NO PROFIT IN POLLUTION:

A Comparison of Key Chesapeake Bay State Water Pollution Penalty Policies

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By CPR Member Scholar Robert Glicksman and Policy Analyst Aimee Simpson

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Introduction

Since the beginning of the industrial age, the Chesapeake Bay's health has experienced a steep decline, threatening the Bay's status as an invaluable human resource and home to hundreds of aquatic and wildlife species.[1] While both federal and local environmental authorities have made significant efforts to put in place new regulations and pollution blueprints and have achieved some success in cleaning up the Bay, there is a long way to go.[2] Modern development and industrial activity continue to threaten the health and vitality of the Bay. The Environmental Protection Agency (EPA) and state environmental authorities within the Bay must use every tool at their disposal to curb pollution and protect the Bay, which they have not always done.

Civil enforcement of existing clean water laws is a critically important tool for protecting the ecosystem of the Bay, but given today's economic climate and the tenuous state of the Bay's water quality, the authorities entrusted with implementing the nation's clean water laws cannot afford to waste enforcement efforts and resources. Each enforcement action must have a strong deterrence-based impact and must impose penalties that send a clear message: Polluters should not profit from breaking the law.

Unfortunately, polluters often do profit from a decision to ignore the law because the costs of implementing mandatory water pollutant controls can be higher than the penalty imposed for getting caught. Costs associated with water pollutant controls can take many forms, such as purchasing better pollutant control equipment, reducing production levels to meet pollutant discharge limits, or even just paying for the maintenance and monitoring of existing water pollutant controls. While such costs to the polluter generate significantly greater economic benefits to society as a whole, if the expenditures end up being greater than a potential penalty resulting from an enforcement action, then unscrupulous polluters will often choose to roll the dice on being caught—ignoring the law in the hope that they will escape penalty, but willing to absorb the lower or comparable costs of the penalty if they do get caught. Put differently, the economic bottom line wins over the health and environmental well-being of a water body and all who rely on it.

While a strong, effective deterrence-based program includes many components, such as high inspection rates, frequent monitoring, and swift enforcement actions against violators, a central component is a penalty factor that recovers this "pollution profit." Known as the "economic benefit of noncompliance" (EBN), this factor provides an objective minimum on which to base a penalty and send a strong deterrence-based enforcement message. Seemingly straightforward, the policies and calculation methods for determining this number vary widely across jurisdictions, undercutting enforcement efforts and often reducing the deterrent effect of an enforcement action.

This paper presents a short background discussion of the Clean Water Act's (CWA) penalty provisions and the evolution of the Environmental Protection Agency's (EPA) economic benefit of noncompliance policy, and penalty calculation methodologies and computer model. Using EPA's economic benefit of noncompliance policy as the comparative standard, this paper also evaluates the penalty provisions and policies of the three major Chesapeake Bay states: Maryland, Pennsylvania, and Virginia. The following chart summarizes our findings concerning these comparisons:

Summary Comparison of Economic Benefit of Noncompliance (EBN) Civil Penalty Assessment Authorities, Policies & Methodologies

	EPA	Maryland (MD)	Pennsylvania (PA)	Virginia (VA)
Does the primary water pollution statute mandate consideration of the EBN factor in administrative and civil penalty assessments?	**Yes.** Section 1319 of the Clean Water Act (CWA) mandates consideration of the EBN factor in both civil and administrative penalty assessments.	**No.** Section 9-342 of MD's Environmental Code does not mandate consideration of the EBN factor.	**No.** Section 691.605 of PA's Clean Streams Law does not mandate consideration of the EBN factor, but does call for consideration of "other relevant factors."	**Yes.** Section 62.1-44.15 of VA Code mandates consideration of the EBN factor.
Do written, publicly available penalty policies exist that incorporate the EBN factor into general or water pollution penalty assessments?	**Yes.** Both EPA's general *Policy on Civil Penalties* and the accompanying *Interim Clean Water Act Settlement Penalty Policy* establish the EBN factor as a minimum baseline for most penalty assessments.	**No.** MD does not provide publicly available penalty policy documents.	**Partially.** PA's written and publicly available penalty policies for "Pollution Incidents" and "Effluent Violations" (together "PA Policies") permit consideration of the EBN factor as part of "other" costs to be added to the total penalty, but offers no further policy explanation or considerations.	**Yes.** VA's *Civil Enforcement Manual, Chapter 4—Civil Charges and Civil Penalties* (VA Civil Penalty Policy), establishes the EBN factor as a minimum baseline for penalty assessments and offers an adequate discussion of the underlying policies for evaluating the EBN factor.
Do publicly available calculation sheets, matrices, or penalty assessment methodologies include the EBN factor and offer detailed calculation instructions?	**Yes.** EPA's BEN computer model and BEN Manual describe input requirements and calculation methodologies for determining the EBN factor in multiple scenarios.	**No.** While internal matrices and calculation models exist, no general calculation sheets, matrices, or basic methodologies are available to the public.	**Partially.** PA Policies provide general penalty assessment matrices and simplistic calculation sheets.	**Mostly.** VA Civil Penalty Policy includes general penalty calculation sheets and instructions that include the EBN factor. VA Civil Penalty Policy also directs administrators to use the EPA BEN Model if the EBN factor is greater than $10,000, but leaves estimate instructions for smaller matters undefined.

Summary of Recommendations

Maryland, Pennsylvania, and Virginia must all strengthen the application, transparency, and follow-through of their policies concerning the economic benefit of noncompliance. EPA's economic benefit of noncompliance penalty policy provides a solid framework on which to build or improve upon individual state models. However, EPA must also take steps to ensure that these policies and models are being implemented to their fullest extent, both internally and by the Bay states. To better achieve deterrence-based enforcement by stronger policies for and consistent recovery of the economic benefit of noncompliance, this paper makes the following recommendations:

- Maryland and Pennsylvania environmental authorities should set the economic benefit of noncompliance as the absolute minimum penalty standard.
- Maryland Department of the Environment (MDE) must develop a publicly available, written penalty policy that includes detailed explanations of penalty calculation methodologies for recovering the economic benefit of noncompliance and other penalty factors. Pennsylvania Department of Environmental Protection (PADEP) and Virginia Department of Environmental Quality (VADEQ) should further develop existing guidance and calculation tools to offer detailed instructions on assessing the economic benefit of noncompliance in all scenarios.
- EPA, MDE, PADEP, and VADEQ must utilize existing penalty calculation methodologies and tools in a consistent manner and maintain accurate records for each penalty assessment.
- EPA and state authorities should provide access to enforcement data, judgments, and orders that include a line item for the economic benefit of noncompliance component.
- EPA must follow through with its stated intention to review and revise CWA Memoranda of Agreements (MOAs) and *require* in new MOAs with each of the Bay states that civil penalties recover at a minimum the economic benefit of noncompliance in all circumstances in which such a benefit exists.

Economic Benefit of Noncompliance Under the Clean Water Act: Background

The Deterrence-Based Enforcement Model

Deterrence-based enforcement ensures that the impact of environmental authorities in taking action against a polluter reach beyond that one case. As a whole, a deterrence-based model should incorporate four essential elements:

(1) Sufficient, consistent, and regular compliance monitoring to identify violators.
(2) Timely initiation of enforcement actions against violators.
(3) A mandate that the violator come into compliance with applicable laws and regulations.
(4) Imposition of penalties that, at a minimum, eliminate any economic benefit that the violator gained from violating the law and that provide a deterrent for future violations.

Of course, a deterrence-based enforcement model assumes that a regulated, rational actor that is subject to the law weighs the costs and benefits of complying with its legal obligations. Using a company as an example, this model does not rely on polluters' sense of ethics and morality alone; it assumes that a regulated company operates to maximize its profit, and that it will comply with environmental laws and regulations if its costs from noncompliance outweigh the benefits the company reaps from noncompliance. If a company will save $10,000 by avoiding compliance and illegally discharging waste into the Chesapeake Bay but also knows that it will likely be caught violating the law and face stiff penalties that far exceed $10,000 for this discharge, the company will be dissuaded from violating environmental laws under the deterrence-based enforcement model. This example illustrates the key elements of an effective deterrence-based enforcement program.

