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Protecting Maryland's Environment: A Holistic Solution

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ARTICLE

PROTECTING MARYLAND'S ENVIRONMENT:
A HOLISTIC SOLUTION

By: Douglas F. Gansler*

I. AN ENVIRONMENTAL "AMERICA IN MINIATURE"

Maryland, like its nickname, really is "America in Miniature." From the mountainous west to the largest estuary in the United States, Maryland's variety of ecosystems provides a wealth of recreational and economic opportunities for its citizens and visitors. Whether hiking, boating, crabbing, or just enjoying the view, all Marylanders benefit from a healthy environment.

However, Maryland's environment is increasingly vulnerable to damage from pollution. Many of Maryland's most threatened environments, including the Chesapeake Bay and its watersheds, are part of delicate ecosystems that are affected by pollution that does not respect political boundaries. The Bay's watersheds are endangered by upstream nutrients that eventually travel to Maryland, causing eutrophication and destruction of important marine habitat. Waters in Western Maryland are impaired by high levels of mercury entering through non-point sources, mainly atmospheric deposition. Efforts targeted at abating pollution from Maryland sources alone cannot fully address the damage suffered from years of air and water pollution contributed by out-of-state sources. Accordingly, we as a State need to think creatively about how to guard against these forms of pollution.

The earliest Anglo-American attempts to regulate pollution from industrial and agricultural sources took the form of tort lawsuits, primarily asserting nuisance and trespass claims. These common law actions, aimed at addressing harms from pollutants, pre-dated regulatory efforts by state, federal, and international governments. As environmental law developed, regulatory frameworks evolved and provided a more protective and less resource-intensive method for preventing pollution. However, regulations rely on political will and, as a

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1 Maryland Office of Tourism, Maryland Facts, http://www.visitmaryland.org/Students/Pages/MarylandFacts.aspx (last visited May 1, 2010).
result, they sometimes fail to adequately ensure the health of our environment. Fortunately, states’ recent legal efforts against out-of-state pollution sources have begun to see some success. For instance, states have been able to turn to common law tort actions to address interstate pollution problems that have escaped regulatory enforcement.

Maryland must use every available method to protect its environment, including legislative initiatives, regulatory actions, and common law tort actions. The State has already taken aggressive steps to address the problem of out-of-state pollution through enforcement actions against polluters and by challenging regulatory bodies’ failure to act. To complement this effort, Maryland needs to consider other measures, such as common law tort claims, to address interstate pollution. Expanded efforts on all fronts are necessary to protect Maryland’s environmental heritage.

II. THREATS TO MARYLAND’S ENVIRONMENTAL HEALTH

An understanding of the problems facing Maryland’s ecosystems is necessary to address the sources of environmental degradation. These problems are numerous; air pollution and water pollution in the form of excess nutrients, sediment, and chemical contaminants (including mercury) are just some of the most pressing threats to Maryland’s environment and the health of the Chesapeake Bay today.

A. Excess Nutrients: Nitrogen and Phosphorus

Excess run-off nutrients, including nitrogen and phosphorus, constitute the greatest threat to Maryland’s Chesapeake Bay. Nitrogen and phosphorus occur naturally in the environment, and, at normal levels, they provide nourishment to a variety of plants and animals. However,
excessive levels of nitrogen and phosphorus are devastating to the Bay’s ecological system. Large volumes of these minerals enter the Bay when sewage treatment plants, agricultural fields, and septic tanks allow wastewater, fertilizer, and manure to run off into waterways that drain into the Bay. When excess nutrients reach the water, they trigger many unwanted environmental consequences. Chief among these are algae “blooms,” which are rapidly forming accumulations in the population of algae in a given aquatic location. Large algae blooms cause two problems. First, they create an opaque brown or blue-green layer at the water’s surface, blocking sunlight from reaching the water’s lower levels. Without that sunlight, essential deep-water plants, known as “submerged aquatic vegetation,” die. Other organisms, including shellfish and fish, depend on those plants for survival; thus, the loss of submerged aquatic vegetation due to algae blooms has significantly reduced the presence of waterfowl, which rely on shellfish and fish, around the Bay. Second, when the algae blooms die, they decay and consume dissolved oxygen in the water. This reduces the availability of oxygen to other organisms, which perish when the oxygen levels dip too low. The resulting harms have been substantial, as entire areas have been rendered uninhabitable for certain marine organisms due to decaying algae blooms. Several areas of the Bay now have dangerously low levels of dissolved oxygen, threatening its population of worms, clams, oysters, and crabs.

