

Good evening Mr. Mayor and members of council. Thank you for the opportunity to provide this update on the town's Phase II stormwater permit and the Stormwater Advisory Board activities. Since this is such a critically important issue, we feel the better informed the council is on these matters, the better the policies and more comprehensive reach.

In your packet is an overview of the stormwater permit requirements, our progress over the last year, and most importantly, some proposed changes to town policy, ordinances, and other development practices that we think will maximize the benefits of the stormwater program. I would also like to say to the public that a complete copy of this information packet and these comments are posted on the stormwater website, www.oakislandcleanwater.org. For those of you without a computer, you can get a copy of this information from Pat Brunell, the Town Clerk.

As you know, the Town of Oak Island's stormwater permit became effective March 1st last year. The Phase II permit specifies six major areas of compliance and each of those has several sub-tasks. For those of you in the audience without this information packet, those six areas are:

1. public education and outreach on stormwater impact
2. public involvement and participation
3. illicit discharge detection and elimination
4. construction site runoff control
5. post-construction stormwater management in new development and redevelopment
6. pollution prevention and good housekeeping for municipal operations

As noted in your packet, not all of these areas have to be addressed in the first year. The Phase II permit is a 5-year permit that allows phased in activity for each of these areas. However, within the first year, there are several public education and outreach programs that must be started. I am pleased to report the following achievements:

- **Established a stormwater website** (www.oakislandcleanwater.org) that provides a clearinghouse of information on Best Management Practices (BMPs), town ordinances, homeowner projects, local water quality monitoring reports, and links to technical information.
- **Held a rain barrel workshop on February 21st with over 70 area residents.** It was taped and will be aired on Channel 8, beginning this week. Copies of all presentations are on the stormwater website.
- **Riparian Buffer Restoration Program and Rain Gardens Initiative:** We met with Mamie Caison of the Brunswick County Soil & Water Conservation District to review areas on the island that would be ideal demonstration spots for rain gardens and restoring riparian buffers at street ends. Funding for projects will be available through the NC Community Conservation Assistance Program (CCAP).
- **Water Quality Monitoring Initiative:** John Michaux has met with officials from UNCW about getting assistance with water quality testing of particular areas around Davis Canal and ICW. This would be invaluable to establishing a baseline to compare as the island-wide sewer comes on line. Funding available from NC DWQ "319" grants.
- **June 5, 2007 Presentation at Planning Board Meeting:** When the Planning Board discussed tree & vegetation ordinances in June 2007, the Stormwater Advisory Board presented an overview of the stormwater system and how critical this was to an optimal plan. Other proposals were discussed as well to allow for a harmonized planning and stormwater approach.
- **Enviroscape™ Educational Program:** The town purchased an Enviroscape™, which is an educational tool used to demonstrate erosion principles. John Michaux gave demonstrations to the entire 5th grade level science & geography classes at Southport Elementary School.
- **Oak Island Cleanwater Logo Contest:** We started a contest to see who can design the logo for the Oak Island Cleanwater website and educational materials. Contest rules on the website. Designs are due by May 1, 2008.

So, you can see we've been quite busy. This work has laid the foundation for the next phase of outreach and education. But the most important next step is to have the council address current town policies, ordinances, and development practices that are key to achieving the full benefits of the stormwater management program. They include:

1. Clearing and/or bush-hogging of street ends should be stopped. These are riparian buffers that could benefit by no-mow zones. In fact, there are several street-ends on Davis Canal that are bare soil and need to be re-vegetated.
2. Revise building codes to require gutters and downspouts on new construction but leave contractor the option of using rain barrels, cisterns, or infiltration trenches for capture. Oak Island is one of the few towns in Brunswick County that does not require this.
3. Ban clear cutting lots from property line to property line for both residential and commercial. A vegetative buffer in the setback areas should be preserved except for areas needed to access the property. Establish a heritage tree protection program that ensures old growth is not removed without a permit or prior review.
4. Review commercial parking requirements to allow a reduced number of parking spaces in lieu of more vegetative buffering and/or incorporating vegetation in the parking areas. This would not only serve the aesthetic demands of the community but, more importantly, help meet the requirements of the stormwater plan for the site.
5. Residential: cap the size footprint of the house and driveway based on their combined total of impervious surface as (1) a percentage of the entire lot or (2) a percentage of the buildable area
6. Commercial: establish vegetative buffers around the property line within the setback that cannot be covered by driveways or other impervious surfaces; establish a cap on the total percentage of impervious surface allowed
7. Review of materials and designs typically used for driveways and parking areas. Alternative construction methods may allow grass strips or pervious materials inserted between concrete or paved runners. May also consider reducing the width of driveways and parking areas.
8. Apply a standard to development of lots less than one acre by requiring a stormwater plan be implemented for properties that exceed a trigger (e.g., 50% impervious surface)
9. Use of pervious surfaces for parking lots, pedestrian-friendly areas, and sidewalks in commercial district
10. Promote retrofits of commercial district to decrease impervious surface area. There is funding available through the NC Community Conservation Assistance Program or CCAP to help businesses accomplish this.
11. Promote Low Impact Development (LID) techniques by having significantly lower impact fees for projects that include significant stormwater management mitigation in their plans. Conversely, charge more for developments or new construction that does not include these features.
12. Establish a group of citizens that can work in conjunction with town employees to help consult and establish bowl gardens, bioretention ponds, artificial wetlands, etc. for other neighbors and projects planned by the town.
13. Establish an advisory group for citizens living directly on the water so that they can receive additional materials regarding keeping their riparian buffer healthy, not using pesticides/herbicides, or other practices that could have a dramatic impact on water quality.
14. Harmonize the town's stormwater ordinance with the state model ordinance. Harmonize the town's stormwater BMPs with the state's model BMP.
15. Prior to annexing property there should be a thorough review of stormwater issues for that property or area in order to avoid taking on the expense of having to address existing non-compliance (e.g., South Harbour).
16. Create financial incentives for homeowners to increase their stormwater management practices (e.g., contests, waive stormwater fees for a year, etc.)

In conclusion, we feel that stormwater is such a large, complex issue with many sources of pollution that it requires a comprehensive approach. And engineering will only take you so far. We need to change our development practices. That is why the Stormwater Advisory Board will gladly help research any issues related to the proposals I just mentioned.

We are deeply concerned that if we don't make some significant changes, we will see a further deterioration of the watershed resulting in decreased shellfish beds, algal blooms, fish kills, and beach closings as well as increased regulatory scrutiny by CAMA and DWQ for any development subject to Phase II requirements. There would likely be state-mandated monitoring of certain pollutants as well. So, there is certainly a lot at stake.

In closing, I want to credit the tremendous effort by my fellow board members Susan Pierce, Dan Weaver, Wendie Schneider, and Elaine Painter. This is an excellent board with an extraordinary blend of technical, educational, and environmental skills, all of which has worked quite well for this complex area. I would also like to pay a special tribute to previous board chairs Jim Boney and Ken Scott, who laid the foundation for the work we have done in the last year or so. Last but certainly not least, I would like this council to know that the direction provided by Gene Kudgus, Director of Public Works, and John Michaux, Director of Stormwater Management, has been exceptional. A lot of these accomplishments were only possible because of their enthusiasm, focus, and dedication they have brought to this area.

Thank you. I'll be happy to answer any questions or respond to any comments.

Robert L. Zeid
Chair, Stormwater Advisory Board