Failing to recover the economic benefit of noncompliance through penalties sets a precedent where "other regulated companies may see an economic advantage in similar noncompliance, and the penalty will fail to deter potential violators."[3] If a strong, deterrence-based enforcement program includes minimum penalties based on the economic benefit of noncompliance, it removes the potential economic advantage, makes noncompliance more of a financial risk, and ultimately dissuades potential polluters.

EPA's long-standing civil penalty policy places deterrence at the very forefront of overall penalty goals, along with "fair and equitable treatment of the regulated community, and swift resolution of environmental problems."[4] Setting an objective penalty baseline and methodology for assessing penalties, such as the economic benefit of noncompliance, and applying it with consistency are among the strongest ways to achieve all three of these goals, and especially deterrence.[5]

Administrative and Civil Penalty Provisions in the Clean Water Act

Under the CWA (and most state water pollution laws), penalties generally follow one of three kinds of enforcement actions: administrative, civil, or criminal.[6] Administrative actions are handled within EPA (or the state analog), whereas civil and criminal enforcement actions involve judicial proceedings before a court of law and usually involve those same agencies, as well as

additional enforcement authorities, such as the U.S. Department of Justice or State's Attorney General's Office. While criminal penalties can also recover an amount similar to the economic benefit of noncompliance, often called "disgorgement of illegal profits," this paper focuses on the administrative and civil penalty authorities and methodologies.

Penalties and the Ever-Inflating Problem of Inflation

In 2003, the Government Accountability Office (GAO) determined that many agencies had either failed to implement first-time inflation adjustments to civil penalties (pursuant to the Debt Collection Improvement Act (DCIA)) or had fallen behind in making subsequent inflation adjustments—EPA was one of them.[7] Even more concerning, GAO noted that the DCIA statute prevented agencies from accurately accounting for inflation once an agency had fallen behind in the inflation adjustment schedule, compounding the problem and creating an ever-expanding "inflation gap." Failing to make these adjustments limits an agency's ability to impose penalties that adequately deter and recapture delayed and avoided costs. Subsequent to the release of the GAO report, EPA has enacted rules and guidance to adjust its penalty policy in accordance with the DCIA, but it is still not clear whether the updated penalty limits continue to put the government at a disadvantage in levying penalties with appropriately weighted deterrence values.

Depending on the type of administrative enforcement action that a violator undergoes, the CWA's administrative penalty provisions assign two potential classes of penalties. The primary difference between the classes of administrative penalties, besides the penalty limits, is in the formality and procedures of the administrative proceedings that follow an administrative order. To assess Class II penalties, the administrator must follow certain procedural and notice requirements not needed for Class I penalty assessments.[8] The maximum per violation per day amount for both classes of administrative penalties has over time been increased by the Debt Collection Improvement Act (DCIA)[9] and corresponding rules to account for inflation. Currently, the per day penalty maximums and total penalty cap limits are set at $16,000/$37,500 for Class I administrative violations, and $16,000/$177,500 for Class II administrative violations.[10]

Civil penalties follow any successful judicial enforcement action and can be assessed against any violator of the statute and its related regulations.[11] Taking into account the increases mandated by the DCIA, the most recent maximum per violation per day amount is set at $37,500.[12]

For civil penalties, no statutory cap exists on the total amount of penalties that may be assessed against a violator. However, the CWA notes that "a single operational upset which leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation."[13] In other words, if, for example, a sewer pipe explosion causes a variety of regulated contaminants to spill into a waterway in excess of their permit limits, all of the individual permit limit violations would be considered one violation per day, not multiple violations per day. On the other hand, if a regulated entity had separate limits for pollutant A and pollutant B and it violated both of those limits without some accident causing the violations, each of those violations could incur the maximum per violation per day amount.[14]

Type of CWA Penalty	Current Per Violation/Per Day Limit	Current Statutory Cap on Total Penalty
Administrative Class I	$16,000	$37,500
Administrative Class II	$16,000	$177,500
Civil	$37,500	No Cap

Besides setting monetary limits, the CWA also lays out both civil and administrative penalty factors that *must* be considered when determining the appropriate penalty. While the wording differs slightly, both the civil and administrative penalty factors require that the administrator or court consider the following:

(1) Seriousness of the violation or violations,
(2) **Economic benefit (if any) resulting from the violation,**
(3) Any history of such violations,
(4) Any good-faith efforts to comply with the applicable requirements,
(5) Economic impact of the penalty on the violator, and
(6) Such other matters as justice may require.[15]

For CWA violations, *consideration* of the economic benefit of noncompliance is mandated by statute, but the actual amount of this benefit is not required to be part of the final penalty assessment. The CWA offers no further details or guidance as to how an administrator or judge should determine any of these penalty considerations. This determination is left to the discretion of the administrator or judge.

EPA's Civil Penalty Policy and the BEN Model

EPA's 1984 *Policy on Civil Penalties* instructs that any penalty should "at a minimum" recapture any significant benefits resulting from noncompliance.[16] Only after assessing this minimum baseline, should an administrator then move on to determining the other penalty components.

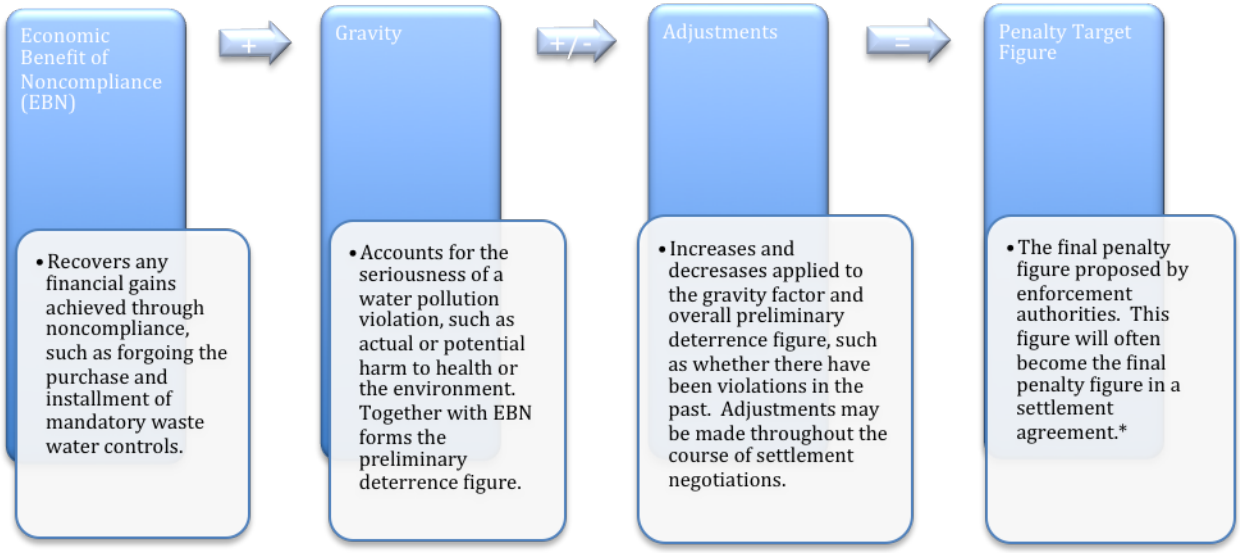
EPA still employs the basic tenants of its original 1984 penalty policy, which include three main penalty calculation components:

(1) an economic benefit of noncompliance component;
(2) a gravity component; and
(3) adjustments component.[17]

The economic benefit of noncompliance component assesses "the amount by which a defendant is financially better off from not having complied with environmental requirements in a timely manner."[18] Most often, these economic gains stem from delayed or avoided pollution control expenditures, like the costs associated with monitoring and reporting, pollution control equipment repairs or upgrades, or labor expenses.[19]

The gravity component is meant to reflect the seriousness of a violation, such as significance of the violation, actual or possible harm to health or the environment, importance to the regulatory scheme, size of the violator, and in CWA cases, the number of effluent violations and significance of non-effluent limit violations.[20] An example of a non-effluent limit violation might be the failure to provide mandatory monitoring reports. Assessment of the seriousness of a violation is a relatively subjective factor, because it is ultimately a discretionary determination that assigns a certain value to many of the gravity considerations. Together, it is the economic benefit of noncompliance component and gravity component that make up the "preliminary deterrence figure."[21]

Basic EPA Civil Penalty Components



*The majority of enforcement actions result in either an administrative consent decree or a settlement agreement approved by a judge. It is important to note that a judge is not bound by the proposed penalty target figure presented by the enforcement authorities, however, he or she must consider any mandatory statutory penalty assessment factors and will often adhere to government proposed penalty figure if consistent with statutory standards. In adversarial enforcement actions where no settlement agreement has been reached, the environmental authorities are often instructed to request the maximum penalty allowed by law at the initial complaint stage. However, EPA may present a more specific penalty target figure during the judicial penalty assessment phase of an enforcement action.

