



Maryland
Department of
the Environment

Strategy for Permitting Complex Sites Overlaying General and Individual Permits at Dundalk Marine Terminal

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A Legacy of Continual Transformation



Mid-20th Century: Aviation & Early Industry



Today: Maryland's Premier Cargo Handling Hub

The Subsurface Reality: Chrome Ore Processing Residue

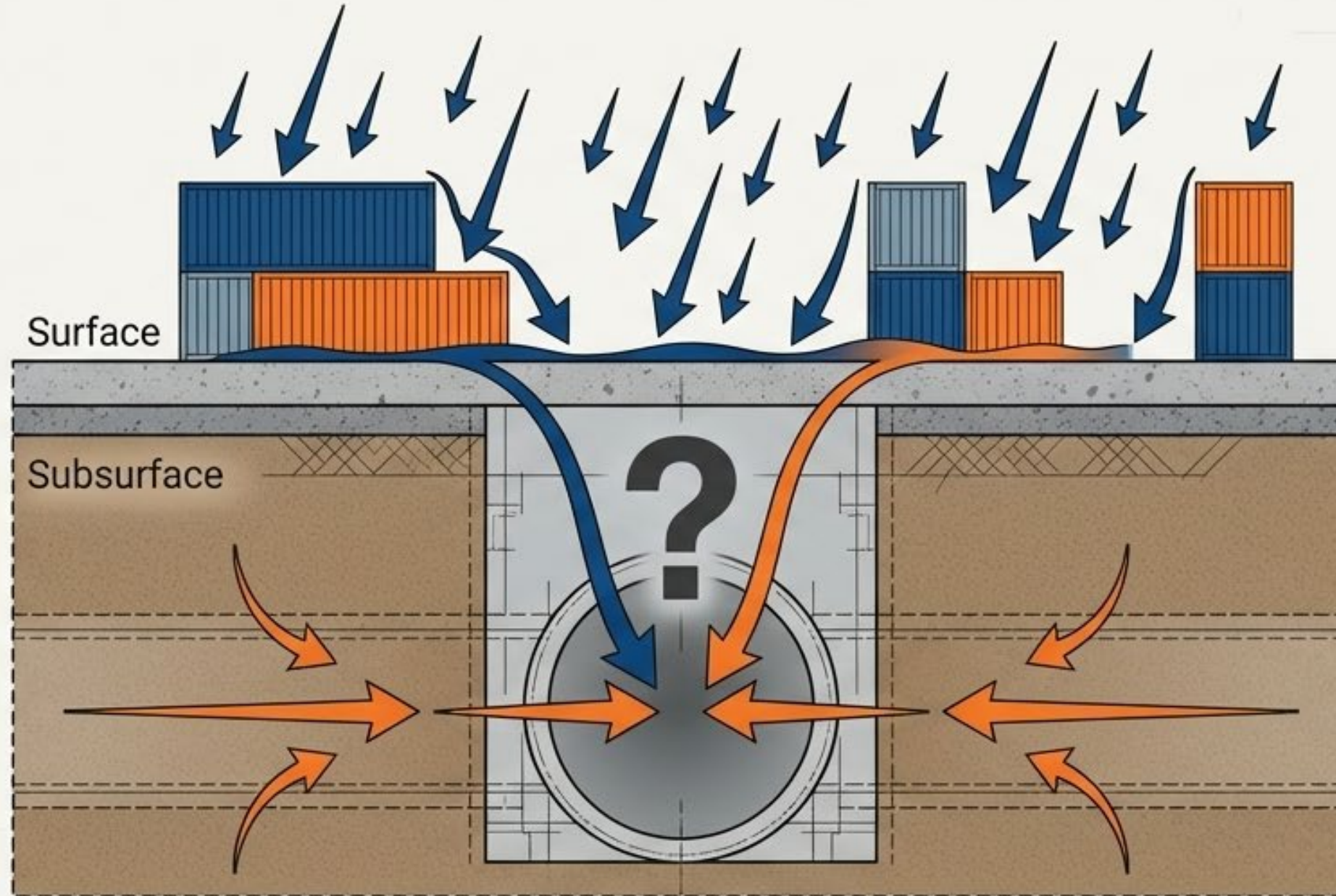
1. Historic fill material (COPR) sits entirely hidden beneath the modern paved terminal.
2. Existing storm sewer infrastructure (13th & 15th St) directly intersects the contaminated fill zone.



