

The FY2019 Clean Water Appropriations Budget includes a \$2.3 million allocation from the Bond premium that was the result of the state sale of general obligation bonds. Table 10 (excerpt from the [final draft FY2019 Clean Water Fund budget](#)) below identifies draft recommendations for use of these funds:

#	Agency	Project	Description	Amount
1	AAFM	Phosphorus Extraction Equipment at Dairy Farms	Methane anaerobic digestion is a technology that produces energy by converting manure into methane. A byproduct of methane digestion is phosphorus-containing material. This pilot will use innovative phosphorus extraction technology to remove phosphorus from the byproduct material, to be used for other purposes. The pilot project will purchase phosphorus extraction equipment for use at: (a) 3-4 farms that are operating manure to methane digesters and (b) 3-4 farms that are separating manure into solids and liquid portions for other uses. Phosphorus removal equipment is estimated at \$300,000 to \$450,000 per farm with a manure to methane digester and/or manure separators. Vermont has 15 farms with manure to methane digesters and 10 additional farms with separators.	\$2M
2	ANR	Aeration System at Lake Carmi	The state recently announced a suite of projects designed to restore and protect Lake Carmi in Franklin, Vermont. The lake is impaired by excessive phosphorus pollutant loading, which is contributing to the frequency of harmful algae blooms. The suite of projects includes an aeration system. Aeration involves injecting air, mechanical mixing or agitating water to improve water quality by increasing the level and circulation of oxygen. ANR is already committed to developing the engineering design for a pilot aeration project as well as other nutrient pollutant reduction projects. The project involves completing an aeration system for the lake.	\$.2M
3	ANR	Expansion of the Municipal Roads Grants in Aid Pilot Project	This project proposes to increase second year funding for the Municipal Roads Grants-In-Aid Project, a pilot initiative that was launched in 2018 to provide funding directly to participating municipalities (via the regional planning commissions) to implement Best Management Practices (BMPs) on municipal roads, ahead of the state Municipal Road General Permit (MRGP). Road runoff, in addition to agricultural sources, is a significant source of water pollution. Road-related projects are among the most phosphorus-reducing and cost-effective actions to implement. The pilot project provides an opportunity for municipalities to become more familiar with the practices necessary to comply with the MRGP. The practices being supported by this pilot project should also improve local resilience to large storm events and will help save municipalities money in the long run in operations and maintenance costs. There was strong interest in the first year of this pilot project, with 186 municipalities enrolled (75% of eligible municipalities), and an estimated 29 road-miles meeting MRGP compliance.	\$0.2-.5M
4	ANR	Augmentation of Natural Resource Restoration Projects, TMDL Compliance	This project increases funds to target natural resource restoration projects that reduce nutrient and sediment pollution. The increase in funding helps the state meet the natural resources restoration portion of the Lake Champlain restoration plan, referred to as the phosphorus TMDL and other federal and state directives. The focus is to target those floodplain and river corridor projects that will also maximize benefits including flood resilience, public safety and habitat improvement.	\$0.2M
5	ANR	Recovering Phosphorus from Waste streams	Engineering feasibility project to recover phosphorus from municipal waste streams, animal manure and food and food-processing waste using anaerobic digestion	\$.1M