Adjustments can then be made to the preliminary deterrence figure. Potential "adjustments" generally apply to the gravity component and include such factors such as degree of willfulness, history of noncompliance or recalcitrance, degree of cooperation, and self-disclosure efforts. Adjustments can also apply to the entire preliminary deterrence figure and take into account litigation considerations (i.e. the strength of the case), the ability of the violator to pay a penalty, whether the violator falls into a special class of cases involving municipalities and public entities, and even Supplemental Environmental Projects (SEPs).[22] EPA provides "value range" guidance for both the gravity and adjustments components in policy releases and even separate economic models, similar to the BEN Model, for certain adjustment considerations. Ultimately these components remain a subjective determination to be made by the enforcement authorities.[23]

An Additional EBN Factor to Consider: Illegal Competitive Advantage

A discharger that forgoes compliance costs can reap monetary gains beyond the amount associated with the immediate avoided or delayed costs. For example, assume that Manufacturer A decides to increase production of its widgets to capture a larger market share, resulting in increased profits of $100,000. In turn, this increase in production puts Manufacturer A out of compliance with its CWA permit. Manufacturer A could purchase equipment at a cost of $10,000 to maintain compliance with its CWA permit and maintain increased production rates and profits, but chooses not to because of the cost of the equipment. Manufacturer B, who produces similar widgets, also would like to increase production levels and profits, but like Manufacturer A would violate its CWA permit to achieve these increases. Also like Manufacturer A, Manufacturer B could install new equipment at a cost of $10,000 to increase production and be able to comply with its CWA permit. Unable to afford the equipment and not wanting to violate its CWA permit, Manufacturer B chooses to maintain its current production levels and thus receives no increases in profits. In this case, Manufacturer A gains a competitive market advantage and an additional $100,000 in profits by choosing to violate its CWA permit and not install the appropriate equipment.

Other practices that can give rise to a similar "illegal competitive advantage" include selling banned products or removing pollution control equipment used in the manufacture of certain products, such as automobiles.[24] This kind of advantage does not occur in every pollution scenario, but it should be relevant when environmental agencies calculate the economic benefit of noncompliance. In particular, the penalty should be high enough to remove the net profits obtained from the deliberate strategy to lower operating costs by violating regulatory standards. Some argue that an effort to counter illegal competitive advantage should be a standard practice in calculating the base economic benefit of noncompliance.[25] The BEN Model and EPA Penalty Policy, however, only encourage consideration of this factor rather than incorporating it into the primary economic benefit of noncompliance calculations.[26]

By comparison, the economic benefit of noncompliance component provides an objective minimum on which to base a penalty. That is, no weight is placed on the reasons for the violation, impacts of the violation, or individual circumstances of the violation. Even an intention to delay compliance or an awareness of a delay in compliance (something that would suggest the need for a higher penalty) is not to be considered in calculating the economic benefit of noncompliance component.[27] For this reason, only after determining the economic benefit of noncompliance can an EPA administrator move on to assessing the gravity components and then finally, if warranted, any adjustments.[28]

The BEN Computer Model

Seemingly straightforward, the calculation of the economic benefit of noncompliance requires some due diligence. Factors such as the length of time a potential violation continues, how long it takes to repay a penalty, and what values are assessed for the delayed or avoided expenditures can make it difficult to assess an accurate baseline number. To make calculation of this critical penalty component as accessible and as consistent as possible to both its own administrators and state-level administrators, EPA developed the BEN Computer Model (BEN Model)[29] and an in-depth BEN User's Manual (BEN Manual).[30]

The BEN Model arrives at the calculated noncompliance gains through a series of data inputs, starting with expenditures that a polluter avoided or delayed making in failing to comply with its regulatory duties, which can include:[31]

(1) Capital investments (e.g. pollution control equipment);
(2) One-time non-depreciable expenditures (e.g. setting up a reporting system or acquiring land); and/or
(3) Annually recurring costs (e.g. operating and maintenance costs).[32]

While these delayed and avoided expenditures appear to be straightforward, the BEN Model becomes a helpful tool when calculating the more complex economic factors, such as the "time value of money."[33] As EPA explains, "[A] dollar today is worth more than a dollar tomorrow, because you can invest today's dollar to start earning a return immediately."[34] Through a series of internal computer calculations and default values, the BEN Model computes factors such as costs associated with complying on-time, complying late, inflation adjustments, discount rates, and tax deductibility to produce the final economic benefit of noncompliance output.[35]

EPA's most recent guidance encourages the use of the BEN Model in nearly all CWA penalty assessment scenarios.[36] However, in its older 1984 EPA Civil Penalty Policy, which acknowledges the development of the BEN Model but predates its completion, EPA also identifies a more simplified calculation method (known as the "Rule of Thumb") that can be used for jumpstarting initial case considerations and settlement negotiations.[37] Despite EPA's efforts to make the BEN Model transparent and accessible to all, some state authorities and critics of the EPA's BEN Model describe it as burdensome and excessive in its data-collection requirements.[38] While there are a number of inputs that a user of the BEN Model must obtain to operate the program, such as identifying the marginal tax rate, compound rate, and cost indices, all of these inputs are required for an accurate and fair economic benefit of noncompliance calculation.[39]

Failing to Recover EBN at the Federal Level

The development of strong, deterrence-based penalty policies and tools will help reduce pollution of the Chesapeake Bay only if EPA and state agencies consistently apply and use those policies and tools in actual cases. Unfortunately, as the following case study demonstrates, EPA has not always applied deterrence-based policies to send a strong message to Bay polluters that noncompliance will cost rather than save them money:

Agricultural industries are responsible for a large portion of the nutrient pollution in the Chesapeake Bay. While much of the agricultural universe is excluded from the CWA's National Pollution Discharge Elimination System (NPDES) permitting requirements, concentrated animal feeding operations (CAFOs) qualify as point sources. As a result, the statute and EPA regulations require them to operate under either an individual or general NPDES permit. Because the agricultural community must play a role in Bay restoration efforts if there is to be any hope of achieving the Chesapeake Bay Total Maximum Daily Load (TMDL) nutrient reductions, it is crucial that all CAFOs operate under NPDES permits and achieve the levels of control dictated by these permits.

In 2010, EPA issued a Findings of Violation and Order for Compliance (Compliance Order) to the owners and operators of a medium CAFO located in Timberville, Virginia, doing business as Windcrest Associates, LLC. EPA identified several violations in the Compliance Order, including direct contact of dairy cows and cow manure with a tributary of the Shenandoah River, an expired Nutrient Management Plan, and a failure to construct 4,000 feet of exclusion fence, as required by the CAFO's Conservation Plan. EPA also cited the company for not having a NPDES permit for the facility.

Given the size and practices of the farm, EPA determined that it qualified as a CAFO and thus was subject to the CWA and its implementing regulations. The CAFO's activities amounted to an unauthorized discharge by a point source into the waters of the United States. Yet, according to EPA's Enforcement Case Report, the enforcement action resulted in a compliance order requiring that the company cease and desist pollutant discharges except in compliance with a NPDES permit and submit a compliance schedule for obtaining and complying with the permit, without imposing any penalty for past violations.

Though EPA helped protect the Bay's water quality by mandating that the CAFO obtain a permit and eliminate regulatory violations going forward, its enforcement strategy failed to send a strong message to other unpermitted CAFOs that would be likely to deter them from committing the same violations. The Compliance Order only forced the facility's owners to do what the statute and regulations required them to do all along. It faced no adverse financial consequences for past unlawful conduct that predated the discovery of violations by EPA's inspector. EPA and states face an enormous task in inducing CAFOs to apply for permits. The rigorous application of deterrence-based enforcement policies is one important way to achieve that goal. Even a small penalty that forces regulated polluters to disgorge avoided and delayed compliance costs (such as the cost of installed fences to keep animals away from the water), would have sent the message to other unpermitted CAFOs that adverse financial consequences await those who choose to disobey the law. EPA enforcement actions should always result in violators being worse off financially than if noncompliance had not occurred.