It should be noted that, while many of these excessive nutrients are introduced by businesses and residents in close proximity to the Bay,
nutrients are also introduced beyond the watershed area and outside Maryland’s borders.\textsuperscript{18}

\textit{B. Sediment}

The Bay is also threatened by dangerous amounts of sediment in the water. Sediment, composed of loose silt, clay, and sand, occurs naturally in aquatic environments.\textsuperscript{19} At high levels, however, sediment can harm ecological systems.\textsuperscript{20} Currently, more than 18.7 billion pounds of sediment enter the Bay each year.\textsuperscript{21} The primary causes are tidal and watershed erosion.\textsuperscript{22} Tidal erosion is caused by waves and often occurs when shoreline vegetation or bay grasses have been removed.\textsuperscript{23} Watershed erosion occurs when watershed vegetation is cleared for development or agriculture; rain then carries sediments to the water as run-off.\textsuperscript{24}

These billions of pounds of sediments muddy and darken the water; like algae, they block sunlight from reaching deep water, killing plants residing below.\textsuperscript{25} The entire food chain often suffers, including fish and blue crabs.\textsuperscript{26} Sediments also bind to nutrients and chemical contaminants, carrying those pollutants farther into the Bay.\textsuperscript{27} Fish may then ingest these contaminants, creating health concerns for humans and animals that consume them.\textsuperscript{28} In addition, “[o]ysters can be smothered when excess sediment settles to the bottom,” affecting both the food chain and local livelihoods.\textsuperscript{29} Finally, waterways can become clogged by sediment, affecting boats’ ability to travel freely.\textsuperscript{30}

\textit{C. Chemical Contaminants}

Maryland waterways also face a variety of harms from chemical contaminants.\textsuperscript{31} Of these contaminants, mercury currently poses the


\textsuperscript{20} \textit{Id}.

\textsuperscript{21} \textit{Id}.

\textsuperscript{22} \textit{Id}.

\textsuperscript{23} \textit{Id}.

\textsuperscript{24} \textit{Id}.

\textsuperscript{25} Chesapeake Bay Program, Sediments, \textit{supra} note 19.

\textsuperscript{26} \textit{Id}.

\textsuperscript{27} \textit{Id}.

\textsuperscript{28} \textit{Id}.

\textsuperscript{29} \textit{Id}.

\textsuperscript{30} \textit{Id}.

\textsuperscript{31} Chesapeake Bay Program, Chemical Contaminants (Aug. 6, 2009), http://www.chesapeakebay.net/chemicalcontaminants.aspx?menuitem=14692.
greatest threat to the Chesapeake Bay.\textsuperscript{32} Coal-burning power plants are the largest source of mercury pollution, though mercury is also used in dental equipment, chlorine production, and household electronics.\textsuperscript{33} Mercury released into the air can reach the Bay as precipitation, and other sources of mercury can travel through stormwater.\textsuperscript{34} Small organisms ingest the contaminant, which accumulates in their tissues.\textsuperscript{35} As other animals eat those organisms, the mercury is passed along, eventually harming humans at the end of the food chain, a process known as bioaccumulation.\textsuperscript{36}

Maryland waterways are also harmed by other chemical contaminants. For example, polychlorinated biphenyls (PCBs), originally used as a flame retardant, persist in the environment despite a 1977 ban on their production.\textsuperscript{37} Similarly, harmful organochlorine pesticides such as DDT persist despite bans on their use.\textsuperscript{38}

\textbf{D. Air Pollution}

Some of the above contaminants and nutrients are also distributed through the air. More than ninety-seven million pounds of nitrogen pollution comes from air deposition.\textsuperscript{39} This deposition constitutes nearly one third of the Bay's total nitrogen pollution and is largely emitted from factories and vehicles.\textsuperscript{40} Deposition from air pollution is also the primary source of mercury contamination in waterways.\textsuperscript{41}

