NOTTINGHAM RIDGE PLANNED UNIT DEVELOPMENT
CONSEQUENCES OF ENVIRONMENTAL SITE DESIGN WAIVERS & POOR EROSION CONTROL ENFORCEMENT

The Nottingham Ridge Planned Unit Development is a massive 83-acre proposed project consisting of multifamily housing, office space, retail, a hotel and conference space. The site adjoins Whitemarsh Run, the major tributary to Bird River. Both the Run and River are severely degraded by past mining and development activity throughout the 26 square mile watershed. The original developers of the Nottingham Ridge site added considerably to the pollution by allowing large areas of exposed soil to erode and cause sediment pollution of the Run and River. This was clearly in violation of the laws in effect at the time yet Baltimore County failed to prevent it. The current developers now wish to avoid the use of Environmental Site Design measures which could fully negate future stormwater pollution. Incredibly, Baltimore County appears to be allowing this. In fact, the County is permitting the project to use ineffective 1980s stormwater management technology which provides very little aquatic resource protection.

Environmental Site Design Could Yield Growth Benefits & Preserve Aquatic Resources
By utilizing highly-effective runoff treatment measures and improved site planning, Environmental Site Design\(^1\) (ESD) offers the promise of gaining the benefits of growth with no adverse effects to aquatic resources. The redevelopment provisions of ESD could also accelerate the recovery of waters degraded by past development. Over the coming decades streams like Gwynns Falls, Whitemarsh Run and others draining intensely developed areas could go from the present condition of unfit for human use to suitable for wading, aquatic life and maybe even swimming. If achieved, this goal will greatly expand recreational opportunities for inner city residents as well as those living in suburban areas.

Baltimore County Leads in ESD Waivers
In 2010, the Maryland Stormwater Management Regulations\(^2\) were amended to allow for the issuance of ESD waivers, in which case a project would only need comply with the pre-ESD requirements set forth in the 2000 Maryland Stormwater Design Manual.\(^3\) The table to the right shows the number of ESD waivers issued as

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1 For further ESD background visit: ceds.org/esd

2 See Code of Maryland Regulations (COMAR) 26.17.02.01-2.01-2 Grandfather Provisions, available online at: http://www.dsd.state.md.us/

3 See: http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/MarylandStormwaterDesignManual/Pages/Programs/WaterPrograms/SedimentandStormwater/stormwater_design/index.aspx
of late 2010 for 16 of Maryland’s 23 counties. One jurisdiction - Baltimore County - accounted for 62% of all the waivers issued. According to the *Baltimore Sun*, that figure was up to 360 waivers as of January, 2014.\textsuperscript{4}

It appears that one of the waived projects was the Nottingham Ridge PUD (Planned Unit Development), which is proposed for an 83-acre site on the north side of Philadelphia Road (MD 7), just west of Whitemarsh Boulevard (MD 43) in southeastern Baltimore County, MD. The development plan for the project appears on the next page. This project would consist of:\textsuperscript{5}

- 1,250 Multifamily Dwelling Units;
- 1,290,000 square feet General Office;
- 311,000 square feet of Retail;

- A 500 room Hotel;
- 82,500 square feet of Restaurant; and
- 10,000 square feet Conference space

**Bird River & the Run Polluted**

As shown in the map to the left, Nottingham Ridge is proposed for the 26-square mile Bird River watershed which is arguably one of Maryland’s most polluted waterways, particularly with regard to sediment. Bird River is on the impaired waters list adopted by the Maryland Department of the Environment (MDE).\textsuperscript{6} The Nottingham Ridge site adjoins Whitemarsh Run the principal tributary of Bird River. According to the Maryland Department of Natural Resources Stream Health website, Whitemarsh Run is of Poor quality.\textsuperscript{7} Baltimore County has identified the following as degrading Bird River: excess sediment -


\textsuperscript{5} This table is from a Development Plan labeled PARAGON at Nottingham Ridge, First PUD Amendment, Sheet 2 of 3, last revised 4-15-2014.