Recovering the Economic Benefit of Noncompliance at the State Level

Consistent application of penalty policies is a fundamental element of a strong deterrence-based enforcement program. EPA has delegated CWA permitting and enforcement authority to the Chesapeake Bay states through Memoranda of Agreements.[40] The states are responsible for the day-to-day implementation and enforcement of the CWA and the National Pollution Discharge Elimination System (NPDES) permit program. EPA retains the authority to step in when necessary or if a state is not doing its job, but most enforcement actions and resulting penalties are usually calculated according to state-level water pollution laws and penalty policies. For the health and water quality of the Bay, these penalty policies must achieve consistent, fair, and deterrence-based results.

Looking at the three largest states that contribute to the water pollution in the Chesapeake Bay watershed (Maryland, Pennsylvania, and Virginia), this section reviews and assesses whether these states achieve the very minimum of deterrence-based penalty results through transparent and consistent application and recovery of the economic benefit of noncompliance penalty component.

In assessing the state penalty policies, we used the State Review Framework (SRF) evaluations and reports to corroborate our analysis. These reports are the product of a joint effort between EPA and the Environmental Council of States (ECOS) Compliance Committee to audit state environmental enforcement programs, frameworks, and practices. They "allow EPA to identify recommendations for improvement to ensure fair and consistent enforcement and compliance programs across the states."[41] By applying the same set of 13 questions or metrics, the joint group of evaluators looks at a variety of enforcement statistics, policies, and procedures to determine how each state compared in the water, air, and waste programs. Two of the 13 metrics focused on "the degree to which the state includes both gravity and economic benefit calculations for all penalties, appropriately using BEN model or consistent state policy" and "the degree to which penalties in final enforcement actions include economic benefit and gravity in accordance with applicable penalty policies."[42] The text below discusses the related findings from both Round I and Round II (if available) SRF reports for these metrics.

Maryland

Maryland considers the economic benefit of noncompliance in its penalty assessments, but it lacks both clearly defined statutory standards and publicly available penalty policies that establish a consistent standard and methodology for recovering this critical deterrence-based penalty factor. Maryland should make general penalty policies and calculation methods available to the public. These policies should contain clearly outlined calculation guidance on recovering the economic benefit of noncompliance, using either the BEN Model as the default calculation methodology or developing one that closely mirrors it.

Statutory Water Pollution Penalty Provisions

Looking at Maryland's primary water pollution control law, the penalties assigned for violations of this law include the following:

Type of Penalty (Md. Env. Code § 9-342)	Current Per Violation/Per Day Limit	Current Statutory Cap on Total Penalty
Administrative	$5,000	$50,000
Civil	$10,000	No Cap

Maryland's penalty limits are low when compared to the CWA and Virginia.[43] Depending on the length of time that a violation continues and the number of violations that occur, these low penalty limits could potentially restrict the recovery of the economic benefit of noncompliance.[44]

The Maryland Code outlines eight factors to be taken into consideration when assessing Administrative penalties. Such factors include:

(1) The willfulness of the violation;
(2) Any actual harm to the environment or to human health;
(3) The cost of cleanup and the cost of restoration of natural resources;
(4) The nature and degree of injury to or interference with general welfare, health and property;
(5) The extent to which the location of the violation . . . creates the potential for harm to the environment or to human health or safety;
(6) The available technology and economic reasonableness of controlling, reducing, or eliminating the violation;
(7) The degree of hazard posed by the particular pollutant or pollutants involved; and
(8) The extent to which the current violation is part of a recurrent pattern of the same or similar type of violation committed by the violator.[45]

While these factors do not specifically apply to civil penalty assessments, Maryland Department of the Environment (MDE) and the state courts use these factors to assess penalties in both contexts.[46] Most of the Maryland penalty factors would be considered part of the gravity component of EPA's penalty policy with a few of them falling under the adjustment factor category. Only Maryland factor six offers any kind of economic consideration, and it focuses on cost-benefit assessments, rather than directly mandating consideration of recovering the economic benefit of noncompliance.

Maryland Department of the Environment's Penalty Policies, Guidance, and Tools

MDE lacks a detailed, documented, and publicly available description of its environmental penalty assessment policies and calculation methodologies. The closest example of MDE's publicly disclosed penalty policy that could be found was within the MDE's Annual Enforcement and Compliance reports. Unfortunately, this single-page description of MDE's penalty policy offered little more than a restatement of the previously discussed statutory factors and thus did not amount to a meaningful communication or useful tool.[47] The *State Program Review Framework Pilot Phase Maryland Water Program* (Maryland SRF Round I Report) reached the same conclusion, stating that "[MDE] does not have a written penalty policy."[48] This SRF Round I report also criticized MDE for its lack of penalty assessment documentation and for failing to include consideration of the economic benefit of noncompliance in many of the internal department penalty calculations.

Three years later in 2007, Round II of the SRF evaluations did not find many improvements on this issue. Overall, the *[MDE] State Review Frameworks Report for Fiscal Year 2007* (Maryland SRF Round II Report) highlighted the continued failure of all environmental programs (water, air, and waste) to document penalty calculations, meaning that transparent and documented assessment of the economic benefit of noncompliance and gravity penalty components were still lacking.[49] The Maryland SRF Round II Report noted that SRF report evaluators were not alone in this criticism as MDE's Inspector General (IG) had also cited MDE for its weakness in penalty calculations.[50]

In response to the IG's internal audit, MDE explained that "the department established a penalty change explanation form, a penalty tracking data base which includes all penalties and status changes, [a Standard Operating Procedure (SOP)] to assure that the new tools are being implemented and supervisor review and approval of penalties."[51] Additionally, MDE affirmed its consideration of the economic benefit of noncompliance "where possible."[52]

Unfortunately, access to these internal policies, procedures, and tools (by the EPA or the public) remains elusive.[53] Additionally, MDE's assurance that it considers the economic benefit of noncompliance "where possible" in no way conveys a consistent or concrete deterrence-based minimum penalty standard.

Although confidentiality and deliberative process protections can in certain circumstances justify non-disclosure of completed, case-specific penalty worksheets and calculation methodologies, Maryland should disclose general penalty calculation policy and blank penalty calculation worksheets, as EPA and other states have done.

Shedding Some EBN Perspective at the State Level

Knowing a violator's economic benefit of noncompliance can shed some important perspective on the deterrence value of even large penalties:

In 2011, both the Maryland Department of the Environment (MDE) and the Office of Attorney General (OAG) lauded a clean water enforcement victory against the operators of the Clearview at Horn's Point, a country club located in Cambridge, Maryland.[54]

After taking the case to trial, Maryland enforcement authorities achieved an apparent victory. The Dorchester County Circuit Court found operators of the country club had "willfully and intentionally diverted raw sewage from a failed septic system into wetlands on a daily basis for more than two years." Rather than safely pumping and hauling out raw sewage from the facility's failed septic system, the country club took the extraordinary, and illegal, step of constructing an underground pipe that dumped untreated human waste directly into surrounding wetlands.

At first glance, the court-levied penalty appeared significant for a state-level enforcement action; the court levied a fine of $500,000 on the country club. But that appearance was highly misleading. According to a news release from the Maryland Attorney General's office, construction of the pipe in lieu of lawful management of the sewage saved the country club and its members significant "out-of-pocket" costs during the two-year period of willful and intentional violations. These saved costs—the economic benefit of noncompliance—amounted to $424,000. The result was that the penalty assessment actually resulted in a net cost of only about $86,000, notwithstanding the egregious and willful nature of the violation. An $86,000 penalty is obviously far less harsh than a fine of $500,000. In fact, the actual impact of the court's assessment was even less than $86,000 because the country club had the use of the money throughout the period of the violation until the issuance of the court's judgment.

Looked at from another perspective, the $500,000 penalty sends an even less impressive enforcement message. The maximum penalty the country club could have faced under the statute was $7.3 million — 730 days of violation, at a daily potential penalty of $10,000 per day. For those paying attention — and polluters across the state intent on evading the law surely are —the state's "victory" sends a weak message of deterrence.[55]

Pennsylvania

Pennsylvania's statutory standards and publicly disseminated penalty policies pertaining to water pollution violations lack a strong and clearly articulated economic benefit of noncompliance component. While the Pennsylvania Department of Environmental Protection (PADEP) has made efforts to improve its penalty policies post-Round I SRF evaluations, some deficiencies nevertheless persist in communicating a clear deterrence-based penalty policy that places the appropriate emphasis on recovering the economic benefit of noncompliance.

