

# Town of Machias Source Water Area Critical Environmental Area Justification

Town of Machias

March 2025

## Proposed CEA Designation

The Town of Machias Town Board proposes to designate the area on the attached map (titled “Town of Machias Source Water Area Critical Environmental Area,” hereafter “CEA Map”) as the Town of Machias Source Water Area Critical Environmental Area. This area encompasses the source water areas for the Town of Machias’ drinking water sources, as described in the 2024 Town of Machias Drinking Water Source Protection Program (DWSP2) Plan, that fall within the Town of Machias’ boundaries. The purpose of the Critical Environmental Area (CEA) designation is to protect human health by protecting drinking water quality.

## Background

### DWSP2 Plan

In October 2024, a Drinking Water Source Protection Program (DWSP2) Plan was developed for the Town of Machias. The DWSP2 Plan assessed water quality concerns and developed an actionable list of projects to protect drinking water quality.

One of the projects in the DWSP2 plan is to designate a Critical Environmental Area (CEA). The goals of the CEA designation, as listed in the DWSP2 Plan, are as follows:

- “Close evaluation of proposed projects that are in the source water area.
- Ensuring that potential harmful impacts to the source water area are reviewed” (NYS Department of Health and NEIWPC, 2024).

### Critical Environmental Areas

Critical Environmental Areas (CEAs) are geographic areas with exceptional or unique characteristics, that are designated by a local or state agency in New York State. According to subdivision 6 NYCRR 617.14(g) of the State Environmental Quality Review (SEQR) regulations, “to be designated as a CEA, an area must have an exceptional or unique character covering one or more of the following:

1. a benefit or threat to human health;
2. a natural setting (e.g., fish and wildlife habitat, forest and vegetation, open space and areas of important aesthetic or scenic quality);

3. agricultural, social, cultural, historic, archaeological, recreational, or educational values; or
4. an inherent ecological, geological or hydrological sensitivity to change that may be adversely affected by any change” (Thomson Reuters Westlaw).

Once established, a CEA would require an extra level of review under the State Environmental Quality Review (SEQR) process, for Type I or Unlisted actions that are within or adjacent to a designated CEA. When evaluating potential project impacts under SEQR, the lead agency for the project must consider how the proposed project could affect the qualities of the CEA. A CEA designation does not automatically restrict any activities in a CEA, nor does it automatically trigger a declaration of positive impact under SEQR. It simply provides an extra layer of review under SEQR for certain proposed projects in and around the CEA. This can encourage more proactive planning and design to protect critical resources, and ensure that these resources are not overlooked (NYSDEC Hudson River Estuary Program).

## Town of Machias’ Drinking Water

The Town of Machias’ public drinking water source comes from two wells (Well #1 and Well #3) that serve approximately 700 people. The wells are owned and operated by the Machias Town Water District. The DWSP2 Plan identifies and maps areas in the watershed that could impact these water sources. These include a wellhead critical contributing area and a source water area. The wellhead critical contributing area is the area that directly surrounds the drinking water source, and contributes water to the wells over a short time period (in this case, 1, 2, and 5 years). The source water area extends beyond the critical area, but still has the potential to contribute water to the wells, generally over a longer time period (NYS Department of Health and NYS Department of Environmental Conservation, 2019). For the Town of Machias DWSP2 Plan, the source water area represents the contributing aquifer and surface water to the wells (NYS Department of Health and NEIWPC, 2024).

The wellhead critical contributing area and the source water area for the Town of Machias are displayed in the CEA Map. In the creation of the DWSP2 Plan, the wellhead critical contributing area was delineated from groundwater modeling, and the source water area was delineated using StreamStats. The wellhead critical contributing area is included in the source water area.

