
CHURCHTOWN DAIRY

Churchtown Dairy Ecological Assessment and Integrated Water Infrastructure Planning and Design

Hudson, New York



Grounded in ecology, a new plan for water infrastructure aligns with the values of a biodynamic farm.

SERVICES

Infrastructure
Water
Assess
Plan
Engineer & Design

Churchtown Dairy is a working 250-acre biodynamic farm with a 28-cow dairy herd, a beef herd, and several pigs. A project of the Foundation for Agricultural Integrity, it serves as a beacon for those working to promote sustainable agriculture and regenerative communities. Churchtown Dairy turned to Biohabitats for help in upgrading wastewater infrastructure, strengthening stormwater management, and assessing site ecology.

After conducting a rapid ecological assessment and water infrastructure review, Biohabitats met with Churchtown Dairy Board members to discuss observations, constraints, and opportunities. Biohabitats then recommended initial actions. A priority for farm operations was to create a whey separation system to increase the flexibility and value of cheese making byproducts. Biohabitats designed a flexible system to separate whey from on-farm dairy and off-farm dairy. The system included stainless steel quick couple piping in the cheese room and storage and pump systems just outside the building. Biohabitats also outlined conceptual plans for upgrades to the cheese making wastewater system.

To assess stormwater issues, Biohabitats conducted a ground and aerial topographic survey of the site. The team and dairy parlor used that survey to develop a stormwater master plan which involved creating grading and drainage plans using low impact development (LID) stormwater interventions, such as bioswales and rain gardens. Throughout all phases of the project, Biohabitats collaborated with the farm's owners, staff, and contractors to ensure that the scope of the work aligned with the farm's goals and operational needs.