Statutory Water Pollution Penalty Provisions

Pennsylvania's Clean Streams Law only provides for a $10,000 per violation per day limit on civil penalties.[56] The statute does not distinguish between civil penalties and administrative penalties and sets no maximum limit or cap on the total penalty.

Type of Penalty (35 P.S. § 691.605)	Current Per Violation/Per Day Limit	Current Statutory Cap on Total Penalty
Administrative	Not Distinguished	Not Distinguished
Civil	$10,000	No Cap

Similar to Maryland, the low daily limits on civil penalties could potentially limit recovery of the economic benefit of noncompliance in certain circumstances, if, for example, the economic benefit of noncompliance amount exceeded the daily limit.

In assessing the appropriate amount of a civil penalty, the PADEP is to consider:

(1) Willfullness of the violation;
(2) Damage or injury to the waters of the Commonwealth or their uses;
(3) Cost of restoration; and
(4) Other relevant factors.[57]

Beyond these four factors, the statute offers no specific details by way of guidance to PADEP as it assesses civil penalties. The CWA, as well as the Maryland and Virginia laws, by contrast, provide such detail.

Pennsylvania Department of Environmental Protection's Penalty Policies, Guidance, and Tools

PADEP's administrative and civil penalty policies, guidance, and tools improved during the last decade in both substance and public accessibility, but still suffer from vagueness in establishing and calculating the economic benefit of noncompliance as an objective penalty baseline. In 2006, the *State Program Review Framework for Pennsylvania Department of the Environment* (Pennsylvania SRF Report) concluded that PADEP did not have a penalty policy for its water department that included economic benefit of noncompliance as a consistent component of the civil penalty calculations. Demonstrating the stark situation, the Pennsylvania SRF Report noted that, in the

three penalty cases where the reviewers could find preserved penalty calculations (of 13 cases where penalties had been assessed), only one included a line item for economic benefit of noncompliance.

The Pennsylvania SRF Report indicated that PADEP enforcement relies primarily on penalty calculation matrices to assess its penalties. Economic benefit of noncompliance was a line item on one of the matrices, but "it was unclear how the value entered for economic benefit was incorporated in the total penalty."[58]

In 2009, PADEP released new guidance on calculation of civil penalties for effluent violations, which included penalty worksheets but did not appear to include the matrices referenced in the Pennsylvania SRF Report.[59] Unfortunately, the only mention of the economic benefit of noncompliance within the guidance and worksheets falls under the "other" category discussions and offers no specific guidance as to what models (e.g. EPA's BEN Model) or methodologies enforcement authorities should use to determine the economic benefit of noncompliance.[60]

PADEP provides some other guidance documents on civil penalty calculations pertaining to different kinds of water pollution violations, such as "pollution incidents" (i.e. spills), specific water pollution sources (such as sewage facilities), and to specific penalty components (such as the "willfulness" component).[61] Unfortunately, only one of these documents mandates consideration of "savings of financial benefit from non-compliance" and expands on what this means.[62] The guidance explains that these savings may include "the value of non-expenditure or delaying expenditures for installation, repair, testing, operation, maintenance, etc." and says little else.

In contrast to EPA and other states, Pennsylvania's penalty calculation method takes a top-down approach. Each penalty begins with the maximum daily penalty ($10,000 multiplied by however many days the violation occurred) and is then reduced downward based on a series of percentage reductions linked to case-specific penalty factors. The percentage reductions for each penalty factor (such as willfulness, receiving stream impact, and flow rate) are achieved by multiplying the maximum daily penalty by a value less than or equal to 1.0. The less egregious the violation, the more the penalty will be reduced from the maximum and the smaller the multiplier (e.g. 0.1).[63] PADEP sets penalty minimums through its guidance documents and policies, and emphasizes in its Effluent Violations Guidance that "[n]o factors can be assigned values of zero, which would eliminate the entire penalty assessment."[64] In the same breath PADEP notes that in certain instances strict adherence to penalty policies and the calculation methods will not be appropriate. This flexibility is not so different from EPA and other state policies. However, in conjunction with weak policies on recovering the economic benefit of noncompliance, it does not offer a strong sense of confidence in Pennsylvania's ability to achieve meaningful deterrence-based enforcement.

Virginia

Among the three states examined, Virginia presents some of the strongest statutory standards, as well as written, publicly available penalty policies that address economic benefit of noncompliance and offer clear direction on preferred calculation methodologies. However, for the statute to have the desired effect, Virginia must consistently apply and document its policies and ultimately collect the economic benefit of noncompliance.

Statutory Water Pollution Penalty Provisions

At the administrative level, a person or entity facing a potential water pollution penalty must be provided with the calculation for the proposed penalty before any formal hearing. Virginia Code not only makes the distinction between administrative (or Board) proceedings and judicial proceedings, but also provides for consensual versus adversarial penalties. Penalties assessed and agreed to in consent orders are deemed "civil charges," whereas penalties assessed without consent of the regulated person or entity and unilaterally levied by the Board or a Court are deemed "civil penalties."[65]

Type of Penalty (Va. Code § 62.1-44.15 & § 62.1-44.32)	Current Per Violation/Per Day Limit	Current Statutory Cap on Total Penalty
Administrative/Board	$32,500	$100,000
Civil /Judicial	$32,500	No Cap

Note: For violations occurring prior to July 1, 2005, the per violation per day cap is set at $25,000. Also, certain kinds of violations or pollution sources are subject to separate civil charge and penalty caps, such as discharging oil, sanitary sewer overflows, and certain confined animal feeding operations.[66]

Virginia's penalty limits are lower than the current CWA limits, but significantly larger than Maryland's and Pennsylvania's.[67]

Similar to the CWA, the Virginia water pollution provisions specifically note that the economic benefit of noncompliance is one of five factors on which the State Water Control Board ("the Board") and the VADEQ should base a civil charge or civil penalty.[68] The complete list of factors includes:

(1) Severity of the violations;
(2) Extent of any potential or actual environmental harm;
(3) Compliance history of the facility or person;
(4) **Any economic benefit realized from the noncompliance**; and
(5) Ability of the person to pay the penalty.[69]

These factors must only form the basis of the policies and calculation criteria developed by the Board and Virginia Department of Environmental Quality (VADEQ).[70] In other words, economic benefit of noncompliance must be a part of the penalty policy and calculation framework, but the statute does not mandate that the economic benefit of noncompliance be represented in and recovered by every penalty.

Virginia Department of Environmental Quality's Penalty Policy

On paper, the Virginia Department of Environmental Quality (VADEQ) offers some of the clearest and most transparent penalty policies, calculation methodologies, and guidance among the three Bay states. However, the strong, deterrence-based effects of the written policies and calculation methodologies are sometimes lost in practice and a lack of follow-through.

In 2009, the VADEQ issued a memorandum on *Civil Charges and Civil Penalties in Administrative Actions* and went on in 2012 to finalize these and some additional policies in chapter four of its Civil Enforcement Manual.[71] Emphasizing an objective and deterrence-based minimum penalty standard, VADEQ makes it very clear that "[a]t a minimum, a civil charge or civil penalty should remove any significant economic benefit of noncompliance . . . ."[72] VADEQ directs regulators to the EPA's BEN Model to calculate this penalty component. It also notes that "methods other than BEN may be used to calculate economic benefit of noncompliance, where [VADEQ] concludes that an alternative method provides more meaningful results" and in circumstances where the economic benefit of noncompliance amount might be less than $10,000.[73]

VADEQ includes delayed or avoided costs *and* illegal competitive advantage in its definition of the economic benefit of noncompliance. The agency does not describe specific methodology for calculating these factors. VADEQ leaves the determination of which economic benefit of noncompliance methodology to use to the discretion of the enforcement staff's professional judgment.

