Paul Hlavinka, Industrial Stormwater Permits Division
Maryland Department of the Environment
Water and Science Administration
1800 Washington Blvd., Ste. 455
Baltimore, MD 21230-1708
paul.hlavinka@maryland.gov

Re: Comments on Remand of General Permit for Discharges from Stormwater Associated with Industrial Activities - 20-SW / MDR000.

Dear Mr. Hlavinka,

Blue Water Baltimore, Chesapeake Bay Foundation, Chesapeake Legal Alliance, the Environmental Integrity Project, Gunpowder Riverkeeper, Potomac Riverkeeper Network, and Waterkeepers Chesapeake, along with the other stakeholders listed below submit these comments on the Maryland Department of Environment's ("Department") limited remand of the November 18, 2022 final determination to issue the General Permit for Discharges from Stormwater Associated with Industrial Activities, Permit No. 20-SW / MDR000 ("Permit", or "20SW"). We thank you for the opportunity to comment.

We have included three exhibits with this comment. Please consider these and the documents cited herein as part of the administrative record for the Permit.

The 20SW is unquestionably one of the most important permits issued by the Department. Rather than regulating a single facility, this Permit regulates nearly 1,500. And rather than regulating a facility required to thoroughly treat its wastewater before discharging it into a nearby waterway, these permittees generally release thousands of different, untreated chemicals directly into state waters.

An average acre of impervious surfaces in central Maryland produces nearly one million gallons of stormwater per year - almost one and a half Olympic-size swimming pools - carrying with it well-studied toxic contaminants, including gasoline and oil byproducts, dioxins, PCBs, PAHs, PFAS, and pesticides, as well as hundreds of pounds of acutely toxic heavy metals like lead.[1] To give context to this vast amount of pollution coursing through our urban areas, consider that the National Academy of Sciences recently issued a report that found that the largest source of oil in the oceans is not from spills from ships, leaks from wells, or catastrophes like the Deepwater Horizon or Exxon Valdez, but rather from urban runoff.[2]

---

[1] Based on a review of data from the National Stormwater Quality Database.
[2] Oil in the Sea IV: Inputs, Fates, and Effects. National Academies of Sciences, Engineering, and Medicine. 2022. Available at: https://doi.org/10.17226/26410.

As described further below and in our organizations' comments during the original comment period for this Permit, the industrial facilities polluting our communities and waterways with toxic runoff are not evenly distributed across the state of Maryland. Rather, they tend to be clustered in urban areas and in specific census tracts. For those living in fenceline communities closest to the numerous dense clusters of industrial facilities, all of this pollution means continual toxic exposure from pollution on their sidewalks, in their soil, and even from tracking toxic residue on carpets in people's homes. As the Maryland Attorney General recently said "[i]n the communities adjacent to industrial facilities, even a small amount of stormwater runoff can be dangerous for public health and the environment."[3] In the record prepared by the Department for this general permit, one document from Virginia DEQ analyzed PCB monitoring data and found that industrial stormwater facilities emit PCBs in concentrations that are vastly higher than other classes of water pollution dischargers.[4]

For these and many other reasons, the Department has an opportunity to substantially increase the level of protection for urban communities and waterways in Maryland by altering this permit. Through this permit remand, we urge the Department to fix three of the most glaring problems with this statewide permit: its ineffective environmental justice provisions; the insufficient no-exposure provisions and broader issue of unpermitted discharges; and the use of outdated rainfall data. **We strongly urge the Department to make significant changes to the General Permit in order to advance the State's priorities with respect to environmental justice, climate change, and protection of water quality for the Chesapeake and Atlantic coastal bays.** A few recommended changes and an explanation of our concerns are included in three separate sections below.

I. Strengthen the Permit's Environmental Justice Provisions By Adding New Requirements for Permittees in Areas with a Maryland EJScore of .76 or above

The Permit's environmental justice provisions, found in Part V.A.2.b, the "Comprehensive Site Compliance Evaluation" section, are insufficient to address the significant environmental justice harms caused by industrial stormwater pollution. The Permit's Annual Comprehensive Site Compliance Evaluation reporting provision only applies to a minority of the facilities in census tracts with a Maryland EJScore of .76 or above (approximately 40 facilities were identified by MDE). Even when they do apply, they fail

---

[3] *Maryland Enters into Consent Decree with ABF Freight System to Resolve Allegations of Clean Water Act Violations.* March 20, 2023. Press Release from Anthony G. Brown, Maryland Attorney General. Available at: https://www.marylandattorneygeneral.gov/press/2023/032023.pdf.

[4] The Relationship between PCBs, VPDES Wastewater/Stormwater Facilities, Stormwater Industrial General Permitted Facilities and the Standard Industrial Classification System (virginia.gov)

to include any substantive monitoring or compliance requirements - they are simply a requirement to submit an existing compliance evaluation.

Maryland law defines environmental justice as "equal protection from environmental and public health hazards for all people regardless of race, income, culture, and social status."[5] As a recipient of federal funding, the Department is bound to comply with Executive Order 14008, which requires consideration of environmental justice issues in decision making, and Title VI of the Civil Rights Act of 1964, which prohibits agencies receiving federal funds from discriminating on the basis of race, color, and national origin.[6]

The Department's 2022 EJ Policy and Implementation Plan ("Department EJ Policy") acknowledges that "[n]ational studies show that [EJ] Communities bear a disproportionate share of the negative environmental consequences resulting from industrial activities."[7] This is certainly true for the facilities covered under the Permit.

The Center for Progressive Reform and Environmental Integrity Project's 2017 analysis found that many of the industrial facilities covered under the Permit are clustered in and around low-income neighborhoods.[8] Of 300 facilities in Baltimore City and Baltimore County, 40% were located in overburdened census tracts.[9] In Baltimore City, 69% of facilities were in overburdened tracts.[10] Eight facilities were located in the top 10 percent of census tracts most burdened by environmental justice factors.[11] Commenters further found that census tracts with a large number of industrial facilities were flagged in the EPA environmental justice data screening tool as having an extremely elevated risk of exposure to environmental threats.[12] The disproportionate proximity of lower income communities and communities of color to industrial facilities is not by chance, but the result of structural racism and discriminatory housing and zoning practices.[13] Along similar lines, attached is a *Geospatial Analysis of Industrial Property Proximity to*

---

[5] MD Env. § 1-701.
[6] 42 U.S.C. §§ 2000d et seq.; *see also* 40 C.F.R. §§ 7.30, 7.35 (EPA Title VI regulations).
[7] 2022 EJ Policy and Implementation Plan. Available at: https://mde.maryland.gov/Environmental_Justice/PublishingImages/Pages/Landing%20Page/Environmental%20Justice%20Policy%20and%20Implementation%20Plan%202022.pdf
[8] Chesapeake Accountability Project (CAP), *Comments on Tentative Determination Renewal of the General Permit for Discharges from Stormwater Associated with Industrial Activities - 20-SW / MDR000* (Apr. 14, 2021) ("CAP 2021 Comments").
[9] *Id*.
[10] *Id.*
[11] *Id.*
[12] *Id*.
[13] Rothstein, R. *The Color of Law, A Forgotten History of How Our Government Segregated America,* Liveright Publishing Corporation (2018).

Residential Property in Baltimore City showing the close proximity of many residences to industrial facilities like those covered under the Permit.[14]

The high concentration of polluting facilities in these communities also contributes to growing health disparities. For example, residents of South Baltimore, an area of significant industrial activity, experience higher rates of asthma emergency room visits and hospitalizations, cancer, and heart attacks compared to the state, on average.[15]

To protect these overburdened communities, the Department's EJ Policy states that it will "increase compliance in areas disproportionately impacted by health and environmental factors to prevent and reduce burdens on those communities." **To do this and protect environmental justice communities and their waters, this permit should add the following provisions to** Part V.A.2.b **of the Permit. These requirements would apply to all permitted facilities in census tracts with a Maryland EJScore of .76 or above:**

a) Enforceable benchmark monitoring for every covered facility for pH, sediment (TSS), total organic carbon (TOC) and other pollutants

One of the key requirements in the Permit is that runoff be controlled using structural and/or non-structural control measures "to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants," and "divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff, to minimize pollutants in your discharges." Permit III.B.1.b.v-vi. As MDE acknowledges, benchmarks are one of only two ways to determine whether a permittee's stormwater management plan is actually working.

> When is a permittee in compliance or non-compliance with the "management of runoff" [requirement] and how is this measured? Compliance with the "management of runoff" condition, like other conditions is site-specific. The operator is required to implement sector-specific best management practices and other mitigation actions that effectively reduce the exposure of stormwater contaminants as well as any migration of contaminants. **Exceeding benchmarks or evidence of pollutants in visual monitoring indicates that this "management of runoff" condition has not been met and the implementation of corrective actions (i.e., additional or alternative best management practices) is required. And, if benchmarks and visual monitoring requirements are met, the permittee is in compliance**.