One Terminal. Two Distinct Threats.

Surface Threat

Industrial runoff (Total Suspended Solids, metals, oil, and grease from active cargo operations).



Subsurface Threat

Hexavalent Chromium infiltrating the pipe network from historic groundwater.

The Regulatory Question: How do we regulate a site where the surface and the subsurface require entirely different environmental remedies?

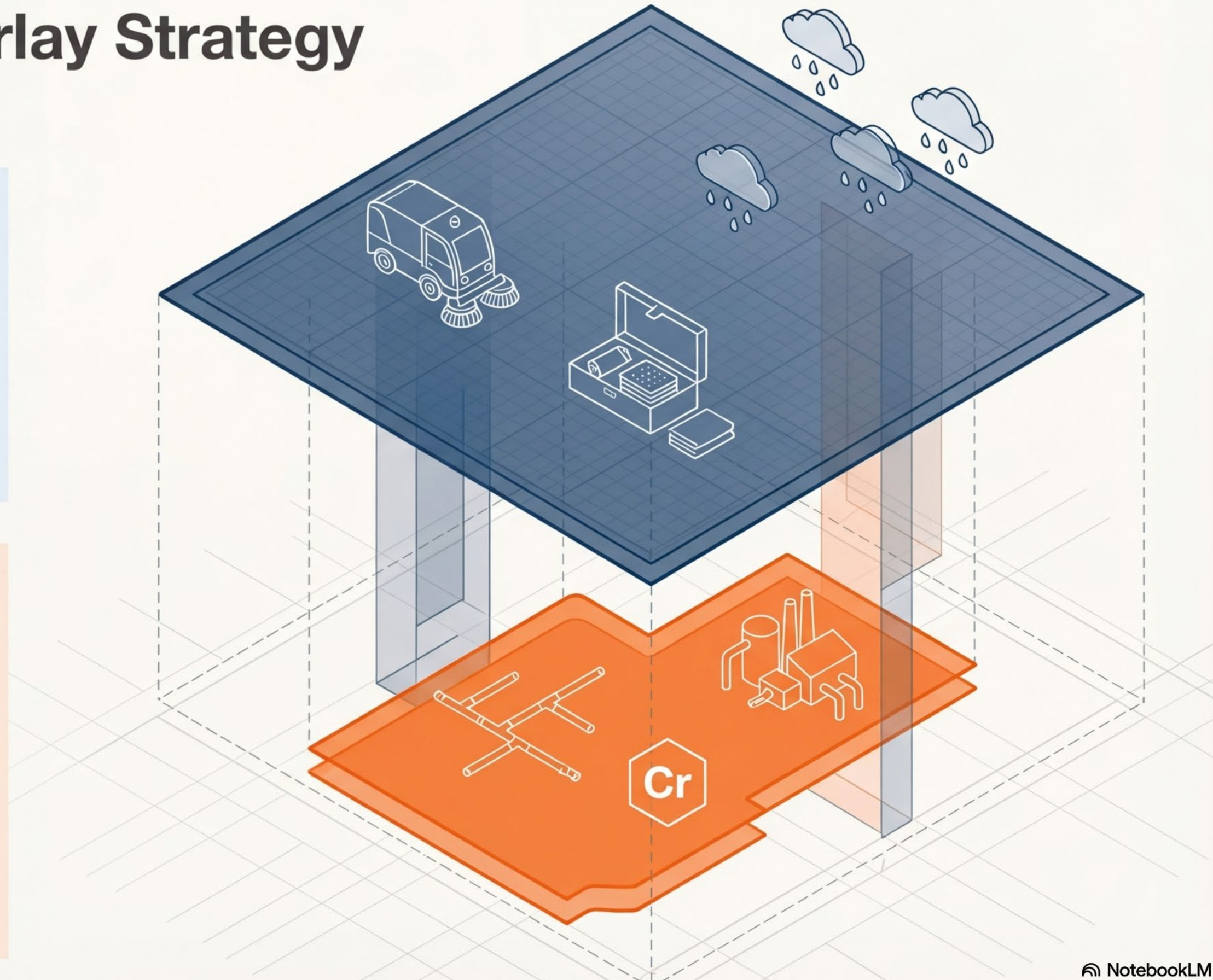
The Permitting Overlay Strategy

Layer 1: General Permit (20-SW-A)

Blankets the entire site. Dictates surface-level Best Management Practices (BMPs) and quarterly visual monitoring.

Layer 2: Individual Permit (22-DP-3060)