Even though recovery of the economic benefit is strongly encouraged, VADEQ provides four general exceptions that permit a reduction or waiver of the economic benefit of noncompliance penalty component, which include a *de minimis* value, compelling public concerns, unlikely recovery, and a demonstrated inability to pay.[74] There are also certain subjective adjustments that can be made to a final civil charge and sometimes to a civil penalty for "litigation and strategic considerations." These considerations include factors such as problems with proof, the precendential value of the case, and probability of meaningful recovery of a civil charge.[75]

Released before VADEQ's updated penalty policy, the *State Program Review Framework for Virginia Department of Environmental Quality* (Virginia SRF Report) noted that VADEQ provided a written civil penalty policy that included an economic benefit of noncompliance component that was often assessed and supporting documentation existed.[76] Unfortunately, the report also noted that in cases where no economic benefit of noncompliance was assessed, supporting calculation sheets were not included in the file. Even more concerning, the report found that the VADEQ often failed to collect the economic benefit of noncompliance penalty component.[77]

Having strong written policies and calculation methodologies is all but meaningless if the penalty is never collected. Based on the publicly available records, it is unclear if this problem persists, and no SRF Round II report has been released yet for Virginia. If this failure to collect the economic benefit of noncompliance has continued, it demonstrates the need for not only strong penalty frameworks that appropriately emphasize the economic benefit of noncompliance component (as seen in Virginia's policies and methodologies), but also a need for follow-through in collecting those penalties.

Recommendations

We recommend the following actions to establish a consistent economic benefit of noncompliance penalty baseline and maximize the deterrent effect of water pollution enforcement efforts in the Chesapeake Bay:

- **Maryland and Pennsylvania environmental authorities should set the economic benefit of noncompliance as the absolute minimum penalty standard.**

Most water pollution statutes set maximum penalty limits but do not set minimum penalty baselines. To eliminate that imbalance, administrators should establish the economic benefit of noncompliance as an objective penalty floor. If the law establishes a non-negotiable baseline for all penalty calculations, potential polluters will know that there is no profit to be made from violating the law.

- **MDE must develop a publicly available, written penalty policy that includes detailed explanations of penalty calculation methodologies for recovering the economic benefit of noncompliance and other penalty factors. PADEP and VADEQ should further develop existing guidance and calculation tools to offer detailed instructions on assessing the economic benefit of noncompliance in all scenarios.**

Maryland's lack of written and publicly accessible civil penalty policy leaves too much to the discretion of enforcement personnel and fails to send a strong deterrent message to potential violators. On the other hand, just having a written penalty policy that includes a mention of "economic benefit" in the "other" category and expresses that it can be added when necessary, as seen in Pennsylvania's Effluent Violation Guidance, is not much better. Both sets of practices fail to achieve the necessary amount of transparency and deterrent effect and need improvement. Both economic benefit of noncompliance penalty policies and calculations (if different than the BEN Model) and any blank forms or general matrices used to calculate a penalty amount should all be available to the public.

Even Virginia's penalty policy, which overall demonstrated many strengths and presented a thorough penalty policy and well-organized general calculation tool, fell short regarding the methods for calculating the economic benefit of noncompliance component in circumstances where the BEN Model was not used. Even for smaller matters, policies should describe some objective guidelines and calculation methodologies so that the economic benefit of noncompliance component remains an objective baseline and is recovered in all cases.

- **EPA, MDE, PADEP, and VADEQ must utilize existing penalty calculation methodologies and tools in a consistent manner and maintain accurate records for each penalty assessment.**

Although calculation forms for individual cases have been filled in with case-specific information and may be subject to certain public disclosure protections, internally these forms must be used consistently for every penalty assessment and should reveal in sufficient detail any economic benefit of noncompliance assessed—*de minimis* or not. Furthermore, these forms and calculation sheets

must be properly maintained and preserved for audits or statistical analysis. The failure to include consistent and clear breakdowns of penalty assessment components in a file makes it difficult to evaluate the effectiveness of an enforcement program.[78]

- **EPA and state authorities should provide access to enforcement data, judgments, and orders that include a line item for the economic benefit of noncompliance component.**

EPA, Maryland, Virginia, and Pennsylvania all offer their own versions of press releases, public dockets, databases or postings of consent agreements and judgments to inform the public of enforcement actions. Many of these sources contain information on the total penalty assessed. Going one step further toward establishing an objective penalty baseline and communicating it to potential polluters, these announcements and documents should include either the specific amount of any economic benefit recovered or a percentage value demonstrating what portion of the total penalty assessed was based on economic benefit of noncompliance. Similarly, in its publicly available enforcement and compliance data, EPA[79] and state-reported data should provide a line item or data element showing the amount or percentage of a penalty based on the economic benefit of noncompliance component in any enforcement action. EPA and the states should adopt new enforcement performance reporting standards and guidance to assure the availability of stronger and more complete information on penalty assessments.[80]

- **EPA must follow through with its intention to review and revise CWA Memoranda of Agreements (MOAs) and *require* within new MOAs that penalties recover at a minimum the economic benefit of noncompliance in all circumstances in which such a benefit exists.**

No doubt spurred by the SRF Report findings and the EPA Office of inspector General report,[81] EPA recently released its *Model National Pollutant Discharge Elimination System (NPDES) Memorandum of Agreement* (Model MOA),[82] review standards, and checklist.[83] While not legally binding, these documents provide guidance to EPA and states in assessing whether existing MOAs establish the requirements necessary to implement, monitor, and enforce the NPDES permitting program according to the standards of the CWA and applicable EPA policies. Using the new Model MOA, standards, and checklist as evaluation tools, EPA expects to review existing MOAs every four years.[84]

While the new EPA Model MOA demonstrates significant improvements in communicating more detailed permitting, monitoring, and enforcement expectations than the outdated and vague existing MOAs, much of the new language pertaining to penalty calculation policies, documentation, and collection still lacks firm mandates or enforcement program evaluation standards.[85] "Strongly suggesting" adherence to EPA's settlement penalty policy and procedures does not go far enough.[86]

As demonstrated by the findings in this report, the variations and inconsistencies in penalty policies and practices at the state level do not assure appropriate, deterrence-based enforcement results. Not only should EPA revise existing MOAs for Maryland, Pennsylvania, and Virginia to reflect the new Model MOA language, but it should include strict civil penalty policy criteria, such as detailed, written penalty policies and a requirement that enforcement officials demonstrate recovery of the economic benefit of noncompliance through enforcement performance data.

Conclusion

Environmental enforcement programs face challenging times, given limited resources and staff. At the same time, achieving national and state water quality goals and ensuring the protection of our health, livelihoods, and environment have never been more critical. Enforcement actions must be taken against polluters to not only stop the pollution, but also send strong, deterrence-based messages to other potential polluters. To this end, recovering the economic benefit of noncompliance in the assessment of administrative and civil penalties against violators of the CWA and associated state water pollution statutes should be a paramount goal of all environmental enforcement authorities.

EPA's BEN Model provides a solid tool for state environmental departments to utilize, requiring minimal expenditure of resources to implement consistent recovery of the economic benefit of noncompliance. Using the BEN Model as the default calculation model, Maryland and Pennsylvania need to develop penalty policies that clearly set recovering the economic benefit of noncompliance as the minimum penalty standard and establish consistent calculation methodologies for assessing this critical penalty factor. Virginia needs to ensure follow-through in recovering the economic benefit of noncompliance. All states and the EPA need to report penalties demonstrating what amount or percentage of the final penalty assessed resulted from the economic benefit of noncompliance. With these recommendations, both federal and state water pollution penalty assessments would make significant steps forward in improving the deterrence-based enforcement programs and restoring the quality of aquatic environment of the Chesapeake Bay.

Endnotes

1 *See*, *e.g.*, National Oceanic and Atmospheric Administration (NOAA), Chesapeake Bay Office, *Oysters*, http://chesapeakebay.noaa.gov/fish-facts/oysters.

2 *See* Univ. of Md., Ctr. For Envt'l Science, *Chesapeake Bay Report Card 2011*, http://ian.umces.edu/pdfs/ian_report_card_365.pdf.

3 U.S. Envt'l Prot. Agency, *BEN User's Manual*, ,Sept. 1999, at 1-2.

4 U.S. Envt'l Prot. Agency, *A Framework for Statute-Specific Approaches to Penalty Assessments: Implementing EPA's Policy on Civil Penalties*, Feb. 16, 1984 at 1 [hereinafter referred to as *EPA Civil Penalty Framework*]; U.S. Envt'l Prot. Agency, *Attachment A* to EPA's *Policy on Civil Penalties*, Feb. 16, 1984.

5 U.S. Envt'l Prot. Agency, Office of Enforcement and Compliance Assurance (OECA), *Clean Water Act Action Plan*, Oct. 15, 2009, http://www.epa.gov/oecaerth/resources/policies/civil/cwa/actionplan101409.pdf.