[14] Exhibit C
[15] CAP 2021 Comments.

Department Response to Comments[16] at p. 43-44 (emphasis added). Visual monitoring is inadequate for many stormwater pollutants, including most toxic metals since they do not significantly change the visual appearance of the water. Without benchmarks then, there is no way of enforcing the permit requirements to manage runoff and not to cause or contribute to an exceedance of water quality standards. Federal regulations require that permits include monitoring to "assure compliance with permit limitations."[17] Generally, "an NPDES permit is unlawful if a permittee is not required to effectively monitor its permit compliance."[18] This makes sense - "[e]nforcing compliance with a permit is the key to an effective NPDES program.[19]

In these overburdened EJ areas, ensuring compliance with the "management of runoff" provision is needed in order to, per the Department's EJ Policy, "increase compliance in areas disproportionately impacted by health and environmental factors to prevent and reduce burdens on those communities." **To assure compliance with this permit limitation, the Permit should add quarterly benchmarks for pH, sediment (TSS), total organic carbon (TOC), and any pollutants in the runoff discharging into waters impaired for that pollutant** for every permittee in areas with a Maryland EJScore of .76 and above.

Adding these universal quarterly benchmarks in these vulnerable EJ areas would also be a step in partially rectifying one of the Permit's most glaring flaws - that the Permit is weaker than its federal counterpart, EPA's Multi-Sector General Permit (MSGP) industrial stormwater general permit, because the Permit lacks universal benchmarks for pH, sediment (TSS), and total organic carbon (TOC).[20]

We further request that these benchmarks apply throughout the permit term, since they are a key tool needed to "increase compliance in areas disproportionately impacted by health and environmental factors to prevent and reduce burdens on those communities," as MDE's 2022 EJ Policy directs.

---

[16] Department Response to Comments. Available at: https://mde.maryland.gov/programs/permits/WaterManagementPermits/Documents/GDP%20Stormwater/20SW/20SW-Response-to-Comments.pdf

[17] 40 C.F.R. § 122.44.

[18] *NRDC v. Cnty. of Los Angeles*, 725 F.3d 1194, 1207 (9th Cir. 2013).

[19] *NRDC 2015 v. EPA*, 808 F.3d 556, 581 (2d Cir. 2015).

[20] EPA MSGP Fact Sheet at p.4. Available at: https://www.epa.gov/sites/default/files/2021-01/documents/2021_msgp_-_fact_sheet.pdf; *cf.* 33 U.S.C. § 1370 (states may not adopt or enforce standards that are less stringent than federal standards); *City of Burbank v. State Water Resources Control Bd.,* 108 P.3d 862, 870 (Cal. 2005) ("Nothing in the federal Clean Water Act suggests that a state is free to disregard or to weaken the federal requirements for clean water when an NPDES permit holder alleges that compliance with those requirements will be too costly.").

b) Exclude facilities that have been in significant noncompliance within the previous five years from permit coverage

Communities and their waters are only protected by the 20SW Permit's pollution controls if permitted facilities comply with the Permit's terms. Far too many permitted facilities flagrantly disregard, without significant consequences, basic requirements of the 20SW Permit, like filing Discharge Monitoring Reports ("DMRs") and compiling Annual Reports. As Chesapeake Accountability Project noted in its April 2021 comments, noncompliance from permittees covered under the previous permit is rampant in Maryland - averaging about 70% year after year, according to Department inspection reports. Enforcement of permit noncompliance is also low: the Department took only 14 formal enforcement actions against industrial stormwater permittees from 2017 to 2020, although approximately 70% of permittees overall were in noncompliance. Essentially, there are little to no consequences for industrial stormwater permittees who cannot or choose not to comply with their permit. This lack of enforcement results in unmitigated harm to communities and waterways.

The Department's failure to enforce the 20SW Permit and the rollback of some permit terms impacts those environmental justice communities where the permitted facilities are clustered. As a case study, from 2020 to 2021 a sweep of industrial stormwater permittees in Baltimore City identified clusters of noncompliant facilities in overburdened communities in West, East, and South Baltimore, totalling 37 facilities between the three areas. All of these facilities had repeated benchmark limit exceedances and permit violations and were located in overburdened areas with elevated EJ scores. Only a few of these noncompliant facilities had recent enforcement actions against them and all have been allowed to operate and pollute under the terms of the Permit.[21]

The Department can and should ramp up inspections and enforcement. It should also add protections against repeat violators into the 20SW Permit for areas with a Maryland EJScore of .76 or above. Specifically, in order to "[i]ncrease compliance in areas disproportionately impacted by health and environmental factors to prevent and reduce burdens on those communities," per MDE's 2022 EJ Policy, the 20SW Permit should include a new limitation on coverage. **We request new language that coverage under the 20SW Permit is not available to facilities who: 1) have been in Significant Noncompliance[22] with the 12SW or 20SW permit within the last five years; and 2) are located in census tracts with an index score of .76 or above on Maryland's EJ Score.**

---

[21] *Chesapeake Accountability Project ("CAP") Priorities and Concerns with Enforcement of the Maryland General Permit for Discharges from Stormwater Associated with Industrial Activities*. July 19, 2021. Available at: https://shorturl.at/acesO.

[22] *See* 40 CFR §§ 123.45(a)(2); Appendix A to § 123.45 (federal definitions of Significant Noncompliance/Category I violations).

Given these facilities' previous noncompliance, these facilities would instead be required to apply for and obtain permits that would include more tailored water quality protections, public notice and comment requirements, and better community protection. This would have a direct positive impact on reducing burdens to the communities in Baltimore City and other urbanized areas in Maryland.

c) Require that every facility, regardless of size, restore twenty percent of the site's impervious surface with runoff controls or their equivalent

The previous 12SW permit's requirement that permittees of more than 5 acres within the Chesapeake Bay watershed must restore 20% of the unrestored impervious surface over the five-year period covered by their permits was one of the most effective ways of reducing stormwater pollution and reducing the cumulative impacts of aggregate point sources in the Chesapeake. However, many industrial stormwater permittees in areas with a Maryland EJ score of .76 or above are on lots smaller than five acres. Given the significant health and environmental justice impacts of industrial runoff, it is inappropriate to effectively treat facilities of less than five acres as *de minimis* contributors of pollution, especially those in these already-overburdened EJ areas. Requiring that these smaller facilities also restore 20% of the unrestored impervious surface over the five-year period will contribute to long-term improvements in water quality. **We request new language that requires that every permitted facility located in census tracts with an index score of .76 or above on Maryland's EJ Score, regardless of size, restore twenty percent of the site's impervious surface with runoff controls or their equivalent unless they have already been required to do so in the previous permit term.**

d) Improve community accountability

As noted, the existing industrial stormwater permittees collectively have an abysmal compliance history. More often than not, those facilities' neighbors are the ones who pay the price for this pervasive and continuous state of noncompliance. Additionally, the application of 20SW permit coverage to a specific facility does not require public notice or provide an opportunity for public comment and engagement. The 20SW Permit should therefore, at a minimum, require that information be posted so that these neighbors have basic tools to protect their community. **We ask that the 20SW require that every covered facility located in census tracts with an index score of .76 or above on Maryland's EJ Score post a sign that is visible from a public road with the name of the facility, permit number, a description of the purpose of the industrial stormwater permit, and a MDE phone number and email to contact for complaints.**

2) Conduct a Cumulative Impacts Analysis

In addition to these requests for changes to Part V.A.2.b of the 20SW Permit, we ask that the Department take steps now to ensure that, when drafting the 2026 industrial stormwater general permit, the permit is not contributing to disproportionate, significant cumulative impacts on already overburdened communities.

Cumulative impacts are the totality of exposures to combinations of chemical and non-chemical stressors and their effects on community health, well-being, and quality of life outcomes. In already overburdened communities like areas with a Maryland EJScore of .76 or above, disproportionate impacts can arise from unequal environmental conditions and exposure to multiple stressors.[23] A key element of any environmental justice work is the consideration of cumulative impacts. Under the 2022 Department EJ Policy, the Department has stated that it will "assess the availability and use of tools that could be used to assess cumulative risks of MDE permitting actions to factor into future permitting decisions." The 20SW permitting process is precisely the tool to be used to reduce cumulative impacts in the very communities whose health have suffered from unmitigated and untreated urban toxic contaminants for decades.

