

Source Protection Plan Update for the Champlain Water District

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Services / Expertise

Geospatial Data & Solutions
Web Application Development
ArcGIS Online

Markets

Local and Regional Planning
State Government

Project Location

South Burlington, Vermont

Duration

2022–January 2023

Project Owner

Champlain Water District

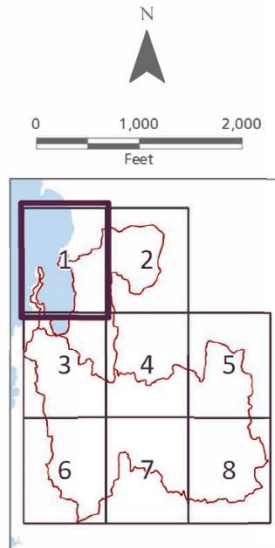
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Shelburne Bay Watershed

Source Protection Plan

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Prepared for Champlain
Water District

January 2023



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Map series sample created for the Champlain Water District Source Protection Plan update.

THE Champlain Water District (CWD) is a regional municipal organization that provides safe drinking water to 12 municipal water systems in Chittenden County, Vermont. The state requires the district to have an approved source protection plan that addresses the actions the public water system will perform to minimize contaminant risks to drinking water supply sources, and to successfully obtain permits for operation. The CWD had not updated its plan in detail since 2004 and hired Stone to assist with the plan revision. Stone was assigned to inventory and map potential contamination sources in the Shelburne Bay Watershed for the 2023 source protection plan update. Our team of experts in water resources, environmental assessment, and geospatial and data solutions developed an approach to identify and obtain the necessary data layers to update and improve the plan's data inventory.

Initial work on this project included a thorough review of more than 40 datasets to identify availability, permission for use, and an estimated level of effort to acquire data. Stone recognized the need to use widely available and authoritative web services, and this solution allows the CWD to connect efficiently with accurate data sources in future source protection plan updates. The district will not need to track down information to update the maps and inventory.

Stone GIS analysts compiled the data in an ArcGIS Pro geodatabase. They developed metadata for each dataset, including a summary, data source, structure, and date of the most recent update. They performed complex analyses to create or extract the requested information for datasets that required greater effort to develop, such as those from hazardous waste sites and agricultural farm fields.



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Utilizing Stone's cartographic expertise, the team developed a map series of the Shelburne Bay Watershed suitable for large-scale printing. The static map displays information in a meaningful and informative way that reinforces each layer's essential geographic and attribute characteristics. Stone worked with the CWD to ensure the final map series aligned with the display and organization of the original 2004 source protection plan when possible.



Two map series sample pages created for the Champlain Water District Source Protection Plan update.