6 CWA, 33 U.S.C. § 1319.

7 *See Civil Penalties: Agencies Unable to Fully Adjust Penalties for Inflation Under Current Law*, GAO Report, March 2003, GAO-03-409.

8 *See* CWA, 33 U.S.C. § 1319; Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation/Termination or Suspension of Permits, 40 C.F.R. § 22.

9 DCIA, 31 U.S.C. § 3701 *et seq*.

10 Original per violation/total penalty cap amounts for Class I and Class II penalties were $10,000/$25,000 and $10,000/$125,000, respectively.

11 *See* CWA, 33 U.S.C. § 1319(g).

12 Granta Y. Nakayama, Memorandum, *Amendments to EPA's Civil Penalty Policies to Implement the 2008 Civil Monetary Penalty Inflation Rule (Effective January 12, 2009)*, U.S. Envt'l Prot. Agency, Dec. 29, 2008, http://www.epa.gov/compliance/resources/policies/civil/penalty/amendmentstopenaltypolicies-implementpenaltyinflationrule08.pdf.

13 CWA, 33 U.S.C. § 1319(d).

14 U.S. Envt'l Prot. Agency, *Interim Clean Water Act Settlement Penalty Policy*, March 1995 [hereinafter Interim CWA Penalty Policy] http://www.epa.gov/compliance/resources/policies/civil/cwa/cwapol.pdf.

15 CWA, 33 U.S.C. § 1319 (d) and (g)(3).

16 U.S. Envt'l Prot. Agency, *Policy on Civil Penalties*, Feb. 16, 1984 [hereinafter *EPA Civil Penalty Policy*] at 3.

17 *EPA Civil Penalty Policy* at 3.

18 *BEN User's Manual*, U.S. Envt'l Prot. Agency, Sept. 1999 at 1-2 [hereinafter BEN Manual].

19 *Interim CWA Penalty Policy* at 4.

20 *EPA Civil Penalty Framework* at 14-15 and *Interim CWA Penalty Policy* at 6-11.

21 *See EPA Civil Penalty Framework* at 2. The *Interim CWA Penalty Policy* labels this figure the "preliminary penalty amount," and includes calculation of the gravity adjustments for small facilities (flow reduction factor), history of recalcitrance, quick settlement, and environmental auditing as potential decreases and increases to the gravity component. For example, the gravity component may be reduced by 50 percent if the flow levels from a facility are less than 5,000 gallons per day. At the other end of the spectrum, a facilitiy with flow levels above 100,000 gallons per day will see no reduction of the gravity component based on flow. Alternatively, the gravity factor may be increased if the violator demonstrates bad faith, delays the prevention, mitigation, or remediation of the violation, or has a record of failed compliance after the issuance of EPA or state compliance orders. The general penalty policy references these potential adjustments as well, but combines them with all potential adjustments to be made in the second step of the penalty assessment.

22 *Interim CWA Penalty Policy* at 12-18.

23 *See id. at* 8-12.

24 U.S. Envt'l Protection Agency, *A Framework for Statute-Specific Approaches to Penalty Assessments: Implementing EPA's Policy on Civil Penalties*, Feb. 16, 1984, at 10.

25 *See* Lynn M. Dodge, *Economic Benefit in Environmental Civil Penalties: Is BEN Too Gentle*, 77 U. Det. Mercy L. Rev. 543 (2000).

26 *BEN Manual* at 3-5.

27 *Id.* at 1-2.

28 *EPA Civil Penalty Framework* at 3-4.

29 "BEN" is not an acronym or abbreviation, but the name given to the computer model program created by the EPA to assist with calculation of the economic benefit of noncompliance penalty factor.

30 *See BEN Manual.*

31 *BEN Manual* at 1-2.

32 *Id.*

33 *BEN Manual* at 1-3.

34 *Id.*

35 *Id.*

36 *Interim CWA Penalty Policy* at 4. EPA notes that in some instances, the BEN Model may not fully calculate all delayed or avoided costs (such as violations involving illegal competitive advantage) and there are even rare scenarios when the economic benefit of noncompliance is negative (i.e. it would have been less expensive for the polluter to comply). In these latter instances, the economic benefit of noncompliance is zero and the penalty amount must be derived from the gravity and adjustment calculation components. *Id.*

37 *EPA Civil Penalty Framework* at 7-10.

38 *See infra* n. 58, *Pennsylvania SRF Round I Report.* Pennsylvania Department of Environmental Protection's *(PADEP)* explains that the Department's failure to utilize EPA's BEN Model was because "the BEN model require[d] excessive data that [was] not easily accessible and [was] frequently too burdensome to be of value."

39 *BEN Manual* at 3-1, A-3, and A-4.

40 *See, e.g.*, *Memorandum of Understanding Regarding Permit and Enforcement Programs Between the [Virginia] State Water Control Board and the Regional Administrator*, Region III, U.S. Envt'l Prot. Agency, 1991, http://www.epa.gov/compliance/resources/policies/state/moa/va-moa-npdes.pdf.

41 U.S. Envt'l Prot. Agency, State Review Framework, http://www.epa.gov/compliance/state/srf/.

42 U.S. Envt'l Prot. Agency and Maryland Departmen of the Environment (MDE), *State Program Review Framework Pilot Phase*, Maryland Water Program (2006) [hereinafter Maryland SRF Round I Report], http://www.epa.gov/compliance/resources/reports/srf/srf-rd1-rev-md.pdf.

43 *See infra* note 55 and accompanying text and table.

44 For example, even if a single violation continued for a month's time (30 days), the maximum administrative penalty would be capped at $50,000. If the equipment needed to bring the violator into compliance cost $60,000, then applying EBN, the penalty should be $60,000 + whatever gravity and adjustment calculations apply. However, because of the low administrative penalty cap of $50,000, enforcement authorities would not be able to recover the full EBN of $60,000 or impose any additional gravity assessments.

45 Md. ENVIRONMENT Code Ann. § 9-342 (b)(2)(ii) (2012); see also Md. ENVIRONMENT Code Ann. § 2-610.1.

46 *See* Opinion and Order, *MDE v. BSJ Partners LLP*, at 14, http://www.oag.state.md.us/Press/BSJ_Partners_LLC.pdf; *see also* Maryland Department of the Environment Annual Enforcement Report, Appendix E, MDE Penalty Policy, 2012 at 179 [hereinafter MDE Annual Enforcement Report].

47 *See, e.g.,* MDE Annual Enforcement Report, Appendix E, *MDE's Approach to Determining the Appropriate Response to Violations*, 2012, at 179.

48 See *Maryland SRF Round I Report*. Evaluations for this report were conducted in 2004.

49 U.S. Envt'l Prot. Agency and MDE, *Maryland Department of the Environment State Review Frameworks Report for Fiscal Year 2007*, Dec. 2009 [hereinafter Maryland SRF Round II Report], at 7. "[S]pecific SRF criteria requires documentation of the initial penalty calculation to include gravity and economic benefit components and to document the difference between the initial and final penalty calculation." *Id.*

50 *Id.* at 5.

51 *Maryland SRF Round II Report* at 8, http://www.epa.gov/compliance/resources/reports/srf/srf-rd2-rev-md.pdf.

52 *Id.*

53 Pursuant to Maryland's Public Information Act (PIA), § 10-614, we requested copies of internal documents and information concerning MDE's civil and administrative penalty policies and calculation procedures. The request specified that this could include all guidance, memoranda, blank calculation worksheets, general penalty matrices, manuals, and/or other documents used in the evaluation and assessment of civil or administrative penalties. MDE declined to produce "certain documents" and "penalty matrices" as "privileged communications" and "intra-agency deliberative predecisional communications." *See also Maryland Department of the Environment: State Review Frameworks Report for Fiscal Year 2007*, Dec. 2009, at 8 ("The Region is recommending that MDE share with EPA the Department's penalty policy and to assure that penalties are documented consistently across each of the programs.").

54 Md. Attorney General, Press Release, *Attorney General Gansler and Department of the Environment Prevail in Choptank River Pollution Case $500,000 penalty ordered against Cambridge, MD country club*, http://www.oag.state.md.us/Press/2011/081111.html.