To assess such cumulative risks, we ask that the Department conduct a cumulative impacts analysis to determine whether stormwater from industrial facilities in these communities, including unpermitted facilities, pose a public health hazard to vulnerable Marylanders and identify specific industries or facilities with high pollution impacts. MDE can then use this information in the upcoming 2026 industrial stormwater general permit to do the following:

a) Exclude facilities found to pose a hazard or contribute significant amounts of pollution from coverage under the industrial stormwater general permit.

b) Require permit coverage for unpermitted facilities under the permit's Sector AD, which allows the Director to require permit coverage for facilities that contribute to a violation of a water quality standard or are a significant contributor of pollutants to waters of the United States. 40 CFR 122.26(a)(9)(i)(D).

c) Deny general permit coverage of facilities due to cumulative impacts.

---

[23] https://www.epa.gov/healthresearch/cumulative-impacts-research#Cumulative%20Impacts%20Report. At the same time, the benefits of additional runoff retention practices can have multiple benefits to surrounding communities according to this report: "An ACE Output "Quantifying benefits of reducing air pollution and emissions of climate forcers" will examine the potential impacts of urban green infrastructure on local-scale air quality, heat islands, carbon capture, stormwater management, and other ecosystem services."

In sum, if the Department makes the changes described above, the 20SW Permit can be a key tool in implementing the Department's 2022 EJ Policy and federal equal protection requirements. As it currently stands, the Permit does little or nothing to advance environmental justice, in contravention of the Department's 2022 EJ Policy.

II. The Permit Must Incorporate Updated Rainfall Data that Adequately Accounts for Climate Change and Provide Guidance to Permittees on Required SWPPP Updates (Part III.C.)

As discussed further below, all relevant data show that climate change is driving more intense and frequent storm events throughout the state. The 20SW permit fails to require permittees to manage the higher volumes of stormwater resulting from storms occurring today. This permit re-opening is an opportunity for the Department to use more recent rainfall data than what the current permit requirements are based upon to update the stormwater volume controls permittees must comply with pursuant to the Stormwater Design Manual. The Department also has an opportunity to better address environmental justice concerns in areas with multiple industrial facilities by assessing the impact of multiple sources of pollutants before granting permit coverage.

Scientists have demonstrated that for every 1 degree C of temperature increase, the atmosphere holds 7% more moisture that, in turn, falls as more intense precipitation[24]. A stormwater permit that is protective of human health and safety, as well as water quality standards, must reflect this reality and not assume what has worked in the past will continue to work into the future. Indeed, the National Oceanic and Atmospheric Administration ("NOAA") and academic partners throughout the Mid-Atlantic partnered with the RAND corporation to update the region's period of record to include some of the largest storm events and predict climate-fueled increases. Although the final deliverables associated with this effort were concurrent with the issuance of the 20SW permit, this limited remand gives the Department the opportunity to update the permit with this vital information.

The Mid-Atlantic Regional Integrated Sciences and Assessments ("MARISA") program was established by NOAA in September 2016. MARISA supports integrated, flexible processes for building adaptive capacity to climate variability and change in diverse Mid-Atlantic regional and subregional settings. Intensity, duration, and frequency ("IDF") curves that are commonly used in engineering practice, specifically NOAA's Atlas 14, are based on historical precipitation observations and do not account for recent and projected future changes in the region's climate. MARISA's Intensity, Duration and

[24] National Aeronautics and Space Administration, *Steamy Relationships: How Atmospheric Water Vapor Amplifies Earth's Greenhouse Effect*. February 8, 2022. Available at: https://climate.nasa.gov/explore/ask-nasa-climate/3143/steamy-relationships-how-atmospheric-water-vapor-amplifies-earths-greenhouse-effect/

Frequency curve tool (hereafter referred to as "the IDF curve tool") provides users with change factors (e.g., a 20 percent increase) that could be used to scale design storm depths from Atlas 14 to account for future climate change.[25]

The 20SW permit provision directing permittees to update their Stormwater Pollution Prevention Plans ("SWPPPs") based on new information and experiences with major storm events without any guidance from the Department will lead to inadequate stormwater control measures and result in large amounts of stormwater runoff into local waters. **MARISA includes a suite of data tools the Department must utilize to update the stormwater design manual applicable to the 20SW permit, and other permits like the Municipal Separate Storm Sewer System (MS4), and provide recommendations to covered facilities on how to incorporate existing and reasonably expected future conditions into their SWPPPs**.[26]

The 20SW permit does not account for a rapidly changing climate because it relies upon outdated information that is not reflective of the intensity, frequency, and duration of today's storms. **The Department must update the stormwater design manual using new rainfall data from the MARISA IDF curve tool that was released in 2022 following the close of the initial public comment period. Following the update, the Department must mandate compliance with the updated stormwater design manual requiring the minimum Environmental Site Design Volume to be designed for the 2-year, 24-hour storm and adjusted to MARISA's 15% projected increase to create a standard of 3.7 inches.** The 20SW permit must also include a link or reference to the volume requirements and specify that the facilities' identified best management practices must be able to handle the designated volume of stormwater. Lastly, any exceedance of the volume requirements must trigger an immediate change in the SWPPP to accommodate the increase in volume.

Additionally, the Department must address stormwater outfalls that are near tidal elevations where high tide events could exacerbate site flooding. Some systems depend on gravity to help water move through the pipes. Flat topography can make this a difficult approach that is further compromised by flooding that causes outfalls to be partially or completely submerged. This combination can greatly prolong a flooding event and expose more industrial pollutants to discharge waters when tides fall. Coastal flooding at outfalls may drive backflow into the system, causing upland flooding through street drains and drainage ditches. The prolonged presence of saltwater can damage stormwater infrastructure. Shoreline erosion near such an outfall may further expose stormwater infrastructure to potential damage. Flooding may introduce debris that can

[25] https://www.rand.org/pubs/perspectives/PEA2794-1.html
[26] MARISA, a NOAA Mid-Atlantic RISA Team, 2020. Available at: https://www.midatlanticrisa.org/data-tools.html

clog storm drains, pipes, and outfalls. Storm drains covered by leaves in the early fall may cause backup flooding. More frequent, higher, and longer-lasting high-water events may drive up already high groundwater levels in some coastal facilities. This change may reduce the soil's ability to absorb stormwater, especially in areas previously designated as "no exposure", thus increasing runoff and pollution to surface waters.

NOAA has developed helpful assessment tools that the Department must recommend to covered facilities, especially those discharging into tidal waters, to address this concern. Available resources include the Quick Flood Assessment tool, which calculates current and future coastal flood frequency and impacts at user-designed thresholds,[27] and a tool to complete detailed analysis to determine if, how, and when stormwater systems will be compromised by coastal flooding.[28] **The Department must combine these tools with outfall inspection and mapping to identify potential outfalls susceptible to tidal flooding and make clear that repairs, replacement or elevation of outfalls or the installation of one-way flapper valves may be required within SWPPPs to address flooding concerns.**

III. The Protection of Water Quality and Community Health Demands Stronger - Not Weaker - Certifications of "No Exposure" and Related Permit Improvements

While most attention is paid to the strength of the terms and conditions of this (and any) permit, it is also critically important to ensure that the *scope* of the permit is adequate. This means several things. First and foremost, it means restricting the ability of potential permittees to exclude themselves from coverage under the permit. In this case, that means strengthening, or at least not weakening, the "No Exposure certification" provisions of the permit. Separately, advocates have long been concerned that the Department has not committed enough resources to detecting *unpermitted* facilities and compelling them to seek coverage. If neither of these issues are addressed, even a strong permit will fail to achieve the ultimate aim of reducing exposure of Maryland waterways and communities to toxic industrial runoff as far too many facilities will be operating completely outside the regulatory system.

Last year, the Department weakened the final version of the 20SW Permit by proposing to allow facilities to exclude themselves from coverage of the Permit without the submission of documentation from an independent third party engineer or other such

---

[27] National Oceanic and Atmospheric Administration, Assess Flood Risks. Available at: https://coast.noaa.gov/stormwater-floods/assess/

[28] National Oceanic and Atmospheric Administration, *Analyze Stormwater Systems. Available at:* https://coast.noaa.gov/stormwater-floods/analyze/

professional,[29] as was required in the expired 12SW permit[30] and included in the draft version of the 20SW permit.[31] The Department's document describing its responses to comments received in the comment period disclosed each of the changes it made to the draft permit.[32] One such change was to establish this new process by which industrial facilities meeting certain criteria would be able to submit a "No Exposure certification" *without* an actual certification from an independent third party.[33] Thus, under the final permit only facilities located in a floodplain or in areas with an "Environmental Justice Score greater than 0.76" would be required to have a professional certify that there is no potential for stormwater to be exposed to certain pollutants on site. In other words, the Department is proposing to allow most industrial facilities that would otherwise be subject to the permit to self-certify their eligibility for exclusion from the terms of the Permit, without securing the opinion of a third party engineer or other relevant professional.