## CEA Selection

The Town of Machias chose to select the portion of the source water area within the Town of Machias as the CEA boundary. The source water area provides the most protection for the drinking water, in contrast to the wellhead critical contributing area, which is limited to a smaller geographic area. Designating the source water area as a CEA would ensure that development projects in or around the source water area, that go through the SEQR process as Type I or Unlisted Actions, consider the potential impacts to the Town’s drinking water. Only the areas within the Town of Machias boundaries would be included in the CEA designation, because they represent the areas over which the Town has jurisdiction.

## Fulfillment of CEA Criteria

The 2024 Town of Machias DWSP2 Plan demonstrates that the proposed CEA represents an exceptional, unique area, since contamination to the proposed CEA poses a threat to human health (criteria #1 of the SEQR guidelines for CEAs, as listed above). As mentioned, two groundwater wells referenced above provide drinking water for approximately 700 people. Any contamination of these drinking water sources could affect the health of this population.

According to the DWSP2 Plan, the Town's drinking water has faced maximum contaminant level (MCL) violations for nitrate in the past. According to previous modeling, nearby agricultural fields could be contributing nitrate to the wells, possibly linked to manure storage and spreading. Additionally, the DWSP2 plan identifies the following as potential contaminant sources, which are displayed in Figure 9 (page 37) of the DWSP2 Plan:

- Petroleum bulk storage facilities
- Active landfills
- Remediation sites
- Mines
- Agricultural activities
- Marinas and boat launches
- Auto maintenance facilities

Current and potential concerns of priority related to drinking water were also identified in the DWSP2 Plan. These include:

- Future development and land use in the source water area.
- Direct contamination to the critical contributing area and groundwater.
- Regulated potential contaminant sources, including mineral extraction sites and bulk storage.
- Runoff and groundwater seepage from agricultural land activities.

All of the above contaminant sources and concerns pose threats to the Town's drinking water and the health of the people who rely on it. The proposed CEA would help alleviate the threat to human health, by ensuring that certain development projects in or around the CEA consider the potential impacts to the Town's drinking water.

## Conclusion

The Town of Machias DWSP2 Plan Management Team strongly supports designating the attached area as the Town of Machias Source Water Area Critical Environmental Area. This area meets criteria #1 of the SEQR guidelines for CEA designation, because it is an exceptional and unique area where contamination would pose a threat to human health. Overall, the designation of the CEA would help protect an important drinking water source for the population that depends on it.