Finally, air pollution accounts for several unique harms. When released into the air, nitrogen compounds cause acidification of surface water and soil, contaminate drinking water, and create ground-level ozone, causing respiratory problems for humans.\textsuperscript{42}

\section*{III. Maryland's Legislative and Regulatory Response to Environmental Problems}

Maryland has taken several legislative and regulatory steps to prevent and reduce pollution in recent years. In 2004, the General Assembly
created the Chesapeake Bay Restoration Fund, which is dedicated to upgrading Maryland wastewater treatment plants with enhanced nutrient-removal technology, significantly reducing the amount of nitrogen and phosphorus discharged into the Bay.\textsuperscript{43} Funds are raised by levying a monthly fee, commonly referred to as the "flush tax,"\textsuperscript{44} on each home and business served by a wastewater treatment plant, as well as an equivalent fee for septic users.\textsuperscript{45} That measure also created a fund for upgrading existing septic tanks and onsite sewage disposal systems.\textsuperscript{46}

In 2006, the General Assembly enacted Maryland's Healthy Air Act, which imposes strict limits on power plant air emissions.\textsuperscript{47} Regulations implementing the Healthy Air Act require an eighty percent reduction in mercury air emissions from Maryland power plants by 2010 and a ninety percent reduction by 2013.\textsuperscript{48} Maryland also joined in litigation challenging an EPA rule that exempted major cement production facilities from mercury air emissions regulation.\textsuperscript{49} The resulting settlement required the EPA to issue a proposed rule regulating mercury air emissions from all cement kilns by March 31, 2009, and to make a final decision adopting regulations within the year.\textsuperscript{50}

Maryland has also enacted the Clean Cars Program, which adopts California's stricter vehicle emissions standards.\textsuperscript{51} Maryland joined several states in the original effort to overturn the EPA's rejection of California's emissions standards waiver request,\textsuperscript{52} the EPA recently

\begin{footnotes}
\item[43] MD. CODE ANN., ENVIR. § 9-1605.2 (Supp. 2009).
\item[45] MD. CODE ANN., ENVIR. § 9-1605.2(b) (Supp. 2009).
\item[46] \textit{Id.} at § 9-1605.2(h).
\item[48] \textit{Id.} at § 2-1002(f).
\item[49] Press Release, Maryland Department of the Environment, Department of the Environment Takes Action to Reduce Air and Mercury Pollution at Lehigh Cement in Union Bridge (Aug. 10, 2009), http://www.mde.state.md.us/PressReleases/1215.html.
\item[50] Proposed Settlement Agreement, Clean Air Petition for Review, 74 Fed. Reg. 4433 (Jan 26, 2009). The Maryland Department of the Environment also recently entered a consent decree, ensuring implementation of the new mercury limits at a major Maryland cement plant, Lehigh Cement, one year ahead of the expected federal requirements. Department of the Environment Takes Action To Reduce Air And Mercury Pollution At Lehigh Cement In Union Bridge, \textit{supra} note 49. In a companion action, Lehigh was ordered to pay over $200,000 in penalties for violations of the particulate matter standard. \textit{Id.}
\end{footnotes}
reversed its denial and granted California's waiver.\textsuperscript{53} These standards will affect year 2012 model vehicles and will aggressively reduce the emission of volatile organic compounds and nitrogen oxides, both of which cause ozone problems.\textsuperscript{54}

In 2007, as part of my program to champion environmental legislative initiatives each year, I worked to pass a ban on the sale of household dishwasher detergent containing phosphorus.\textsuperscript{55} One of the top pollutants in the Chesapeake Bay, along with nitrogen and sediment, phosphorus is detrimental in fresh-water rivers and bays because it contributes to the oxygen-depleting algae blooms previously mentioned.\textsuperscript{56} Environmentalists estimate that, by eliminating the phosphorus pollution from dishwasher detergent, the Bay's phosphorus load could be decreased by three percent, or about 30,000 pounds per year.\textsuperscript{57}

In 2008, my legislative efforts were directed toward elevating poultry litter-to-energy from a Tier Two\textsuperscript{58} to a Tier One\textsuperscript{59} renewable energy source.\textsuperscript{60} This effort was part of my long-term goal to attract a poultry waste fueled power plant to Maryland. Farmers in Maryland routinely use poultry litter as fertilizer, and the run-off resulting from its excess application contributes to nutrient and toxin pollution in the Bay watershed.\textsuperscript{61} Now, under Maryland law, all electricity suppliers are required to use Tier One sources to generate a certain percentage of their retail sales.\textsuperscript{62} The required amount in 2009 was approximately two

\textsuperscript{53} Press Release, Environmental Protection Agency, EPA Grants California GHG Waiver (June 30, 2009), http://yosemite.epa.gov/opa/admpress.nsf/0/5E448236DE5FB369852575E5005686E1B.

