-based outreach represents a key public engagement tool for the Butternut Creek Watershed Management Plan. OCCA plans on working with Committee members to establish a presence at events throughout the watershed. OCCA will rely on the BVA to identify community group leaders, social media outlets, and newspapers where community events are advertised. Through outreach conducted during the July 17 and August 14 Stakeholder meetings, the Committee became aware of several events including but not limited to:

- The Otsego County Fair
- Family Farm Day
- New Lisbon Fireman's Barbecue
- Town Lawn Sale Days
- Copes Corners Spring Fest
- OCCA Earth Festival
- BVA Harvest Festival

OCCA will work with the Committee to create outreach materials including but not limited to pamphlets, flyers, posters, maps, and infographics. These materials will be handed out to interested parties during community events.

OCCA will establish an event calendar which is intended to provide notice to the public when the Committee plans on attending community events. The calendar shall be located on the OCCA project-specific website. Community members are free to contact Committee members with information regarding events in the watershed at any time during the planning process.

Opportunities for Ongoing Research

OCCA will work with the Committee to establish regular lines of communication with higher education institutions like Hartwick College and the State College of New York (SUNY) at Oneonta. Numerous organizations in the Committee have internship opportunities that could be conducive to participation in the BCWMP. Given the nature of the semester system, worked performed by interns related to the BCWMP will be stored on a shared Google Drive folder. Work performed by interns could include but are not limited to: Geospatial Information Systems (GIS) analysis, plan development, primary research, secondary research (lit reviews), data analysis, and public outreach.

Social Media

Committee members can publish posts related to the BCWMP on their respective organizational website at their discretion. Any feedback received by a Committee member via social media channels shall be shared amongst the Committee to ensure that it is recorded. The Committee

should decide whether to use hashtags or other grouping mechanism to help interested parties access plan-related social media posts. Periodically, the Committee shall post the link to the plan-specific website on relevant social media channels (Instagram, Facebook, Twitter, etc.) to assist newcomers to the planning process. Special attention must be paid not to share confidential information or draft documents that have not been approved for release.

Advisory Committee

The Committee will actively seek and collaborate with individuals and/or professionals who possess specific areas of locational expertise that could aid with the planning process (GIS analysis, stream ecology, agricultural environmental management, etc.). During the data gathering and plan development phases of the BCWMP, the Committee will determine the need to create *ad hoc* advisory committees comprised of individuals/professionals in specific disciplines. The Advisory Committee shall provide input on specific plan-related items like the New York State Agricultural Environmental Management, the U.S. Department of Agriculture Natural Resources Conservation Services Conservation Reserve Enhancement Program, the US Fish and Wildlife Service, and stream ecology.

Trusted Advisors

OCCA will work with members of the BVA and the Committee to establish a relationship of trust within the Butternut Creek Valley. Watershed. OCCA recognizes that land-use management can be contentious topics to discuss with landowners, especially with "outsiders". Therefore, OCCA will rely on "trusted advisors"—individuals who have established relationships with key stakeholders to broker connections necessary for plan development/completion. These connections can be utilized to arrange public presentations, gather data, conduct stakeholder interviews, discuss issues and opportunities facing the Butternut Creek Watershed, and to resolve potential disagreements/conflicts related to the Plan itself.

Media Releases

OCCA will work with the Committee to prepare, vet, and coordinate media releases related to the BCWMP. Media releases will be distributed to OCCA's media listserv no more than 10 business days prior to a stakeholder meeting. OCCA will store all media coverage related to the Butternut Creek Watershed Management Plan in a shared Google Drive folder. Media releases shall be sent to the newspaper of record in each watershed municipality.

Decision-Making

The Committee shall make every effort to utilize a consensus-driven approach during each phase of the planning process. Decision making shall be informed by continuous public engagement and input. The public will have the opportunity to provide comments on the plan at set stages during the planning process. Decisions made by municipal entities such as adoption by the Otsego County Board of Representatives, for example, shall be posted on the project-specific website.

Website/FAQ and Comment Box

During the August 14 stakeholder meeting, it was recommended that OCCA post Frequently Asked Questions (FAQs) on the project-specific website. It was also suggested that OCCA create a comment box on the project website for interested parties to provide input on the plan. In response, OCCA's web content manager created a comment box for the BCWMP on September 13.

Surveys

Surveys represent a critical part of the planning process. If utilized correctly, surveys can gather a wide range of useful data ranging from demographic data to public perceptions of various best management practices commonly used in watershed management. For the purposes of the BCWMP, the Committee must evaluate several factors related to the feasibility of conducting a survey:

- Cost related to the preparation and distribution of the survey;
- Determining the adequate medium for delivering the survey (mail, phone, online, etc.);
- Obtaining an adequate sample size; and
- Reducing the presence of bias should surveys be utilized in the planning process.

Once the above-listed factors are evaluated, the Committee will decide whether to utilize a stakeholder survey during the data gathering phase of the plan.

Stakeholder Interviews

The Committee anticipates that stakeholder interviews will play a critical role in the data gathering and plan development phases of the BCWMP. OCCA will work with the Committee to identify, recruit, and interview interested parties during the data gathering phase of the planning process. The Committee will use trusted sources to establish connections with potential interviewees. For the purposes of the Plan, a trusted source refers to an individual who has a positive relationship with a target stakeholder. The Committee is conscious of the possibility that stakeholder interviews may be biased if there is a perception of mistrust between interviewers and interviewees. The Committee will work together to develop a list of interviewees. The rationale for selecting interviewees and the list shall be included in the BCWMP.

Targeted Landowner Outreach

During the August 14 Stakeholder Meeting, it was recommended that the Committee conduct targeted outreach to landowners with large acreages adjacent to the Butternut Creek. The Committee will evaluate the feasibility of sending postcards, mailers, or CD copies of plan documents to affected landowners. The Committee the number of landowners who live along the Butternut Creek and the associated cost of direct outreach strategies. The Committee will engage affected landowners via phone, letter, and, in some cases, one-on-one meetings. Landowners will be provided with flyers, contact information for Committee members, and plan documents as they become available.

Appendix B: Subwatersheds of the Butternut Creek Watershed

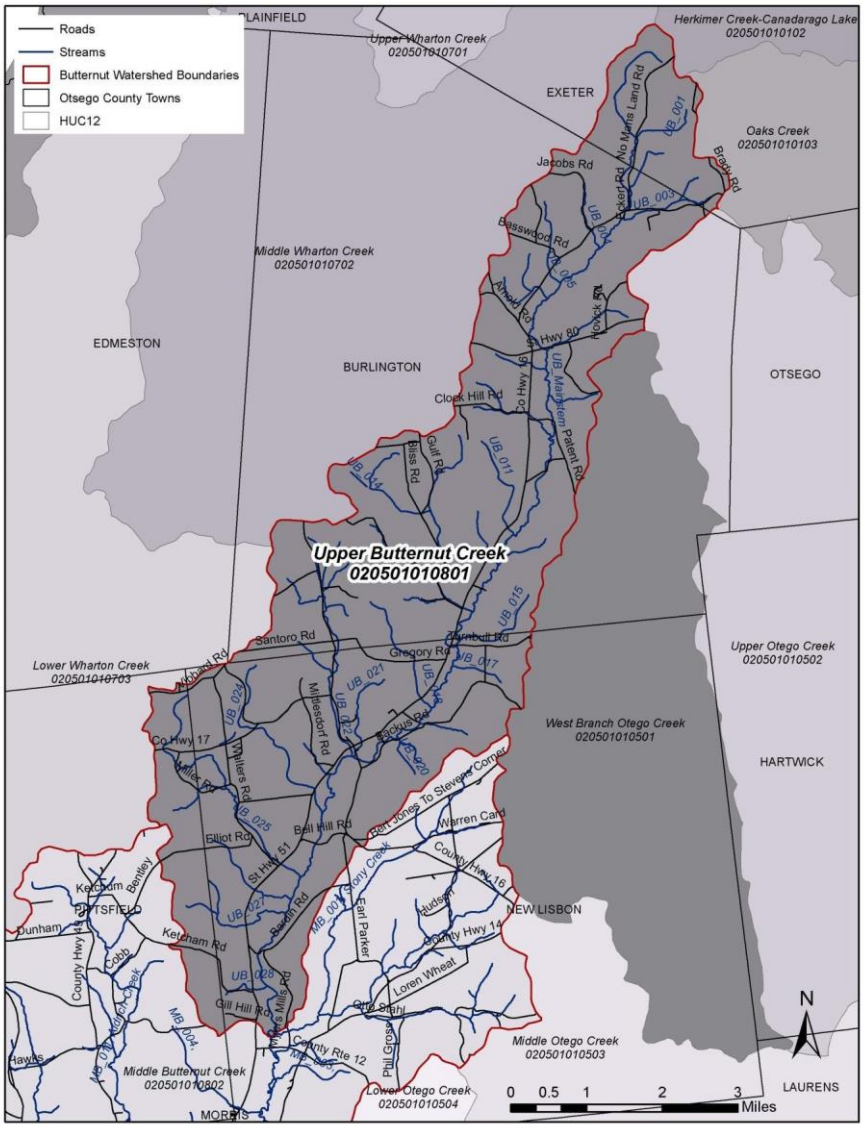



Figure 1. The Upper Butternut Creek Watershed, HUC-12# 020501010801.

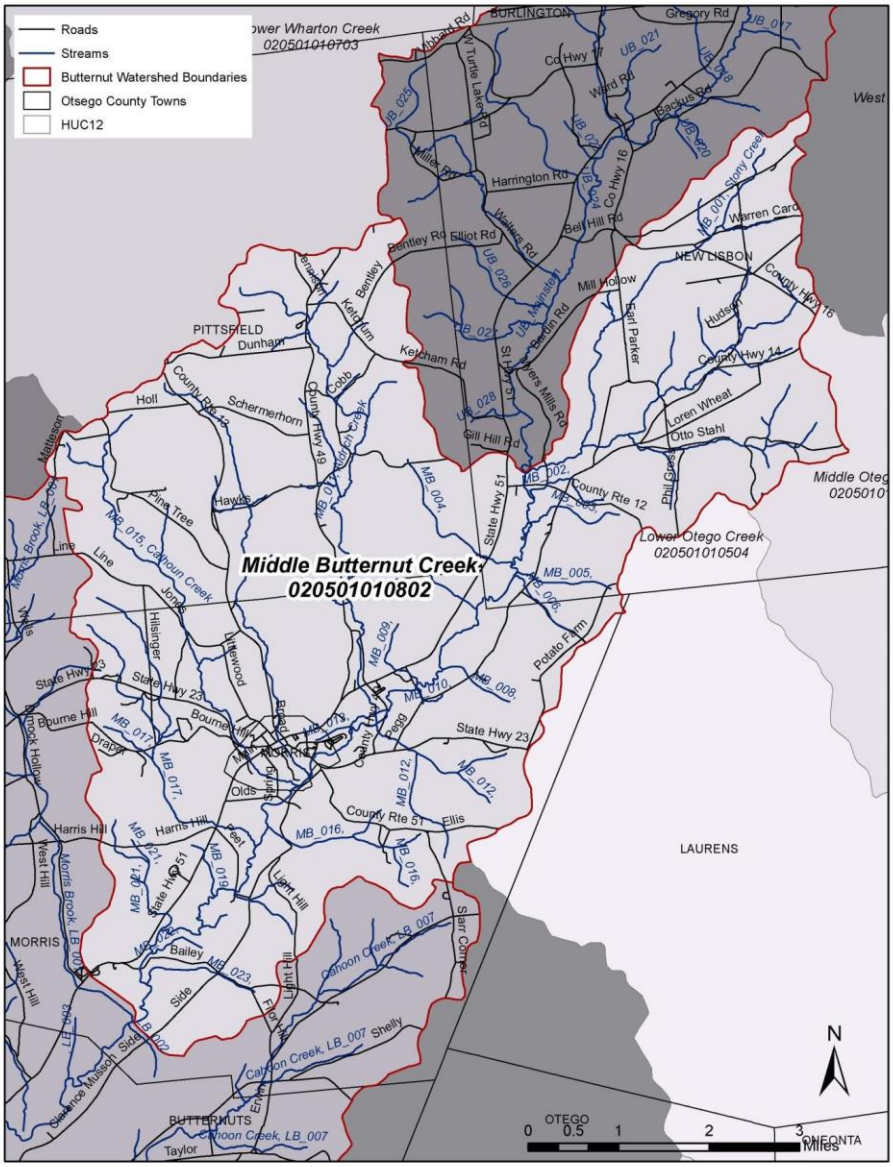



Figure 2. The Middle Butternut Creek Watershed, HUC-12# 020501010802.

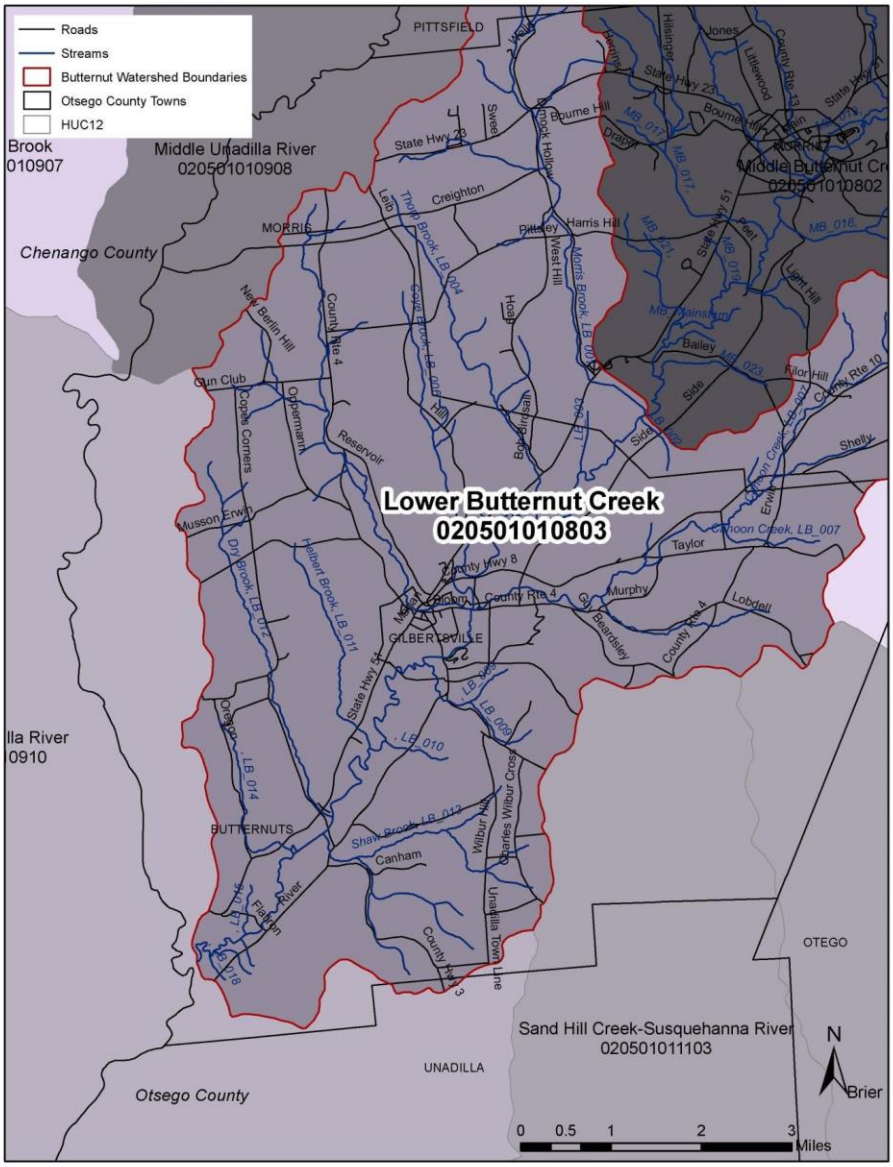



Figure 3. The Lower Butternut Creek Watershed, HUC-12# 020501010803.

