RUTGERS
New Jersey Agricultural Experiment Station

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WATER PAGES eNEWSLETTER

Green Infrastructure Studies and Stormwater Utilities

In March 2019, Governor Murphy signed into law the Clean Stormwater and Flood Reduction Act, which gives local government entities the ability to create stormwater utilities and establish fees. This is a very big step for New Jersey toward addressing the impact of stormwater runoff on localized flooding and the health of local waterways from existing development. Over the next 18 months, the State of New Jersey will develop guidance documents on how to create a stormwater utility. While waiting for these guidance documents, municipalities can take action that better prepares them for the opportunities to come.

Stormwater utilities will focus on maintaining and repairing existing stormwater infrastructure as well as constructing new infrastructure to reduce flooding and improve water quality. Most municipalities have inventoried their existing stormwater infrastructure already. They are required under their municipal separate storm sewer (MS4) permit to inspect and clean catch basins, maintain stormwater facilities (e.g., detention basins), and conduct street sweeping. It will be fairly easy to transfer this responsibility to a stormwater utility.

When it comes to retrofitting existing development with new stormwater infrastructure, the municipalities need plans that identify these opportunities. Using grant funding, the Rutgers Cooperative Extension (RCE) Water Resources Program has been developing these plans for municipalities across the state. The first document created for municipalities is the impervious cover assessment (ICA), which helps municipalities identify the high percentage impervious cover areas within their community. This will assist the stormwater utility with prioritizing areas for retrofit. The second document, the impervious cover reduction action plan (RAP), identifies sites that can be retrofitted with green infrastructure to better manage stormwater runoff. The third document is the green infrastructure feasibility study, which incorporates the results of the ICA and RAP into one document along with general information on green infrastructure. Calculations for volume and load reductions that can be achieved by installing recommended green infrastructure practices are also included in the RAP and the green infrastructure feasibility

study. These plans can be used by stormwater utilities to rapidly install highly visible green infrastructure projects to control stormwater runoff.

One main reason that the public pushes back against stormwater utilities is that fees are collected, but yet no visible actions appear to be taken. The plans that are created by the RCE Water Resources Program will help new stormwater utilities avoid this mishap. The creation of these plans also raises the visibility of stormwater problems in the community. This heightened awareness will help the municipality justify the need for creating a stormwater utility. Since the plans contain preliminary engineering design calculations, the municipality also can easily relate funds collected to gallons of stormwater managed. This may become important in the effort to continue justifying stormwater utility fees.

2019 Green Infrastructure Training Program

We're coming into the home stretch with the 2019 Green Infrastructure Champion Training Program with only three more workshops to go! To date, a total of 63 people have attended the first six workshops.

To become a Green Infrastructure Champion, participants need to attend a minimum of five out of the nine sessions. We are delighted to share that there are now 18 people so far that have earned the title of *Green Infrastructure Champion*!

Topics from the first six workshops included:

1. How to identify green infrastructure projects in your town
2. Moving from planning to implementation of green infrastructure
3. Maintaining green infrastructure practices/projects
4. Green infrastructure planning and implementation for Sustainable Jersey points
5. Green infrastructure projects for schools
6. Retrofitting traditional detention basins with green infrastructure

The final three workshops will include the following:

1. How to design and build a rain garden
2. Developing green infrastructure master plans for an entire site or neighborhood
3. Using green infrastructure to promote climate resiliency

For more information about the program or to register for the final three *FREE* workshops, go to:
http://water.rutgers.edu/Projects/GreenInfrastructureChampions/GIC.html .

Municipal Action Teams' Green Infrastructure Initiative Updates

APRIL 2019

Camden SMART (Stormwater Management and Resource Training) met on April 9th. The focus of the discussion was on the expansion of the scope of Camden SMART to include stormwater management, larger scale green infrastructure projects, green job promotion, and lead awareness. The key new point of the discussions was lead awareness. Issues of Camden schools using bottle water due to old lead piping were discussed as even newer schools without lead piping are still using bottled water despite it being safe. Some homes also still contain lead piping as well, although all the city's street piping has been replaced making the city's water safe to drink. An education campaign was discussed for proper education on lead in school and homes. A potential large scale green infrastructure project on Harrison Avenue has been proposed as well. The new state legislation enabling local governments to enact stormwater utility fees was also discussed as a stable revenue to fund green and grey infrastructure in Camden and is to be discussed with the mayor. Green infrastructure projects at Camden Tool and Higher Ground Church of God in Christ in North Camden continue to proceed along for implementation in summer/fall. Projects for the Camden Historical Society and Gate Way Park also continue to move forward. The next monthly meeting is planned for May 14th.