## Attachment

- Map of the Town of Machias Source Water Area Critical Environmental Area

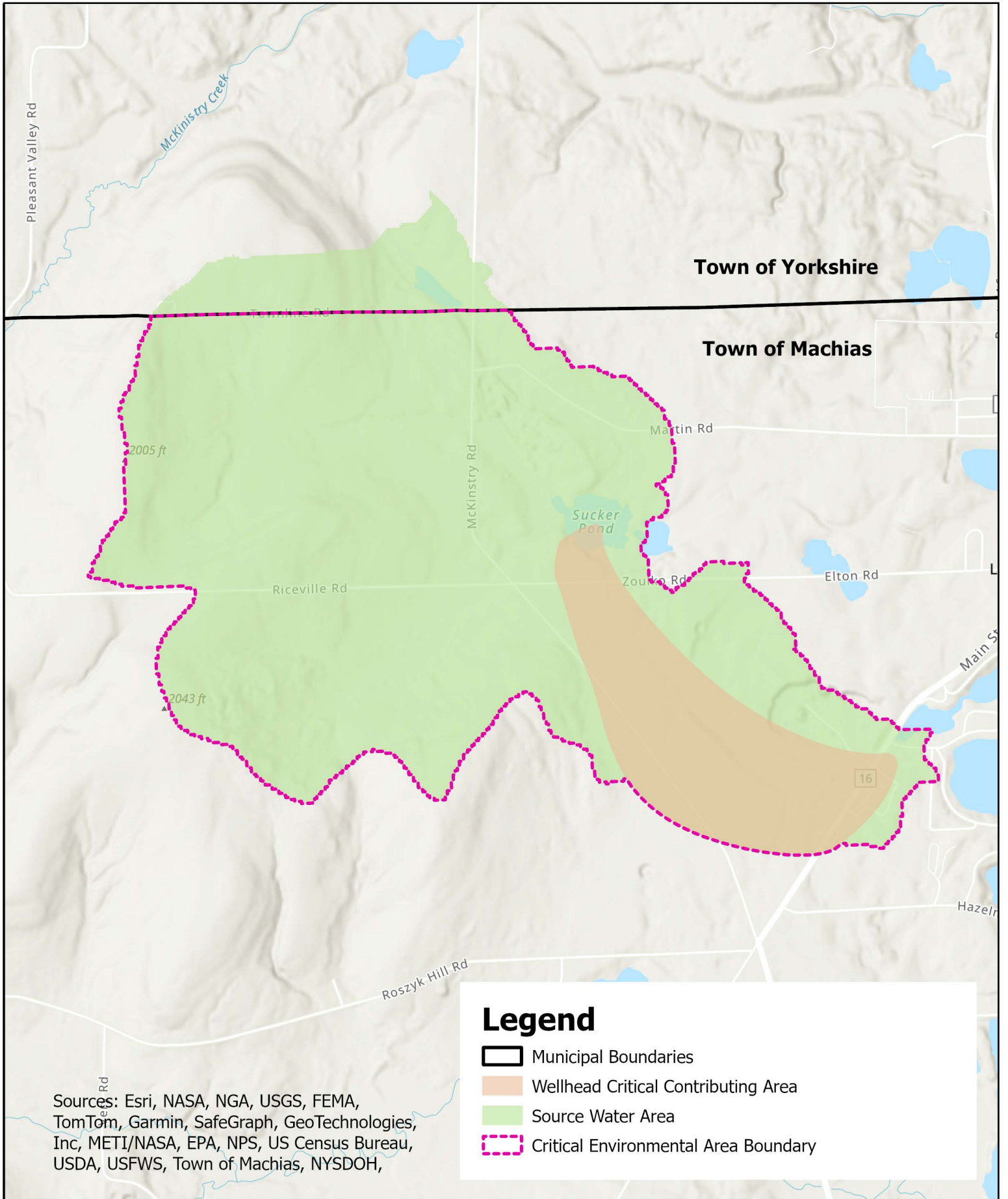
## References

NYS Department of Health and NEIWPC. (2024). *Town of Machias Drinking Water Source Protection Program (DWSP2) Plan*.

NYS Department of Health and NYS Department of Environmental Conservation. (2019, December 18). A Framework for Creating a Drinking Water Source Protection Program Plan. Retrieved January 15, 2025, from [https://extapps.dec.ny.gov/docs/water\\_pdf/dwsp2draftframework.pdf](https://extapps.dec.ny.gov/docs/water_pdf/dwsp2draftframework.pdf)





NYSDEC Hudson River Estuary Program. (n.d.). Critical Environmental Areas: Tools for Conservation in Your Community. Retrieved January 15, 2025, from [https://extapps.dec.ny.gov/docs/remediation\\_hudson\\_pdf/ceafactsheet.pdf](https://extapps.dec.ny.gov/docs/remediation_hudson_pdf/ceafactsheet.pdf)

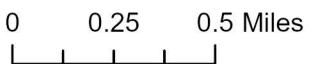
Thomson Reuters Westlaw. (n.d.). 6 CRR-NY 617.14 Individual agency procedures to implement SEQ. R.



Sources: Esri, NASA, NGA, USGS, FEMA, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, EPA, NPS, US Census Bureau, USDA, USFWS, Town of Machias, NYSDOH,

**Legend**

-  Municipal Boundaries
-  Wellhead Critical Contributing Area
-  Source Water Area
-  Critical Environmental Area Boundary



<p>TOWN OF MACHIAS SOURCE WATER AREA</p> <p><b>Critical Environmental Area</b></p>		<p>Figure 1</p> <p>Project No. 2367.024</p>
Cattaraugus County	1/29/2025	