Appendix C:  Landuse in the Butternut Creek Watershed

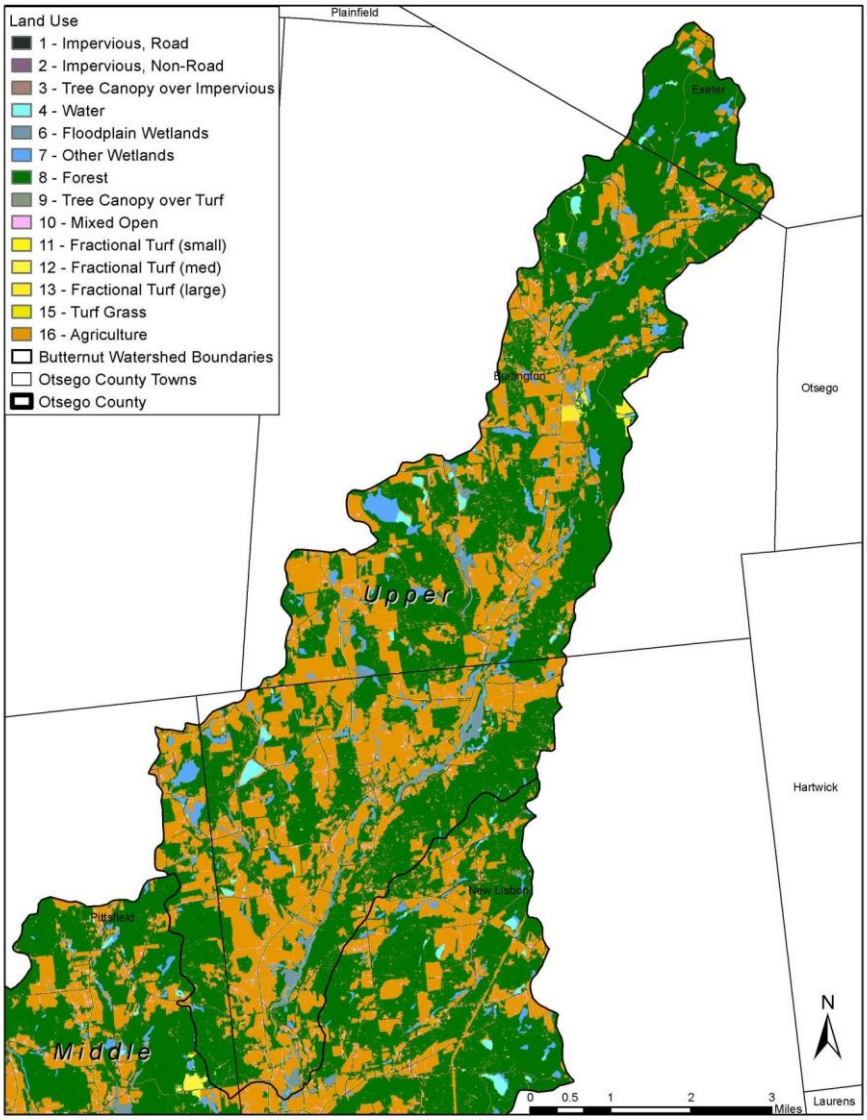



Figure 1. Land use classification in the Upper Butternut Creek Watershed (Chesapeake Conservancy 2016).

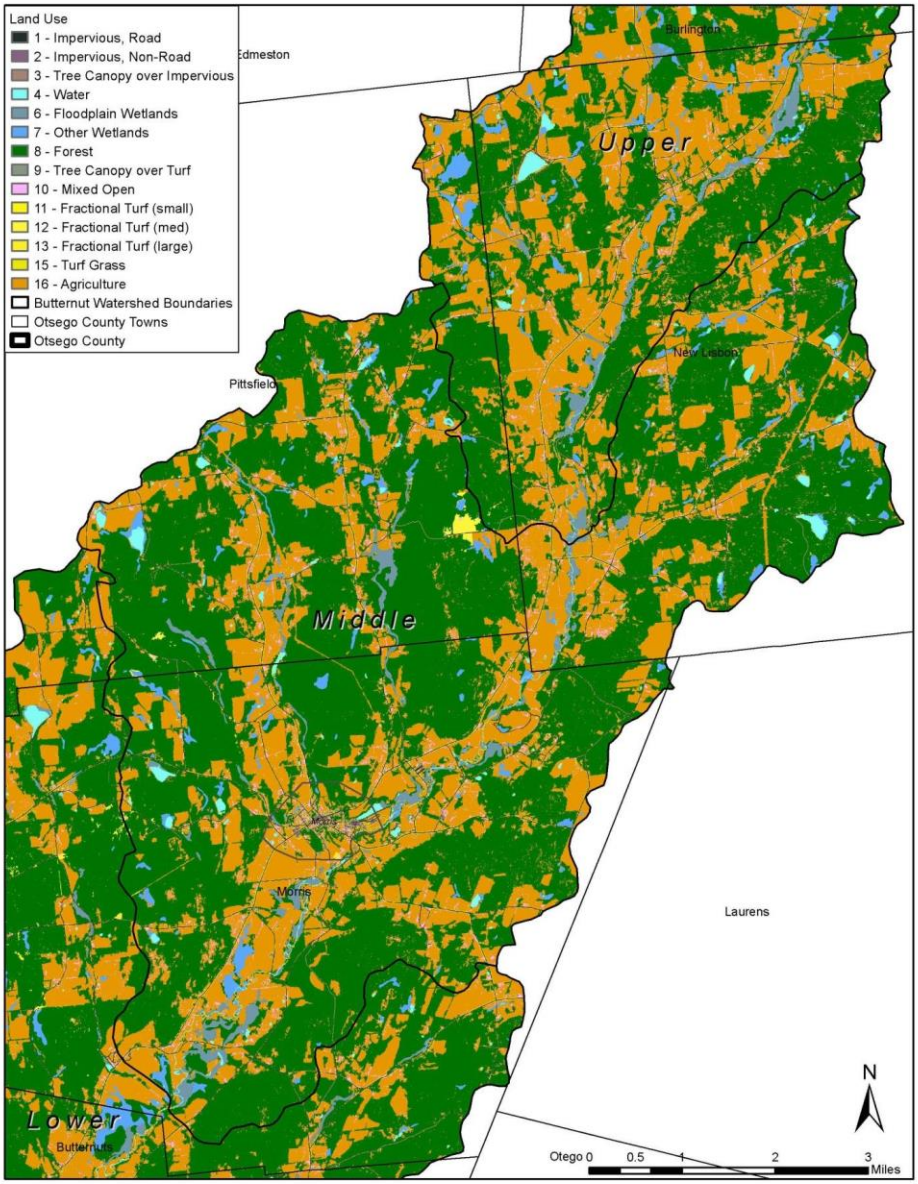



Figure 2. Land use classification in the Middle Butternut Creek Watershed (Chesapeake Conservancy 2016).

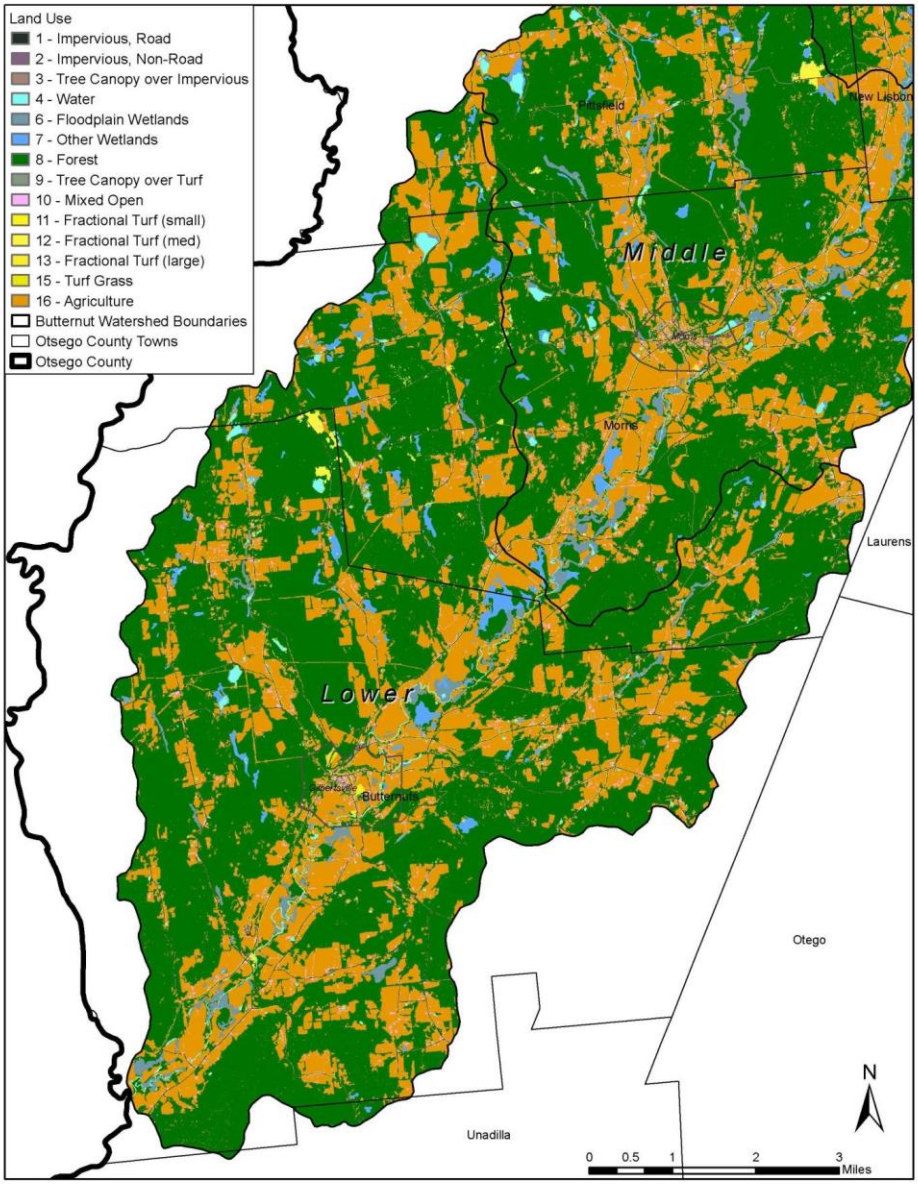



Figure 3. Land use classification in the Lower Butternut Creek Watershed (Chesapeake Conservancy)

Appendix E:  Protected Land in the Butternut Creek Watershed

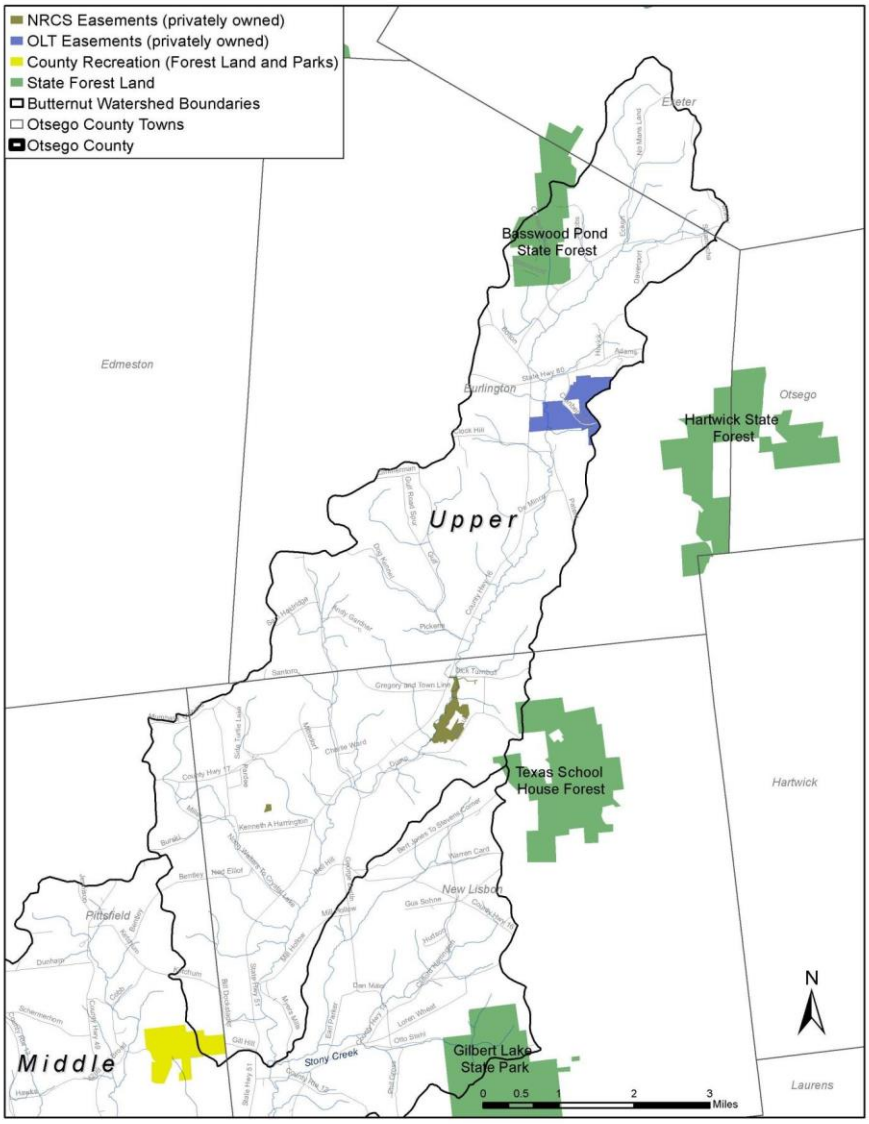



Figure 1. Protected land in the Upper Butternut Creek Watershed.