\textsuperscript{54} Id.

\textsuperscript{55} See 2007 Md. Laws 1450-54 (codified at Md. Code Ann., Envir. § 9-1502 through -1503 (2008)); see also Md. Code regs. 28.08.06.02, 28.08.06.03 (1986).


\textsuperscript{57} Id.

\textsuperscript{58} "Tier 2 renewable source" means one or more of the following types of energy sources: "(1) hydroelectric power other than pump storage generation; and (2) waste-to-energy." Md Code Ann., Pub. Util. Cos. § 7-701(m) (2009).

\textsuperscript{59} "Tier 1 renewable source" means one or more of the following types of energy sources: "(1) solar; (2) wind; (3) qualifying biomass; (4) methane from the anaerobic decomposition of organic materials in a landfill or wastewater treatment plant; (5) geothermal; (6) ocean, including energy from waves, tides, currents, and thermal differences; (7) a fuel cell that produces electricity from a Tier 1 renewable source under item (3) or (4) of this subsection; (8) a small hydroelectric power plant of less than 30 megawatts in capacity that is licensed or exempt from licensing by the Federal Energy Regulatory Commission; and (9) poultry litter-to-energy." Md Code Ann., Pub. Util. Cos. § 7-701(l) (2009).


percent. This amount will increase every year until it peaks at twenty percent in 2022. Therefore, elevating the litter to a Tier One source incentivizes more use of that litter for energy production rather than fertilizer, thus lowering the potential for excess application.

The poultry litter-to-energy legislation was just the first step in a holistic plan to reduce water pollution and foster renewable energy sources within the state. Other efforts share the same goal of keeping nutrients out of the Bay. For example, I also supported the 2008 changes to the Critical Areas Law, which allow the Critical Areas Commission to adopt regulations, enhance buffer and water quality protection, and strengthen enforcement provisions. That same year, the Maryland Department of the Environment ("MDE") promulgated a Policy for Nutrient Cap Management and Trading ("Policy"), which requires that all new and expanded point sources be fully offset without relaxing requirements for required wastewater treatment plant upgrades. The Policy took effect April 17, 2008. In the spring of 2009, MDE promulgated regulations implementing the Stormwater Management Act of 2007, which requires the use of environmental site design techniques, where possible, to reduce nonpoint source pollution from stormwater drainage.

In 2009, my legislative effort was to expand environmental standing laws to give associations avenues to sue for environmental violations. Although the bill that ultimately passed was less expansive than the one I supported, associations are now able to challenge permitting determinations. Previously, only those who were "directly aggrieved" by permitting decisions had standing to participate in the permitting process.

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63 Id. at MD. CODE ANN., PUB. UTIL. COS. § 7-703(b)(4).
64 Id. at MD. CODE ANN., PUB. UTIL. COS. § 7-703(b)(17); see also Maryland Incentives for Renewables & Efficiency, http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=MD05R&re=1&ee=1 (last visited May 1, 2010).
65 Other initiatives include efforts to reduce nitrogen and phosphorus pollution through the regulation of septic systems and lawn fertilizer. See infra notes 84-88 and accompanying text.
66 2008 Md. Laws 725-72 (relevant portions codified at MD. CODE ANN., NAT. RES. § 8-1806 (Supp. 2009)).
68 Id. at 4.
70 MD. CODE REGS. 26.17.02.01; see also Maryland Department of the Environment, Maryland’s Stormwater Management Act of 2007, http://www.mde.state.md.us/Programs/WaterPrograms/SedimentandStormwater/swm2007.asp (last visited May 1, 2010).
process.72 Usually, that category extends only to immediate neighbors of the activity.73 Now, nonprofit groups and community associations can contribute their expertise and resources to the protection of Maryland’s environment.74

Our next legislative initiative will seek to have the Chesapeake Bay declared a no-discharge zone for human waste. Dumping untreated sewage is already prohibited in the waters of Maryland,75 and most boaters with on-vessel toilets use pump-out stations provided at marinas to dispose of their sewage. However, a number of boats have systems that treat waste for bacteria and then discharge the treated waste into the Bay.76 This results in the discharge of nutrients that are not affected by the bacterial treatment process.77 Banning all discharges within the Bay will lead to a small but meaningful reduction in nitrogen pollution.