Gloucester City Green Team met on April 10th. The group discussed creating a logo for the Green Team with possible ideas to create a school contest or working with a local graphic designer. Application for Sustainable Jersey was focused on seeing what information was needed for the June 2nd deadline. Plans for construction of a rain garden at the Gloucester City Water Department in the spring were also discussed. NJ Tree Foundation will excavate the garden, and students and local volunteers will be involved to help with planting the garden. The group was updated on the progress of the Gloucester City High School courtyard project which is far into the design phase, and a meeting with the high school will be scheduled soon to discuss the revised design to get ready for an anticipated summer installation. Locations for tree planting for the urban forestry LSR grant were discussed to narrow down where a total of twenty redesigned enhanced trees pits will be installed in the City. The next monthly meeting is scheduled for May 8th at 1PM.

Harrison TIDE (Transforming, Infrastructure and Defending our Environment) met on April 11th. The group discussed the West Hudson Community Forum between Harrison, Kearny, and East Newark on March 6th, focusing on the success of the event and how future events could be done to get more people to attend and be more engaged. Other forms of engagement like getting people to council meetings or collaborating with Kearny Awake on outreach were

Municipal action teams have been formed to foster collaboration and collective action that helps the municipality speak with a common voice and achieve a common goal while advocating for green infrastructure. Updates on the various municipal action teams across the state are listed in this newsletter.

Technical assistance provided to these municipal action teams by the RCE Water Resources Program is funded in part by the Surdna Foundation, the Passaic Valley Sewerage Commission with support from the New Jersey Department of Environmental Protection (NJDEP), and our local partners.

Camden SMART

Gloucester City Green Team

Harrison TIDE

Jersey City START

Newark DIG

Paterson SMART

Perth Amboy SWIM

Trenton Green Infrastructure Partners

proposed. The long term control plan was also discussed looking at the alternatives analysis put together so far for Harrison to deal with CSOs. The project at Washington Middle School is still planned for the summer to be constructed by PVSC and planted with students in the fall. The Flood Defense Act, which allows local governments to employ a stormwater utility fee, was brought up as a potential funding source for managing stormwater issues in Harrison and will be discussed at further meetings. The next monthly meeting is scheduled for May 9th at 2PM.

Jersey City START (Stormwater Treatment and Resiliency Team) met on April 11th and discussed the four community outreach meetings regarding CSO Long Term Control Plans that were held by the JCMUA throughout March and April. START members are providing feedback to Arcadis regarding their regional supplemental team presentation. START members were informed of the JCMUA plans to install green infrastructure in conjunction with pipe update efforts in the coming years and will continue to be updated on upcoming projects from those effort. The next meeting will be held at the Jersey City MUA on May 9th at 10AM.

Newark DIG (Doing Infrastructure Green) met in Newark City Hall at 11:00 AM on April 23, 2019. The City of Newark recapped their successful Earth Day tree planting that took place on April 22, 2019. The Office of Sustainability discussed the Newark Love Your Block campaign, a program awarding small grants to fund community-led neighborhood improvement projects like gardens, median clean-ups, playgrounds, and plantings. The Office of Sustainability is continuing to work on their "Adopt-a-Catch-Basin" program and are ramping up to run an upcoming rain barrel hand-out. Green Infrastructure Reformers are continuing the "Keep Newark Beautiful" initiative and have conducted several neighborhood clean-ups throughout Newark. The next clean-up will take place with the Newark Housing Authority at the Bradley Court Housing Complex. Urban League of Essex County is running a "model block" neighborhood beautification project, offering free streetscape improvements, including rain gardens and bioswales to residents of Fairmount Avenue. The next meeting of Newark DIG will be held at Newark City Hall on May 21 at 11:00 AM.

Paterson SMART (Stormwater Management and Resource Training) is meeting on April 25th at 5:45 PM in the Freedom Village Building. Since the last meeting, members have been working to organize and launch an "Adopt-A-Catch-Basin" program throughout the city to raise awareness about stormwater infrastructure and provide one solution to the city's litter/garbage problems. Meetings with schools to promote green infrastructure in the city continue as well.

Perth Amboy SWIM (Stormwater Infrastructure Management) members met on April 18th to discuss their efforts toward promoting green infrastructure throughout the city of Perth Amboy. The group is continuing their efforts on educating the public on the importance of green infrastructure as part of a larger combined sewer overflow reduction strategy. Members also discussed the supplemental team meeting that was held on March 29th and is working to schedule the next supplemental team meeting in conjunction with the May SWIM meeting. The partners continue to meet regularly on the 3rd Thursday of the month.

Trenton Green Infrastructure Partners (TGIP) met on April 16th at the Isles, Inc. office at 3PM. Partners finalized the group's 2019 work plan and volunteered for projects, discussed next steps for partnering with the Delaware Valley Regional Planning Commission to update Trenton's Community Forestry Management Plan, and shared updates on several key complete street projects. The group will use their next meeting on May 22nd to plant a rain garden at Isles' office to capture overflow from an adjacent cistern.

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