For the reasons described below this not only constitutes an inappropriate and arguably illegal weakening of the permit, it is incompatible with numerous recommendations to improve protections for the most vulnerable Maryland communities and waterways, which are disproportionately impacted by industrial runoff.

1) No Exposure in the Prior Permit and Calls for Improvement

Long before the Department issued a draft of the 20SW permit, experts and advocates had called for a stronger approach to the No Exposure provision and, more broadly, to ensure that a greater percentage of industrial runoff in Maryland is controlled by our water pollution control laws. For example, the National Academy of Sciences expert panel investigating the past federal regulatory regime for controlling industrial stormwater specifically singled out Maryland's approach to requiring third party engineer verification of a No Exposure request.[34] In other words, a preeminent body of scientists, engineers, and industrial stormwater experts had determined that the very approach to vetting permittees seeking exclusion from this regulatory program that other state permitting agencies should be emulating is the same one that the Department is now seeking to eliminate.

---

[29] Final determination to issue the General Permit for Discharges of Stormwater Associated with Industrial Activities, Permit No. 20-SW, No. MDR00, Part I.F.
[30] General Permit for Discharges from Stormwater Associated with Industrial Activities, Permit No. 12-SW, Part I.F. ("expired Permit" or "12SW Permit").
[31] Tentative determination to issue the General Permit for Discharges of Stormwater Associated with Industrial Activities, Permit No. 20-SW, No. MDR00, Part I.F ("draft Permit").
[32] Response to Public Comments, State General Discharge Permit Number 20-SW ("Response to Comments")
[33] *Id*. ("The permit allows the submission of photos in lieu of a professional engineer for operators with less than five acres, except in areas identified with an EJ Score greater than 0.76 or in flood plains.")
[34] Exhibit B, National Academy of Sciences, Improving the Next-Generation EPA Multi-Sector General Permit for Industrial Stormwater Discharges (2019) at 59-60.

In July 2020, prior to the public comment period,a number of our organizations sent a letter to the Department that included a section of recommendations on improving the No Exposure certification process.[35] This specific section of the comments on No Exposure certification included a "strong recommendation" that the permit, *at a minimum*, should retain the third party verification "to avoid self-certification and the potential for impermissible self-regulation."[36] (Emphasis added). The letter also went well beyond that minimum suggestion and recommended that "MDE should not allow any new certifications unless the applicant demonstrates that all stormwater is retained on-site; otherwise, this certification is not taking into consideration the potential for discharge of pollutants from deposition or run-on." After all, the National Stormwater Quality Database shows that the concentrations of toxic contaminants are highly elevated in many urban areas, meaning that it is extraordinarily unlikely (essentially impossible) that a 20SW permittee with a "No Exposure" certification would actually be discharging no pollution.

This letter followed several meetings with Department staff that included, among other comments, our concerns about the widespread problem of unpermitted industrial stormwater discharges. We pointed to the Department's previous efforts to retain contractual assistance to perform desktop analyses devoted specifically to identifying industrial sites that - knowingly or not - were evading permit coverage, harming local communities while also creating an unfair business advantage over their law-abiding competitors.

Additionally, around the same time that the Department was preparing the renewal of this Permit, it was also preparing a rare and possibly unprecedented enforcement action against a facility with unpermitted discharges.[37] This action resulted from a referral from some of our organizations after discovering an entire cluster of industrial facilities in one Maryland community discharging stormwater to a single stream without a permit. This action was also followed by an early collaborative action of the Moore Administration and new Attorney General Anthony Brown. On March 20, 2023, the Attorney General stated in a press release that "[i]n the communities adjacent to industrial facilities, even a small amount of stormwater runoff can be dangerous for public health and the environment."[38] We strongly agree. We had hoped these actions and press releases would signal a sea

[35] Comments of the Chesapeake Accountability Project at 523.
[36] *Id*.
[37] "MARYLAND TAKES ENFORCEMENT ACTION TO PROTECT THE MAGOTHY RIVER." *Maryland Department of the Environment*. April 19, 2021. Available at: https://shorturl.at/uFKLW. ("The Maryland Department of the Environment and the Maryland Attorney General have filed a suit alleging that a waste management and recycling business in Anne Arundel County operated without required permits and in violation of an agreement to prevent water pollution from the site.")
[38] *Maryland Enters into Consent Decree with ABF Freight System to Resolve Allegations of Clean Water Act Violations.* March 20, 2023. Press Release from Anthony G. Brown, Maryland Attorney General. Available at: https://www.marylandattorneygeneral.gov/press/2023/032023.pdf.

change in the way the Department would approach the problem of unpermitted discharges moving forward. We were, needless to say, highly disappointed to review the final determination of the 20SW permit, but hope the Department will take this present opportunity to change course.

More recently in the Summer of 2023, a team of students working through the Yale Conservation Scholars program alongside staff at the Potomac Riverkeeper Network embarked on an effort to understand the extent of unpermitted industrial facilities in Maryland's portion of the Potomac watershed operating under industrial sector codes that would typically require coverage under the permit. Unsurprisingly, the team found a vast number of industrial sites that were not listed in the Department's permit database. While not every one of those sites would necessarily be required to apply for the 20SW permit under its designation criteria, many surely would and are presently evading this regulatory program. In any case, it is likely that *all of these sites are, in fact, discharging pollutants to waters of the state*.

Notably, the team of researchers at Potomac Riverkeeper Network found that the problem of unpermitted industrial discharges was typically evident in clusters, which again emphasizes how toxic industrial runoff has a disproportionate impact on a relatively small number of communities or waterways, based on the way they are zoned and co-located with other pollution-generating sites. It may be obvious, but nevertheless worth stating here, water flows downhill and downstream, crossing census tract boundaries, zoning boundaries, and property boundaries without regard for their official status or designation. This is the pollution that Maryland law mandates be regulated and controlled. But this is far from the reality on the ground today - a reality we strongly urge the Department to change without delay.

2) Comments on the Draft 20SW

As the Department is aware, the concept of a "general permit to discharge" is not well understood by the public, in large part because it is not site-specific. It is thus unsurprising that the comments submitted to the Department during the comment period consisted predominantly of submittals from either public interest advocacy organizations representing the public's broader interests in health, safety, justice, and environmental quality or from the regulated sector. Nevertheless, of the few comments sent by individual Marylanders, *one of the only issues discussed* pertained to the No Exposure certification and, specifically, the need to *strengthen* this provision of the permit.[39] One

[39] In Response to Comment 45 of the Response to Comments document, the Department summarized the comment by stating that "[t]he commenter suggests that the State mandate that facilities applying for a "No Exposure" certification submit photographic evidence to support claim(s)." Nowhere in the comment or the Department's response was a suggestion that this additional "mandate" was anything other than an urging of the Department to strengthen the No Exposure process. In fact, the Department's document containing

individual indeed recommended revocation of the No Exposure certification for facilities found to be in noncompliance and suggested making facilities with a past record of noncompliance ineligible for future certification, which the commenter suggested should be renewed *annually*.[40]

However, rather than strengthening the draft permit to require the commenter's inclusion of *additional* photographic evidence in support of a certification request, the Department *weakened* the permit from the draft to the final version by waiving third party verification for many facilities and allowing for the submission of *only* photographic evidence instead. A review of the response to comments document shows *no comments at all* urging the Department to repeal the independent verification (which, again, was something the National Academy lauded Maryland for).[41] The Department's decision thus represents an unexplained inconsistency with its prior standard and was announced with no reasoned explanation in support of it or even a reference to a recommendation made by an interested party. The Department simply made a decision on a whim, reversing a prior standard that was not only reasonable, but explicitly held out as an exemplar by the foremost experts on industrial stormwater.

In our other comments, some of our organizations and others further expanded upon some of the pre-comment period recommendations regarding the No Exposure certification and the associated problem of unpermitted industrial discharges. For example, in addition to urging the Department to retain the requirement for third party oversight for No Exposure applications, we also recommended that the Department "deny a 'No Exposure' certification to any new sources from newly established facilities, thus providing an incentive to **fully retain stormwater and/or pre-treat runoff** as a state-based new source performance standard built into the process of establishing new facilities with industrial stormwater discharges."[42] This would have been a forward thinking but relatively low-burden condition given that it would only affect new facilities, not any of the large number of existing ones.

Additionally, we noted the seemingly obvious but underappreciated fact that "it is physically impossible and fundamentally inconsistent with the Bay TMDL and Maryland's Water Pollution Control Subtitle to establish a presumption that stormwater pollution will not be discharged from a site [per a No Exposure certification] without full retention of

---

all of the comments received during the comment period shows that this particular comment was one of seven comments submitted regarding the No Exposure certification process, and specifically, the additional requirements that should apply. *See* TD Permit Comments Regarding General Permit for Discharges from Stormwater Associated with Industrial Activities State Discharge Permit Application No. 20SW NPDES Permit No. MDR00000 at 29-32 ("TD Permit Comments").