Environmental River Audits

In 2008, I launched a series of Chesapeake Bay river audits. Four times each year, I travel to local watersheds and watershed river communities to speak with, and listen to, local stakeholders. My audits are thus focused on information gathering; they are based on the notion that local elected officials, environmental leaders, members of the agricultural community, and local citizens know best where problems exist and can offer practical and innovative solutions. In 2008, we conducted audits on the Chester River, Monocacy River, Pocomoke River, and Great Seneca Creek. In 2009, we visited sites on the Miles River, Saint Mary’s River, West and Rhode Rivers, and the Lower Susquehanna River. These audits identified some recurring concerns, like nutrient and sediment pollution, as well as common sources of such pollution, like agricultural runoff, stormwater runoff, and certain wastewater treatment plants.78

At each visit, we identified ongoing environmental enforcement actions and active issues relating to water quality. Although many in-state pollution problems were identified and discussed, out-of-state pollution, particularly from Pennsylvania, was a consistent concern raised

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75 MD. CODE REGS. 26.08.03.01(A)(8) (2009).
76 Karl Blankenship, Bay’s First “No Discharge” Zone Established (July/Aug 2002), http://www.bayjournal.com/article.cfm?article=700.
77 Id.
during the visits. During the visit to the Monocacy River, for instance, elected officials expressed frustration that local restoration efforts were being undermined by pollution flowing from Pennsylvania, via the Susquehanna River.\(^{79}\) The prevailing view was that Pennsylvania is not abiding by the Susquehanna River Basin Compact,\(^{80}\) "that its environmental department is not enforcing the state's regulations, and that Pennsylvania's regulations are far weaker than those found in Maryland."\(^{81}\)

The Office of the Attorney General has taken many steps as a result of these audits, including filing enforcement actions, entering into settlements requiring the payment of fines and remedial action, and enforcing consent decrees.\(^{82}\) Comments from citizens, elected leaders, and environmental activists have also led to new ideas for legislative and policy initiatives. One repeated concern was the accessibility of environmental information. I supported legislation to require the MDE to electronically post notice of certain permit applications on its website.\(^{83}\)

Other ideas and comments led to my support of legislation to reduce pollution in the Bay, such as the Chesapeake Bay Phosphorous Reduction Act of 2009.\(^{84}\) The legislation adds labeling requirements for lawn fertilizers and, beginning on April 1, 2011, significantly lowers allowed phosphorus levels in lawn fertilizer.\(^{85}\) Companion legislation, the Chesapeake Bay Nitrogen Reduction Act of 2009, requires all new and replacement septic systems installed in Maryland's Critical Area\(^{86}\) to use

\(^{79}\) Id. at 26.

\(^{80}\) Signed in 1972, the Susquehanna River Basin Compact was intended to promote a comprehensive, coordinated plan by the signatory parties to conserve, manage, and control the water resources of the Susquehanna. The Susquehanna River Basin Commission, which consists of the governor or designee from each state and one member appointed by the President, was created upon enactment of the Compact. See Susquehanna River Basin Commission, Susquehanna River Basin Compact (May 1972), http://www.srbc.net/about/srbc_compact.pdf.

\(^{81}\) Chesapeake Bay Watershed Environmental Audit, supra note 78, at 26.

\(^{82}\) Id. at 37-48.


\(^{85}\) See S. 553; H.R. 609.

