

WHITE PAPER ON STORM WATER ISSUES
CITY COUNCIL MEETING 5-20-2019
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This White Paper is to discuss some of the issues that were discussed at the Storm water Workshop the City Council held on April 29-2019.

- 1- The issue of the Sun Tree filters is something that needs to be addressed. As demonstrated by Councilor Young, many of the filters are installed wrong and/or are not fitted correctly and in addition when they do get installed correctly, they do not filter our key pollutants like Nitrogen, Prosphoras and many others. While many of those filters may have been paid by a grant, it was really a misuse of those funds. They also require maintenance and at the workshop we were told that we are not maintaining them, although in the past we have been told that maintenance would be in the \$100.s of thousands. Whatever money is budgeted for that purpose can be put to better use, such as rebuilding the Swales properly. Marco Island has just been granted \$500K for the South Barfield storm water project. That project has designed in the polluted storm water to go right into the canals and/or Gulf of Mexico. This is not acceptable given the Red Tide and Alga Blooms that we have suffered and the fact that our waterways have high content of Nitrogen and Phosphorus. We need to make sure that before the storm water winds up in the canals, it is percolated or contained in a retaining pond.**
- 2- Our recycle water shows that it has high concentration of Nitrogen and Phosphorus which are major pollutants that can cause algae blooms and possibly worsen the Red Tide effects. I have proposed that the city require that all customers of recycle water immediately commit and are required to not use fertilizer for their properties where they use recycle water. Those who refuse these action should be charged a much higher rate for recycle water. Eliminating their fertilizing will reduce the amount**

of nitrogen that goes into our waterways and will be an immediate savings to them. I am a member of Cape Marco and our Board has committed to stop fertilizing since there is enough nitrogen and phosphorus in the recycled water to make the need for any fertilizin unnecessary.

- 3- Ban Fertilizer at least during Rainy season, May thru November.**
- 4- Swales. While our swales were designed to percolate our storm water thus filtering the pollutants out, over the last 10 + years the growth in our city has resulted in the deterioration of most of our swales, they have either been almost filled, eliminated, or the way the connections under driveways have been installed, the bottom of the swales are at the same level as those pipes or inlets which results in the whole system become more one of conveyance of storm water all the way to the outfalls and into the canals or gulf, instead of retaining water for percolation. Until those swales are properly reshaped so that the bottom of the swales are at least 1 foot below the pipes or inlets, a temporary solution is to block the outfalls so that their bottom leading to the canals is blocked and the water will stay in the swales percolating the water, while leaving enough room for water to flow when major storms hit the city. This solution should help reduce the conveyance a large part of the time and allow the storm water to percolate in the swales while still allowing excess rainfall to flow through to reduce flooding.**
- 5- Attached document from the city of MI Construction Standards handbook for Swales, ordinance 15-05 issue on July 20, 2015**