55 As noted earlier, in judicial enforcement cases, agency penalty policies and practices are subject to the discretion of the judge. However, stronger statutory standards and clearly-outlined and applied penalty policies, such as those recommended in this report, often inform judicial discretion, leading to stronger, deterrence-based results at all levels of the enforcement framework.

56 35 P.S. § 691.605 (2012).

57 35 P.S. § 691.605 (2012).

58 *State Program Review Framework for Pennsylvania Department of the Environment, Clean Water Act-National Pollutant Discharge Elimination System (NPDES)*, DRAFT 9/28/07 [hereinafter Pennsylvania SRF Round I Report], at 14.

59 Pennsylvania Dept. of Envt'l Prot., Bureau of Water Standards and Facility Regulations, *Guidance for Civil Penalty Calculations for Effluent Violations*, Document Number 362-4180-001, DRAFT June 20, 2009 [hereinafter PA Effluent Violation Penalty Guidance], http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-75183/362-4180-001.pdf.

60 *PA Effluent Violation Penalty Guidance* at 5-6.

61 Pa. Dept. of Envt'l Prot. Bureau of Water Standards and Facility Regulation, *Civil Penalty Calculation Procedure for Pollution Incidents*, Document Number 362-4180-002, DRAFT June 20, 2009; Pa. Dept. of Envt'l Prot., Bureau of Water Supply and Wastewater Management, *Guidance for Calculation of Civil Penalties for Willfulness*, Document Number 362-4180-003, July 29, 2002; Pa. Dept. of Envt'l Prot., Bureau of Water Standards and Facility Regulations, *Act 537 Program Guidance: Calculating Civil Penalty Assessment Amounts*, Document Number 362-4180-004, February 18, 2006.

62 *Id.* at 6.

63 *See PA Effluent Violation Penalty Guidance* at 4-6 ("The less serious each factor value is assigned, based on the Department's evidence and observation, the more the statutory maximum is reduced, as the values assigned are < 1.0. Each factor is assigned as a decimal value, which acts to reduce the maximum penalty by a percentage").

64 *PA Effluent Violation Penalty Guidance* at 5-6.

65 Va. Code Ann. § 62.1-44.15(8d); *see also* Melanie D. Davenport, Enforcement Guidance Memorandum No. 2-2006 (Revision 3), *Civil Charges and Civil Penalties in Administrative Actions* [hereinafter VA Administrative Penalty Guidance], Va. Dept. of Envt'l Quality, Division of Enforcement, December 15, 2009, at n.2.

66 *See* Va. Code Ann. § 62.1-44.15(8d); *see also* Va. Dept. of Envt'l Quality, *Chapter 4 – Civil Charges and Civil Penalties*, Civil Enforcement Manual [herinafter VA Civil Penalty Policy] at 4-37. For example, under Va. Code § 62.1-44.17:1(J), civil penalties assessed against confined animal feeding operations covered by a Virginia Pollution Abatement permit shall not exceed $2,500.

67 *See supra* p.16 and accompanying table.

68 Va. Code Ann. § 62.1-44.15(8e); *see also VA Civil Penalty Policy* at 4-1-3..

69 *Id.*

70 Va. Code Ann. § 62.1-44.15(8e); *see also VA Civil Penalty Policy* at 4-1 ("The Code requires the development of guidelines and procedures 'that contain specific criteria for calculating the appropriate penalty for each violation' based on the statutory factors.")

71 Jefferson D. Reynolds, Guidance Memorandum, *Civil Enforcement Manual: Chapter 4 – Civil Charges and Civil Penalties*, Va. Dept. of Envt'l Quality, Division of Enforcement, Sept. 6, 2012, http://www.deq.state.va.us/Portals/0/DEQ/Enforcement/Guidance/Chapter%204%20signature%20page.pdf.

72 *VA Civil Penalty Policy* at 4-44, http://www.deq.state.va.us/Portals/0/DEQ/Enforcement/Guidance/Chapter%204%20Final%20(corrected%2010-4-12).pdf.

73 *See id*.

74 *VA Civil Penalty Policy* 4-45.

75 *Id*. at 53-54.

76 U.S. Envt'l Prot. Agency and VADEQ, *State Program Review Framework for Virginia Department of Environmental Quality*, NPDES Virginia State Review Framework [hereinafter Virginia SRF Round I Report], at metric 7 and 8 (no page numbers provided) (2006), http://www.epa.gov/compliance/resources/reports/srf/srf-rd1-rev-va.pdf.

77 *Virginia SRF Round I Report* at metric 7 and 8 (no page numbers provided) (2006).

78 *See* Round I SRF reports for Maryland, Pennsylvania, and Virginia.

79 Expanded data on EPA-led enforcement actions, such as federal penalties, is available through EPA's Enforcement and Compliance History Online (ECHO) and its underlying Integrated Compliance Information System (ICIS). ICIS Federal Enforcement and Compliance (ICIS-FE&C) provides data and support for federal enforcement tracking, targeting, and reporting. Enforcement Case Reports and downloads from ICIS-FE&C provide expanded EPA penalties data, including "injunctive relief value" for enforcement actions. In many instances, this injunctive relief value is similar to what should be the economic benefit of noncompliance penalty component.

80 EPA's *NPDES Electronic Reporting Rule*, currently undergoing review by the Office of Information and Regulatory Affairs (OIRA), would expand enforcement reporting standards for state authorities for all NPDES programs. This report recommends that EPA include the economic benefit of noncompliance penalty component in these expanded requirements as a mandatory reported data element.

81 *See* U.S. Envt'l Prot. Agency, *EPA Should Revise Outdated or Inconsistent EPA-State Clean Water Act Memoranda of Agreement*, Office of Inspector General, Report No. 10-P-0224, September 14, 2010; *see also* U.S. Ent'l Prot. Agency, *EPA Must Improve Oversight of State Enforcement*, Office of Inspector General, Report No. 12-P-0113, December 9, 2011.

82 U.S. Envt'l Prot. Agency, *Model National Pollutant Discharge Elimination System (NPDES) Memorandum of Agreement* [hereinafter EPA Model MOA], Aug. 2012, http://www.epa.gov/compliance/resources/policies/state/moa/finalepastatemoa-attach2.pdf.

83 U.S. Envt'l Prot. Agency, *Checklist*, http://www.epa.gov/compliance/resources/policies/state/moa/finalepastatemoa-attach4.pdf.

84 Lisa C. Lund, Memorandum, *Final Documents for Review of Existing State/EPA NPDES Memoranda of Agreements (MOA)*, U.S. Envt'l Prot. Agency, Aug. 31, 2013, at 2, http://www.epa.gov/compliance/resources/policies/state/moa/finalepastatemoa.pdf.

85 *See* EPA Model MOA at 46.

86 *See id*.

About the Center for Progressive Reform

Founded in 2002, the Center for Progressive Reform is a 501(c)(3) nonprofit research and educational organization comprising a network of scholars across the nation dedicated to protecting health, safety, and the environment through analysis and commentary. CPR believes sensible safeguards in these areas serve important shared values, including doing the best we can to prevent harm to people and the environment, distributing environmental harms and benefits fairly, and protecting the earth for future generations. CPR rejects the view that the economic efficiency of private markets should be the only value used to guide government action. Rather, CPR supports thoughtful government action and reform to advance the well-being of human life and the environment. Additionally, CPR believes people play a crucial role in ensuring both private and public sector decisions that result in improved protection of consumers, public health and safety, and the environment. Accordingly, CPR supports ready public access to the courts, enhanced public participation, and improved public access to information.

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About the Authors

Robert L. Glicksman is the J.B. and Maurice C. Shapiro Professor of Environmental Law at the George Washington University Law School. Professor Glicksman is a nationally and internationally recognized expert on environmental, natural resources, and administrative law issues.

Aimee Simpson is a Policy Analyst with the Center for Progressive Reform working on environmental enforcement, Chesapeake Bay restoration, toxics, consumer protection, and food and water safety. Prior to joining CPR in April 2010, Ms. Simpson worked as a litigation associate for the Washington, D.C. law firm of Schertler & Onorato LLP. Ms. Simpson's previous public interest experience includes internships with the Peace Corps Office of General Counsel and the Federal Public Defender's Office in Alexandria, Virginia.

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For media inquiries, contact Matthew Freeman at mfreeman@progressivereform.org.
For general information, email info@progressivereform.org.

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Center for Progressive Reform

455 Massachusetts Avenue, NW

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