\(^{86}\) The "Critical Area" consists of all land 1,000 feet from the mean high tide line of both the Chesapeake and Atlantic Coastal Bays. See MD. CODE ANN., NAT. RES. § 8-1807 (Supp. 2009).
nitrogen removal technology. In addition, I supported the Private Wastewater Treatment Act of 2009, which prohibits private wastewater systems serving one residence that discharge directly to surface waters. The prohibition prevents development in sensitive waterfront property, unless the expansion is approved for septic or served by public sewer systems, ultimately reducing nutrient pollution.

These are all in-state solutions, however, and some major environmental problems, such as nutrient pollution originating in Pennsylvania and flowing down the Susquehanna into the Chesapeake Bay, cannot be resolved through in-state enforcement or legislation. Because these out-of-state sources of pollution have an important impact on Maryland’s environment, new avenues to address these sources must be explored.

IV. COMMON LAW TORT ACTIONS FILL A GAP IN ENFORCEMENT AUTHORITY

In the 19th century, conflicts arising from an expanding population, increased industrial activity, and traditional agricultural practices led to a growing reliance on the common law tort system to address new problems of modern life. For hundreds of years, air pollution that prevents a landowner from the necessary use and enjoyment of his or her property has been actionable in nuisance. As early as 1590, the King’s Bench upheld a jury determination that a hog sty erected near the plaintiff’s house had caused a remediable injury to the plaintiff because it emitted noxious fumes. Because the Industrial Revolution resulted in

88 See S. 721, 426th Gen. Assem., Reg. Sess. (Md. 2009); H.R. 1105, 426th Gen. Assem., Reg. Sess. (Md. 2009). While Senate Bill 721 was vetoed by the Governor, House Bill 1105 was approved and passed by the Private Wastewater Treatment Act of 2009, ch. 708, 2009 Md. Laws 3953-55 (codified at MD. CODE ANN., ENVIR. § 9-1108 (Supp. 2009)). The Private Wastewater Treatment Act does contain a limited exception, to be granted only with the approval of MDE, for replacements to existing private sewerage systems that have failed if there is no other means to repair or replace the system. MD. CODE ANN., ENVIR. § 9-1109(c) (Supp. 2009).
91 William Aldred’s Case, 9 Coke 57b, 77 Eng. Rep. 816 (K.B. 1611); see also Smith, supra note 90, at 699 (discussion of the case and its implications for the doctrine of sic utere.)
increased proximity of residences to agriculture and new technologies, nuisance law developed as both a check on—and an encouragement to—growth.92

Three related causes of action developed from the doctrinal premise that property owners have some right to the enjoyment and integrity of their property, free from the interference of outside forces: public nuisance, private nuisance, and trespass.93 These causes of action require proof of similar, but distinct, elements; while trespass requires interference in the possession of property, nuisance requires only interference with an interest in the use or enjoyment of property.94 “One is subject to liability to another for trespass [to land] . . . if he intentionally (a) enters land in the possession of the other, or causes a thing or a third person to do so, or (b) remains on the land, or (c) fails to remove from the land a thing which he is under a duty to remove.”95 Similarly, trespass to chattels has been defined as an intentional use or intermeddling with chattel in possession of another.96 A public nuisance, on the other hand, “is an unreasonable interference with a right common to the general public.”97 The Restatement of Torts does not specifically define “unreasonable”; instead, unreasonableness is delineated by broad principles such as “[w]hether the conduct involves a significant interference with the public health [or] . . . safety”98 or “whether the conduct is of a continuing nature or has produced a permanent or long-lasting effect.”99 Finally, a private nuisance is defined as “a nontrespassory invasion of another's interest in the private use and enjoyment of land.”100 Private nuisances interfere with the use or enjoyment of privately held property; public nuisances interfere with broader community rights.101 All three common law torts have the potential to address injuries from pollution.