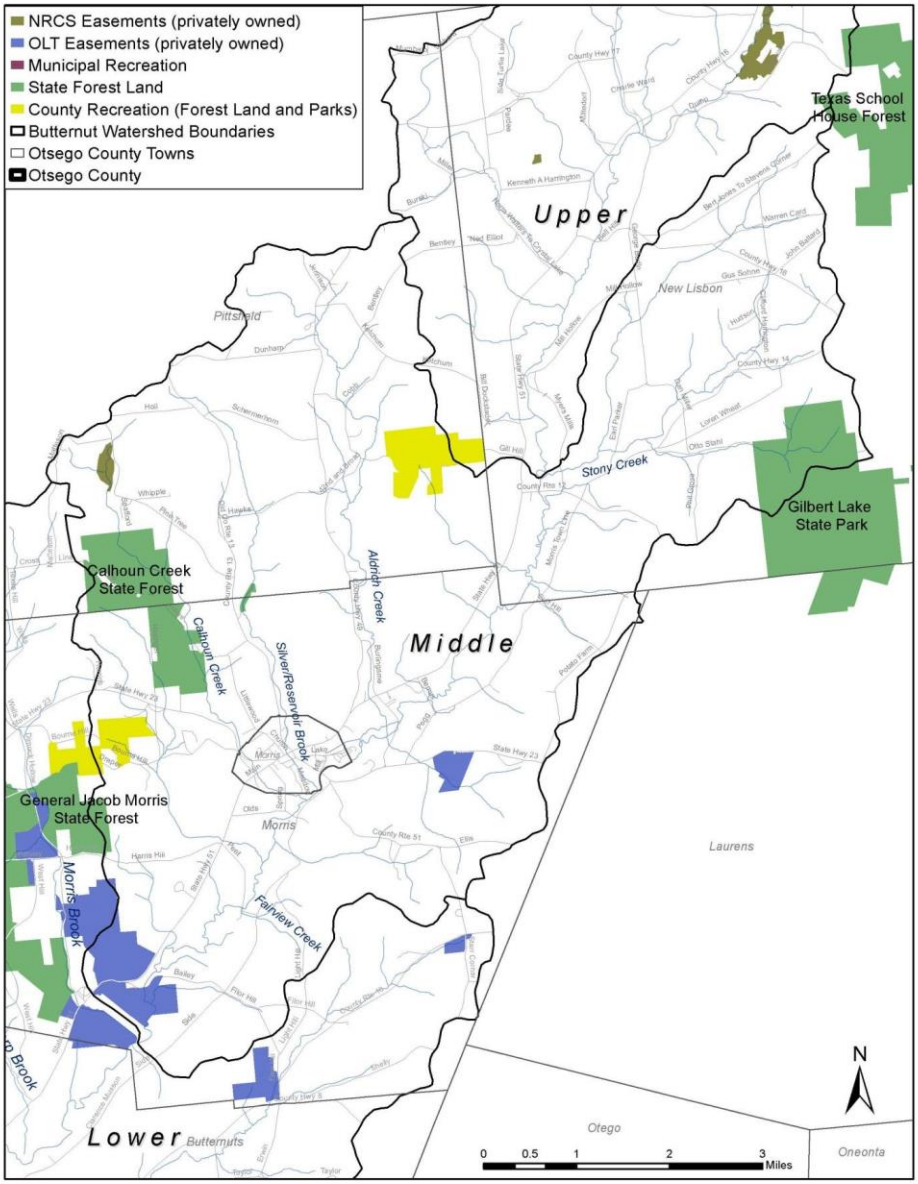



Figure 2. Protected land in the Middle Butternut Creek Watershed.

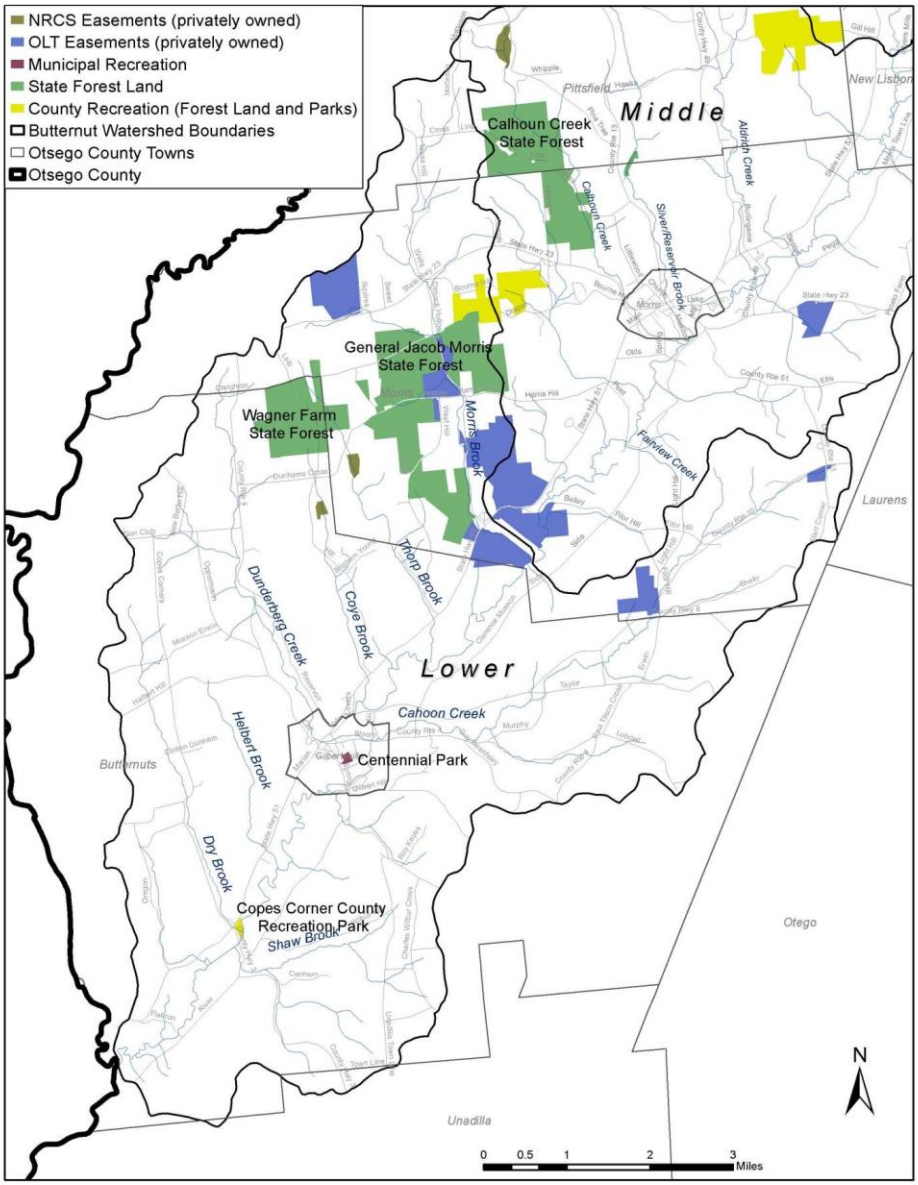



Figure 3. Protected land in the Lower Butternut Creek Watershed.

Appendix F: Soil Tables for the Butternut Creek Watershed

Commented [1]: Need to grab from separate Appendix D document - formatted landscape to accommodate size of tables

| Soil Type | Soil Description | Acres | | | Miles2 | | | Total Acres | Total Miles2 | Percent |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Lower | Middle | Upper | Lower | Middle | Upper | | | |
| MeC | Mardin channery silt loam, 8 to 15 percent slopes | 1,267.09 | 5,217.46 | 2,971.60 | 1.98 | 8.15 | 4.64 | 9,456.16 | 14.78 | 11.35% |
| MeB | Mardin channery silt loam, 3 to 8 percent slopes | 1,118.20 | 2,967.27 | 1,274.67 | 1.75 | 4.64 | 2.00 | 5,360.14 | 8.38 | 6.44% |
| VoB | Volusia silt loam, 3 to 8 percent slopes | 933.68 | 2,374.12 | 1,255.73 | 1.46 | 3.71 | 1.97 | 4,563.52 | 7.13 | 5.47% |
| BfD | Bath channery silt loam, 15 to 25 percent slopes | 731.67 | 1,604.39 | 1,176.69 | 1.15 | 2.51 | 1.84 | 3,512.75 | 5.50 | 4.22% |
| WlC | Wellsboro channery silt loam, 8 to 15 percent slopes | 3,345.56 | 97.14 | -- | 5.23 | 0.15 | -- | 3,442.70 | 5.38 | 4.13% |
| LpC | Lordstown-Chadakoin complex, 8 to 15 percent slopes | 778.16 | 1,607.92 | 601.22 | 1.22 | 2.51 | 0.94 | 2,987.30 | 4.67 | 3.59% |
| LpD | Lordstown-Chadakoin complex, 15 to 25 percent slopes | 648.03 | 1,219.56 | 737.82 | 1.01 | 1.91 | 1.15 | 2,605.42 | 4.08 | 3.13% |
| Cp | Chippewa and Norwich soils, 0 to 3 percent slopes | 1,092.17 | 601.80 | 598.73 | 1.71 | 0.94 | 0.94 | 2,292.69 | 3.59 | 2.75% |
| LoB | Lordstown-Arnot complex, 1 to 8 percent slopes, rocky | 444.41 | 1,114.19 | 572.85 | 0.70 | 1.74 | 0.90 | 2,131.44 | 3.33 | 2.56% |
| VoC | Volusia silt loam, 8 to 15 percent slopes | 232.82 | 1,352.77 | 502.58 | 0.36 | 2.11 | 0.79 | 2,088.16 | 3.26 | 2.51% |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| LrE | Lordstown, Chadakoin, and Manlius soils, 25 to 50 percent slopes, very rocky | 386.88 | 838.42 | 797.58 | 0.61 | 1.31 | 1.25 | 2,022.88 | 3.17 | 2.43% |
| WlB | Wellsboro channery silt loam, 3 to 8 percent slopes | 1,947.29 | 56.95 | -- | 3.04 | 0.09 | -- | 2,004.24 | 3.13 | 2.41% |
| OgD | Oquaga-Arnot complex, 15 to 25 percent slopes, rocky | 1,788.19 | 128.37 | -- | 2.79 | 0.20 | -- | 1,916.56 | 2.99 | 2.30% |
| BfC | Bath channery silt loam, 8 to 15 percent slopes | 361.70 | 807.34 | 414.98 | 0.57 | 1.26 | 0.65 | 1,584.02 | 2.48 | 1.90% |
| MoB | Morris channery silt loam, 2 to 8 percent slopes | 1,542.57 | 28.38 | -- | 2.41 | 0.04 | -- | 1,570.95 | 2.45 | 1.88% |
| LaD | Lackawanna channery silt loam, 15 to 25 percent slopes | 1,393.25 | 8.55 | -- | 2.18 | 0.01 | -- | 1,401.80 | 2.19 | 1.68% |
| BfE | Bath channery silt loam, 25 to 45 percent slopes | 51.12 | 918.33 | 386.60 | 0.08 | 1.44 | 0.61 | 1,356.05 | 2.12 | 1.63% |
| ChB | Chenango gravelly silt loam, 3 to 8 percent slopes | 395.12 | 525.69 | 374.93 | 0.62 | 0.82 | 0.59 | 1,295.74 | 2.02 | 1.55% |
| MeD | Mardin channery silt loam, 15 to 25 percent slopes | 25.53 | 809.10 | 460.48 | 0.04 | 1.27 | 0.72 | 1,295.11 | 2.02 | 1.55% |
| Fg | Fluvaquents-Udifluvents complex, frequently flooded | 429.46 | 414.67 | 435.90 | 0.67 | 0.65 | 0.68 | 1,280.03 | 2.00 | 1.54% |
| OgE | Oquaga-Arnot complex, 25 to 45 | 1,153.62 | 122.81 | -- | 1.80 | 0.19 | -- | 1,276.43 | 2.00 | 1.53% |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | percent slopes, rocky | | | | | | | | | |
| OgC | Oquaga-Arnot complex, 8 to 15 percent slopes, rocky | 1,062.57 | 87.95 | 8.40 | 1.66 | 0.14 | 0.01 | 1,158.91 | 1.81 | 1.39% |
| VaD | Valois gravelly loam, 15 to 25 percent slopes | 677.17 | 185.53 | 279.20 | 1.06 | 0.29 | 0.44 | 1,141.90 | 1.78 | 1.37% |
| OgB | Oquaga-Arnot complex, 1 to 8 percent slopes, rocky | 1,044.93 | 85.81 | -- | 1.63 | 0.13 | -- | 1,130.74 | 1.77 | 1.36% |
| VaC | Valois gravelly loam, 8 to 15 percent slopes | 410.45 | 200.45 | 485.77 | 0.64 | 0.31 | 0.76 | 1,096.68 | 1.71 | 1.32% |

