



Maryland

Department of
the Environment

Larry Hogan
Governor

Boyd Rutherford
Lieutenant Governor

Ben Grumbles
Secretary

OCT 17 2016

Mr. Mark Richmond
Stormwater Management Division
Department of Public Works
Howard County Government
6751 Columbia Gateway Drive, Suite 514
Columbia, MD 21046-3145

Dear Mr. Richmond:

This letter acknowledges the Maryland Department of the Environment's (MDE) receipt of Howard County's 2016 Financial Assurance Plan (FAP) and 2016 Watershed Protection and Restoration Program (WPRP) Annual Report as required by the Annotated Code of Maryland. MDE received an e-mail from the County that included both reports as well as additional information on July 1, 2016.

Chapter 124 of the Acts of the General Assembly of 2015 requires MDE to make a determination regarding the sufficiency of funding in each FAP filed with the Department. For any FAP filed on or before July 1, 2016, funding in the FAP is sufficient if the FAP demonstrates that the County or municipality has dedicated revenues, funds, or sources of funds to meet, for the 2-year period immediately following the filing date of the FAP, 75% of the projected costs of compliance with the impervious surface restoration plan (ISRP) requirements of the County or municipality under its National Pollutant Discharge Elimination System (NPDES) Phase I Municipal Separate Storm Sewer System (MS4) permit over that 2-year period. After reviewing Howard County's 2016 FAP MDE has determined that the County has demonstrated that it has sufficient funding in its FAP.

Below are more details regarding MDE's findings:

- There are a number of proposed projects that the County reported as “[best management practice] (BMP) Conversions”, “Pond Conversions”, “BMP Maintenance” or “New BMPs” for 6% of its ISRP requirement. The County needs to provide greater specificity regarding these proposed projects so that they can be validated.
- The County's FAP included two approved restoration practices that are not being claimed for impervious area credit (i.e., street sweeping and inlet cleaning). These practices can help the County meet its restoration goals, reduce program cost, and should be proposed for credit.
- The County is relying heavily upon volunteer activities including homeowner implementation of rain barrels, rain gardens, and tree planting. These affordable BMP options provide great opportunities for citizen outreach and ISRP implementation, and should be maximized.

Mr. Mark Richmond

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MDE has provided additional review comments in an attachment for the County's information and use. Please provide a response to MDE's comments in subsequent FAPs and WPRP Annual Reports. MDE requests that WPRP Annual Reports be submitted in coordination with the NPDES MS4 Annual Reports, beginning on December 18, 2017. The County's next FAP will be due in coordination with its December 18, 2018 Annual Report.

MDE recognizes the substantial effort required to create the FAP and WPRP Annual Report. Howard County is commended for its effort in developing and implementing this very important environmental program for improving local water resources and restoring the Chesapeake Bay. If you have any questions regarding this review, please contact me at 410-537-3543 or Brian Clevenger at 410-537-3554, or brian.clevenger@maryland.gov.

Sincerely,



Lynn Buhl, Director
Water Management Administration

cc: Brian Clevenger, Program Manager, Sediment, Stormwater, and Dam Safety Program

Attachment

**Maryland Department of the Environment's
Howard County's 2016 Financial Assurance Plan
September 2016**

FAP Condition	MDE Assessment and Recommendations
<p>Demonstration of Public Participation and Sufficient Funding</p>	<ul style="list-style-type: none"> • Howard County submitted its Financial Assurance Plan (FAP) to the County Council on May 31, 2016. The Council held a public hearing on the FAP on June 20, 2016 and a work session on June 27, 2016. • The County submitted its FAP to the Maryland Department of the Environment (MDE) on July 1, 2016 satisfying State reporting requirements. • The FAP, adopted by the County Council on July 8, 2016, was approved and signed by the County Executive on July 11, 2016. • Howard County's FAP demonstrates sufficient funding for the projected Impervious Surface Restoration Plan (ISRP) costs for the next two-year period. The County's revenue represents 91% of the costs (i.e., \$40.8 million in revenue versus \$44.7 million in cost). The County's next FAP submittal must show 100% funding of the ISRP permit requirement.
<p>ISRP Baseline</p>	<ul style="list-style-type: none"> • Howard County's impervious area analysis indicated that there are 10,222 impervious acres in the County with little or no stormwater management. The County's current permit requires that 20% of that area, or 2,044 impervious acres, be restored during the course of its permit term (i.e., 10,222 untreated acres * 20% treatment requirement = 2,044 acres). The 2,044 impervious acre requirement is also known as the ISRP baseline. MDE's review of the County's impervious area analysis is pending at this time.
<p>Actions to Meet Permit Requirements ("All Actions" worksheet)</p>	<ul style="list-style-type: none"> • Howard County's FAP included an executive summary and detailed information on actions required to meet the ISRP requirements of the County's current permit by December 17, 2019. • There are a number of proposed projects that the County reported as "New BMPs [best management practices]", "Pond Conversions", "BMP Conversions", and "BMP Maintenance" for 6% of its ISRP requirement. The County needs to provide greater specificity regarding these proposed projects so that they can be validated. The County should only use BMP codes found in MDE's Municipal Separate Storm Sewer System (MS4) geodatabase. • The County proposed completing 64% of its ISRP requirement by restoring 1,314 impervious acres through stream restoration, including: <ul style="list-style-type: none"> ○ 21 projects for restoring 294,200 linear feet, or 294 impervious acres, that are planned for completion between fiscal year (FY)2016 and FY2018. ○ 5 projects for restoring 797,000 linear feet, or 797 impervious acres, that are planned for completion between FY2018 and FY2020. • Based on past progress, the County will need to significantly increase the pace of stream restoration implementation to fulfill its ISRP requirement. <ul style="list-style-type: none"> ○ For FY2011 through FY2016 the County completed 178 acres of impervious acre credits through stream restoration; the County is