92 One of the most popular and influential theoretical understandings of nuisance law posits that the most economically efficient distribution of resources will emerge regardless of any liability rule, whether the winner be the suburban dweller or the chicken farmer. Ronald Coase, The Problem of Social Cost, 3 J.L. & ECON. 1 (1960); see also RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 44 (2d ed. 1977) (discussing the application of nuisance law to air pollution); Calabresi & Melamed, Property Rules, Liability Rules, and Inalienability: One View of the Cathedral, 85 HARV. L. REV. 1089 (1972) (calling into question the utility of separating property and liability rules in a world of efficient bargaining).
94 RESTATEMENT (SECOND) OF TORTS § 821D cmt. d.
95 Id. at § 158.
96 Id. at § 217(b).
97 Id. at § 821B(1).
98 Id. at § 821B(2)(a).
99 Id. at § 821B(2)(c).
100 RESTATEMENT (SECOND) OF TORTS § 821B cmt. B, 821D cmt. c Id. at § 821D.
101 Id. at § 821D.
Maryland courts have long recognized a property-holder’s right to be free from contamination of his or her environment. In 1881, Gwynn’s Falls, Baltimore, had become so contaminated with blood and other animal byproducts from upstream slaughterhouses that the employees of a large flour mill were “unable to retain their food” because “the atmosphere” surrounding the Falls was “filled with [a] stench [that was] not only disagreeable and uncomfortable to health, but it cause[d] and tend[ed] to create disease.” The plaintiff brought suit against the owner of one of several slaughterhouses located upstream from the mill in *Woodyear v. Schaefer*. Recognizing that the conditions at the mill constituted a nuisance, the Court of Appeals of Maryland held:

The degree and extent of the nuisance is caused not alone by the defendant [slaughterhouse], but by the combined acts of himself and a hundred other butchers, together with brewers, hair manufacturers and soap boilers, who permit their refuse matter to float into Gwynn’s Run and Gwynn’s Falls, and from thence into complainant’s race. Each and every one is liable to a separate action and can be separately restrained; and it is no excuse that other butchers had for many years been guilty of a similar nuisance.

The holding in *Woodyear* demonstrates the long-standing principle that we are all responsible for the impact of our activities on Maryland’s environmental health.

Like Maryland, neighboring states have also recognized that private parties can remedy environmental harms caused by adjacent land use through common law tort claims. In *Ohio County v. Elmgrove*, the West Virginia Court of Appeals affirmed a trial chancellor’s injunction preventing a mining company from dumping any additional combustible material onto a flaming gob pile (a pile of mining waste that had caught fire), which was spewing sulfurous fumes into the neighboring town. After recognizing that the existence of gob piles was a necessary element of normal mining operations, the court said:

Even in as useful and important [an] industry as the mining of coal, an incidental consequence, such as here involved, cannot be
justified or permitted unqualifiedly, if the health of the public is impaired thereby.

Notwithstanding a business be conducted in the regular manner, yet if in the operation thereof it is shown by facts and circumstances to constitute a nuisance affecting public health "no measure of necessity, usefulness or public benefit will protect it from the unflinching condemnation of the law."

More recently, the West Virginia Court of Appeals considered a wastewater treatment plant that had been dumping untreated sewage into a river in violation of the Clean Water Act. In affirming the standing of a private party to bring a public nuisance suit in connection with the Clean Water Act violation, the court stated that there was a need for common law remedies in addition to the Act,

especially where it is arguable that the government agency charged with protecting the public's interests may not be acting with sufficient alacrity to eradicate the alleged nuisance which may be presenting serious public health concerns or posing a potential environmental hazard.

While the West Virginia Department of the Environment had brought an enforcement action after the private plaintiffs in Taylor v. Culloden had brought suit, the court was concerned that the Department was resigned to non-compliance until a new planned facility was built. The court opined that, if a nuisance action were not available, "it seems certain an inestimable number of business and private actions that have deleterious health and environmental results as a byproduct of their operations would have continued unabated."

Our modern understanding of environmental law is rooted firmly in the common law tort claim of nuisance. From the earliest days of the common law, there has been a need for a mechanism to address

108 Id. at 816 (citing 1 HAROLD G. WOOD, WOOD ON NUISANCES § 19 (3d ed.); Bd. of Health of Lyndhurst Twp. v. United Cork Cos., 172 A. 347 (N.J. Ch. 1934); Wash. Cleaners & Dyers, Inc. v. Albrecht, 157 Md. 389, 146 A. 233 (1929); State v. Servo Cushion Tube Co., 291 S.W. 106 (Mo. 1927)).
110 Id. at 206.
111 Id.
112 Id.
113 E.g., Maine People's Alliance & Natural Res. Def. Council v. Mallinckrodt, Inc., 471 F.3d 277, 286 (1st Cir. 2006) ("Moreover, nuisance principles contribute heavily to the doctrinal template that underbraces statutes like [the Resource Conversation and Recovery Act], and the tasks involved in adjudicating environmental cases are well within the federal courts' accustomed domain. While courts can (and do) benefit from available agency expertise, it is an insupportable leap of logic to maintain that, in the absence of such input, claims of injury are not cognizable at all.") (internal citation omitted).
conflicting uses of property and the environmental harms that new agricultural and technological uses can present. Without nuisance law, there would be no remedy for pollution that falls below regulatory or enforcement thresholds or from sources that have not yet been identified as problematic by regulatory bodies, even as the pollution threatens human health and property values.