*Table 4 continued*

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ChC | Chenango gravelly silt loam, 8 to 15 percent slopes | 299.06 | 302.02 | 424.08 | 0.47 | 0.47 | 0.67 | 1,025.16 | 1.61 | 1.24% |
| MmC | Mongaup-Franklinville complex, 8 to 15 percent slopes | 126.07 | 103.70 | 723.99 | 0.20 | 0.16 | 1.13 | 953.76 | 1.49 | 1.15% |
| WpC | Willdin channery silt loam, 8 to 15 percent slopes | 85.50 | 19.85 | 792.73 | 0.13 | 0.03 | 1.24 | 898.08 | 1.40 | 1.08% |
| Mm D | Mongaup-Franklinville complex, 15 to 25 percent slopes | 88.30 | 11.27 | 745.12 | 0.14 | 0.02 | 1.16 | 844.70 | 1.32 | 1.01% |
| CnB | Chenango channery loam, fan, 3 to 8 percent slopes | 405.83 | 193.07 | 174.01 | 0.64 | 0.30 | 0.27 | 772.90 | 1.21 | 0.93% |
| MnE | Mongaup-Hawksnest complex, 25 to 50 percent slopes, rocky | 65.30 | 14.94 | 661.66 | 0.10 | 0.02 | 1.03 | 741.90 | 1.16 | 0.89% |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| MnB | Mongaup-Hawksnest complex, 1 to 8 percent slopes, rocky | 166.06 | 105.94 | 451.49 | 0.26 | 0.17 | 0.71 | 723.49 | 1.13 | 0.87% |
| LaC | Lackawanna channery silt loam, 8 to 15 percent slopes | 634.68 | 74.17 | -- | 0.99 | 0.12 | -- | 708.85 | 1.11 | 0.85% |
| Wg | Wayland soils complex, 0 to 3 percent slopes, frequently flooded | 421.78 | 189.36 | 82.04 | 0.66 | 0.30 | 0.13 | 693.17 | 1.08 | 0.83% |
| OeB | Ontusia channery silt loam, 2 to 8 percent slopes | 41.89 | 65.58 | 482.81 | 0.07 | 0.10 | 0.76 | 590.28 | 0.92 | 0.71% |
| MoC | Morris channery silt loam, 8 to 15 percent slopes | 557.99 | 25.17 | -- | 0.87 | 0.04 | -- | 583.16 | 0.91 | 0.70% |
| BhE | Bath and Lackawanna soils, 15 to 35 percent slopes, extremely stony | 494.62 | 72.34 | -- | 0.77 | 0.11 | -- | 566.95 | 0.89 | 0.68% |
| VaB | Valois gravelly loam, 3 to 8 percent slopes | 187.60 | 140.95 | 237.84 | 0.30 | 0.22 | 0.37 | 566.38 | 0.89 | 0.68% |
| WpB | Willdin channery silt loam, 3 to 8 percent slopes | 44.58 | 99.55 | 385.28 | 0.07 | 0.16 | 0.60 | 529.40 | 0.83 | 0.64% |
| Ot | Otego silt loam | 181.44 | 284.61 | 54.49 | 0.28 | 0.44 | 0.09 | 520.54 | 0.81 | 0.62% |
| Wb | Wakeville silt loam | 196.78 | 170.09 | 151.54 | 0.31 | 0.27 | 0.24 | 518.40 | 0.81 | 0.62% |
| BfB | Bath channery silt loam, 3 to 8 percent slopes | 102.03 | 263.25 | 134.40 | 0.16 | 0.41 | 0.21 | 499.68 | 0.78 | 0.60% |
| WmC | Wellsboro and Mardin soils, 3 to 15 percent slopes, | 482.30 | 10.53 | -- | 0.75 | 0.02 | -- | 492.84 | 0.77 | 0.59% |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | extremely stony | | | | | | | | | |
| GrB | Greene-Tuller complex, 1 to 8 percent slopes | 225.97 | 160.34 | 73.09 | 0.35 | 0.25 | 0.12 | 459.40 | 0.72 | 0.55% |
| ChA | Chenango gravelly silt loam, 0 to 3 percent slopes | 107.88 | 263.43 | 79.81 | 0.17 | 0.41 | 0.12 | 451.11 | 0.71 | 0.54% |
| ChD | Chenango gravelly silt loam, 15 to 25 percent slopes | 223.39 | 87.60 | 130.80 | 0.35 | 0.14 | 0.20 | 441.80 | 0.69 | 0.53% |
| VaE | Valois gravelly loam, 25 to 35 percent slopes | 308.74 | 67.85 | 58.00 | 0.48 | 0.11 | 0.09 | 434.59 | 0.68 | 0.52% |
| Cb | Canandaigua silt loam | 151.60 | 77.64 | 189.78 | 0.24 | 0.12 | 0.30 | 419.01 | 0.65 | 0.50% |
| VlC | Vly channery silt loam, 8 to 15 percent slopes, rocky | 319.05 | 51.74 | -- | 0.50 | 0.08 | -- | 370.79 | 0.58 | 0.45% |
| WsB | Willowemoc channery silt loam, 3 to 8 percent slopes | 330.76 | 38.92 | -- | 0.52 | 0.06 | -- | 369.68 | 0.58 | 0.44% |
| Sa | Saprists and Aquents, inundated | 93.35 | 111.76 | 158.71 | 0.15 | 0.18 | 0.25 | 363.82 | 0.57 | 0.44% |
| MpC | Morris and Volusia soils, 3 to 15 percent slopes, extremely stony | 354.48 | -- | 4.85 | 0.55 | -- | 0.01 | 359.33 | 0.56 | 0.43% |
| Re | Red Hook silt loam | 168.73 | 67.92 | 114.92 | 0.26 | 0.11 | 0.18 | 351.57 | 0.55 | 0.42% |
| CnA | Chenango channery loam, fan, 0 to 3 percent slopes | 128.67 | 213.85 | -- | 0.20 | 0.33 | -- | 342.52 | 0.53 | 0.41% |

*Table 4 continued*

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| W | Water | 154.04 | 95.61 | 77.21 | 0.24 | 0.15 | 0.12 | 326.87 | 0.51 | 0.39% |
| ScB | Scio silt loam, 2 to 6 percent slopes | 236.95 | 41.25 | 16.38 | 0.37 | 0.06 | 0.03 | 294.58 | 0.46 | 0.35% |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| LfC | Lewbath channery silt loam, 8 to 15 percent slopes | -- | 3.22 | 288.58 | -- | 0.01 | 0.45 | 291.80 | 0.46 | 0.35% |
| VoA | Volusia silt loam, 0 to 3 percent slopes | 3.84 | 256.97 | 20.66 | 0.01 | 0.40 | 0.03 | 281.48 | 0.44 | 0.34% |
| VaF | Valois gravelly loam, 35 to 55 percent slopes | 226.17 | 48.35 | -- | 0.35 | 0.08 | -- | 274.52 | 0.43 | 0.33% |
| WsC | Willowemoc channery silt loam, 8 to 15 percent slopes | 269.99 | -- | -- | 0.42 | -- | -- | 269.99 | 0.42 | 0.32% |
| ScA | Scio silt loam, 0 to 2 percent slopes | 96.98 | 158.15 | -- | 0.15 | 0.25 | -- | 255.13 | 0.40 | 0.31% |
| Ra | Raynham silt loam | 113.34 | 125.63 | 9.30 | 0.18 | 0.20 | 0.02 | 248.26 | 0.39 | 0.30% |
| ClE | Chenango, Howard, and Tunkhannock soils, 25 to 50 percent slopes | 67.11 | 90.96 | 80.38 | 0.11 | 0.14 | 0.13 | 238.44 | 0.37 | 0.29% |
| TlB | Trestle-Deposit complex, 1 to 4 percent slopes | 140.34 | 66.11 | 16.06 | 0.22 | 0.10 | 0.03 | 222.52 | 0.35 | 0.27% |
| LaB | Lackawanna channery silt loam, 3 to 8 percent slopes | 214.59 | 5.97 | -- | 0.34 | 0.01 | -- | 220.56 | 0.35 | 0.26% |
| CfB | Castile channery silt loam, 3 to 8 percent slopes | 75.51 | 46.99 | 83.64 | 0.12 | 0.07 | 0.13 | 206.14 | 0.32 | 0.25% |
| CfA | Castile channery silt loam, 0 to 3 percent slopes | 47.13 | 136.49 | 21.99 | 0.07 | 0.21 | 0.03 | 205.61 | 0.32 | 0.25% |
| Pa | Palms muck | 57.99 | 78.89 | 46.82 | 0.09 | 0.12 | 0.07 | 183.69 | 0.29 | 0.22% |
| Np | Norchip channery silt loam, 0 to 3 percent slopes | 28.49 | -- | 151.13 | 0.05 | -- | 0.24 | 179.62 | 0.28 | 0.22% |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| VlD | Vly channery silt loam, 15 to 25 percent slopes, rocky | 149.15 | 28.48 | -- | 0.23 | 0.05 | -- | 177.63 | 0.28 | 0.21% |
| WlD | Wellsboro channery silt loam, 15 to 25 percent slopes | 175.48 | -- | -- | 0.27 | -- | -- | 175.48 | 0.27 | 0.21% |
| Cc | Canandaigua mucky silt loam | 39.00 | 70.60 | 64.23 | 0.06 | 0.11 | 0.10 | 173.84 | 0.27 | 0.21% |
| VlB | Vly channery silt loam, 1 to 8 percent slopes, rocky | 144.59 | 24.58 | -- | 0.23 | 0.04 | -- | 169.17 | 0.26 | 0.20% |
| Hb | Hamplain silt loam | 42.80 | 48.81 | 55.89 | 0.07 | 0.08 | 0.09 | 147.50 | 0.23 | 0.18% |
| Ce | Carlisle muck | 48.14 | 23.75 | 67.86 | 0.08 | 0.04 | 0.11 | 139.74 | 0.22 | 0.17% |
| LfD | Lewbath channery silt loam, 15 to 25 percent slopes | -- | 0.18 | 137.35 | -- | 0.00 | 0.22 | 137.53 | 0.22 | 0.17% |
| CsC | Conesus silt loam, 8 to 15 percent slopes | -- | -- | 134.07 | -- | -- | 0.21 | 134.07 | 0.21 | 0.16% |
| LfB | Lewbath channery silt loam, 3 to 8 percent slopes | 0.83 | 40.95 | 84.47 | 0.00 | 0.06 | 0.13 | 126.24 | 0.20 | 0.15% |
| OpD | Oquaga and Lordstown soils, 15 to 25 percent slopes, very rocky | 126.12 | -- | -- | 0.20 | -- | -- | 126.12 | 0.20 | 0.15% |
| OeC | Ontusia channery silt loam, 8 to 15 percent slopes | -- | -- | 118.75 | -- | -- | 0.19 | 118.75 | 0.19 | 0.14% |
| ThB | Torull-Gretor complex, 1 to 6 percent slopes | 57.50 | 11.08 | 38.46 | 0.09 | 0.02 | 0.06 | 107.04 | 0.17 | 0.13% |
| At | Atherton silt loam | 15.97 | 15.65 | 74.76 | 0.02 | 0.03 | 0.12 | 106.39 | 0.17 | 0.13% |
| LhC | Lewbeach channery silt loam, 8 to 15 percent slopes | 87.61 | 8.80 | -- | 0.14 | 0.01 | -- | 96.41 | 0.15 | 0.12% |

*Table 4 continued*

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Ad | Alden mucky silt loam | 34.66 | 29.76 | 23.52 | 0.05 | 0.05 | 0.04 | 87.94 | 0.14 | 0.11% |
| ObB | Onteora channery silt loam, 3 to 8 percent slopes | 73.90 | 13.03 | -- | 0.12 | 0.02 | -- | 86.92 | 0.14 | 0.11% |
| UnB | Unadilla silt loam, 2 to 6 percent slopes | 64.34 | 19.20 | -- | 0.10 | 0.03 | -- | 83.53 | 0.13 | 0.10% |
| LeD | Lansing silt loam, 15 to 25 percent slopes | -- | -- | 76.98 | -- | -- | 0.12 | 76.98 | 0.12 | 0.09% |
| TpC | Tunkhannock gravelly loam, 8 to 15 percent slopes | 73.63 | -- | -- | 0.12 | -- | -- | 73.63 | 0.12 | 0.09% |
| MaC | Manheim silt loam, 8 to 15 percent slopes | 6.55 | -- | 57.23 | 0.01 | -- | 0.09 | 63.78 | 0.10 | 0.08% |
| CsB | Conesus silt loam, 3 to 8 percent slopes | -- | -- | 63.07 | -- | -- | 0.10 | 63.07 | 0.10 | 0.07% |
| VlE | Vly channery silt loam, 25 to 45 percent slopes, rocky | 62.65 | -- | -- | 0.10 | -- | -- | 62.65 | 0.10 | 0.08% |
| Ly | Lyons soils, 0 to 3 percent slopes | -- | -- | 60.00 | -- | -- | 0.09 | 60.00 | 0.09 | 0.07% |
| Cr | Chippewa and Norwich soils, 0 to 3 percent slopes, very stony | 9.25 | -- | 45.92 | 0.01 | -- | 0.07 | 55.17 | 0.09 | 0.07% |
| LaE | Lackawanna channery silt loam, 25 to 35 percent slopes | 52.61 | -- | -- | 0.08 | -- | -- | 52.61 | 0.08 | 0.06% |
| UnA | Unadilla silt loam, 0 to 2 percent slopes | -- | 52.12 | -- | -- | 0.08 | -- | 52.12 | 0.08 | 0.06% |
| Ue | Udorthents, smoothed | 42.31 | 4.47 | -- | 0.07 | 0.01 | -- | 46.77 | 0.07 | 0.06% |
| MaB | Manheim silt loam, 3 to 8 percent slopes | -- | -- | 43.29 | -- | -- | 0.07 | 43.29 | 0.07 | 0.05% |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| TpB | Tunkhannock gravelly loam, 3 to 8 percent slopes | 31.80 | -- | -- | 0.05 | -- | -- | 31.80 | 0.05 | 0.04% |
| WpD | Willdin channery silt loam, 15 to 25 percent slopes | -- | -- | 27.96 | -- | -- | 0.04 | 27.96 | 0.04 | 0.03% |
| BhC | Bath and Lackawanna soils, 8 to 15 percent slopes, extremely stony | -- | -- | 26.20 | -- | -- | 0.04 | 26.20 | 0.04 | 0.03% |
| OpC | Oquaga and Lordstown soils, 8 to 15 percent slopes, very rocky | 25.05 | -- | -- | 0.04 | -- | -- | 25.05 | 0.04 | 0.03% |
| Pt | Pits, Gravel, and Sand | 10.78 | 9.80 | -- | 0.02 | 0.02 | -- | 20.57 | 0.03 | 0.02% |
| LfE | Lewbath channery silt loam, 25 to 35 percent slopes | -- | -- | 15.40 | -- | -- | 0.02 | 15.40 | 0.02 | 0.02% |
| LeC | Lansing silt loam, 8 to 15 percent slopes | -- | -- | 14.94 | -- | -- | 0.02 | 14.94 | 0.02 | 0.02% |
| ObC | Onteora channery silt loam, 8 to 15 percent slopes | 11.13 | -- | -- | 0.02 | -- | -- | 11.13 | 0.02 | 0.01% |
| HoE | Honeoye and Lansing soils, 25 to 50 percent slopes | -- | -- | 10.60 | -- | -- | 0.02 | 10.60 | 0.02 | 0.01% |
| WeB | Wassaic silt loam, 3 to 8 percent slopes | -- | -- | 9.62 | -- | -- | 0.02 | 9.62 | 0.02 | 0.01% |
| OpB | Oquaga and Lordstown soils, 1 to 8 percent slopes, very rocky | 6.73 | -- | -- | 0.01 | -- | -- | 6.73 | 0.01 | 0.01% |
| Ud | Udorthents, refuse substratum | -- | 4.79 | -- | -- | 0.01 | -- | 4.79 | 0.01 | 0.01% |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Total** | **33,381.04** | **28,223.00** | **21,709.89** | **52.17** | **44.10** | **33.95** | **83,313.93** | **130.21** | **100.00 %** |

Appendix G: Hydric Soils of the Butternut Creek Watershed

| Soil Type | Soil Description | Acres | | | Total Acres | Percent |
|---|---|---|---|---|---|---|
| | | Lower | Middle | Upper | | |
| Ad | Alden mucky silt loam | 34.65 | 29.76 | 23.52 | 87.94 | 0.01 |
| At | Atherton silt loam | 15.97 | 15.65 | 74.76 | 106.39 | 0.02 |
| Cb | Canandaigua silt loam | 151.60 | 77.64 | 189.78 | 419.01 | 0.07 |
| Cc | Canandaigua mucky silt loam | 39.00 | 70.60 | 64.23 | 173.84 | 0.03 |
| Ce | Carlisle muck | 48.14 | 23.75 | 67.86 | 139.74 | 0.02 |
| Cp | Chippewa and Norwich soils | 1,092.17 | 601.79 | 598.73 | 2,292.69 | 0.38 |
| Cr | Chippewa and Norwich soils, very stony | 9.25 | -- | 45.92 | 55.17 | 0.01 |
| Fg | Fluvaquents-Udifluvents complex, frequently flooded | 429.46 | 414.67 | 435.90 | 1,280.03 | 0.21 |
| Ly | Lyons silt loam | -- | -- | 60.00 | 60.00 | 0.01 |
| Np | Norchip channery silt loam | 28.49 | -- | 151.12 | 179.62 | 0.03 |
| Pa | Palms muck | 57.99 | 78.89 | 46.82 | 183.70 | 0.03 |
| Sa | Saprists and Aquents, inundated | 93.35 | 111.76 | 158.71 | 363.82 | 0.06 |
| Wg | Wayland silt loam | 421.77 | 189.36 | 82.04 | 693.17 | 0.11 |
| **Total** | | **2,421.84** | **1,613.87** | **1,999.38** | **6,035.10** | **1.00** |

Table 1. Hydric soils in the Butternut Creek Watershed.

