



Tompkins County
DEPARTMENT OF PLANNING AND SUSTAINABILITY
121 East Court Street
Ithaca, New York 14850

Katherine Borgella, AICP
274-5560
Commissioner of Planning and Sustainability

Telephone (607)

Memorandum

To: Members of the Planning, Development, and Environmental Quality Committee
of the Tompkins County Legislature
cc: Jeff Smith, Tompkins County Highway Manager
From: Scott D. Doyle, AICP, Associate Planner
Re: **Use of Tompkins County Natural Infrastructure Capital Program Funds to Demonstrate County
Road Ditch and Stormwater Improvement Projects**
Date: May 22, 2018

Requested Action

Approve the use of funds from the Natural Infrastructure Capital Program to assist the Tompkins County Highway Department to implement innovative ditch management techniques on Dubois Road and an on-site rain garden at the Tompkins County Public Works Facility.

Background

The Tompkins County Legislature funded the *Natural Infrastructure Capital Program* in 2017 and the Planning, Development and Environmental Quality Committee approved the program overview and criteria in January 2017 (attached). The program is focused on protection, by acquisition, easement, restoration and/or stabilization, of: upper watershed forests and wetlands; stream corridors and floodplains; and aquifer recharge areas. The objectives are to:

1. protect and enhance those natural systems that can help to mitigate the impacts of intensive rainfall events that are expected to continue to increase as a result of climate change;
2. help decrease sediment loads in streams and Cayuga Lake; and
3. protect overall water quality in streams, surficial aquifers and Cayuga Lake.

According to the adopted criteria the program may also help to fund:

- Demonstration of innovative road ditch management techniques, such as check dams, on County highway ditches that would retain sediment before it enters streams and which, if successful, could become standard practice going forward.
- Demonstration projects to address stormwater runoff issues at County buildings in ways that detain water on-site and help avoid overloading storm sewers or drainage ways in intensive rain events.

The Natural Infrastructure committee of the Tompkins County Planning Advisory Board meets annually, or as needed to respond to time-sensitive opportunities, to review projects presented by the Tompkins County Department of Planning and Sustainability. When projects are ready for implementation, recommendations from the committee are reviewed by the full Planning Advisory Board and the Commissioner of Planning and Sustainability and presented, with their recommendation, to the legislative committee responsible for oversight of the Planning and Sustainability Department. If approved by the legislative committee, project funding will proceed in compliance with county procedures for contracting for capital projects; project funds will be administered by the Department of Planning and Sustainability.

Proposed Projects

As noted in the attached documentation, a total of \$10,000 from the Tompkins County's Natural Infrastructure Program funds is being requested to support the Tompkins County Highway Department in constructing ditch improvement and on-site water retention projects. Those projects are:

- *Dubois Road Ditch Stormwater Improvement Project* – Utilize \$3,000 in Natural Infrastructure Program funds to pay for the labor and materials for road ditch improvements on approximately 350' of Dubois Road. The proposed project includes installation of a subsurface drain and check dam system, as well as ditch water testing by the Cornell Water Resources Institute before and after the installation in order to gauge effectiveness of the system. The project would be designed to slow and filter water in the road ditch prior to entering a tributary to Cayuga Lake. It is hoped that this technique will be a relatively low-cost, effective method that could be utilized by highway and public works departments broadly in the County. Additionally, it is hoped that CSI's evaluation efforts could help make the case for funding of these types of improvements from various water quality grants, too.
- *County Public Works Facility Stormwater Improvement Project* – Utilize \$7,000 in project funds to pay for the labor, plant materials and maintenance for a rain garden stormwater improvement project at the southeast corner of the Public Works Facility parking lot. The project is to be designed to receive stormwater from the parking lot prior to entering the Bostwick Road ditch and would be a highly visible reminder of the County's commitment to environmental protection.

Budget Implications

The Natural Infrastructure Capital Program has a current balance of \$365,000. These two projects would bring the balance down to \$355,000.

Contact Information

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Attachments

- Tompkins County Natural Infrastructure Capital Program Overview and Criteria
- Dubois Road Ditch Stormwater Improvement Project Map
- Public Works Facility Stormwater Improvement Project Map
- Public Works Facility Environmental Assessment Form