[40] TD Permit Comments at 29-33.

[41] *Id*.

[42] Comments of the Chesapeake Accountability Project at 103.

stormwater onsite."[43] This is because, as the Department has emphasized previously, pollutants *not* associated with industrial activities most certainly also constitute regulable discharges from industrial sites, particularly as it relates to nutrient and sediment pollution.

For example, in Maryland's Phase I Watershed Implementation Plan (WIP) submitted to the U.S. Environmental Protection Agency as required under the Total Maximum Daily Load for the Chesapeake Bay, industrial stormwater permit holders were included as part of a broader "urban regulated" sector. When the Department subsequently released the 12SW general permit in 2013, it included a special condition to restore 20 percent of previously untreated impervious surfaces for certain permittees that met specified criteria having nothing to do with industrial category or the types of pollutants generated onsite. While all permittees covered by the 12SW permit were subject to specific controls and effluent limitations, it was the 20 percent impervious surface restoration standard that was specifically designed to achieve the wasteload allocation for the "urban regulated" sector in the Phase II WIP to control nitrogen, phosphorus, and sediment. The Department calculated the aggregate reductions in nitrogen and phosphorus for all industrial stormwater dischargers to achieve by 2025 as 86,846 pounds per year and 5,713 pounds per year, respectively, based on average nutrient removal efficiencies and event mean concentrations developed from monitoring data (2.0 mg/l N; 0.27 mg/l P).

In sum, the Department determined that to meet the overall 21 percent reduction in nitrogen from "Regulated Stormwater" the state would need to "retrofit" at least 28 percent of impervious surface area from this sector *each permit cycle*.[44] Importantly, the Department selected the applicable permittees to be subject to this special condition based *only on the extent of impervious surface* (and location) but *not* based on the nature of the industrial activities or pollutants at the site. This makes logical sense because many pollutants (*e.g.*, nitrogen and sediment) are understood to be discharged by *all* industrial sites (and in fact *all impervious surfaces*) and caused by factors not related to industrial classification (*e.g.*, deposition, scour, passive leaching of non-industrial chemicals, generation and conveyance of high velocity flows).

Thus, it is inconsistent with science, the WIP, and the state's water pollution control laws to allow *any facility* to exempt itself from this state-issued permit based on any *federally* designed "No Exposure" template. Rather, we would suggest the Department take heed of the National Academy of Science's recommendations that regulatory agencies avail themselves of the opportunity to develop regulatory tiers based on risk. No industrial facility should be *fully exempt* from the permit, as would be allowable under the "No

[43] *Id.* at 102.

[44] One of the most fundamental flaws of the 20SW is that it introduces a massive rollback by eliminating this crucial 20 percent restoration standard that was supposed to be repeated in this current permit cycle.

Exposure" certification. Instead, some facilities that are able to prove their own industrial pollutants are not exposed to the elements could be subjected to lesser obligations reflective of the presence of *fewer* (but not "*no*") contaminants, which might include nitrogen, phosphorus, and sediment or other pollutants discharged from the site largely as the result of passive conveyance. Notably, even passive conveyance of pollutants can have a substantial deleterious effect on surrounding residential communities (***e.g***., flooding, toxic contaminant exposure of children). Such discharges certainly warrant at least *some* government response to correct past injustices (***e.g.,*** redlining).

The comments submitted to the Department also included letters from nationally recognized stormwater engineers. Dr. Richard Horner, one of the National Academy report contributors, for example, noted that the draft 20SW "provides no guidance to assist the applicant in preparing the [No Exposure] verification." Dr. Horner suggested that "[t]he provision should be upgraded to specify the conditions for a comprehensive verification. It should designate the industrial materials, activities, and equipment to be considered in evaluating exposure." Dr. Horner further queried the status of "materials or products exposed to precipitation or runoff during loading and unloading or transporting activities" and whether there are "particulate matter deposits or other visible residuals from roof stacks or vents not otherwise regulated (*i.e*., under an air quality control permit) and evident in the stormwater outflow?" **How does the Department explain the weakening of the No Exposure provision of the permit without any evidence of support for doing so in the record, while simultaneously ignoring the legitimate suggestions of one of the nation's foremost stormwater experts?** Where is the reasoned elaboration associated with the change - and lack thereof - in the 20SW's No Exposure section?

Another expert reviewing the 20SW draft permit, Dr. Robert Roseen, also noted that there are "no provisions for No Exposure Certifications that would require certification of treatment prior to discharge to groundwater." This is yet another important acknowledgement of another instance in which the 20SW might not adequately address the additional requirements of state law and further endanger public health and water quality. Once again, none of these experts' recommendations were heeded by the Department.

Implicit in each of these highlighted comments and questions, which were the product of nationally recognized industrial stormwater experts' review of the 20SW and thousands of hours of research and analysis by water pollution control advocates, is that the No Exposure standard of the 12SW was only the starting point that *ought to have been built upon and expanded in the 20SW*. That we see not a strengthening, but a critical weakening of that provision in the 20SW, is a sure sign that we will not only fail to bring

likely hundreds of industrial sites within the scope of permit coverage but may indeed allow even more facilities to escape coverage. This is simply incompatible with the Department's recent pledges to enhance environmental justice and its responsibility to protect water quality and public health in Maryland.

Any action to weaken the No Exposure certification requirement - or even to merely maintain the status quo - flies in the face of broader efforts to reduce community exposure to urban toxic runoff. In fact, the Biden Administration, which, like the Moore Administration, has indicated its desire to make the promotion of environmental justice a top priority, released a report in 2022 detailing EPA's legal tools to advance environmental justice. Among the tools discussed was the Agency's "residual designation authority" allowing for the extension of Clean Water Act permit coverage over *additional* commercial, *industrial*, and institutional sites in order to protect water quality.[45] EPA has moved forward in recent years on such residual designation actions to bring more sources of contaminated runoff within our permit system for the purpose of protecting urban waters in places like Boston and Los Angeles. Notably, EPA has received a petition to do the same in Baltimore.

With broad discretion under federal and state law and a mandate to advance environmental justice, all momentum is supposed to be pointed in the direction of greater protections for urban communities. And yet, with this Permit, the Department is proposing to move in the very opposite direction; this includes not only ignoring the rampant problem of facilities evading permit coverage but also making it easier for those industrial facilities that are already subject to a permit to excuse themselves from regulatory obligations based on a legal fiction and not grounded on sound science.

We strongly urge the Department, under its new leadership and consistent with its new priorities, to introduce major changes through the Permit and outside of it to protect the health of urban communities and waterways. Specifically, the Department should, at a minimum, restore the previous requirement of independent third party verification of all no exposure certification requests. Additionally, the Department should require a minimum set of controls and permit requirements for facilities that are able to verify no exposure of contaminants *associated with their on-site industrial activities* to recognize the independent validity of state law and its prohibition on the discharge of any pollutants without treatment. Such requirements could include benchmark monitoring for nitrogen and sediment. We urge the Department to immediately undertake a concerted effort (i.e., with additional resources) to identify unpermitted sites that have not sought coverage under the Permit in order to increase

[45] Exhibit A, *EPA Legal Tools to Advance Environmental Justice at 81* (May 2022). Environmental Protect Agency, Office of General Counsel. Available at: https://shorturl.at/agiN1..

the scope of protections of the permit and limit the prevalence of unregulated pollution in urban areas that cause impairments of urban waters, perpetuate environmental injustices, and expose fenceline community members to unnecessary health risks. Finally, consistent with 40 CFR 122.4(i) and Appendix S of the Bay TMDL, the Department should prohibit no exposure certification for any new source constructed after the effective date of the 20SW.

IV. Summary Chart of Requested Changes to Permit

Permit Section	***Requested Additional Provision***
Part V.A.2.b	Benchmark monitoring for every permitted facility in for pH, sediment (TSS), total organic carbon (TOC) and other pollutants in census tracts with a Maryland EJScore of .76 or above
Part V.A.2.b	Exclude from coverage facilities that: 1) have been in Significant Noncompliance with the 20SW permit within the last five years; and 2) located in census tracts with an index score of .76 or above on Maryland's EJ Score.
Part V.A.2.b	Require that every permitted facility located in census tracts with an index score of .76 or above on Maryland's EJ Score, regardless of size, restore twenty percent of the site's impervious surface with runoff controls or their equivalent unless they have already been required to do so in the previous permit term
Part V.A.2.b	Require every permitted facility located in census tracts with an index score of .76 or above on Maryland's EJ Score to post a sign that is visible from a public road with the name of the facility, permit number, a description of the purpose of the industrial stormwater permit, and a MDE phone number and email to contact for complaints.