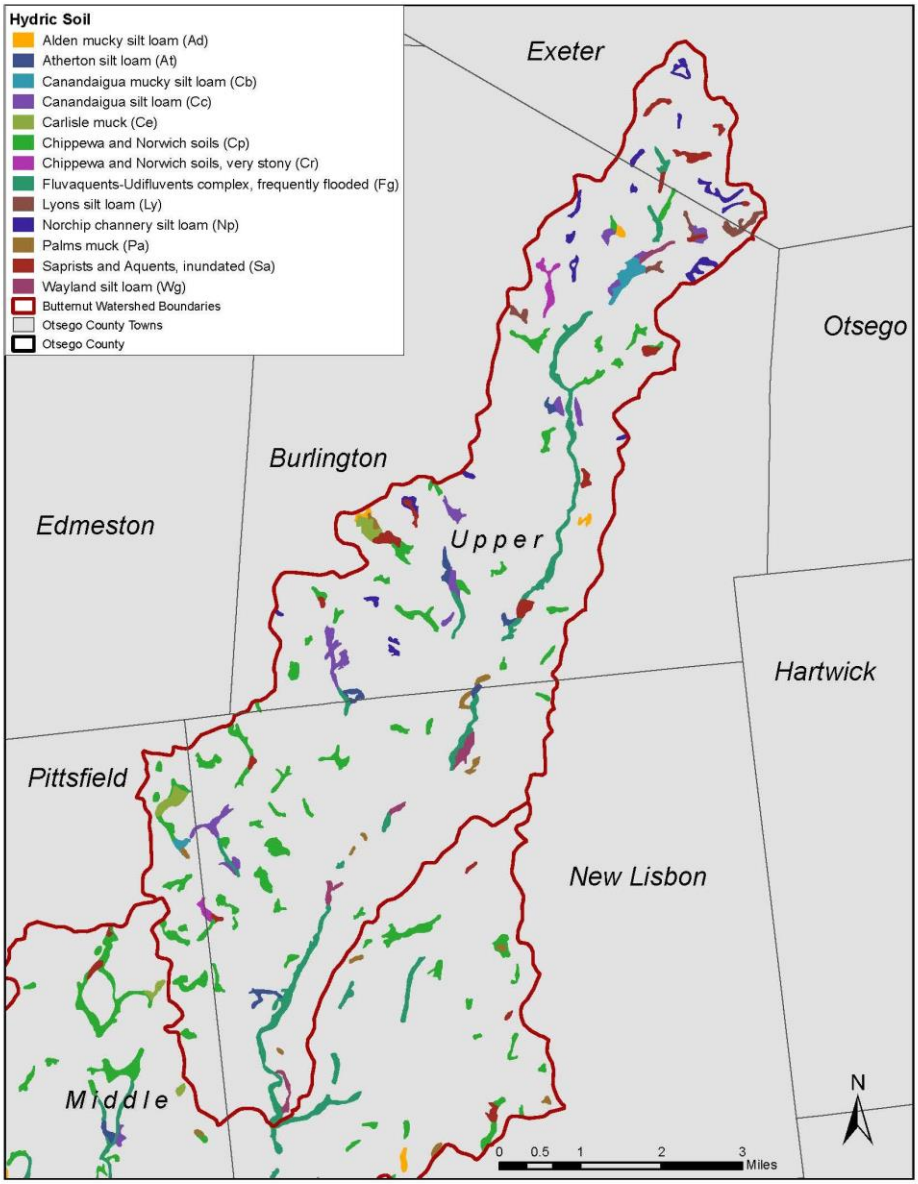



Figure 1. Hydric Soils in the Upper Butternut Creek Watershed.

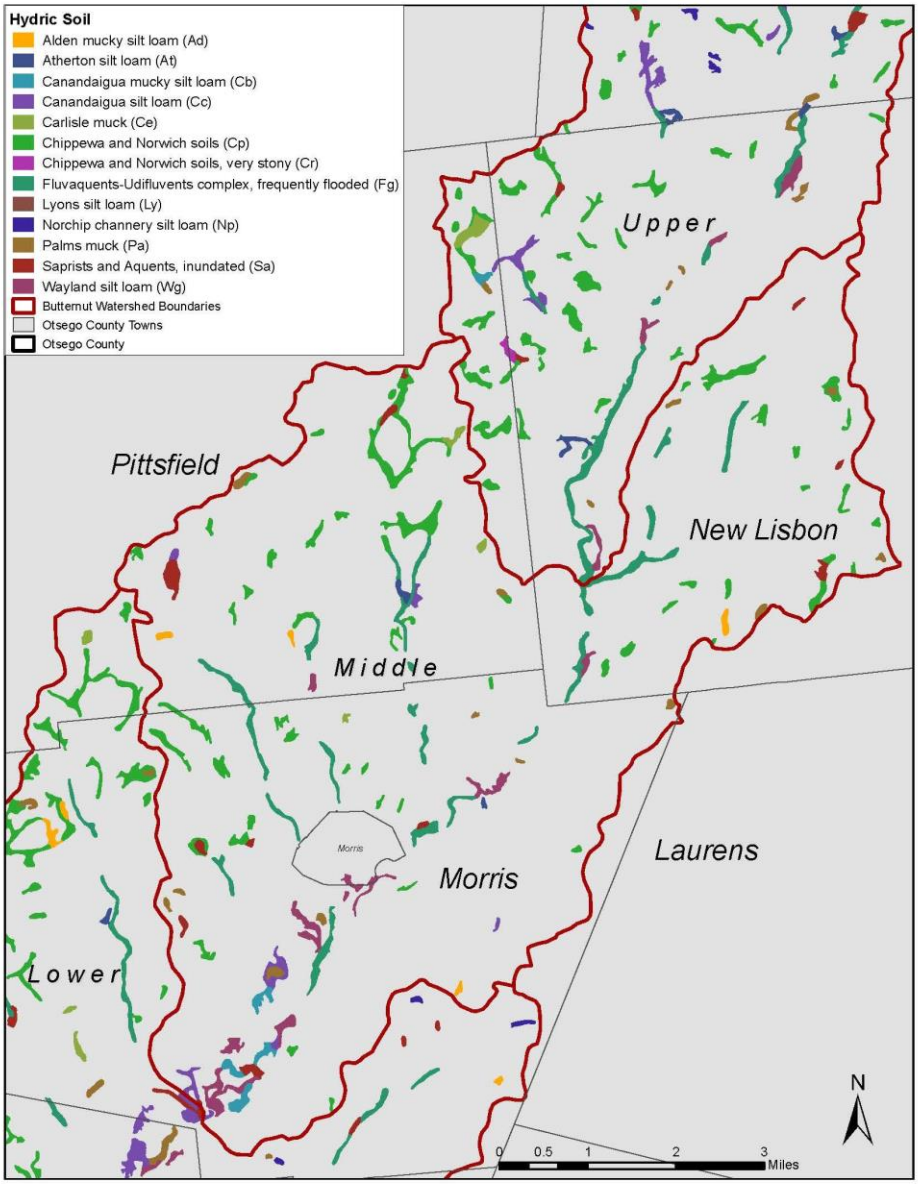



Figure 2. Hydric Soils in the Middle Butternut Creek Watershed.

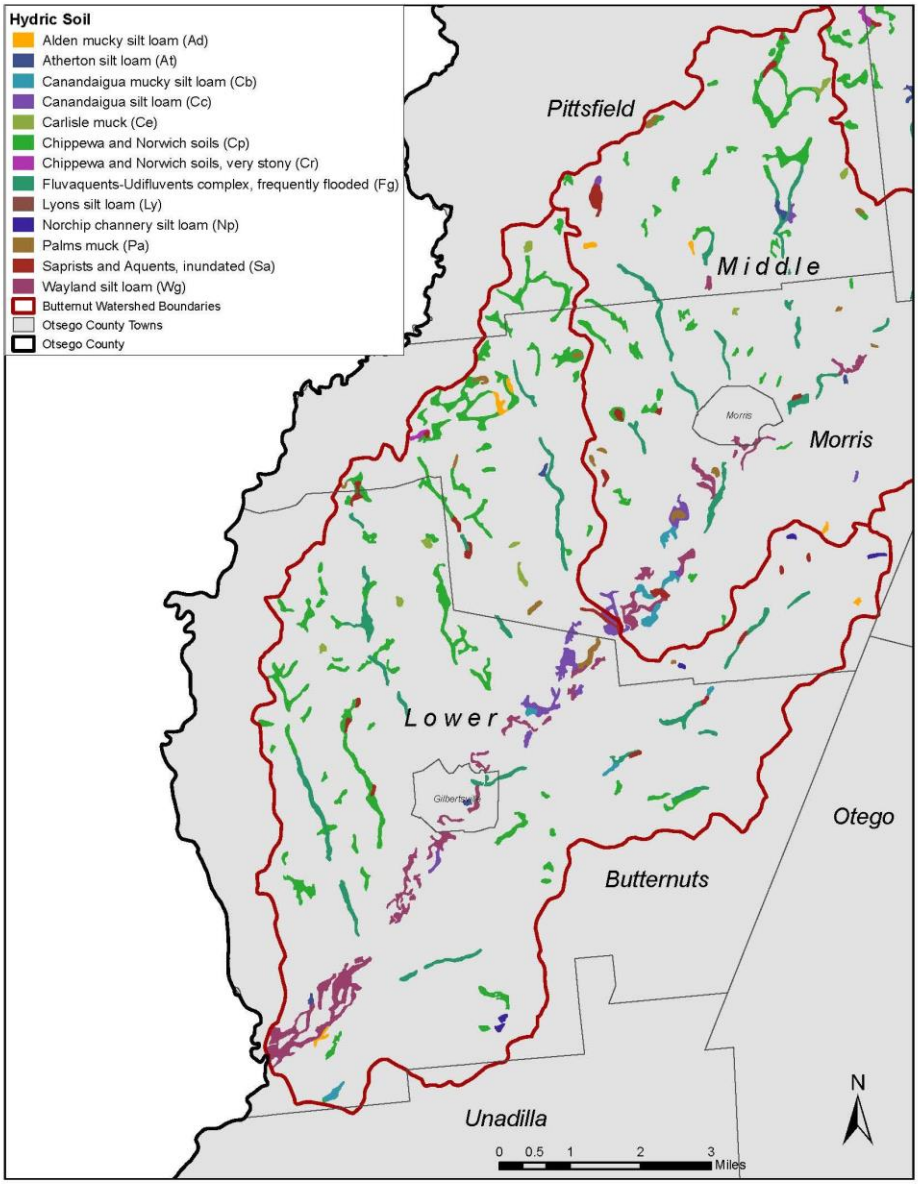



Figure 3. Hydric Soils in the Lower Butternut Creek Watershed.

Appendix H: Wetlands in the Butternut Creek Watershed

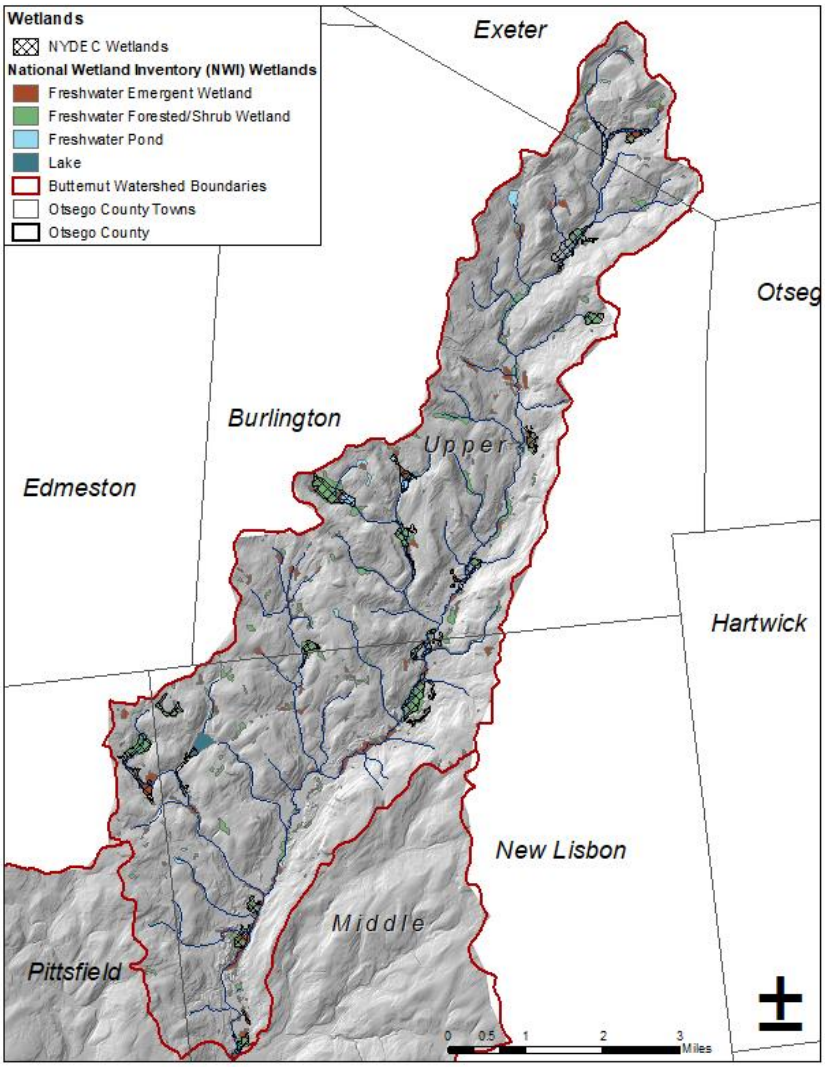



Figure 1. Wetlands mapped by National Wetlands Inventory and NYSDEC in the Upper Butternut Creek watershed

