

Everglade Watershed Update May 13, 2014

Hello and I hope you're finally enjoying the weather as of late. It's been a long cold winter and everyone is thinking about warmer times to come. The type of spring we had was not all bad news as the longer drawn out spring with a lack of rain over the heavy snowpack, prevented us from getting a rapid meltdown and the potential for massive flooding. We at the Town have been very busy preparing our work plans for the upcoming year (when we were not out moving snow) to hopefully have a positive impact in the Everglade Watershed Basin in the Town. I have listed below where we are at for certain projects.

Stream Channel Restoration : This portion of the project has been progressing. I have been working with a local firm that is DNR approved to apply chemical treatments to waterways. The areas to treat have largely been identified in the Town of Greenville and adjoining Towns downstream where the stream channel is blocked by vegetation. All property owners will be getting an agreement to sign along with a detail explaining the chemical to be used. The expectation is that work would be completed during the months of July/August to be most effective and have best access. Initial scope of work would include the removal of all the downed trees/brush in the historical stream channel and spraying a 30 foot wide corridor to re-establish stream flow. At this point, amphibious equipment with 15 foot boom sprayers would be used for the project. I have had preliminary discussions to bid the project out, but will get firm numbers once the water starts to recede this spring. I have been in contact with the necessary DNR personnel and no issues have come up in any of our discussions.

Rain Garden Initiative: This project is a very exciting one to work on, with the potential to have lasting and meaningful effects to our local waterways. At the direction of the Town Board we have looked for ways to decrease water from leaving new construction sites and from older developed parts of Town. I have researched quite a few communities around the country and came back to the upper Midwest for guidance. Burnsville Minnesota and Madison Wisconsin are a few of the communities who have adopted an approach to treat stormwater volume as an issue and have similar climates and soils to the Town of Greenville. These communities have an established record of successful implementation of rain gardens/infiltration areas. When I talk about rain gardens from the Town perspective, I mean larger engineered systems for stormwater storage. There will be a couple of pictures attached to this email showing what the Town intends to do. This is a long term approach to managing stormwater. Our first order of business was to just apply for a DNR construction grant that will help us install rain garden

retrofits at the Town Fire Station and Public Works Facility. The Fire Station is not served by any stormwater device and the Public Works is served by a detention basin. While the detention basin controls peak flows, there is no volume control and the pollutant removal is not as great. Being that the PW site has quite a few potential pollutant concerns, we feel that the rain gardens will drastically improve any outflow leaving the site. Early models indicate pollutant removal rates above 90% and a volume reduction of 80-92%. This is very significant and beneficial to the Everglade Watershed. Another portion of the project will be installing rain gardens on a Town roadway in the Everglade Watershed that is not served by any stormwater device. This will be a proto-type and demonstration project that will be replicated throughout the Town over time.

Downspout Disconnect Program: Prior to 12/31/2010 some of the homes constructed in the curb and gutter areas in the Everglade Watershed have their rooftop gutters directly attached to the storm sewers. What this means is that a typical Greenville yearly rainfall amount of 31 inches and average rooftop of 1507 sq ft, would result in approximately 28,000 gallons of stormwater going to the lowest point in the Everglade Watershed. The Town of Greenville seeks to reduce the amount of stormwater volume going to the Everglade Marsh. If 100 homes participate in this program, about 2.8 million gallons of storm water would infiltrate into the lawns or flower beds instead of going down to the Everglade Marsh. This program is to give residents who disconnect their downspouts from the storm sewers and re-direct that water onto vegetative areas an incentive to receive a one-time refund equal to 1 ERU (equivalent residential unit) or \$65 for 2013, which is the current amount of the Stormwater fee schedule. The immediate focus areas are in the Chappel Hills, Glen Valley, Waterlefe, Beacon Hills, Amber Fields and Amber Meadows subdivisions that have curb and storm sewers. Letters to affected landowners have been sent and Town personnel will verify all actions.

Jennerjohn Pond Update: The Jennerjohn Stormwater pond was constructed at Jennerjohn Park last year to treat peak flood flows and to remove pollutants from approximately 245 acres of developed land which had no controls before this project. The Jennerjohn pond has been performing as planned. This year starting in summer and into the fall, the Town has contracted out to have a prairie installed around the perimeter of the pond on the upland areas and wetland plants in the pond. By installing prairie instead of turf grass, we are creating a more naturalized landscape and also creating an environment that geese do not find to their liking. Also, from a long term management perspective, less Town resources will be required to maintain this area. The prairie plants will have the benefit of creating a beautiful landscape and also help infiltrate water. A grassed path will encircle the pond for residents to enjoy.

Planning Grant: The Town of Greenville was recently awarded a stormwater planning grant from the DNR in an amount of \$75,000. This money will be used for professional services to help with ordinance changes, mapping, infiltrometer testing of soils and preliminary design of stormwater devices. Some of the ordinance changes will involve new construction and the requirement for infiltration instead of just relying on ponds or other devices.

State Highway 76/15 Reconstruction: Both highways are slated for reconstruction in the near future and have the potential to impact the Everglade Watershed in a negative way. The Town is making our concerns noted about the problems with stormwater downstream of the reconstruction projects and the need to design mitigation devices to counteract the increase in stormwater runoff from the increase in impervious surfaces. It will be important for you to show up to any public information meetings to voice any concerns you may have about each project. This may help change DOT's mind about final design considerations in this particular watershed. The Town has little control over these two roadways.

If you have any questions or concerns regarding drainage or stormwater issues, feel free to contact me at 920-757 7276 ext 106.

Thank you,

Chris Pagels

Stormwater Superintendent