

Impervious Area Restoration Work Plan

Introduction

Queen Anne’s County procured consultant Greenman Pedersen Inc. (GPI) to conduct an impervious baseline assessment of the County’s urban area to determine an initial restoration target acreage. Based on GPI’s report, included in this submission, the restoration target is 200.03 acres. While the County considers some of the methods used in the GPI report to be overly conservative, the expected adjustment of this number is anticipated to be small in subsequent reports. For example, partial passes of Best Management Practices (BMPs) were lumped as failures and included in the baseline where the County more correctly considers it’s partial pass designation as an overall pass for water quality. Since the publishing of the GPI baseline, the County has hired a second full-time stormwater inspector and expects to make significant progress toward completing inspections and ramping up enforcement prior to subsequent reports.

While the MS4 permit is new to the County, the County has long been involved with water quality improvement projects. In the subsequent sections we describe these in more detail. The Impervious Area Work Plan is presented in Table 1 and the Restoration Activity Work Schedule included with this submission contains specifics on meeting the restoration targets for this permit.

Table 1. Impervious Area Work Plan

Timeline	Management Strategies and Goals
Year 1	<ul style="list-style-type: none"> • Develop impervious area baseline assessment • Develop restoration work plan for MDE review and approval • Evaluate previous restoration efforts under the Phase III Watershed Implementation Plan for inclusion in the MS4 restoration activity work schedule • Complete Phase I of septic eliminations under the SKI Project
Year 2	<ul style="list-style-type: none"> • Update and submit Urban BMP database • Maintain inspection records for 80% of BMPs • Reestablish a water quality restoration portfolio in the County for voluntary BMP restoration projects • Support watershed studies to evaluate water quality problems and opportunities for restoration
Year 3	<ul style="list-style-type: none"> • Update and submit Urban BMP database and documented maintenance and inspection status for all BMPs • Continue to identify opportunities for water quality improvement projects and collaborate partnerships • Update and submit Implementation Status as needed

Septic Upgrades

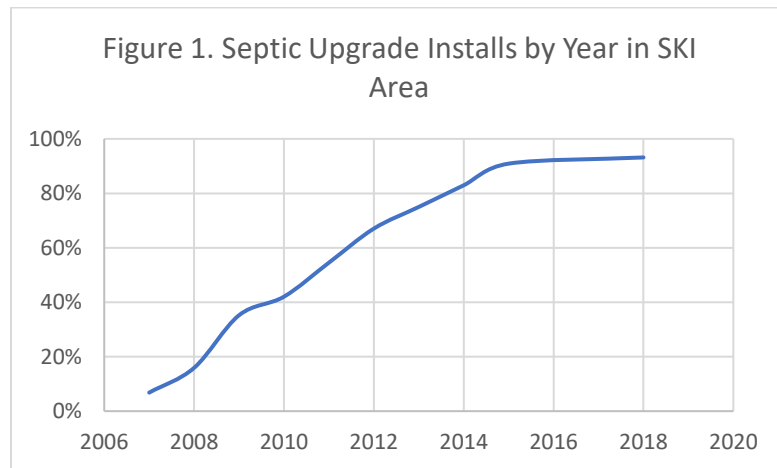
Since 2006, over one thousand septic systems in the County have been upgraded to Best Available Technology (BAT) septic systems for enhanced nitrogen removal. This information was provided by the Queen Anne’s County Health Department, Environmental Health Division. Each septic upgrade reported was screened to determine if the installation was for a pre-existing home or a new home. This was done by comparing the date of the installation to the primary structure date reported on the Maryland State

Department of Assessments and Taxation (SDAT) website and where necessary confirming redevelopment status with aerial imagery and building permits.

The upgraded system installations were divided into two categories for MDE convenience:

1) installations in areas that have been or are slotted to be disconnected as part of the Southern Kent Island (SKI) Sewer Expansion project described in the next section and 2) those that took place elsewhere. The majority of the septic upgrades in future SKI areas took place prior to 2012, providing at least six years of enhanced treatment over a baseline septic before being disconnected in 2019 and onward. A little less than half of these BAT systems have been disconnected in Phase I of SKI.

The vast majority (725 systems) of BATs were installed in areas of the County outside of planned sewer service areas. These alone meet over 90% of the County's restoration requirement.



Septic Disconnections

The Southern Kent Island (SKI) Sewer project contains four phases. Phase I has been completed between 2019 and 2021. This included the connection of 774 pre-existing homes to wastewater treatment. Phase II and Phase III are ongoing and include a projected 200 and 338 septic disconnections respectively.

Watershed Implementation Plan (Phase III)

The County partners with local non-profits such as Shore Rivers to apply for stormwater restoration project funds. Some of the largest projects to date have been done at Chesapeake College, Whitemarsh Park and Conquest Park. The Department of Public Works is working with the Parks Department and private landowners to streamline restoration work so that all required BMP design data and as-built certificates may be collected to be MS4 credit worthy as well as an appropriate maintenance and inspection regime be established.



Figure 2 SKI Project Areas