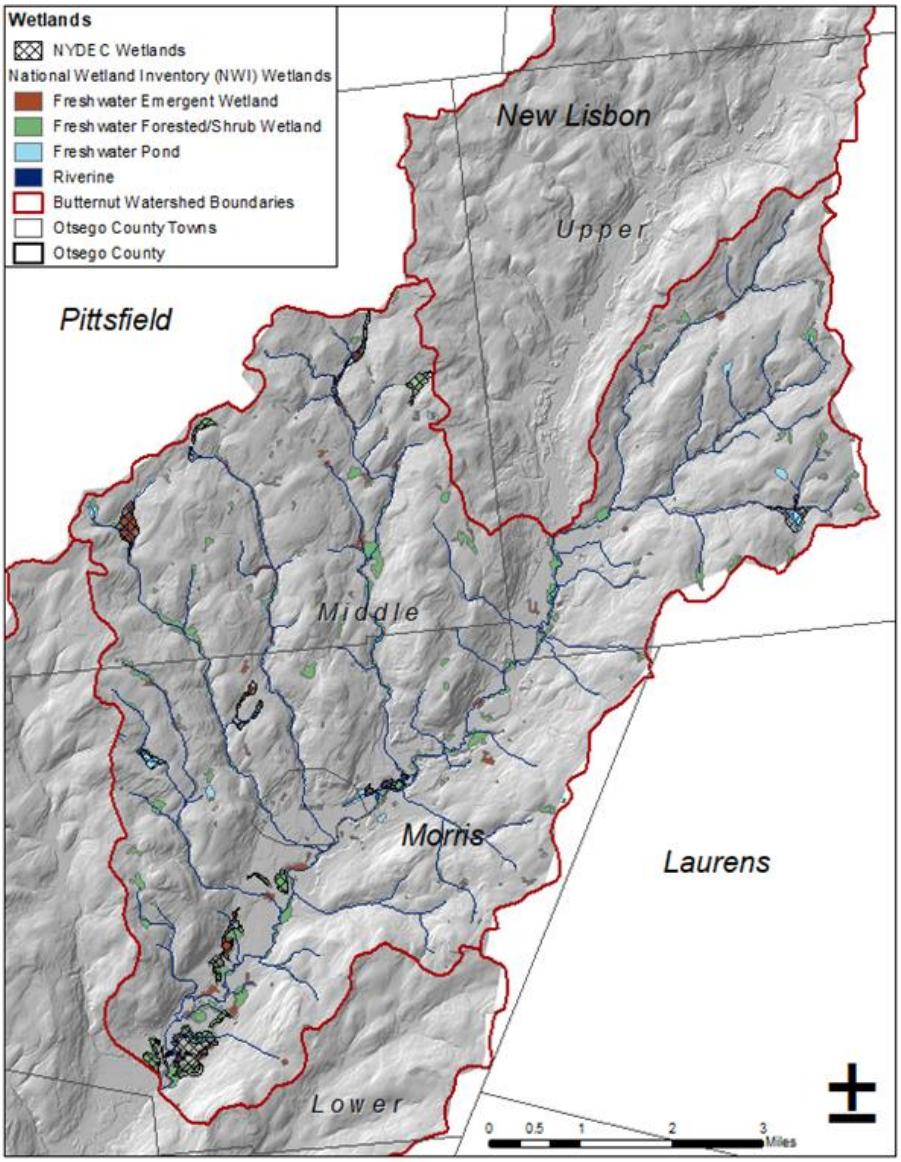



Figure 2. Wetlands mapped by National Wetlands Inventory and NYSDEC in the Middle Butternut Creek Watershed.

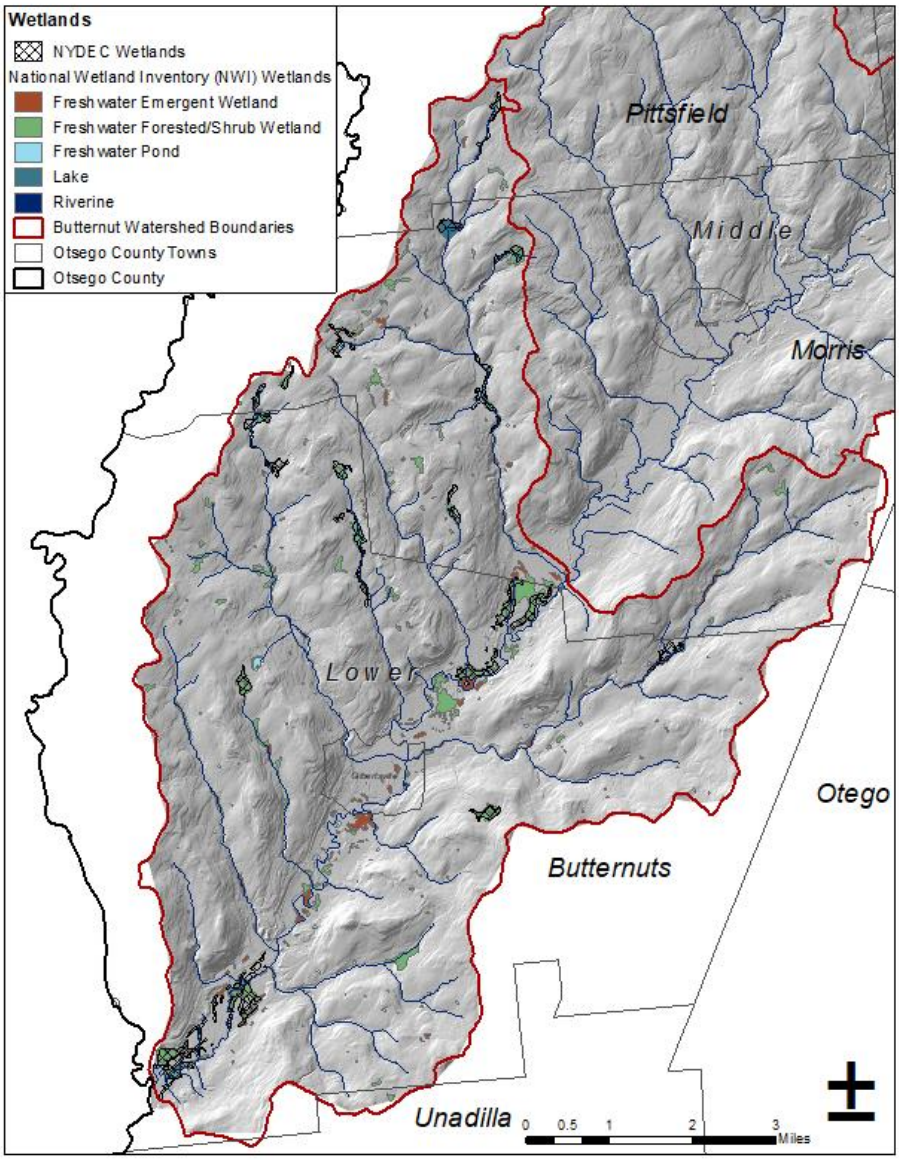



Figure 3. Wetlands mapped by National Wetlands Inventory and NYSDEC in the Lower Butternut Creek Watershed.

Appendix I: Mean Daily Discharge, Butternut Creek at Morris. USGS gauge station 02050101.

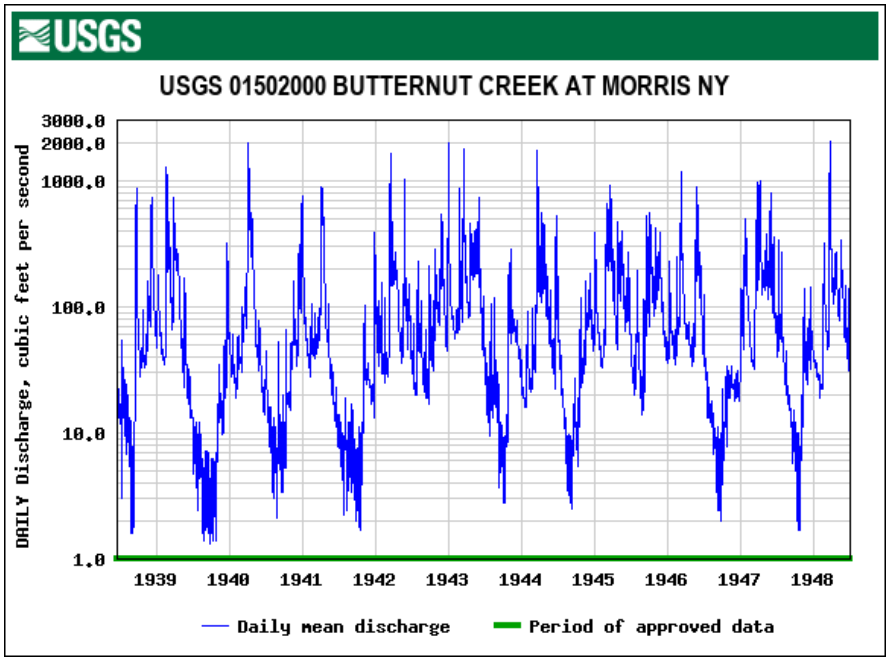



Figure 1: Mean daily discharge, Butternut Creek at Morris, water year 1939-1948.

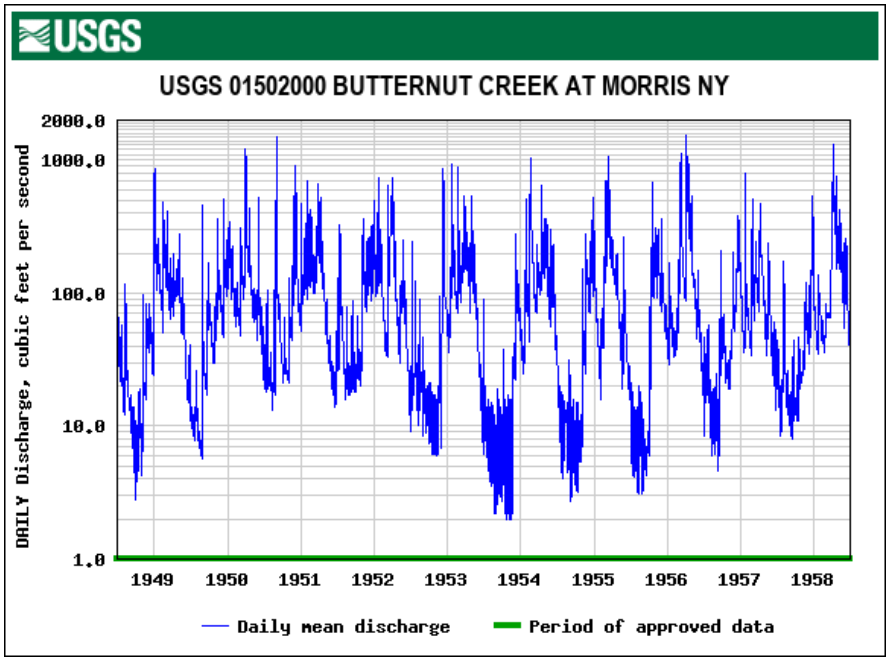



Figure 2: Mean daily discharge, Butternut Creek at Morris, water year 1949-1958.

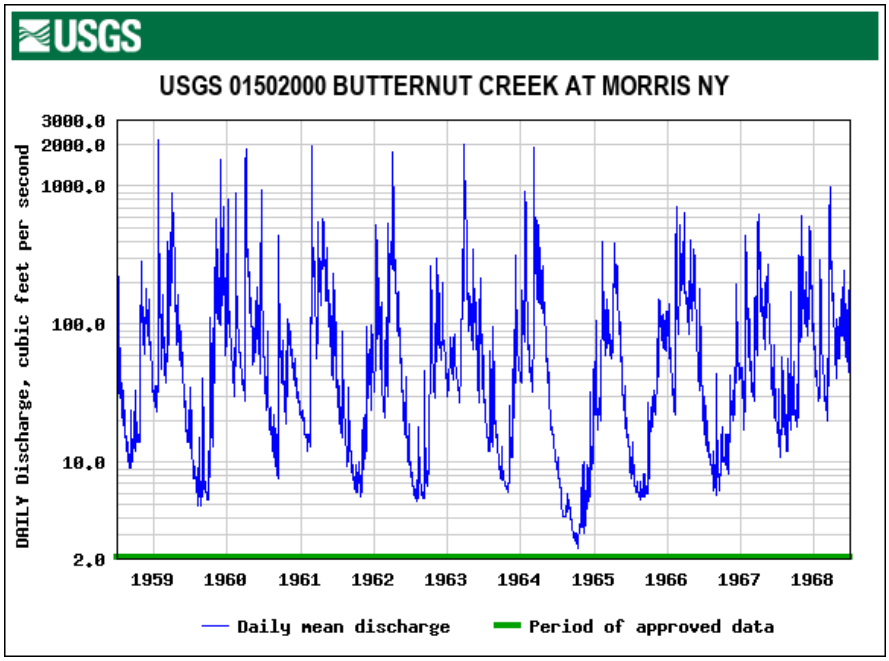



Figure 3: Mean daily discharge, Butternut Creek at Morris, water year 1959-1968.

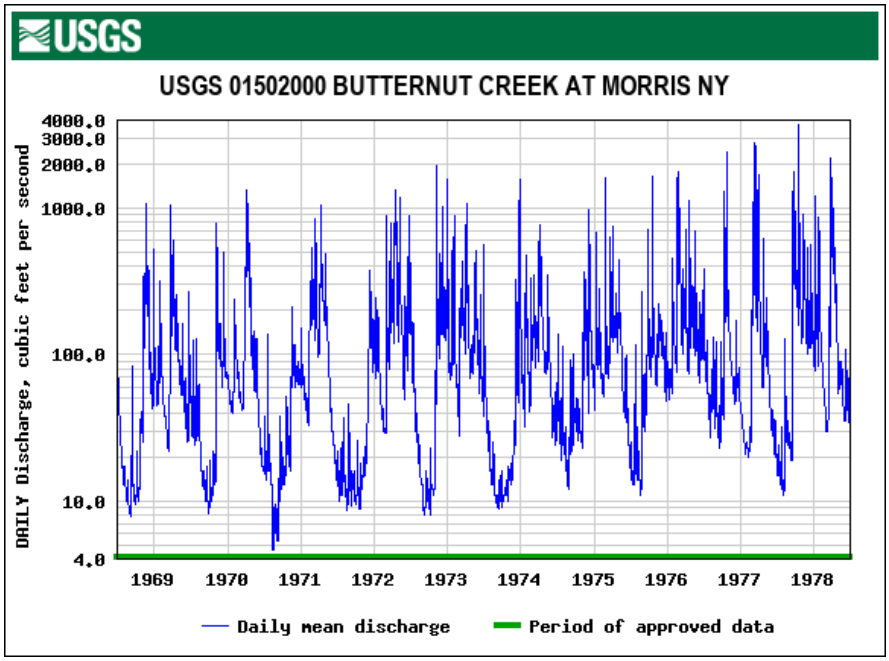



Figure 4: Mean daily discharge, Butternut Creek at Morris, water year 1969-1978.

