

## RECOMMENDATIONS for FOUR SEASONS COMMUNITY OPEN SPACE and POND

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### Observations:

1. The Stormwater Pond accumulates trash, algae, duckweed, is an eyesore and during periods of heavy rainfall, erodes downslope especially visible at the macafari-gabeon structure, sending sediment laden runoff into Towsers Branch which feeds Little Patuxent, Patuxent and the Bay. Native growth of arrowroot around the pond has been mowed and left in a disorderly manner. Wetland below the pond is mostly cattails. Pond was built with clay underliner to hold water.
2. The upstream channel is stagnant except during rainfall events and breeds mosquitoes (especially noticeable at that location rather than at the SW Pond).
3. Large meadow surround is mowed but not otherwise used by the community. Some fruit trees have been planted.

### Recommendations:

Persuant to the Stormwater Act of '07, Maryland Department of Environment (MDE) has completed a major revision of its Stormwater Rules for new development and redevelopment. Maryland Counties and Municipalities are required to submit new ordinances no later than November for MDE's approval by May 2010. Regulations are based on current need to restore Rivers and the Bay damaged by piped stormwater runoff and stormwater ponds which feed into them overheated, algae and pollutant loaded stormwater. Therefore, the timely opportunity for Four Seasons is to replace the outmoded systems described above, with a system recommended highly by AA County: A Regenerative Stormwater Management System. Such systems were originated by Keith Underwood & Assoc. and have been installed successfully to restore degraded waterways and stormwater ponds. One such example is Wilelinor, a photo of which I insert below. This much larger system than Four Seasons, is however a good example of these "sand seepage wetlands" which offer mosquito-free, ecosystem function that is an attribute to the landscape.

Rather than focus on an effort to beautify the pond, Four Seasons should focus on a step by step ecosystem restoration which would provide a significant visual community benefit as well as correcting the pollutant loading of the waterways which will continue to occur even if the pond is more attractive. The pond is functioning as designed, however, such pond designs are outdated and have proven themselves to be harmful.

Such a regenerative stormwater system would create a sand seepage wetland system constructed of sand, woodchips, cobbles, native stone and planted with native trees such as Atlantic White Cedar (available from Arlington Echo Outdoor Education Center), Sweetbay Magnolia, native perennials such as cranberry, blueberry, ferns and grasses which could dominate the meadow,

reduce mowing to close to zero, offer a benefit in reduced cost to the community and reduced air pollution (mowers pollute 3X as much as cars).

We would highly recommend that if the Community wishes to provide access to the area for mothers with strollers, they do so using a relatively inexpensive support system such as grasscrete or other porous surface.

Some years ago, when we discussed a Pond restoration with then President Joan Berry, she suggested that when monies had been paid into the Community Association as a result of the Sand and Gravel Easement Agreement, funds could be available to accomplish the benefits described above. Such funds could be used to apply for matching grants.

The upper large open space which requires considerable mowing, could be the subject of a clustered woodland restoration with canopy and mid-sized trees which could provide shade, bloom. clean, cool air and attractive, sheltered community picnic areas.

An excellent Native plant directory: <http://www.nps.gov/plants/pubs/chesapeake/>

Please direct any questions to Anne Pearson, Alliance for Sustainable Communities, 410-956-1002, [aplace4@verizon.net](mailto:aplace4@verizon.net).

## REGENERATIVE STORMWATER MANAGEMENT SYSTEM AT WILELINOR