\textsuperscript{6} See: [http://www.mde.state.md.us/programs/Water/TMDL/Integrated303dReports/Pages/303d.aspx](http://www.mde.state.md.us/programs/Water/TMDL/Integrated303dReports/Pages/303d.aspx)

\textsuperscript{7} See: [http://www.streamhealth.maryland.gov/map.asp](http://www.streamhealth.maryland.gov/map.asp)
particularly during storms; nutrients; toxic pollutants – such as metals, oil and grease, pesticides – runoff from urban areas; and bacteria.⁸

Aggressive & Expensive Efforts Underway To Restore Whitemarsh Run & Bird River
While Whitemarsh Run and the Bird River may be of poor quality today, ambitious restoration plans have been drafted for both waterways. And in the 1990s the first of several restoration projects was carried out along Whitemarsh Run. A Bird River Watershed Management Plan was completed by Baltimore County in February of 1995. It appears that a Small Watershed Action Plan is now in preparation. The point is that Whitemarsh Run and Bird River are the focus of intense and expensive restoration efforts by Baltimore County and others. It would be counter-productive to allow development to proceed within the watershed if the development does not use the best available aquatic resource protection technology. Of course Environmental Site Design is the best technology, yet Baltimore County is allowing Nottingham Ridge to use much older and inferior stormwater management technology.

Maryland Stormwater Management Evolution Enhances Aquatic Resource Protection
In Maryland, stormwater management has undergone three evolutions. When the State stormwater law was first adopted in 1982 all new development sites only had to treat the first-half inch of runoff from buildings, streets, parking lots and other impervious surfaces. The second evolution occurred when the original Maryland Stormwater Design Manual was adopted in the year 2000. The 2000 manual required treating the first inch (or 90% of all runoff) with fairly effective water quality protection measures. Runoff was also to be managed to prevent downstream channel erosion, flooding and to recharge water tables to maintain dry-weather inflow to streams and wetlands. Environmental Site Design was the third and current evolution.

Nottingham To Use 1980s Control
Nottingham Ridge is being allowed to proceed with 1980s stormwater technology. The graph to the right compares the amount of nitrogen that would be discharged from the Nottingham Ridge site to Whitemarsh Run and the Bird River under four scenarios. This graph is based upon the latest guidance from the USEPA Chesapeake Bay Program for estimating

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ESD Or Even 2000 Control Would Dramatically Reduce Pollution
As the name implies, the forest bar in the graph would be the nitrogen load if the 83-acre site were covered completely with trees. This is presented simply as a reference; not as a proposed goal. However, the closer nitrogen loads get to forest the more rapidly Whitemarsh Run and Bird River will recover. Note that full compliance with ESD gets us closest to forest loadings, but still a hundred pounds above. And compliance with the 2000 manual is far closer when compared to the tremendous loading from the site as proposed. Note that the 1980s stormwater management proposed for Nottingham Ridge would release four times the nitrogen load compared to the forest scenario.

<table>
<thead>
<tr>
<th>COMAR 26.17.02.01-2</th>
<th>.01-2 Grandfather Provisions.</th>
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### C. Expiration of Administrative Waivers.

(1) Except as provided for in §D of this regulation, an administrative waiver shall expire on:

(a) May 4, 2013, if the development does not receive final project approval prior to that date; or

(b) May 4, 2017, if the development receives final project approval prior to May 4, 2013.

(2) All construction authorized pursuant to an administrative waiver must be completed by May 4, 2017, or, if the waiver is extended as provided in §D of this regulation, by the expiration date of the waiver extension.

### D. Extension of Administrative Waivers.

(1) Except as provided in §D(2) of this regulation, an administrative waiver shall not be extended.

(2) An administrative waiver may only be extended if, by May 4, 2010, the development:

(a) Has received a preliminary project approval; and

(b) Was subject to a Development Rights and Responsibilities Agreement, a Tax Increment Financing approval, or an Annexation Agreement.

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9 **Recommendations of the Expert Panel to Define Removal Rates for New State Stormwater Performance Standards.** The following assumptions were used in preparing the Nottingham Ridge nitrogen graph: 83-acre site, 85% impervious, nitrogen load of 9.9 lb/acre, 1/2-inch pond achieves 25% N removal and treats 27 acres, one-inch pond achieves 33% N removal and treats 56 acres, 2000 bioretention achieves 55% N removal for first inch of runoff from entire site, and ESD achieves 70% N removal for 2.0 inches of runoff from entire site.
conditions. These regulations indicate that the Nottingham waiver should have expired May of last year since the project has not received final approval yet. In fact, the project is now before the Baltimore County Administrative Law Judge for Development Plan approval.

