



## NONPOINT SOURCE POLLUTION SUCCESS STORY

# Conservation Practice Adoption Results in Regulatory Compliance and Added Farm Value

### PROBLEM:

The Jones farm is in the town of Craftsbury within the Black River watershed. The Black River flows north to Lake Memphremagog. Mean phosphorus concentrations in the Vermont portions of Lake Memphremagog is listed as impaired because the lake exceeds phosphorus water quality standard by 26%. Land use phosphorus export model developed by VTDEC and partners in Quebec, identified agriculture as a major contributor to the phosphorus in this watershed

The coordination efforts of Orleans County Natural Resources Conservation District (NRCDD) and other partners focused efforts have improved water quality conditions by implementing best management practices throughout the watershed.

The Jones farm started working with the Orleans County Conservation District in 2016 to work toward regulatory compliance and to do their part to reduce nonpoint source pollution from agricultural lands in the watershed.

### PROJECT HIGHLIGHTS:

At 24 years old Jim Jones bought his family 50 cow farm in 1985. Jim loved farming, "It's what I was good at, I had a great Future Farmers of America teacher, I did really well in FFA competitions, and that gave me a lot of confidence". Now, Jim farms with his daughter Nicole and her family and his son Logan. The family loves fishing, and hunting and recognize that what happens on the farm effects local natural resources.



In 2016, Jim and Nicole voluntarily agreed to participate in the Orleans County Conservation District's Regional Conservation Partnership Program. The farms goals was to follow the states new enacted Required Agricultural Practices (RAPs). They worked with Conservation District staff to identify the farms objectives and opportunities, assess the farms resources and prioritize soil and water quality projects. Jim and Nicole also agreed to participate in the OCNRCDD water quality monitor program to determine conditions of the stream.

### The results of conservation planning:

- RAP compliant nutrient management plan and increased knowledge of nutrient cycling;
- New heifer manure storage and barn yard to contain manure and runoff;
- Increased vegetive buffer on stream with livestock exclusion fence and tree and shrub plantings to meet the RAP 25ft vegetive buffer requirements;
- Cover crop and no till on all the corn fields to increase soil health and reduce runoff.
- Above and below water quality monitoring sites for three years to assess the farms loading to the watershed and identify potential nutrient sources to be addressed.



Jim has found that "there is a lot of added unknown benefit to the projects. Like his new manure storage has made it easier for rounding up and handling cattle." He believes that maintaining compliance and implementing conservation practices will help the farm in the future. **"This work has added value to the farm and will help the next generation in the long run."**

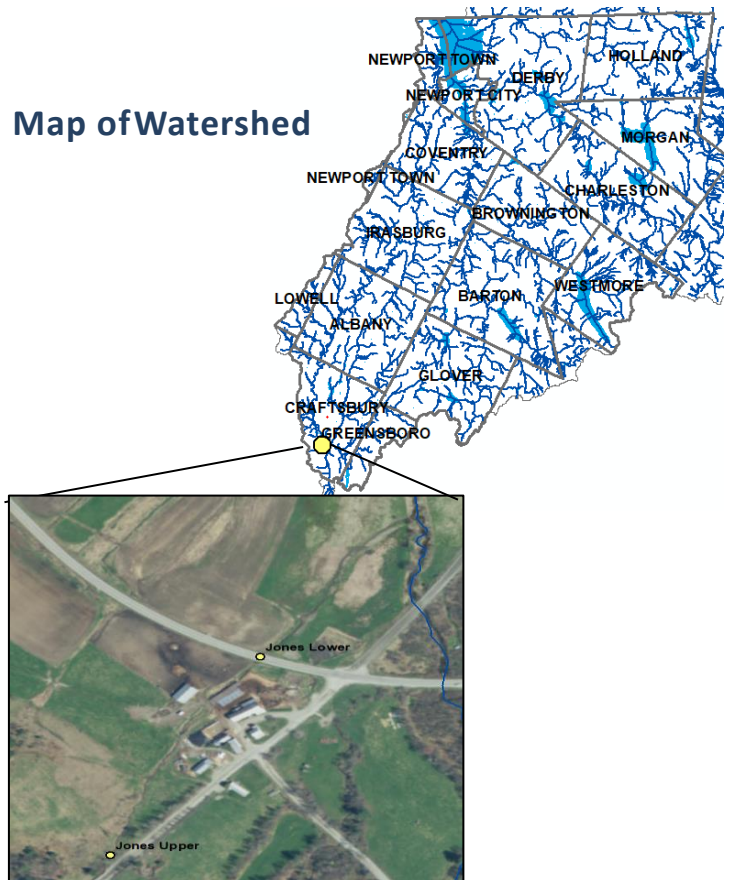
## Water Quality Sampling Results

Through the VTDEC LaRosa Partnership Program Orleans County NRCD sampled surface waters at two sites to bracket above and below one portion of the farmstead.

The sampling data was consistent from 2017 through 2019 and while concentrations increased from above to below the farmstead, the concentrations below the farmstead on this small stream remained relatively low for a farmstead area, as were estimated phosphorus loading rates from this farmstead area. In part because of these lower levels, the project focus shifted to the Heifer manure storage and barn yard project work area that flow towards a drainage where we did not take water samples and so were not able to evaluate improvements in water quality that likely resulted from this work. We applaud the daily and project work completed inside and outside the sampling watershed area to protect the stream.

Participating in the water sampling program was a little bit scary at first but he thought “if it is bad, I want to know and I want do something about it. I knew that NRCD and NRCS conservation planners are here to help and work together to fix it.” Orleans County NRCD staff stuck with us through the planning and the projects; keeps coming back; and has the willingness to listen to what we want and tweaks things to make it work for us and for conservation.”

## Map of Watershed



### REQUEST FOR ACTION:

By “doing right by the land” Jim has tried to leave the land better than when he took over in 1985. He said that “It was nice to see that after all the work we have done after the last 10 years that the water sampling data was good.”

Jim recommends to any farmer looking to make improvements to work with Orleans County NRCD staff and any of the other technical services providers in the county...”They are here to work for farmers.”