Part III.C	Include a link or reference to the stormwater design manual's updated volume requirements (designed for the 2-year, 24-hour storm and adjusted to MARISA's 15% projected increase for a standard of 3.7 inches) and specify that the facilities' identified best management practices must be able to handle the designated volume of stormwater.
Part III.C	Add a requirement to the Permit that any exceedance of the volume requirements must trigger an immediate change in the SWPPP to accommodate the increase in volume.
Part III.C	Require permittees to combine NOAA's assessment tools with outfall inspection and mapping to identify potential outfalls susceptible to tidal flooding and make clear that repairs, replacement or elevation of outfalls or the installation of one-way flapper valves may be required within SWPPPs to address flooding concerns.
Part I.F	At a minimum, restore the previous requirement of independent third party verification of all no exposure certification requests.
Part I.F	Require a minimum set of controls and permit requirements for facilities that are able to verify no exposure of contaminants *associated with their on-site industrial activities* to recognize the independent validity of state law and its prohibition on the discharge of any pollutants without treatment. Such requirements could include benchmark monitoring for nitrogen and sediment.
Part I.F	Immediately undertake a concerted effort (i.e., with additional resources) to identify unpermitted sites that have not sought coverage under the Permit in order to increase the scope of protections of the permit and limit the prevalence of unregulated pollution in urban areas that cause impairments of urban waters, perpetuate environmental injustices, and expose fenceline community members to unnecessary health risks.
Part I.F	Prohibit no exposure certification for any new source constructed after the effective date of the 20SW in order to comply with 40 CFR 122.4(i) and the Bay TMDL.

Thank you for the opportunity to comment! Please reach out if you have any questions regarding our comments or references.

Sincerely,

Patrick DeArmey, No. 1512150159
Evan M. Isaacson, No. 0712110371
Chesapeake Legal Alliance
106 Ridgely Avenue
Annapolis, Maryland 21401
410-216-9441
patrick@chesapeakelegal.org
evan@chesapeakelegal.org
Attorneys for Blue Water Baltimore and Gunpowder Riverkeeper

Sheronda M. Rose, No. 2012180106
Chesapeake Bay Foundation, Inc.
6 Herndon Avenue
Annapolis Maryland 21403
443-482-2162
srose@cbf.org
Attorney for Chesapeake Bay Foundation, Inc.

Meg Parish, No. 706110189
Environmental Integrity Project
1000 Vermont Ave NW, Suite 1100
Washington, DC 20005
720-841-0652
mparish@environmentalintegrity.org
Attorney for Potomac Riverkeeper Network and Waterkeepers Chesapeake

Matt Pluta
Choptank Riverkeeper, ShoreRivers
114 South Washington Street, Suite 301
Easton, MD 21601
mpluta@shorerivers.org

Lydia Lawrence
Director of Conservation
Nature Forward
Chevy Chase, MD
Lydia.Lawrence@natureforward.org

Dan Smith
Friends of Lower Beaverdam Creek, President
6019 Inwood Street
Cheverly, MD 20785
202-607-6224
smithdc6019@gmail.com

Jeanne Braha
Executive Director
Rock Creek Conservancy
Bethesda, MD
jbraha@rockcreekconservancy.org

Kim Coble
Executive Director
Maryland League of Conservation Voters
Annapolis, MD
kcoble@mdlcv.org

Billy Friebele
Associate Professor
Loyola University Maryland
4501 N. Charles Street
Baltimore, MD 20737
wefriebele@loyola.edu

Trey Sherard
Riverkeeper
Anacostia Riverkeeper
729 8th St SE, Ste 100
Washington DC, 20003
trey@anacostiariverkeeper.org

Maryland Conservation Council
Phil Webster
Lead Advocate, Climate
Unitarian Universalist Legislative Ministry of Maryland

Indivisible Howard County Environmental Action

EXHIBIT A

U.S. Environmental Protection Agency – Excerpt: *Legal Tools to Advance Environmental Justice*

For online access to this information, see: https://www.epa.gov/ogc/epa-legal-tools-advance-environmental-justice.

MAY 2022

EPA Legal Tools to Advance Environmental Justice

OFFICE OF GENERAL COUNSEL

U.S. ENVIRONMENTAL PROTECTION AGENCY • WASHINGTON, D.C. 20460

In defining "stormwater discharges from industrial activity" in its 1990 Phase 1 Stormwater Rule, EPA included stormwater discharges from construction activity that disturbs at least 5 acres of land.[334] Section 402(p)(6) of the CWA required EPA to promulgate a second stormwater rule, designating additional stormwater discharges for NPDES permitting "to protect water quality."[335] In EPA's 1999 Phase 2 Stormwater Rule, EPA designated for NPDES permitting stormwater discharges from construction activity that disturbs between 1 and 5 acres of land, including smaller sites that are part of a larger common plan of development.[336] EPA has issued (and re-issued numerous times) a Construction General Permit (CGP) offering NPDES permit coverage for operators of eligible stormwater discharges from construction sites disturbing at least 1 acre of land (or less but where part of a larger common plan of development). In the alternative, such operators may instead apply for an individual NPDES permit.[337]

While EPA's MSGP and CGP apply equally in jurisdictions where EPA is the permitting authority, EPA could request comment on whether any discharges under those permits are disproportionately affecting environmental justice communities and if so, review and ensure those permits contain conditions sufficiently stringent conditions to meet CWA requirements and/or consider whether certain facilities and/or construction sites should be required to apply for an individual permit. Doing so might also help address larger and more frequent wet weather events caused by climate change.

E. Other Stormwater Point Source Discharges Not Nationally Regulated

EPA has the legal authority under the CWA to regulate discharges of stormwater from impervious surfaces or developed property (e.g., small MS4 not otherwise regulated by EPA's 1999 Phase 2 Stormwater Rule) based on the findings described in CWA § 402(p)(6).[338]

Section 402(p)(6) provides:

> Not later than October 1, 1993, the Administrator, in consultation with State and local officials, shall issue regulations (based on the results of studies conducted under paragraph (5)) which designate stormwater discharges, other than those discharges described in paragraph (2), to be regulated to protect water quality and shall establish a comprehensive program to regulate such designated sources. The program shall, at a minimum, (A) establish priorities, (B) establish requirements for State stormwater management programs, and (C) establish expeditious deadlines. The program may include performance standards, guidelines, guidance, and management practices and treatment requirements, as appropriate.[339]

EPA has broad discretion to identify discharges of stormwater as requiring regulation under CWA § 402(p)(6). Under this provision, EPA can regulate stormwater discharges from development/impervious surfaces by making a finding that discharges from

[334] 40 C.F.R. § 122.26(b)(14)(x).
[335] 33 U.S.C. § 1342(p)(6).
[336] 40 C.F.R. § 122.26(b)(15)(i).
[337] 40 C.F.R. § 122.28.
[338] 33 U.S.C. § 1342(p)(6).
[339] *Id.*

development/impervious surfaces warrant regulation in order "to protect water quality."[340]

EPA also has broad discretion to determine how to control those designated discharges.[341] The last sentence of § 402(p)(6), which states that "[t]he program may include performance standards, guidelines, guidance, and management practices and treatment requirements, as appropriate[,]" gives EPA discretion to determine what kinds of program elements to establish.[342] Thus, EPA could issue guidance or a rule that would be directly applicable to point source discharges rather than be implemented through NPDES permits. Also, the expressreference to "establishing priorities" in § 402(p)(6) gives EPA a basis to decide which discharges are most important to regulate, and it may decide not to address all discharges at one time.[343] EPA could use the broad discretion that § 402(p)(6) provides to advance environmental justice in taking actions under § 402(p)(6).

Under CWA § 402(p)(2)(E), EPA has authority to designate through informal adjudication additional point sources of stormwater discharges to be regulated under the NPDES program.[344] EPA has implemented this "residual designation" authority in regulations at 40 C.F.R. §§ 122.26(a)(9)(C) and (D).[345] These regulations provide that the permitting authority or theRegional Administrator may designate and require operators of stormwater discharges or a category of discharges to obtain permit coverage if the authority determines that the discharge or category of discharges contributes to a WQS violation or is a significant contributor of pollutants to waters of the United States.[346] Alternatively, a residual designation may be based on finding that stormwater controls are needed for the discharge based on waste load allocations that are part of a TMDL that addresses the pollutants of concern.[347]

EPA could choose to make greater use of its residual designation authority in affected areas to advance environmental justice. For example, in a community with environmental justice concerns, EPA could designate currently unregulated sources of stormwater, e.g., parking lots or impervious surfaces over a certain size, for regulation under the NPDES permit program. This could result in such facilities needing to make changes to better control their stormwater. These controls could result in healthier urban streams, thereby providing benefits not only to the ecosystem itself, but also to the surrounding communities. Stormwater controls may also yield the additional benefit of transforming gray urban environments into more inviting green spaces, enhancing recreational opportunities and quality of life. They may also help to address bigger and more frequent storms caused by climate change.