Equally unclear is the apparent decision by Baltimore County to allow Nottingham Ridge to ignore the 2000 Manual. The waiver was intended to exempt a project from ESD to proceed in accordance with the *2000 Maryland Stormwater Design Manual*. Yet Baltimore County appears to be allowing the Nottingham Ridge to go back to 1980s stormwater technology.

Sheet 1 of 3, of the Development Plan labeled *PARAGON at Nottingham Ridge, First PUD Amendment*, last revised 4-15-2014, contains the justification for allowing 1980s stormwater management for this project. This justification appears in the box below.

![Stormwater Management](image)

There appear to be three problems with the justification.

First, Baltimore County Development Regulation 33-4-114, is cited as allowing a PUD to proceed under plans approved prior to 2010. Yet the Nottingham plans were approved in 2001. Development Regulation 33-4-108(e)(1) states that all permits (and plan approvals) expire after two years. So the approvals and permits issues would have expired long before 2010. This should render 33-4-114 irrelevant to this project.
Second, the Environmental Site Design provisions appear in State regulations. It was this layman’s impression that County law could not negate State law.

Third, Section B of the justification cites a stream restoration project along White Marsh Run as part of the justification for allowing the project to proceed under 1980s standards. I obtained the plans for the project cited in the justification, which was for a half-mile of restoration work along the portion of White Marsh Run between I-95 and MD7 - the same stretch that adjoins the Nottingham site. The project consisted of realigning the channel, stabilizing the banks and installing 13 Vortex Rock Weirs intended to improve instream habitat by deepening the channel of White Marsh Run. It appears this project was completed in the late 1990s. When I walked this section of channel earlier this year I found that half the weirs were gone. I also found that a portion of the bank had begun eroding again. In other words, a substantial portion of the benefits used to justify relaxed stormwater standards no longer exist.

A Decade of Uncontrolled Erosion Should Not Be Rewarded
Beginning on page 9, are aerial photos of the site taken in 2002, 2008, 2012 and April 2014. The 2002 photo shows the 83 acre site was cleared and graded sometime before and one building was constructed along Nottingham Drive. Much of the rest of the site consisted of sparsely vegetated soil.

Since 1979, Maryland law has required that soils disturbed by construction activity be stabilized with straw mulch, then grass when more than 14 days has passed since earth-moving activities ended. The 1994 Maryland Specifications for Soil Erosion and Sediment Control and the current manual require that areas managed as grass have a minimum 95% vegetative cover (see 1994 page G-20-12 and 2011 page B.9). Less than 5% of the site shown in the 2002 aerial has a 95% vegetative cover. The rest is essentially bare soil exposed to the full erosive forces of rainfall and runoff.

The 2008 aerial photo indicates that natural growth has achieved a 95% vegetative cover over maybe 20% of the site. It also shows a second building next to the first, but the rest of the site appears to have been sitting idle for six years.

By 2012, it appears that maybe 30% of the Nottingham Ridge site has a dense vegetative cover.

Finally, it looks like maybe 50% of the Nottingham site has a dense vegetative - erosion controlling - cover by April of 2014.

While two ponds are present onsite and would have received runoff from the exposed areas, these ponds can only retain a third to half the soil eroded on the site. Had the exposed soils been fully stabilized with mulch and grass then erosion and offsite sediment pollution

would have been slashed by 95% to 99%! This is why Maryland law requires stabilization as soon as earth-moving ends, which clearly was not done. As a result those who live near Bird River and who otherwise might enjoy the waterway were forced for more than a decade to see it turn brown with each major storm, in part due to Nottingham Ridge.

It was the Nottingham Ridge property owner and permittees responsibility to stabilize the site and prevent erosion along with offsite sediment pollution. Baltimore County had the primary responsibility for enforcing this requirement with the Maryland Department of the Environment secondarily responsible.

Clearly all parties failed to carry out their responsibilities. So for more than a decade large quantities of soil have eroded from this site to wash into Whitemarsh Run and then Bird River. This is reprehensible and the last thing that should happen is a relaxation of environmental protection standards for this project.

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