



THE HEALTHY FARM, HEALTHY WATERSHED PROGRAM

A Project by the Northern RI Conservation District

The Northern RI Conservation District (NRICD) will implement a farmer-driven education and outreach effort for small-scale livestock farmers that will make clear the connection between manure and water quality. Farmers that demonstrate that connection by installing manure Best Management Practices will be rewarded through the “Healthy Farm, Healthy Watershed” certification program.

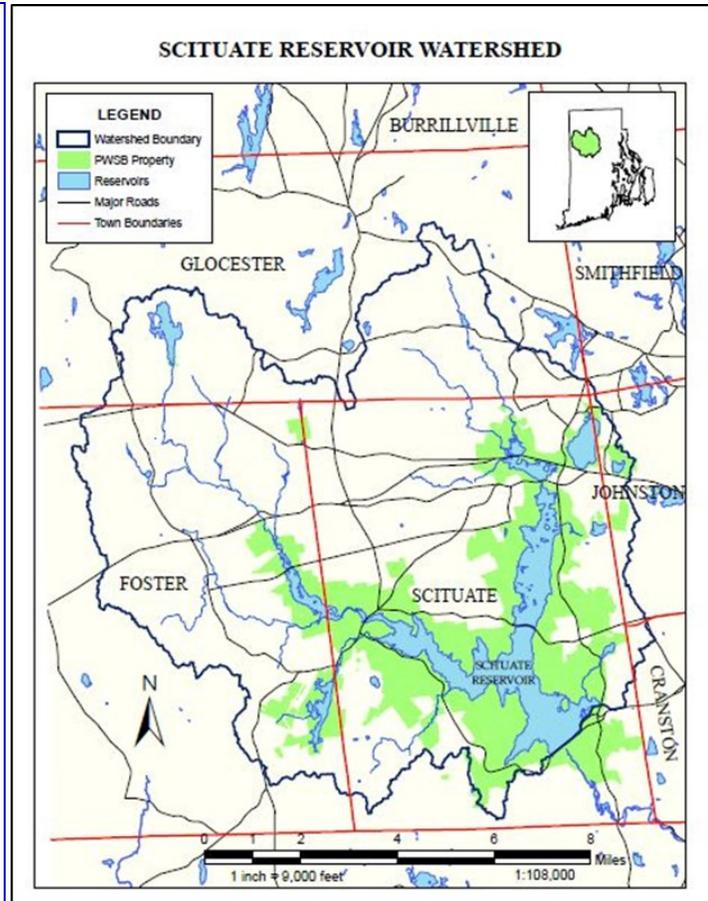
The Problem:

Small-scale livestock farmers (<15 acres) in the Scituate Reservoir Watershed typically do not have the resources for on-site composting and manure storage, or enough land to spread manure properly on their properties. Manure is often mishandled on-site, piled on the soil surface close to wetlands or streams, where it threatens both ground and surface water quality through nutrient loading and pathogen contamination.

A 2017 study by the Northern RI Conservation District (funded through the Natural Resources Conservation Service’s Conservation Innovation Grant program) revealed that farmers in the Scituate Reservoir Watershed:

- Don’t see their manure as a nuisance or problem, even if they aren’t utilizing it
- Aren’t interested in giving their manure away for free
- Understand their manure piles to be compost
- Are not making the connection between their manure and water quality impacts

This issue is critical as the Scituate Reservoir Watershed provides over 60% of Rhode Islanders with clean drinking water. Limnological studies in 2011 & 2013 revealed high levels of phosphorous in the Regulating and Moswansicut sub-basins.



This project is possible through the support of our partners:



The Healthy Farm, Healthy Watershed Program is supported by the Southeast New England Program (SNEP) Watershed Grants. SNEP Watershed Grants are funded by the U.S. Environmental Protection Agency (EPA) through a collaboration with Restore America’s Estuaries (RAE). For more information on SNEP Watershed Grants, see www.snepgrants.org.

HOW WILL THE HEALTHY FARM, HEALTHY WATERSHED PROJECT HELP FARMERS MAKE THE CLEAN WATER CONNECTION?

Using lessons learned from farmer feedback, NRICD will collaborate with our project partners to implement a multi-pronged approach to improve water quality on the Scituate Reservoir Watershed through **Education & Outreach** and **Restoration Projects**.

Education & Outreach:

- The Scituate Reservoir Watershed Education Program's 2020 Theme, "**Watershed Farmers: Growing Healthy Food and Clean Water**" will provide opportunities to students living in the Scituate Reservoir Watershed, including classroom presentations, a poster contest and the water festival.
- NRICD will create and host the **Healthy Farm, Healthy Watershed Workshop Series** to train small-scale farmers on how to keep their manure properly stored through on-farm demonstrations.
- NRICD will hire 3-4 consultants to collaborate work as **Healthy Farm, Healthy Watershed Ambassadors**, hosting workshops on their farms to demonstrate Best Management Practices and engaging their farm neighbors in the program.
- NRICD will work with students from URI's Watershed Hydrology Lab to **update Small Scale Livestock Fact Sheets** for training programs.

Restoration Projects:

- This project will bolster NRICD's current efforts to improve water quality by providing funding and technical assistance for the **installation of Manure Storage Structures & Best Management Practices** in the project area. These efforts include site remediation and initial manure removal.
- Farmers that implement manure storage structures and Best Management Practices will be rewarded through the **Healthy Farm, Healthy Watershed Certification Program**, recognizing farmers that participate as good stewards of the land, and providing them with a sign commending their work and increasing their visibility as a conservation farmer in the Scituate Reservoir Watershed.
- NRICD will moderate the **RI Manure Exchange Program**, hosted on the Northeast Agriculture Exchange Website, providing a platform to connect farmers who have manure with farmers and gardeners who want manure.



Manure piles found on the Scituate Reservoir Watershed are located near wetlands and streams and are most commonly found uncovered on the soil surface.

Expected Ecological Impacts: This project will restore water quality and watershed ecosystems by reducing nutrients by removing the manure on small-scale livestock farms via exchange amongst farmers, on-site removal and remediation of improperly stored manure piles, and through the installation of 3-6 manure storage structures in the project area. Through combined on-the-ground efforts, we estimate that >400 lbs. of phosphate will be removed throughout the course of the project. Results will be calculated using the Phosphorous Index and Manure Analysis to confirm overall impacts.

Expected Institutional Impacts: Through both the farmer-led outreach and education campaign (Workshops, Certification and Ambassador Programs), and the "Watershed Farmers: Healthy Food and Clean Water" program, information will be easily shared, adapted and transferred across the SNEP region. All data collected will be compiled into the **Healthy Farm, Healthy Watershed Toolkit** and the Watershed Farmers Outreach Packet for ease of access. Both packets will contain information on the lessons learned from the implementation of the overall project, and will inform water quality practices on small livestock farms throughout the region.

For more information about the Healthy Farms, Healthy Watershed Project, contact Project Leader Kate Sayles at the Northern RI Conservation District 401.934.0840 or Ksayles.nricd@gmail.com