STORMWATER MANAGEMENT REPORT

ROUTE NUMBER PROJECT DESCRIPTION AS IT APPEARS IN AD SCHEDULE

COUNTY/IES

SHA Contract No. XX0000000

SHA FMIS No. XX000X00

SHA PRD No. XX-PR-XXXX

INSERT PROJECT LOCATION MAP HERE

***PREPARED BY:***

Maryland State Highway Administration

Office of Highway Development

Highway Design Division

707 North Calvert St.

Baltimore, MD, 21202

***PREPARED FOR:***

Maryland State Highway Administration

Office of Highway Development

Highway Design Division

707 North Calvert St.

Baltimore, MD, 21202

**Date:**

P.E. Seal

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No: 00000 Expiration Date: MM/DD/YYYY

NOTE: Not required for SHA in-house projects.

Table of Contents

[Stormwater Management Narrative 2](#_Toc181258701)

[Regulatory Requirements (Check those that apply) 3](#_Toc181258702)

[Erosion and Sediment Control Narrative 4](#_Toc181258703)

[Appendices 5](#_Toc181258704)

[Appendix A: Data and Computation Tables 6](#_Toc181258705)

[Appendix B: Waiver Applications, Variance Requests, County Concurrence Requests 7](#_Toc181258706)

[Appendix C: Mapping 8](#_Toc181258707)

[Appendix D: Computations 9](#_Toc181258708)

[Appendix E: Erosion and Sediment Control Mapping and Computations 10](#_Toc181258709)

[Appendix F: Outfall Photographs and Stability Analysis 11](#_Toc181258710)

[Appendix G: Culvert/Dam Evaluation and Summary 12](#_Toc181258711)

[Appendix H: References 13](#_Toc181258712)

**NOTE: This template assumes no BMPs are feasible. Justification for not having BMPs still must be provided and accepted by PRD.**

# Stormwater Management Narrative

This report presents the concept/site development/final SWM analysis and design for project name here located in county name here. The purpose of the project is purpose here and consists of the following work: constructing/retrofitting work here. Include if the existing roadway is an open section or closed section and any modifications to that drainage pattern.

The project has XX POIs and XX LOIs with a total Impervious Area Requiring Treatment (IART) of X.XX acres. The development criteria (new development/redevelopment) for each POI/LOI was calculated based on the *project LOD or stormwater study area*. No SWM facilities are proposed because of *reasons for no BMP provision* . Water quality requirements will be met by a debit from the SHA water quality. A Cpv variance request is included for *list POI/LOIs.* Cpv is not required for list *POI/LOIs.* Peak flow requirements are met by *list how peak flow requirements are met for each POI/LOI.*

***Refer to appendices for supporting documentation.***

**Site Description and Natural Resources**

|  |  |
| --- | --- |
| Limit of Disturbance (acre) |  |
| Downstream Waterbody Name  (6-Digit Watershed) |  |
| 12-Digit Watershed | *List with study points if more than one per project* |
| Tier II Watershed? | Yes/No |
| Floodplain Impacts? | Yes/No |
| Hotspot Description | *NA or Description* |
| Chesapeake Bay Critical Area Impacts? | Yes/No |
| Severn River Watershed? | Yes/No |
| Interjurisdictional Waterway? (Jones Falls, Gwynn’s Falls or Herring Run Watershed) | Yes/No |

**POI/LOI Data**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **POI/ LOI** | **Development Class**  **(New Dev./ Redev.)** | **Ex. Drg Area (Acre)** | **Pr. Drg Area (Acre)** | **Ex. IA in LOD (Acre)** | **Pr. IA in LOD (Acre)** | **IART (Acre)** |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

# Regulatory Requirements (Check those that apply)

**Anne Arundel Soil Conservation District** **Review** - Projects located within the Severn River watershed require submittal to and approval from the Anne Arundel Soil Conservation District, in accordance with MD Code, Environment, 4-308.

**TIER II Review** - Projects located within a TIER II watershed require completion of the NPDES anti-degradation checklist which should be included as part of the SWM narrative.

**Critical Area Review** – Projects that lie within the Chesapeake Bay Critical Area require review by the Critical Area Commission.

***Description of POIs/LOIs***

**Provide a general discussion of the changes in land use, flow patterns, and drainage areas from existing to proposed conditions for each study location. If the descriptions are similar, they can be grouped together into a single paragraph with any unique study locations discussed under a separate paragraph. Include a discussion of why BMPs cannot be provided.**

***Computational Analysis – edit as needed/if there is no change from existing to proposed conditions tc, drainage area, or RCN, peak flow analysis is not required except as needed to ensure stability***

A “HydroCAD/TR-20/TR-55” analysis was performed for each study location for both existing and proposed conditions to calculate peak discharges. [Include additional information if applicable.]

# Erosion and Sediment Control Narrative

All Erosion and Sediment Control (ESC) practices will be designed according to the latest applicable standards and specifications. *Describe proposed ESC specific for this project in general terms and discuss ESC phasing if any.*

# Appendices

## Appendix A: Data and Computation Tables

* MDE’s Stormwater Management Calculator
* MDE’s ESD Summary Sheet
* Impervious Area Shift Matrix
* Water Quality Summary Sheet
* Peak Flow Summary Sheet

## Appendix B: Waiver Applications, Variance Requests, County Concurrence Requests

## Appendix C: Mapping

* Project Site (POI/LOIs, LOD)
* Drainage Area
* Water Quality Mapping
* Floodplain
* Wetlands/WUS

## Appendix D: Computations

## Appendix E: Erosion and Sediment Control Mapping and Computations

## Appendix F: Outfall Photographs and Stability Analysis

## Appendix G: Culvert/Dam Evaluation and Summary

## Appendix H: References

* Maryland Department of the Environment, 2000 Maryland Stormwater Design Manual, (October 2000, Revised May 2009)
* Maryland Department of the Environment, 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control
* Maryland Department of the Environment, Maryland Stormwater Management and Erosion & Sediment Control Guidelines for State and Federal Projects, (February 2015)
* Maryland Department of Transportation State Highway Administration, Sediment and Stormwater Guidelines and Procedures, (October 2017)
* USDA Web Soil Survey for County Name here, Maryland
* Include any additional references as appropriate
* List any MDE Tech memos referenced