Like the residual designation authority described in the preceding paragraphs, EPA has

---

[340] *Id*.
[341] *See Envtl. Defense Ctr. v. EPA*, 344 F.3d 832, 844 (9th Cir. 2003) (EPA is free to adopt any regulatory program, including a permitting program, for these discharges so long as it is based on the required studies, issued in consultation with state and local officials, and establishes priorities, requirements for state stormwater management programs, and expeditious deadlines in constituting a comprehensive program to protect water quality); *see also Conservation Law Found. v. Hannaford Bros. Co.*, 327 F.Supp.2d 325, 330–32 (D. Vt. 2004), *aff'd*, 2005 WL 1712899 (2d Cir. 2005) (same).
[342] 33 U.S.C. § 1342(p)(6).
[343] *Id*.
[344] 33 U.S.C. § 1342(p)(2)(E).
[345] 40 C.F.R. §§ 122.26(a)(9)(C), (D).
[346] *Id*.
[347] *Id*.

authority to designate an AFO as a CAFO requiring an NPDES permit.[348] See Chapter Two, VI, above, for a discussion of EPA's authority to designate AFOs as CAFOs, as well as the limitations of that authority.

VII. SECTION 404 WETLANDS PROGRAM

Section 404 permits authorize the discharge of "dredged or fill material" to waters of the United States.[349] The types of activities regulated under § 404 include filling of wetlands and streams to create dry land for development, construction of berms or dams to create water impoundments, and discharges of material dredged from waterways to maintain or improve navigation.[350] The U.S. Army Corps of Engineers (Corps) typically issues § 404 permits.[351]

However, a state or tribe may request authority to administer the § 404 program for certain waters within its boundaries, other than certain waters that can be used to transport interstate or foreign commerce, for which the Corps retains permitting authority.[352] EPA must approve a program if it determines that certain requirements are met, including ensuring that the state or tribe has the authority to issue permits in compliance with the CWA, and to assure adequate public participation in the permitting process.[353] EPA's state program approval regulations at 40 C.F.R. part 233 lay out a detailed process for program approval.[354] EPA often closely coordinates with states and tribes to advise on their program requests, and may be able to address environmental justice concerns during the approval process particularly in the context of evaluating the state or tribe's public participation procedures. For example, in addition to the required coordination procedures at § 233.31, EPA could encourage states to notify all interested tribes and/or communities with environmental justice concerns of permits that may affect waters of concern to these parties. Once a state program is approved by EPA, the authority of the Corps to issue § 404 permits is suspended, except for those waters exempted from the assumption.[355] However, a state administering a § 404 permit program must provide EPA with a copy of all permit applications and proposed permits.[356] If EPA objects to a proposed permit, the state may either issue a revised permit that resolves EPA's objections; deny the permit application; or request a public hearing.[357] If the state takes none of these actions within 90 days, permitting authority transfers to the Corps.[358] Only three states—Michigan, New Jersey, and Florida—have assumed the § 404 permit to date, and no tribes have done so.[359]

Section 404 permits issued by the Corps or a state or tribe must satisfy the CWA § 404(b)(1) guidelines developed by EPA in conjunction with the Corps.[360] The § 404(b)(1) guidelines provide that no permit shall issue if: (1) there are practicable, environmentally less damaging alternatives; (2) the discharge would violate water quality standards or jeopardize threatened or endangered species; (3) the discharge would cause or contribute to significant

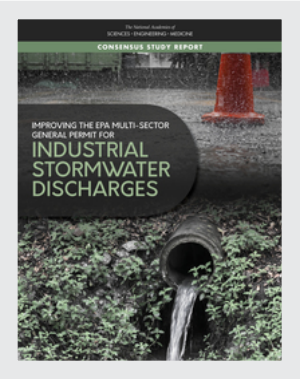
---

[348] 40 C.F.R. § 122.23(c).
[349] 33 U.S.C. § 1344.
[350] *See* 40 C.F.R. § 232.2 (defining "[d]ischarge of fill material.")
[351] 33 U.S.C. § 1344(a).
[352] 33 U.S.C. § 1344(g)(1).
[353] 33 U.S.C. § 1344(h)(2)(A).
[354] 40 C.F.R. part 233.
[355] 33 U.S.C. § 1344(h)(2)(A).
[356] *Id*. § 1344(j).
[357] 33 U.S.C. § 1344(j); 40 C.F.R. §§ 233.50(f), (g).
[358] 33 U.S.C. § 1344(j); 40 C.F.R. § 233.50(i).
[359] *See* https://www.epa.gov/cwa404g.
[360] 33 U.S.C. § 1344(b), (h)(1)(A); 40 C.F.R. §§ 230.2, 233.20(a).

EXHIBIT B

National Academy of Sciences – Excerpt: *Improving the EPA Multi-Sector General Permit for Industrial Stormwater Discharges (2019).*

To access the full publication, see:
https://nap.nationalacademies.org/catalog/25355/improving-the-epa-multi-sector-general-permit-for-industrial-stormwater-discharges.



Improving the EPA Multi-Sector General Permit for Industrial Stormwater Discharges (2019)

DETAILS

168 pages | 8.5 x 11 | PAPERBACK

ISBN 978-0-309-48846-4 | DOI 10.17226/25355

CONTRIBUTORS

Committee on Improving the Next-Generation EPA Multi-Sector General Permit for Industrial Stormwater Discharges; Water Science and Technology Board; Division on Earth and Life Studies; National Academies of Sciences, Engineering, and Medicine

SUGGESTED CITATION

National Academies of Sciences, Engineering, and Medicine. 2019. *Improving the EPA Multi-Sector General Permit for Industrial Stormwater Discharges*. Washington, DC: The National Academies Press. https://doi.org/10.17226/25355.

IMPROVING THE EPA MULTI-SECTOR GENERAL PERMIT FOR INDUSTRIAL STORMWATER DISCHARGES

Committee on Improving the
Next-Generation EPA Multi-Sector General Permit
for Industrial Stormwater Discharges

Water Science and Technology Board

Division on Earth and Life Studies

A Consensus Study Report of

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

THE NATIONAL ACADEMIES PRESS
Washington, DC
www.nap.edu

For facilities that use event mean concentrations to determine compliance, some consideration is needed regarding extreme storms. EPA should establish a "nonrepresentative storm" criterion that would exclude event mean concentration data for extreme events that are expected to exceed SCM design criteria. Under extreme conditions, SCM performance will be compromised and stormwater bypass will occur. It is reasonable to expect that the discharge of stormwater pollutants associated with industrial activity and the effectiveness of stormwater control measures implemented are most representative for water quality purposes when the sampling is conducted on discharges resulting from frequent storm events and not large extreme events. This event size may be based on a statistical review of long-term rainfall records to establish wet weather precipitation conditions when they become less relevant for water quality. This criterion may be a storm of a certain return frequency such as a 10-year storm, or a multiple of the 90th percentile rainfall depth, or a multiple of the long-term average rainfall depth for the area. Using nonrepresentative storm criteria, a permittee would either not submit EMC data from storms that exceed the criterion or these data would not be evaluated against the benchmarks.

Enhanced stormwater monitoring is considered to be within the financial resources and/or expertise of a major industrial facility and may prove beneficial to the industry by more accurately characterizing the stormwater discharge than by using grab-sample first-flush benchmark monitoring. Full-storm data can provide a much more complete picture of the industrial stormwater discharge from a site. Additionally, when faced with designing treatment SCMs for a high-risk and/or complex site, the flow and water quality data collected by composite sampling are critical to ensuring the sizing and design are appropriate. The MS4 entity could be an active participant with Category 4 facilities, potentially reimbursed to conduct the enhanced monitoring on behalf of the larger facilities in the watershed, so that the data are consistent and useful both at a site level and on a watershed basis.

Benefits of Tiered Monitoring Requirements

The current MSGP includes several levels of monitoring based on expected sector-specific stormwater pollutant discharge. The committee encourages EPA to add both enhanced and reduced levels of monitoring to the existing program. The elimination of benchmark monitoring by low-risk facilities would provide a nonmonitoring option for oversight of these facilities and eliminate some of the most suspect, unreliable monitoring data. This approach also ensures that high-risk industries that are more likely to be significant sources of stormwater pollution invest in the necessary monitoring to confirm that SCMs are effective in reducing pollutants and risks to receiving waters. In total, this proposed framework is expected to reduce the monitoring burden on the lowest-risk facilities while increasing the quality of the data available on the overall population of industrial facilities including the largest, highest-risk facilities. Combined with suggested improvements to monitoring protocols, training, and data management discussed in this chapter, the tiered approach is also expected to increase the usefulness of the data collected toward improving the management of industrial stormwater.