Surgically targets the COPR footprint. Dictates sampling during dry weather to determine if there are any leaks in pipes, and the to take corrective actions to address those leaks.

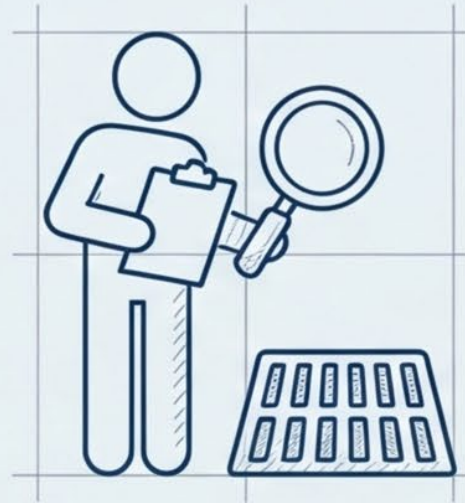


General Permit 20-SW-A: Managing Modern Operations



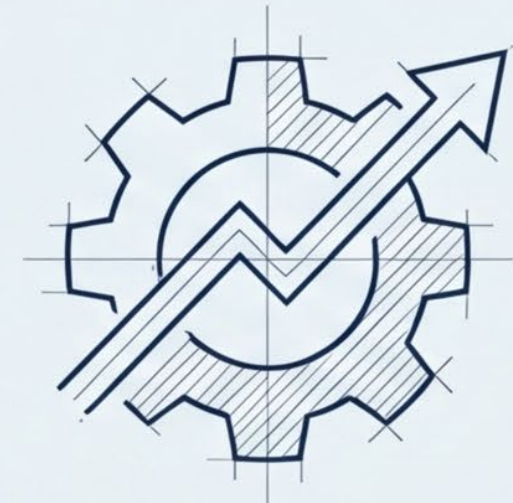
Source Control

Enforces good housekeeping, regular sweeping, spill prevention, and minimizing the exposure of raw materials to precipitation.



Visual Inspections

Requires quarterly observations to identify potential pollution sources and verify the effectiveness of housekeeping measures.



Adaptive Management

Mandates Additional Implementation Measures (AIM) triggered automatically if established benchmark thresholds are exceeded.