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<p>Actions to Meet Permit Requirements</p> <p>("All Actions" worksheet)</p>	<p>now projecting 1,314 impervious acres of credit through stream restoration projects.</p> <ul style="list-style-type: none"> ○ The County should consider the practicality of relying heavily on stream restoration within a short time period. All stream restoration projects require pre-restoration monitoring for proper design. In addition, monitoring is required to estimate an erosion rate to calculate nutrient and sediment removal credits in accordance with the stream restoration expert panel protocols. Additional factors that may impact the construction process include weather and mandatory stream closure periods for fish spawning and migration. These variables indicate that any project with an anticipated credit for FY2017 should already be in the construction phase. ● Howard County will need to provide additional information in its next FAP submittal on the scheduling of these projects and specifically how they will be completed before the end of its permit term.
<p>Annual and Projected Costs ("All Actions" and "ISRP Costs" worksheet)</p>	<ul style="list-style-type: none"> ● Annual costs have been reported for FY2015 and FY2016. Projected costs have been reported for FY2016 through FY2020. There is some overlap in FY2016 reporting based on the status of projects at the time of the FAP submittal. ● The reported costs in the "ISRP Costs" worksheet do not accurately correspond with the projected BMP implementation and costs in the "All Actions" worksheet. The County erroneously included the cost of other MS4 program activities in the "All Actions" worksheet (e.g., erosion and sediment control, illicit discharge detection and elimination, assessment of controls). MDE has adjusted the County's FAP where appropriate to include only those actions and BMPs directly related to the implementation of the ISRP requirement. ● The County projected costs of \$44,661,270 for FY2017-FY2018 to restore 750 acres at a cost per acre of \$59,509. ● The County projected costs of \$105,838,122 for the entire permit term. Based on these expenditures for restoring the projected 1,745 impervious acres, the average cost of restoring one impervious acre is \$60,661. ● Based on the projections in these worksheets, the County is on track to meet 85% of its ISRP requirement by FY2019 (i.e., 1,745 vs. 2,044 impervious acres). ● The County has listed pond maintenance and associated costs as an ISRP BMP. Pond maintenance is neither an approved restoration practice, nor should the costs be included as part of the restoration analysis. These BMPs will need to be further clarified by the County regarding what type of restoration is being implemented, or these projects should be removed from the list of proposed capital projects in future FAP submittals. ● The County's FAP included the costs associated with two approved restoration programs that are not being claimed for impervious area credit

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	(i.e., street sweeping and inlet cleaning). These programs can help the County meet its restoration goals, reduce ISRP costs, and should be proposed for credit.
Annual and Projected Revenues ("ISRP Revenue" worksheet)	<ul style="list-style-type: none"> • Howard County has reported projected revenues as required. • The formulas used in the "ISRP Revenue" worksheet are correct. • The reported ISRP revenue equals 91% of the funds needed toward the ISRP requirement (\$40.8 million in revenue versus \$44.7 million in cost). • The County will need to show 100% funding of the ISRP requirement in its next FAP submittal.
Funding Sources ("Fund Sources" worksheet)	<ul style="list-style-type: none"> • Howard County's sources of funds for the next two years include: <ul style="list-style-type: none"> ○ General Obligation Bonds = \$27.6M ○ General Fund = \$4.6M ○ Stormwater Remediation Fee = \$22M ○ External Grants = \$2.9M ○ Total Funding Sources = \$57M • The "Fund Sources" worksheet is complete and the formulas are correct.
Specific Actions and Expenditures from Previous Fiscal Years ("Spec Actions" worksheet)	<ul style="list-style-type: none"> • The County has correctly reported specific actions that reflect completed restoration activities in FY2015 and for a portion of FY2016. • The County erroneously included the cost of other MS4 program activities in the "Spec Actions" worksheet. The formulas in the "Spec Actions" worksheet have been adjusted by removing all MS4 program activities that are not directly related to the ISRP (e.g., erosion and sediment control, illicit discharge detection and elimination, assessment of controls). The County should correct these worksheets in future FAP submittals to contain only the costs directly related to the ISRP permit requirement. • Based on adjustments to the "Spec Actions" worksheet, the County reported 157 acres of restoration for a total cost of \$12,838,020 and a cost per acre of \$81,771. • Comparing the County's cost of completed projects and projected cost for future implementation shows that the cost of restoration is decreasing by approximately \$20,000 per acre. • The County reported eight dry detention BMPs, which are not considered by MDE to provide water quality treatment, for eight impervious acres of credit. These practices should be deleted from the "Spec Actions" worksheet. • The County relied heavily upon volunteer activities including homeowner implementation of rain barrels, rain gardens, and tree planting in the "Spec Actions" worksheet. The County did not, however, propose any of these practices for meeting future ISRP requirements in the "All Actions" worksheet. Because these practices are implemented at little or no additional cost to the County for restoration credit, and provide great citizen outreach

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	opportunities, these BMP options should be expanded in future FAP projections.
Future WPRP and FAP Reporting	<ul style="list-style-type: none"> • Howard County's next Watershed Protection and Restoration Program (WPRP) Annual Report will be due in coordination with the County's December 18, 2017 MS4 Annual Report. • The County's next FAP will be due in coordination with its December 18, 2018 Annual Report.