Exemptions, Additions, and Other Permitting Alternatives

Within the tiered framework envisioned by the committee, there are exceptions, additional monitoring, and other permitting options as are currently applicable to the current MSGP.

No Exposure

No-exposure certification is allowed under the current MSGP for sites, regardless of size or complexity, at which "all industrial materials and operations are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff" (EPA, 2015d). With no-exposure certification, required once every 5 years, facilities are exempt from the requirements of the MSGP, including monitoring. Certification requires facility owners to confirm no-exposure conditions by answering specific questions about industrial materials or activities exposed to precipitation and to allow the permitting authority to inspect the property, although such inspections are rarely conducted.

The committee agrees that monitoring is not needed at facilities with no exposure but recommends

verification of no exposure by a certified inspector or the permitting authority. Maryland is an example of a jurisdiction that currently requires third-party verification of no exposure.

Effluent Limitation Guidelines

As discussed in Chapter 1, EPA has established effluent limitation guidelines (ELGs) for 10 subsectors of industrial facilities (see Appendix B), with required monitoring at least once per year at each outfall. This ELG monitoring, required by law, would supplement the MSGP monitoring envisioned in Table 3-2.

Individual Stormwater Permit Monitoring

In its original regulatory strategy for industrial stormwater (EPA, 1990, p. 48002), EPA identified an individual permit category for situations where the MSGP benchmark monitoring requirements, SWPPPs, and SCMs may be inadequate to address pollution from stormwater discharges associated with industrial activity. Federal regulations empower the permitting authority to exclude facilities from the MSGP and require individual NPDES permits when special considerations such as a large quantity of pollutant discharge, proximity to receiving waters, and the characteristics of pollutants are at issue (40 CFR § 122.28(b)(3)). Extensive stormwater discharge characterization for conventional and nonconventional pollutants, toxic pollutants, hazardous substances, and treatment units must be submitted with the permit application. Based on this information, an individual stormwater permit can require more extensive monitoring and/or a greater number of pollutants compared to the MSGP, where benchmark monitoring is determined by standard industrial classification code. Individual permits can also be structured with enforceable discharge criteria expressed as numerical effluent limits, which trigger a permit violation if exceeded. This stricter enforcement of pollutant exceedances can be helpful for sites that represent a high public concern or that raise environmental justice issues. Federal law authorizes any "interested person" to petition the permitting authority to require an individual permit.

Advanced Analyses Possible Under Enhanced Monitoring

Under the AIM process (still to be developed) and the enhanced monitoring category envisioned within the tiered framework for large, complex sites with repeated benchmark exceedances, there are opportunities to use advanced tools and analyses to better understand water quality impacts from individual facilities. These tools, such as wet weather dilution or the biotic ligand model, may require monitoring of receiving water flows or quality, more complex sampling techniques, and modeling, so they are not viewed as tools that should be required of all permittees. Nevertheless, for facilities struggling with repeated exceedances, these advanced tools and analyses can clarify where further SCMs are necessary to protect receiving water quality.

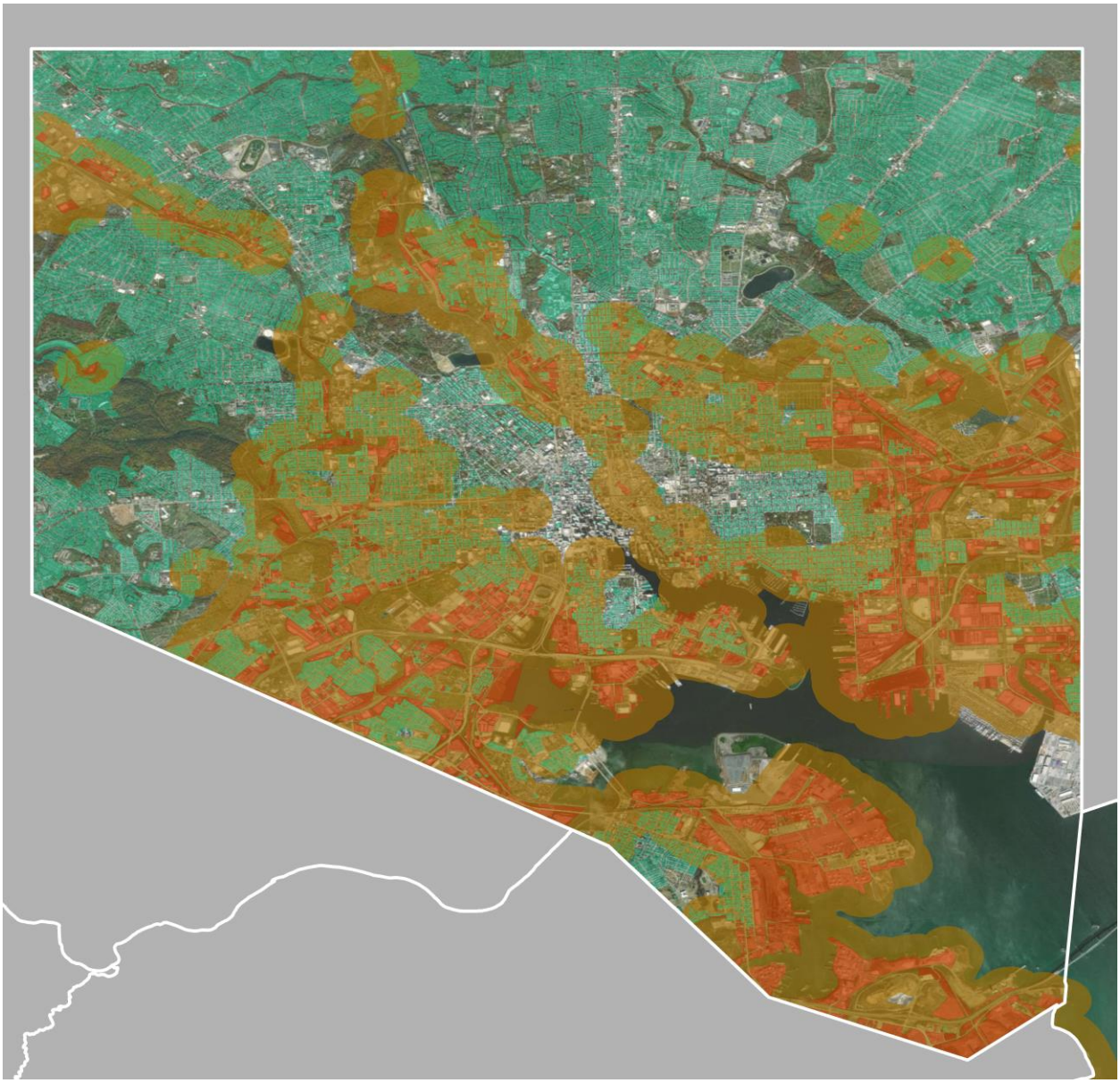
Wet Weather Dilution and Mixing Zones

Many MSGP benchmarks are based on water quality criteria (see Table 1-3) and all MSGP benchmarks are applied at the point of discharge without dilution. By its very nature, industrial stormwater discharges occur during wet weather conditions when the receiving stream is expected to be flowing at some reasonable capacity above base flow, which could provide dilution of stormwater discharges. NPDES regulations allow for municipal and industrial process wastewater discharges to incorporate dilution and an impacted mixing zone when evaluating instream toxicity. According to EPA (2014), a mixing zone is "a limited area of volume of water where initial dilution of a discharge takes place and where certain numeric water quality criteria may be exceeded." State regulations generally limit these areas based on widths or cross-sectional areas and lengths on a case-by-case basis, and the use of mixing zones is at the discretion of the permitting authority.

Explicit inclusion of a dilution allowance in deriving benchmark thresholds for the MSGP has not been done by EPA and would be challenging, given the state-to-state variability in how mixing-zone allowances are included as part of state water quality standards and the site-specific analysis normally conducted to implement the allowance for a discharge. However, facilities that repeatedly fail to reach benchmarks and are elevated to the upper tiers of the AIM process should be permitted

EXHIBIT C

Geospatial Analysis of Industrial Property Proximity to Residential Property in Baltimore City



Note: This image, based on geospatial analysis of state environmental and property data, shows the extent of Baltimore City within one-quarter mile of an industrial property (shaded orange) and the proximity of such industrial properties (shaded red) to residential property (shaded green-blue). Note that nearly all of Southwest Baltimore and Eastern Baltimore are within this quarter-mile area, with thousands of residences situated within a quarter mile of numerous industrial properties. Several neighborhoods are nearly surrounded by industrial property and continuously exposed to toxic substances discharged without treatment from such properties.