

# Restoring Lake Carmi:

## Agricultural water quality implementation and planning

### What has been done in the Lake Carmi watershed to help address agricultural phosphorus loading?

Act 64 resulted in updated requirements for all farms in the state, to ensure farmers implement effective waste management practices that simultaneously promote the long-term viability of farms and the health of our state waterways. The full Required Agricultural Practices (RAPs) are available at: <http://agriculture.vermont.gov/water-quality/regulations/rap>, as are other related documents. Questions about the RAPs should be directed to the Agency of Agriculture, Food and Markets (AAFM).



**Cover crops interseeded into corn. (Courtesy: UVM)**

Some key improvements included in the revised RAPs are:

- All surface waters must have a minimum 25' vegetated buffer on annual crop fields where no manure can be spread.
- All ditches must have a minimum 10' vegetated buffer on annual crop fields where no manure can be spread.
- Increased cover crops in floodplains and to help meet soil erosion restrictions
- 100' buffers are required on fields with 10% slope
- All large, medium and certified small farms (over 50 cows) must have a state or federal approved nutrient management plan.

Multiple partners, including the Agency of Agriculture, Food and Markets (AAFM), the Agency of Natural Resources (ANR), USDA Natural Resources Conservation Service (NRCS), and UVM Extension have implemented practices and projects that are improving water quality.

Accomplishments over the past five years include:

- AAFM surveyed each farm in the Carmi watershed to evaluate compliance with state regulations.
- In 2017, AAFM Inspected and certified two Certified Small Farms Operations (CSFO) under the newly revised RAPs.
- All livestock operations in the watershed are currently involved with either state or federal conservation programs and agency staff have visited each.
- Since 2010, the following field practices have been added to agricultural lands in the watershed (NRCS):
  - Over 300 acres of cover crops
  - 125 acres of filter strips, and buffers
  - Almost 500 acres of nutrient management planning
  - Almost 350 acres of reduced tillage to help control erosion
- In addition, NRCS has assisted with on-farm production area improvements including stormwater runoff control, a waste management system, and mortality management.

## What is next for agricultural water quality improvement in the Carmi watershed?

In 2016, NRCS, with the help of agricultural partners and farmers, developed the Pike/Carmi subwatershed strategic plan ([https://www.nrcs.usda.gov/wps/PA\\_NRCConsumption/download?cid=nrseprd1257452&ext=pdf](https://www.nrcs.usda.gov/wps/PA_NRCConsumption/download?cid=nrseprd1257452&ext=pdf)). In addition to setting aside \$2 million of funding specifically for farmers in this watershed, NRCS also committed \$50,000 annually for three years to local organizations to provide direct one-on-one assistance to farmers to help access these funds and implement water quality improvements such as cover crops, manure and waste management, and buffers. In 2017, the Friends of Northern Lake Champlain conducted farm visits, held farmer meetings, and signed up farmers for funding and assistance. In 2018, UVM Extension will be conducting this work in collaboration with NRCS and AAFM to target the remaining improvements that need to be accomplished as a result of the North Lake Farm Survey. This subwatershed plan will be updated in 2018.

In 2018, AAFM commits to continuing to work with farms in the watershed and to visit and/or inspect facilities in order to accomplish the reductions required in the Lake Carmi TMDL. This includes continued work on four conservation projects currently under development on different farms operating in the watershed and data collection from all farms to identify current and historic management practices to track changes and their impacts on phosphorus contributions.

## Where can I find further information about agricultural work in the Lake Carmi watershed?

DEC is developing a webpage specifically for Lake Carmi related information, including handouts, summary materials, meeting notes and other pertinent documents for ongoing reference. The website will include the following documents that have been shared with the watershed residents in the past:

- Blank copies of the farm inspection forms
- Blank copy of the Farm Summary Report checklist
- State and federal statutory language explaining why farm information must be kept confidential
- Soil and stream map of the watershed
- Map of high priority areas in the Carmi watershed (based on potential for phosphorus loading) as developed by Stone Environmental
- NRCS Pike/Carmi strategic plan

### For more information, contact:

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