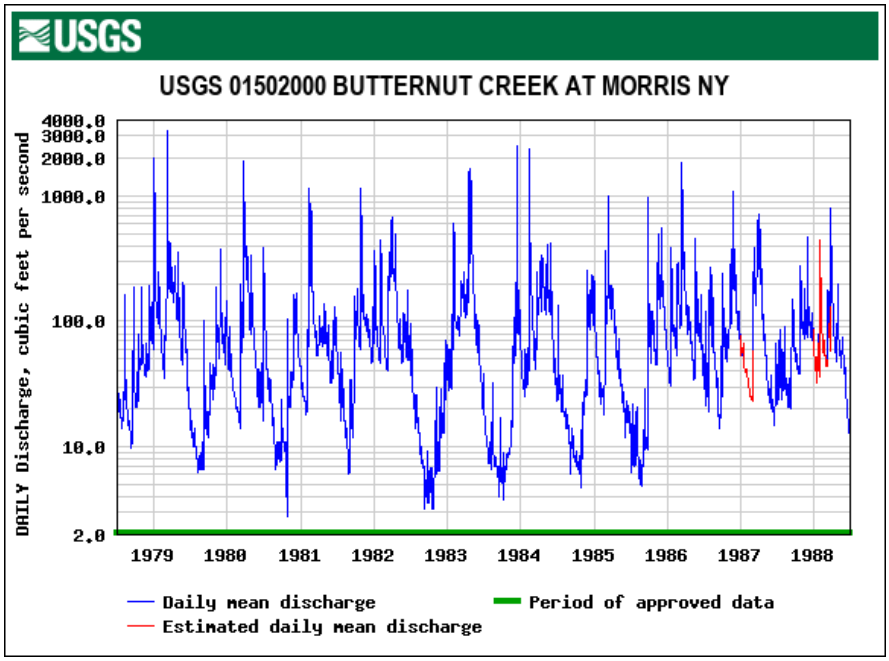



Figure 5: Mean daily discharge, Butternut Creek at Morris, water year 1979-1988.

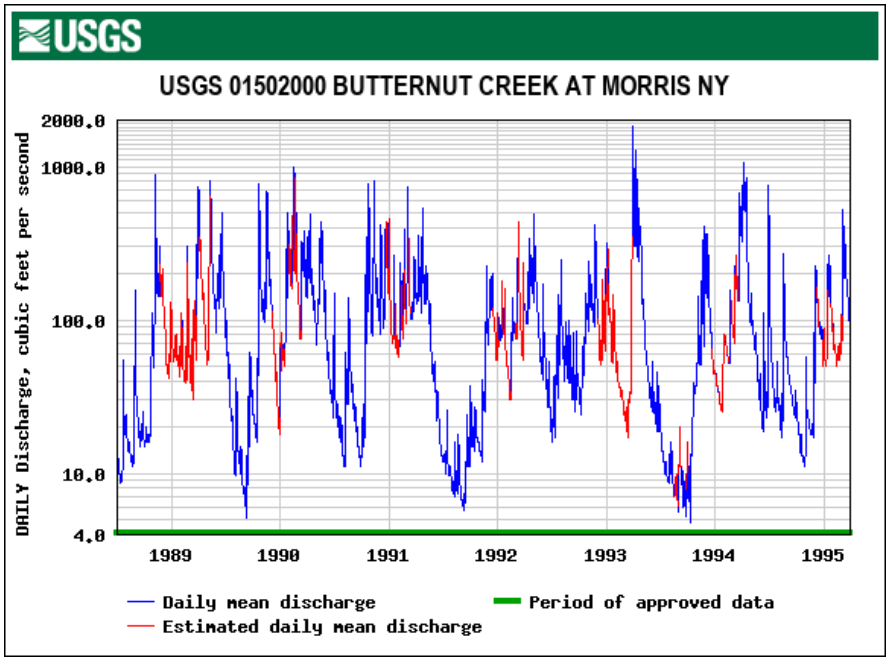



Figure 6: Mean daily discharge, Butternut Creek at Morris, water year 1989-1995.

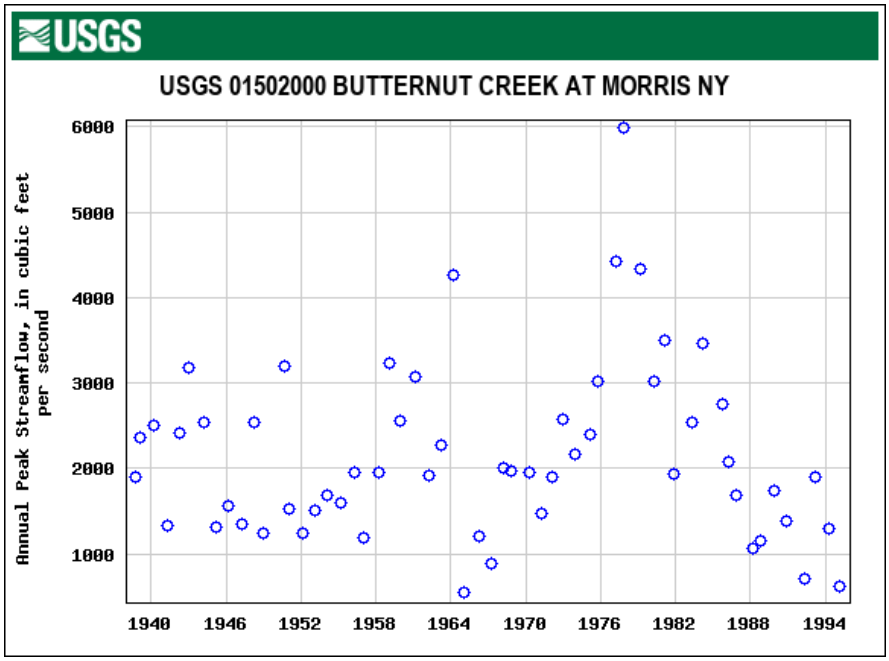



Figure 7: Annual peak streamflow, Butternut Creek at Morris, water year 1939-1994.

Appendix J: Soils in the Butternut Creek watershed.

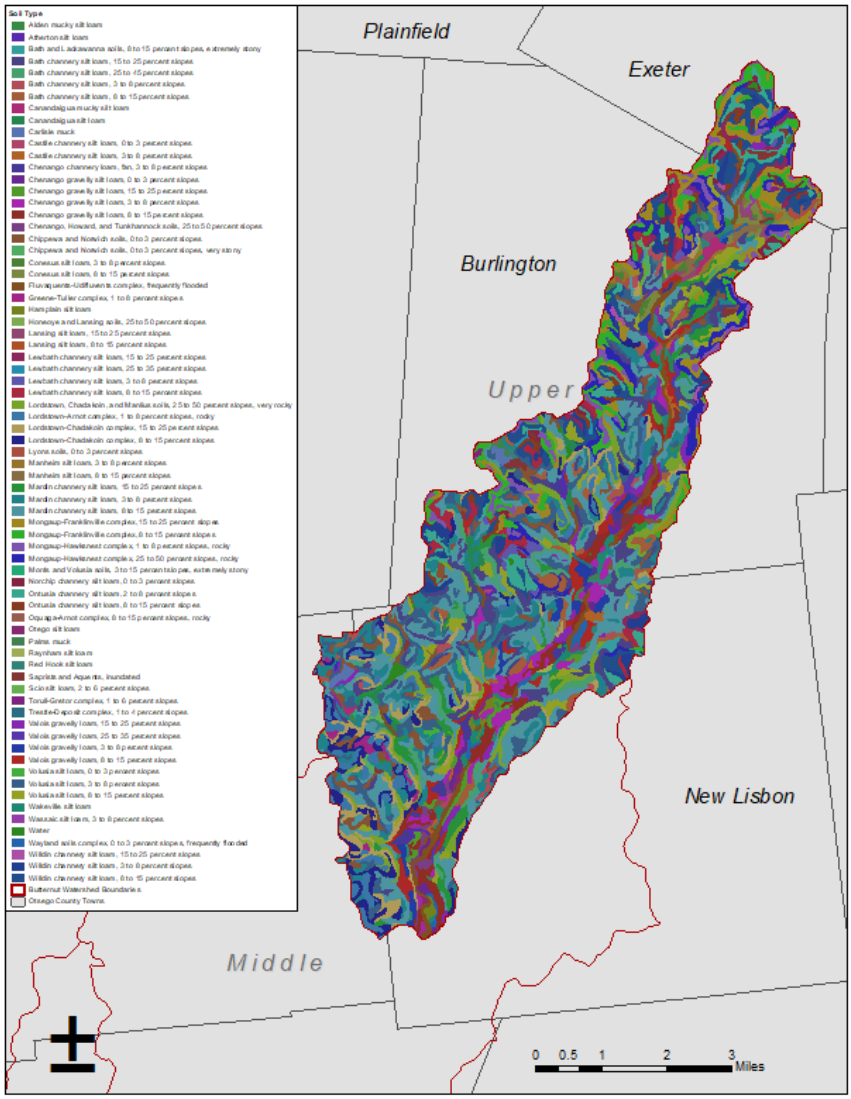



Figure 1. Classified Soil types in the Upper Butternut Creek Watershed.

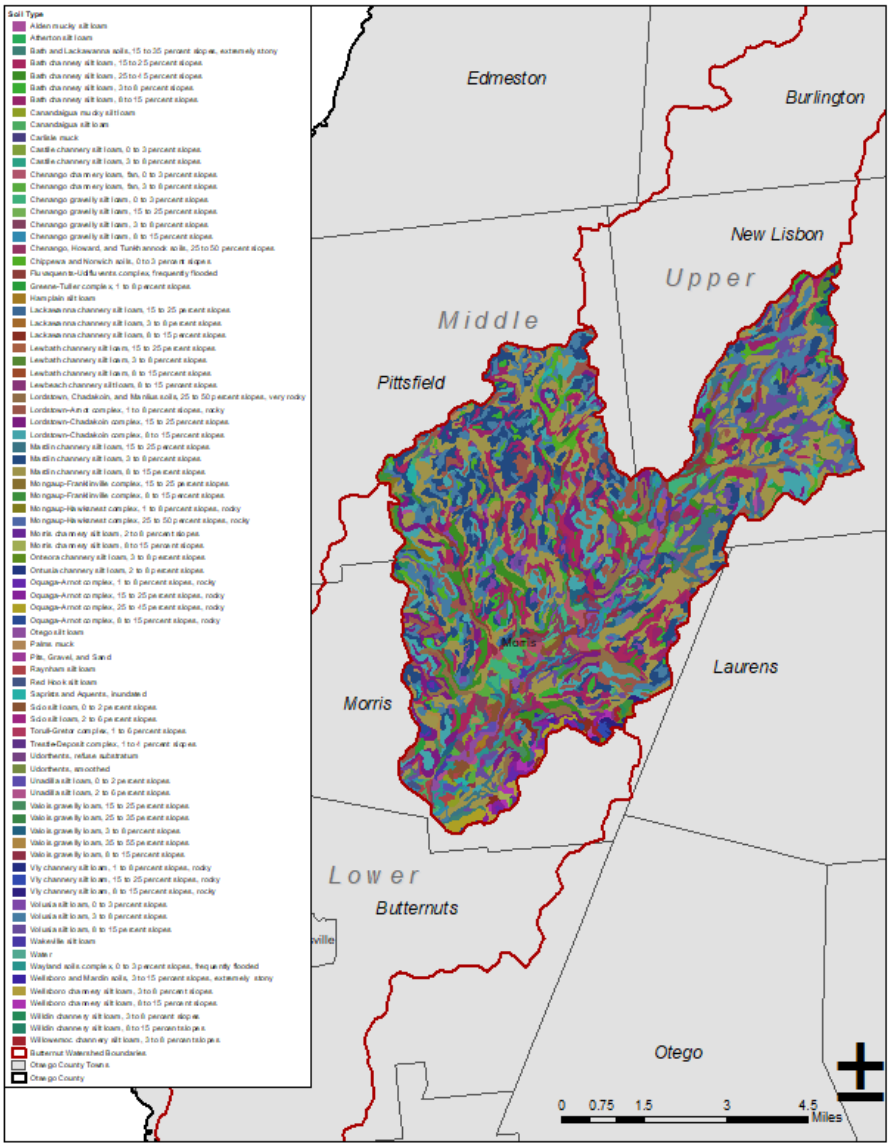



Figure 2: Classified Soil types in the Middle Butternut Creek Watershed.