Individual Permit 22-DP-3060: Containing the Legacy

Active Treatment

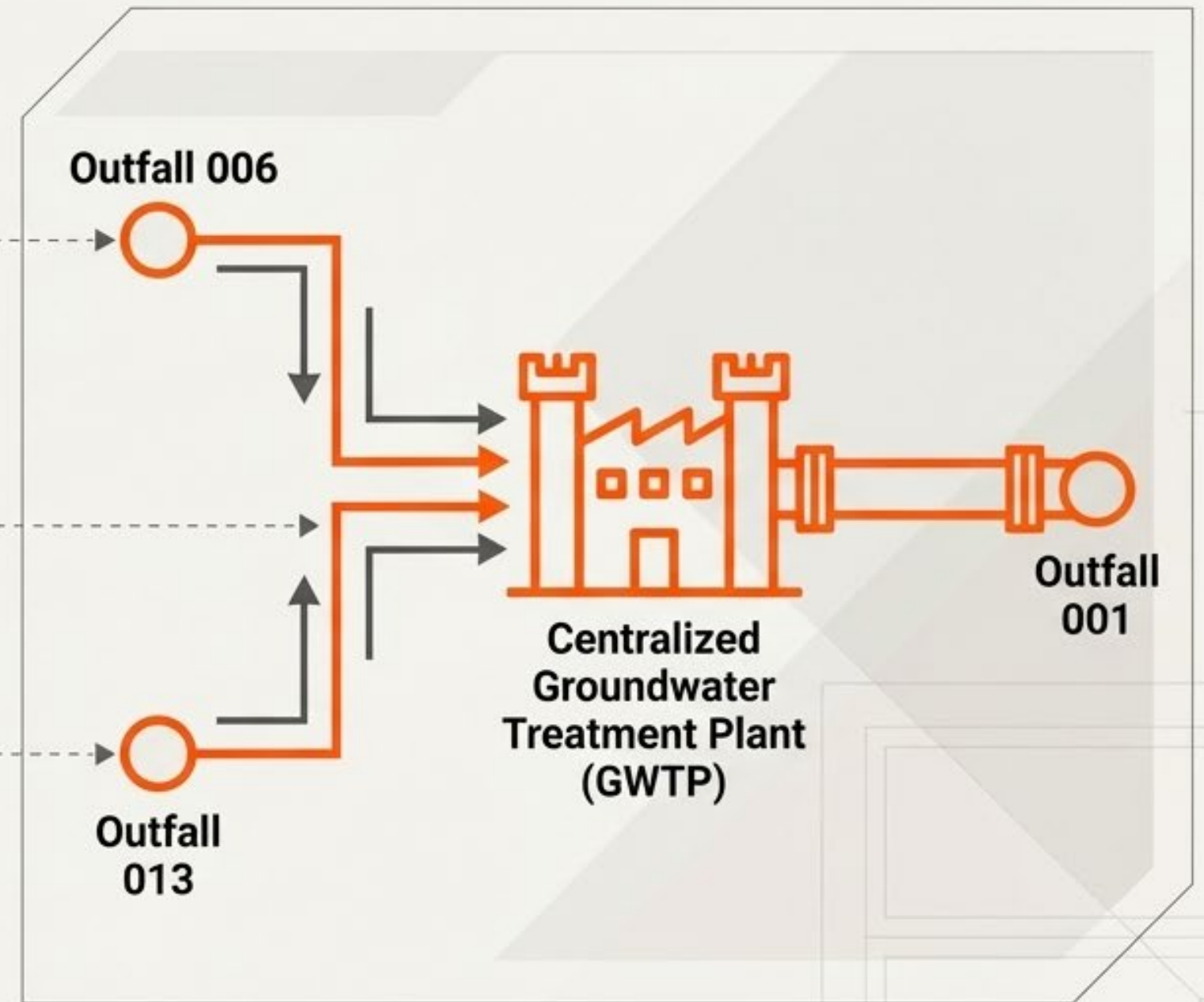
Dry-weather flows are actively pumped to the onsite GWTP (Outfall 001) with strict effluent limits for Hexavalent Chromium (0.05 mg/l monthly average).

