

## **Anne Arundel County Illicit Discharge Detection and Elimination (IDDE) Program Outfall Field Screening Prioritization Process**

Under its National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit (20-DP-3316, MD0068306) Part IV.E.3., Anne Arundel County is required to implement an inspection and enforcement program to ensure that all discharges to and from the municipal separate storm sewer system that are not composed entirely of stormwater are either permitted by the Maryland Department of the Environment (MDE) or eliminated. The Permit requires field screening of a minimum of 150 storm drain outfalls annually in areas with greater potential for polluted discharges. Additionally, the permit requires the County to conduct routine visual surveys of the commercial and industrial drainage catchments to identify and eliminate potential sources of pollutants. To meet these requirements, the County screens major outfalls draining both commercial/industrial/institutional and residential land use areas, striving for approximately 80 percent of the total number of screened outfalls to drain commercial/industrial land uses. Additionally, commercial/industrial/institutional catchment areas within the targeted screening area, are visually surveyed for potential sources of pollutants. The County prioritizes screening areas as described below.

### ***Target Screening Areas***

By assessing a different area of the County each year, a Countywide review of likely sources of dry-weather discharge can be accomplished within the permit period. Identification of target screening areas throughout the County involves delineating the most likely locations of dry-weather discharge sources. MDE research (MDE 1997) indicated commercial and industrial land uses as potential pollutant sources, and County IDDE consultants observed certain residential areas to contribute pollutants (e.g., trash, transient dry-weather discharge) to the County storm drain system.

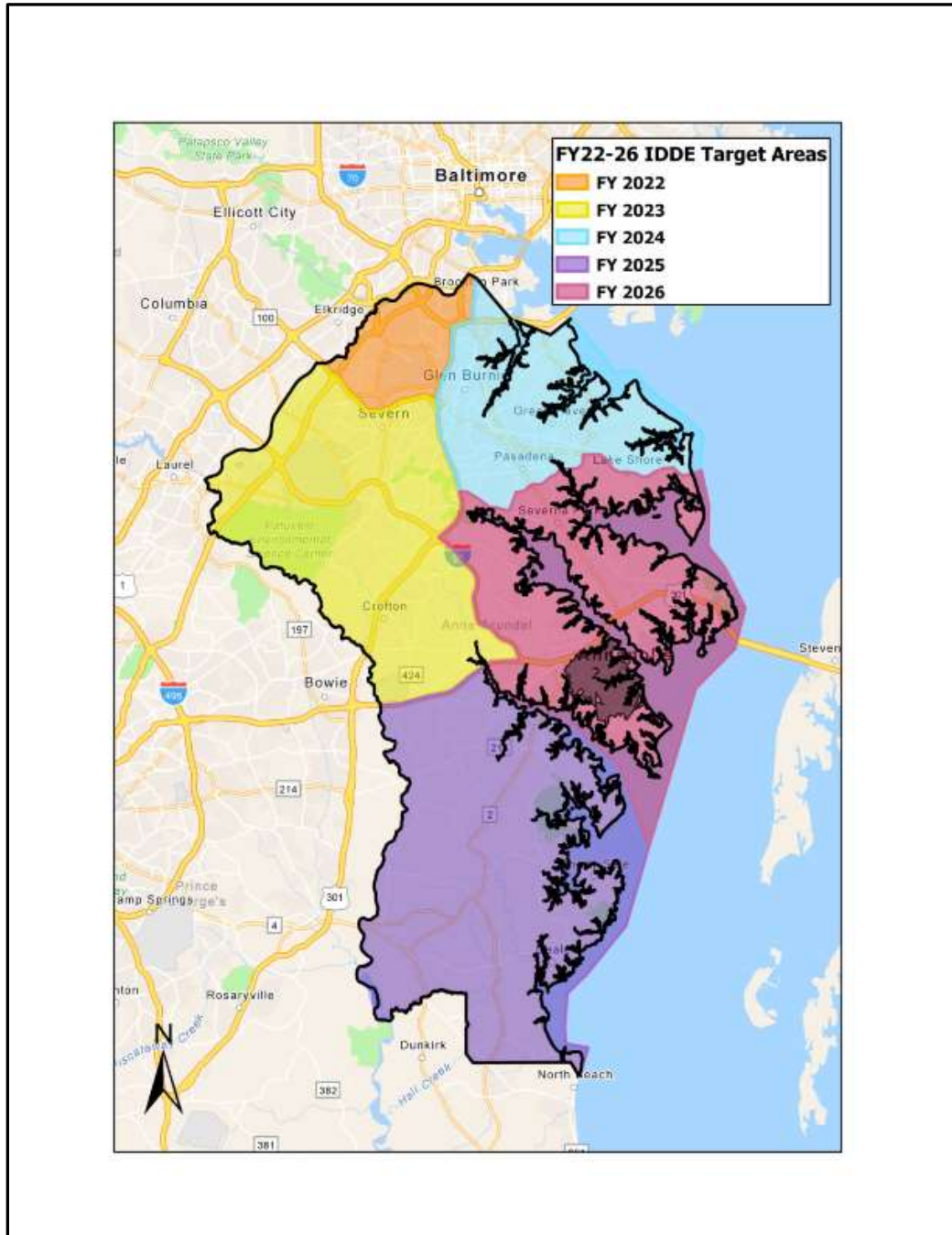
To identify target screening areas over the next five years, major storm drain outfalls in areas of concentrated commercial/industrial/institutional land uses, as well as areas of high and medium density residential land uses, are given priority for screening. Per 40 CFR § 122.26, a major outfall is defined as:

“An outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive storm water from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more).”

Using the most recent available digital data (including land use/land cover, stormwater infrastructure, sanitary sewer infrastructure, SSO locations, and TMDL watershed boundaries, as well as the County’s commercial and industrial land use geodatabase), Geographic Information System (GIS) tools are employed to examine the areas of concern within a geographical target area boundary. Special attention is given to storm drain systems and outfalls located within

Bacteria TMDL watersheds. Additionally, County Sanitary Sewer Overflow (SSO) locations, dating back to January 2017, were recently mapped to identify SSO “hotspots.” Major outfalls within the vicinity of these “hotspots” are also prioritized for screening.

Using the criteria described above, Figure 1 shows the geographical target screening areas identified for Year 1 (FY 2022) through Year 5 (FY 2026) of the permit.



**Figure 1. IDDE Target Screening Areas for FY2022 – FY 2026.**

Each year, the Anne Arundel County NPDES MS4 Permit Coordinator, or a delegated staff member, coordinates with the County's IDDE consultant to refine priority assessment areas in the County that should be investigated for possible illicit discharges to the stormwater system. The target screening areas frequently encompass unincorporated towns and are bounded by major roadways or defining geographical features. Using the most recent available digital data, as noted above, at least 165 specific outfalls are identified for screening in the applicable survey period (residential outfalls with pipe diameters of at least 36 inches are added to the site selection criteria). The County requires initial identification of 165 outfalls to provide a sufficient outfall pool should any County-owned/mapped outfalls not be accessible.

To prepare for the annual field screening and inspections, technicians will use Anne Arundel County's GIS data sets of storm drains and point features (e.g., outfalls, inlets, and manholes) to create maps for the target areas and specific sites. Field crews use these maps and relevant data in a differential Global Positioning System (GPS) unit to identify the extents of the local stormwater networks; the locations of outfalls and access points along each network; and the businesses, facilities, or neighborhoods within the drainage areas.

### ***Revisits to Problematic Outfalls***

The County may request that outfall screening efforts include visits to outfalls that had exhibited illicit discharge during previous years' assessments to confirm illicit discharge elimination or to further document unresolved or recurring concerns for enforcement purposes. The location of these outfalls may or may not be in the geographical target screening area for that particular year.

### ***County-Owned Improved Properties***

In FY 2021, major and minor stormwater outfalls located on 31 County-owned improved properties (without their own 12-SW permit) were screened under the IDDE program. These properties include police and fire stations and training grounds, animal control facilities, warehouses, and vehicle maintenance facilities. Screening of these outfalls will continue. Outfalls on County-owned properties located in each respective year's target screening areas will be included among the 150 outfalls to be screened that year.

### ***Special Investigations***

Since June 2019, the County has conducted monthly monitoring of bacteria (enterococcus) at 12 locations in the Marley and Furnace Creeks Bacteria TMDL watershed. Two of those monitoring sites, located near the Marley Station Mall in Glen Burnie, have exhibited consistently high bacteria counts. Storm drain outfalls in the vicinity of these two monitoring sites were added to the list of outfalls to be screened during FY 2022, and will be added to the list of outfalls in subsequent years if necessary.

In June 2021, the County was approached by the City of Annapolis regarding a series of recent water main breaks within the City. The City of Annapolis possesses stormwater infrastructure within and near the County's jurisdictional border, and the City of Annapolis has requested that the County screen outfalls near the City/County border for evidence of potable water leaks. Using the most recent digital data, outfalls near the City/County border will be identified and added to the list of outfalls to be screened during FY 2023.

***Schedule FY22 – FY26***

Refer to **Figure 1** (above) for geographic areas targeted for screening during each Fiscal Year.

- Year 1 (FY2022) Outfall screening to occur between August 2021 and June 2022
- Year 2 (FY2023) Outfall screening to occur between July 2022 and June 2023
- Year 3 (FY2024) Outfall screening to occur between July 2023 and June 2024
- Year 4 (FY2025) Outfall screening to occur between July 2024 and June 2025
- Year 5 (FY2026) Outfall screening to occur between July 2025 and June 2026