

Project Title and Description (500 Words or Less)

Project Title: Green Infrastructure Planning and Implementation for Hope Valley, NJ

Project Description: The Hope Valley Green Team wants to lead the effort to incorporate green infrastructure into the municipality to address stormwater management issues. This will require plans to be developed.

This project is to conduct an impervious cover assessment (ICA) for Hope Valley and develop a green infrastructure action plan and strategic plan. These will be important tools to help Hope Valley move forward with implementing green infrastructure practices throughout the municipality. Impervious surfaces will be located and quantified in the ICA, and the runoff volumes associated with these impervious surfaces will be quantified. The green infrastructure action plan will identify immediate and short-term green infrastructure projects to manage stormwater runoff from impervious surfaces. The action plan will contain short-term goals that can be completed over the next five-years. The green infrastructure action plan will also include a concept for three (or more) selected sites. The green infrastructure strategic plan will contain long-term goals for 5 to 20 years. The strategic plan will include policy recommendations that enable Hope Valley to incentivize and/or require green infrastructure. Such policy recommendations will include modifications to the municipal site plan review requirements, zoning code, or stormwater ordinance, etc.

The second part of this project will be to design and implement two green infrastructure projects. Green infrastructure projects will include one or more of the green infrastructure practices shown in the Green Infrastructure Guidance Manual for New Jersey (e.g., rain gardens, bioswales, downspout planters, stormwater planters, cisterns, permeable pavement, tree filter boxes, and green roofs. The Hope Valley Department of Public Works (DPW) will help install these two green infrastructure projects. This will help reduce installation costs and train the DPW workers on how to install green infrastructure projects so they can continue to build projects into the future.

The Rutgers Cooperative Extension (RCE) Water Resources Program will be contracted to complete the ICA, the green infrastructure action plan, and strategic plan. The RCE Water Resources Program will also complete the two green infrastructure designs and oversee implementation. The RCE Water Resources Program has extensive experience in preparing green infrastructure plans and designing projects. The RCE Water Resources Program will provide training to the Hope Valley Green Team and Hope Valley volunteers on how to identify green infrastructure projects. This will prove crucial in preparing the green infrastructure plans. Green Team members have already begun to take the Green Infrastructure Champions courses offered by the RCE Water Resources Program.

Project Team Members:

Hope Valley Green Team (*List Green Team members and identify those that have enrolled in the Green Infrastructure Champions training courses*)

Hope Valley Department of Public Works

RCE Water Resources Program. The Water Resources Program has completed green infrastructure plans for over 150 New Jersey municipalities and has designed and implemented over 350 green infrastructure projects. – Christopher C. Obropta, Ph.D., P.E., Extension Specialist in Water Resources, will manage the Water Resources Program staff. Matt Leconey is the staff engineer that will work with Dr. Obropta to complete all the engineering calculations associated with the green infrastructure plans and the green infrastructure designs. Hollie DiMuro, Sara Mellor, and Liz Pyshnik will provide the technical support needed to complete the ICA and green infrastructure action plan and strategic plan. These four Program Associates at the Water Resources Program have been working together over the last four years to complete green infrastructure plans.

Action Plan and Timeline: See attached.

Community Engagement:

1. When the grant is awarded, it will be announced on the municipality's web site and in its monthly newsletter. This will also serve as an opportunity to recruit volunteers to train on how to identify green infrastructure opportunities.
2. The training program on how to identify green infrastructure opportunities will be advertised through multiple social media outlets. Additionally, flyers will be provided to local community groups to advertise the training program and project in general.
3. After the green infrastructure plans are completed, they will be presented to the public as a means of engaging the community and to solicit input on the selection of demonstration project sites.
4. Volunteers will be recruited to help install the demonstration projects. Informational materials will be made available at each demonstration project site location.
5. At the conclusion of the project, a public meeting will be held to encourage private property owners to install green infrastructure practices.

Project Impact:

There are three levels of project impact: 1) short-term impact, 2) medium-term impact, and 3) long-term impact. The short-term impact will be an increase in knowledge and awareness among the residents of Hope Valley . All the community engagement activities will increase knowledge and awareness. The medium-term impact is a change in behavior. Through the green infrastructure planning process and the engagement efforts, the goal is to get residents, business owners, and municipal officials to embrace green infrastructure and promote its use. The long-term impact is a change of condition such as reduced flooding or improved water quality. While each project will be evaluated in the planning process as to its ability to reduce flooding and treat stormwater runoff, another potential change of condition is the adoption of green infrastructure requirements in Hope Valley. Through the planning process, recommendations will be made to incorporate green infrastructure into local ordinances and Hope Valley's master plan. This would constitute a change of condition and a long-term impact.

The plans will be a catalyst to implementing green infrastructure throughout Hope Valley. All plans will have measurable outcomes such as square footage of impervious surfaces being treated

and volume of stormwater captured and treated. All the implemented projects will be monitored for two-years after construction to ensure their success.

Budget Narrative: *(Below is information for inclusion in the budget)*

Subcontractors:

Rutgers Cooperative Extension Water Resources Program = \$17,500

Scope of Work: One training session; preparation of ICA, green infrastructure action plan, and green infrastructure strategic plan; engineering designs for two demonstration projects; construction oversight for installing two demonstration projects; two public presentations

Construction supplies for green infrastructure implementation including soil amendments, mulch, piping, stone, and plant material = \$2,500



Grant Application Proposed Project Action Plan

Steps/Tasks that the Project Team will take to Complete the Proposed Grant Project	Team Member Responsible	Target Completion Date
Planning Steps		
1. Training for green team and volunteers on identifying green infrastructure opportunities	Rutgers	Month 2
2. Identify green infrastructure projects	Rutgers, Green Team, and trained volunteers	Month 3
3. Complete impervious cover assessment	Rutgers	Month 4
4. Complete green infrastructure action plan	Rutgers	Month 6
5. Complete green infrastructure strategic plan	Rutgers	Month 8
6. Provide input to all plans	Green team and municipal officials	1 month after completion of each plan
Implementation Steps		
1. Identify two projects for design	Green team/ Rutgers	Month 8
2. Design two projects	Rutgers	Month 10
3. Implement two projects	Rutgers, DPW, Green team and volunteers	Month 16
Community Outreach Activities		
1. Training of green team and volunteers	Rutgers	Month 2
2. Public presentation of plans	Rutgers and Green Team	Month 9
3. Ribbon cutting on green infrastructure projects	Green Team & municipal officials	Month 17
Evaluation and Reporting Steps		
1. Quarterly reports to Sustainable Jersey	Green Team	Month 3, 6, 9, 12, 15
2. Final report to Sustainable Jersey	Green Team	Month 18