Targeted Monitoring

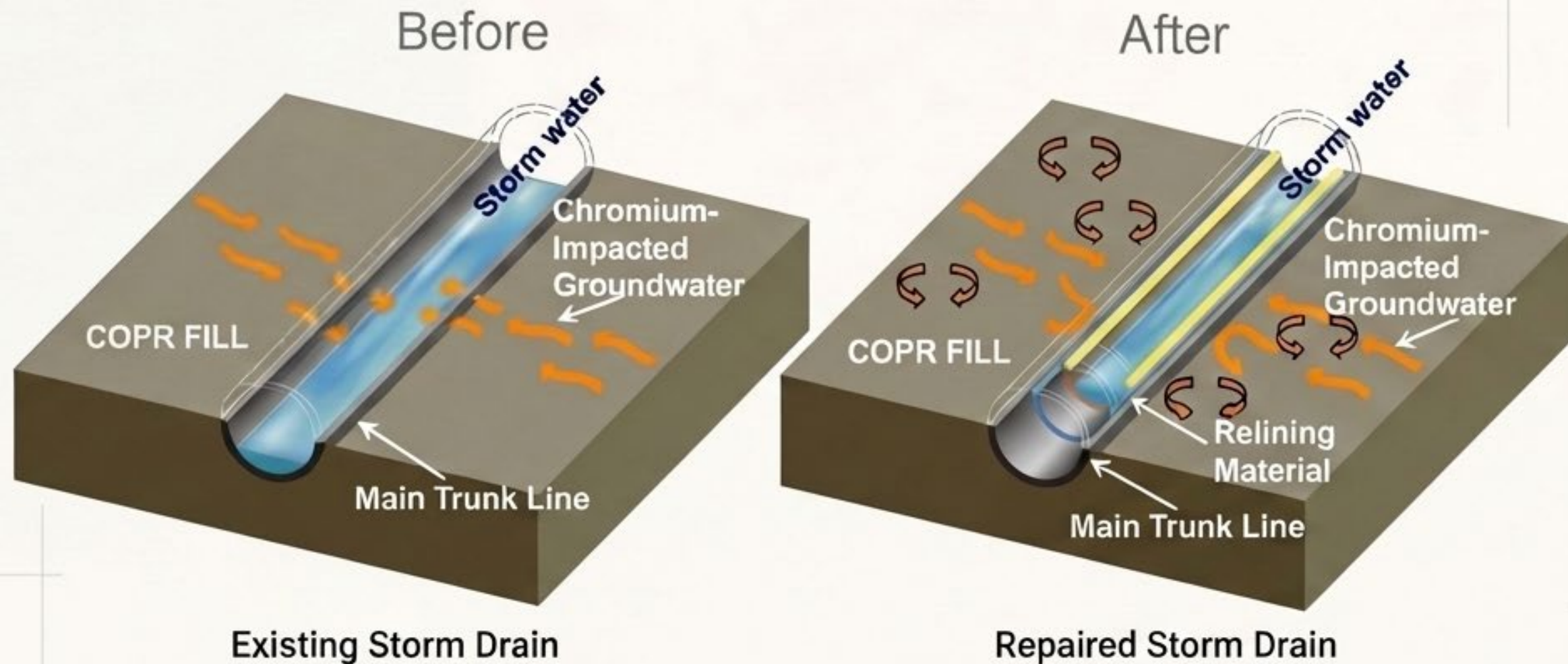
Mandates precise wet and dry weather sampling specifically for Chromium Action Levels at Outfalls 006 and 013.

Mandated Engineering

Serves as the legal enforcement vehicle for the physical Enhanced Isolation and Containment Remedy.



Achieving Compliance Through Infrastructure



The Problem

Historic pipes act as conduits, allowing toxic groundwater to mix with clean stormwater.

The Remedy

Cured-in-place pipe relining creates an impermeable structural barrier. Clean stormwater stays in; contaminated groundwater stays out.

The Result

Once groundwater is successfully isolated, outfalls can be removed from strict individual chromium monitoring and returned to standard general permit status.

The Dundalk Regulatory Matrix

	General Permit [20-SW-A]	Individual Permit [22-DP-3060]
Scope	Site-wide surface operations.	Specific subsurface COPR footprint.
Primary Pollutants	TSS, metals, oil, and grease.	Hexavalent & Total Chromium, Cyanide.
Key Mechanism	Stormwater Pollution Prevention Plan (SWPPP) & BMPs.	Pipe Relining & Groundwater Treatment Plant (GWTP).
Regulatory Goal	Prevent operational runoff.	Isolate and treat legacy infiltration.

Comprehensive Protection for the Chesapeake

General permits ensure responsible modern industry.

Individual permits heal historical wounds.

Overlaying them creates total accountability.



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