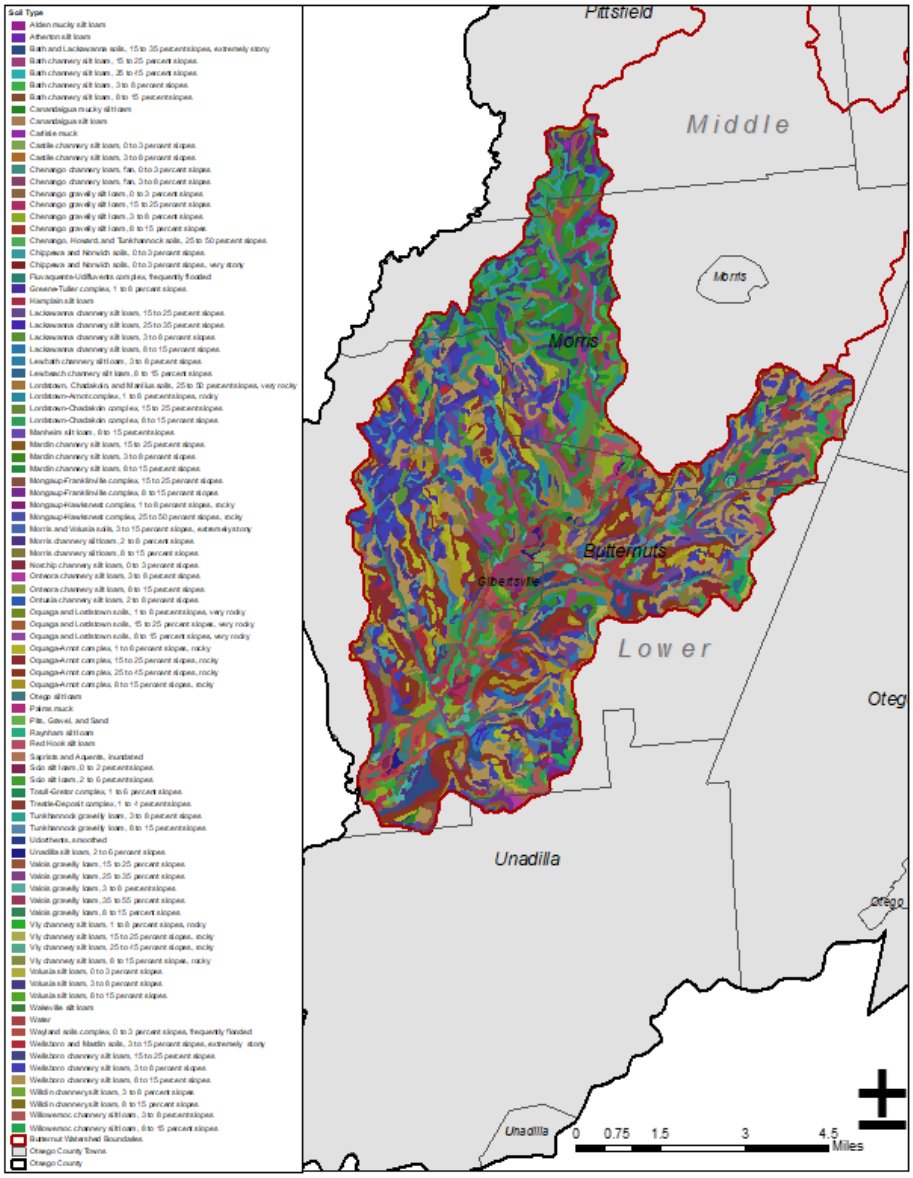
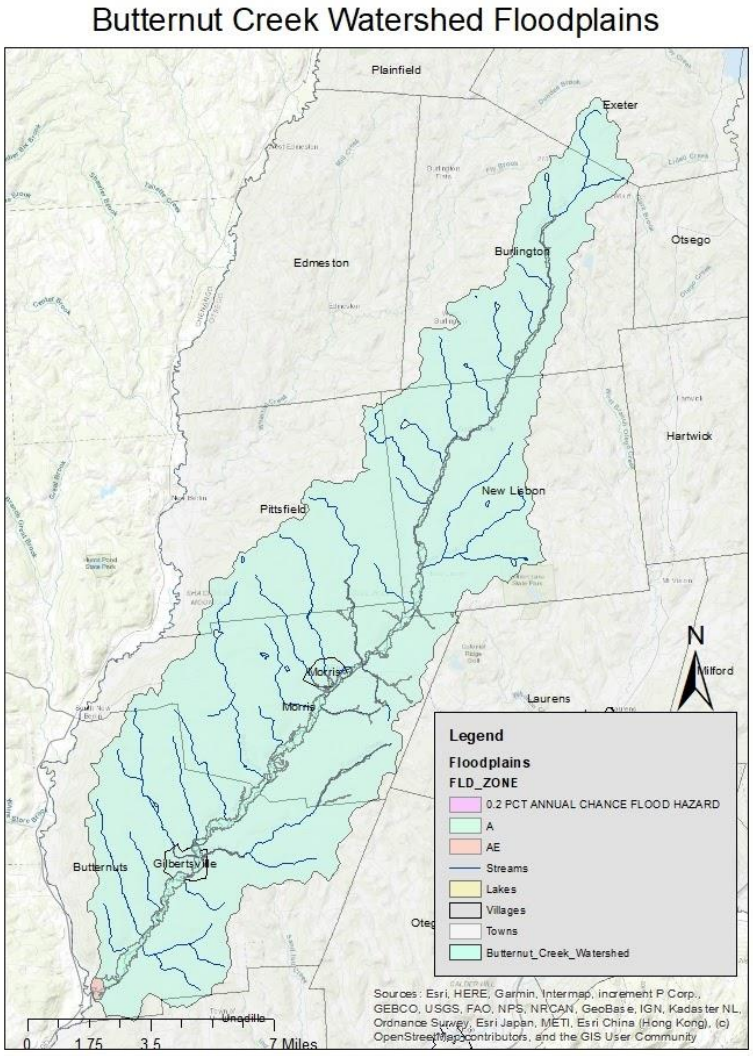



Figure 3. Classified Soil types in the Lower ButternutCreek Watershed.

Appendix K:  FEMA Flood Maps



Appendix L: Best Management Practices Implemented in the Butternut Creek Watershed

| | | | **Butternut Creek** | **Butternut Creek** |
|---|---|---|---|---|
| *Agriculture Practices* | **Duration** | **Unit** | 2019 Progress | 2019 Progress |
| | | | | |
| Nutrient Application Management Core Nitrogen | annual | Acres | 425.02 | 2.80% |
| Nutrient Application Management Rate Nitrogen | annual | Acres | 425.02 | 2.80% |
| Nutrient Application Management Placement Nitrogen | annual | Acres | 425.02 | 2.80% |
| Nutrient Application Management Timing Nitrogen | annual | Acres | 238.77 | 1.60% |
| Nutrient Application Management Core Phosphorus | annual | Acres | 425.02 | 2.80% |
| Nutrient Application Management Rate Phosphorus | annual | Acres | 425.02 | 2.80% |
| Nutrient Application Management Placement Phosphorus | annual | Acres | 425.02 | 2.80% |
| Nutrient Application Management Timing Phosphorus | annual | Acres | 330.34 | 2.20% |
| | | | | |
| | | | | |
| Conservation Tillage | annual | Acres | 42.03 | 1.10% |
| High Residue Tillage | annual | Acres | 30.02 | 0.80% |
| Low Residue Tillage | annual | Acres | 150.11 | 3.90% |
| **Conservation + LowResidue + High Residue Tillage** | annual | Acres | 222.16 | 5.70% |
| | | | | |
| | | | | |
| Cover Crop | annual | Acres | 16.81 | 0.40% |
| Cover Crop with Fall Nutrients | annual | Acres | 3.60 | 0.10% |
| Commodity Cover Crop | annual | Acres | 0.00 | 0.00% |
| **Commodity + Cover Crop** | annual | Acres | 20.41 | 0.50% |
| | | | | |
| | | | | |
| Pasture Alternative Watering | cumulative | Acres | 0.00 | 0.00% |
| Prescribed Grazing | cumulative | Acres | 173.23 | 4.70% |
| Horse Pasture Management | cumulative | Acres | 3.76 | 0.10% |
| Forest Buffers on Fenced Pasture Corridor | cumulative | Acres in Buffers | 56.57 | 1.50% |
| Grass Buffers on Fenced Pasture Corridor | cumulative | Acres in Buffers | 29.46 | 0.80% |
| **Pasture Management Composite** | cumulative | Acres | 263.03 | 7.10% |
| | | | | |
| | | | | |
| Forest Buffers | cumulative | Acres in Buffers | 7.31 | 0.10% |
| Wetland Restoration | cumulative | Acres | 3.28 | 0.00% |
| Wetland Creation | cumulative | Acres | 0.00 | 0.00% |
| Wetland Enhancement and Rehabilitation | cumulative | Acres | 0.00 | 0.00% |
| Land Retirement | cumulative | Acres | 8.18 | 0.10% |
| Grass Buffers | cumulative | Acres in Buffers | 0.00 | 0.00% |
| Tree Planting | cumulative | Acres | 0.00 | 0.00% |
| Alternative Crops | cumulative | Acres | 0.00 | 0.00% |
| Soil and Water Conservation Plan | cumulative | Acres | 1439.96 | 8.70% |
| Crop Irrigation Management | cumulative | Acres | 0.00 | 0.00% |
| Manure Incorporation | annual | Acres | 0.00 | 0.00% |
| Agricultural Drainage Management | cumulative | Acres | 0.00 | 0.00% |
| Capture & Reuse | annual | Acres | 0.00 | 0.00% |
| Non Urban Stream Restoration | cumulative | Feet | 3.53 | 0.00% |
| Non Urban Shoreline Management | cumulative | Feet | 0.00 | 0.00% |

| | | | | |
|---|---|---|---|---|
| | | | | |
| | | | | |
| Livestock Waste Management Systems | cumulative | Animal Units | 684.69 | 26.30% |
| Poultry Waste Management Systems | cumulative | Animal Units | 0.00 | 0.00% |
| **Livestock + Poultry Waste Management Systems** | cumulative | Animal Units | 684.69 | 26.20% |
| | | | | |
| | | | | |
| Livestock Mortality Composting | cumulative | Animal Units | 0.00 | 0.00% |
| Poultry Mortality Composting | cumulative | Animal Units | 0.00 | 0.00% |
| Broiler Mortality Freezers | annual | Dry Tons of Broiler Carcasses | 0.00 | |
| | | | | |
| | | | | |
| Barnyard Runoff Control + Loafing Lot Management | cumulative | Acres | 0.36 | 3.40% |
| Ag Stormwater Management | cumulative | Acres Treated | 0.00 | 0.00% |
| | | | | |
| | | | | |
| Manure Transport Out Of Area | annual | Dry Tons | 0.00 | |
| Manure Transport Into Area | annual | Dry Tons | 0.00 | |
| Manure Treatment Technologies Out Of Area | annual | Dry Tons | 0.00 | |
| Manure Treatment Technologies Into Area | annual | Dry Tons | 0.00 | |
| | | | | |
| | | | | |
| Dairy Precision Feeding | annual | Animal Units | 0.00 | 0.00% |
| Ammonia Emission Reductions (Litter Amendments) | annual | Animal Units | 0.00 | 0.00% |
| Ammonia Emission Reductions (Biofilters) | cumulative | Animal Units | 0.00 | 0.00% |
| Ammonia Emission Reductions (Lagoon Covers) | cumulative | Animal Units | 0.00 | 0.00% |
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| | | | | |
| | | | **Butternut Creek** | **Butternut Creek** |
| *Urban/Suburban Practices* | **Duration** | **Unit** | 2019 Progress | 2019 Progress |
| | | | | |
| Runoff Reduction Performance Standard | cumulative | Acres Treated | 0.00 | 0.00% |
| Storm Water Treatment Performance Standard | cumulative | Acres Treated | 0.00 | 0.00% |
| Wet Ponds & Wetlands | cumulative | Acres Treated | 0.00 | 0.00% |
| Floating Treatment Wetlands | cumulative | Acres Treated by Wet Pond | 0.00 | 0.00% |
| Dry Ponds | cumulative | Acres Treated | 0.00 | 0.00% |
| Extended Dry Ponds | cumulative | Acres Treated | 0.00 | 0.00% |
| Infiltration Practices | cumulative | Acres Treated | 0.67 | 0.00% |
| Filtering Practices | cumulative | Acres Treated | 0.00 | 0.00% |
| BioRetention | cumulative | Acres Treated | 0.00 | 0.00% |
| BioSwale | cumulative | Acres Treated | 0.00 | 0.00% |
| Permeable Pavement | cumulative | Acres Treated | 0.00 | 0.00% |
| Vegetated Open Channel | cumulative | Acres Treated | 0.00 | 0.00% |
| Urban Filter Strips | cumulative | Acres Treated | 0.00 | 0.00% |
| Grey Infrastructure(IDDE) | annual | Acres Treated | 0.00 | 0.00% |
| Impervious Disconnection | cumulative | Acres Treated | 0.00 | 0.00% |
| Conservation Landscaping Practices | cumulative | Acres Treated | 0.00 | 0.00% |
| **Stormwater Management Composite** | cumulative | Acres Treated | 0.68 | 0.00% |
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|---|---|---|---|---|
| Erosion and Sediment Control | annual | Acres | 0.17 | 0.80% |
| Impervious Surface Reduction | cumulative | Acres | 0.00 | 0.00% |
| Urban Forest Buffers | cumulative | Acres in Buffers | 0.24 | 0.00% |
| Urban Grass Buffers | cumulative | Acres in Buffers | 0.00 | 0.00% |
| Urban Tree Planting | cumulative | Acres | 0.03 | 0.00% |
| Urban Forest Planting | cumulative | Acres | 0.00 | 0.00% |
| Urban Nutrient Management | annual | Acres | 0.00 | 0.00% |
| Urban Stream Restoration | cumulative | Feet | 0.00 | 0.00% |
| Storm Drain Cleanout | annual | Lbs of Sediment | 0.00 | |
| Street Sweeping | annual | Acres | 0.00 | 0.00% |
| Urban Shoreline Management | cumulative | Feet | 0.00 | 0.00% |
| | | | | |
| | | | | |
| Septic Connections | cumulative | Number of Systems | 0.00 | 0.00% |
| Septic Denitrification | cumulative | Number of Systems | 0.00 | 0.00% |
| Septic Secondary Treatment | cumulative | Number of Systems | 0.00 | 0.00% |
| Septic Effluent | cumulative | Number of Systems | 0.00 | 0.00% |
| Septic Pumping | annual | Number of Systems | 0.00 | 0.00% |
| | | | | |
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| | | | | |
| | | | **Butternut Creek** | **Butternut Creek** |
| *Resource Practices* | **Duration** | **Unit** | 2019 Progress | 2019 Progress |
| | | | | |
| Forest Harvesting Practices | annual | Acres | 0.00 | 0.00% |
| Abandoned Mine Reclamation | cumulative | Acres | 0.00 | 0.00% |
| Dirt&Gravel Road E&S | cumulative | Feet | 0.00 | |
| Oyster Aquaculture | annual | Oysters Harvested | 0.00 | |
| Oyster Reef Restoration | annual | Acres | 0.00 | |
| Non-Tidal Algal Flow-way | annual | Acres | 0.00 | |
| Tidal Algal Flow-way | annual | Acres | 0.00 | |
| | | | | |
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| | | | **Butternut Creek** | **Butternut Creek** |
| *Land Policy* | **Duration** | **Unit** | 2019 Progress | 2019 Progress |
| | | | | |
| Forest Conservation | cumulative | Acres | 0.00 | 0.00% |
| Growth Management | cumulative | Acres | 0.00 | 0.00% |
| Agricultural Conservation | cumulative | Acres | 0.00 | 0.00% |
| DC Policy | cumulative | Acres | 0.00 | 0.00% |
| Delaware Policy | cumulative | Acres | 0.00 | 0.00% |
| Maryland Policy | cumulative | Acres | 0.00 | 0.00% |
| Maryland Actions | cumulative | Acres | 0.00 | 0.00% |
| Pennsylvania Policy | cumulative | Acres | 0.00 | 0.00% |
| Virginia Policy | cumulative | Acres | 0.00 | 0.00% |
| West Virginia Policy | cumulative | Acres | 0.00 | 0.00% |