*States Use Common Law Tort Claims to Remedy Environmental Harms*

Nuisance law has enjoyed a great deal of stability up to the present day, and it remains a viable avenue for redressing harms to human health and the environment. The relative stasis of nuisance law stands in contrast to the shifting approaches different political administrations take to environmental regulation. Nuisance law leaves room to encompass both the technological knowledge expressed through regulation and a basic sense of justice and equity in remedying harms that have lasting effects on human health and animal habitats.

States have long used nuisance law to address harms to their environment caused by activity outside their borders. In 1901, Missouri brought suit against Illinois to prevent the construction of an open trough that would discharge untreated sewage into the Mississippi River, “impair[ing] the health and prosperity” of the towns and people situated on the River. Georgia followed in 1907, suing copper companies in Tennessee because their operations had caused Georgia’s air to be “polluted on a great scale by sulphurous acid gas” and caused considerable damage “to the forests and vegetable life, if not to health, within the plaintiff state.”

As Congress passed comprehensive regulatory schemes, such as the Clean Water Act and the Clean Air Act, questions about whether the causes of action in these earlier cases, like those based on the federal

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115 Id.
116 State regulatory schemes themselves are also founded in nuisance principles. See, e.g., 35 PA. STAT. ANN. § 6020.507(a) (2003) (granting the state Department of Environmental Regulation, state agencies, and municipalities the right to bring an “action in equity” to “abate a public nuisance” or recover “response costs and natural resource damages.”); N.M. STAT. ANN. § 74-1-8 A. (1978) (granting Environmental Improvement Board power to promulgate regulations on nuisance abatement; however, only courts have the actual power to abate nuisances); N.J. STAT. ANN. § 13:1D-9 (2003) (granting Department of Environmental Protection power to “institute legal proceedings for the prevention of pollution of the environment and abatement of nuisances”).
common law of nuisance, were displaced by the new statutes. In *City of Milwaukee v. Illinois*,\(^{121}\) the United States Supreme Court held that the Clean Water Act displaced the federal common law of nuisance for point source water pollution. Shortly thereafter, the Court clarified that the Clean Water Act's savings clause\(^ {122}\) preserved the ability to sue under state common law, as long as the state law invoked was the law of the state where the source of the pollution was located.\(^ {123}\) That logic applies equally to the savings clause in the Clean Air Act.\(^ {124}\)

More recently, a group of states has sued American Electric Power and the Tennessee Valley Authority, along with several other power plant owners, in federal district court under the federal common law of nuisance, seeking a remedy for injuries resulting from global warming caused in part by the large amount of carbon dioxide these power plants have emitted for decades.\(^ {125}\) The states allege that they will suffer various harms as global temperatures rise due to greenhouse gas emissions, including:

- increased illnesses and deaths caused by intensified and prolonged heat waves;
- increased smog, with a concomitant increase in residents' respiratory problems;
- significant beach erosion;
- accelerated sea level rise and the subsequent inundation of coastal land and damage to coastal infrastructure;
- salinization of marshes and water supplies;
- lowered Great Lakes water levels, and impaired shipping, recreational use, and hydropower generation;
- more droughts and floods, resulting in property damage;
- increased wildfires, particularly in California;
- the widespread disruption of ecosystems, which would seriously harm hardwood forests and reduce biodiversity;
- the impact on property, ecology, and public health from these injuries will cause extensive economic harm.\(^ {126}\)

The district court had originally dismissed the case, concluding that it presented non-justiciable political questions.\(^ {127}\) The Second Circuit, however, vacated the order, concluding that the question was justiciable, the state plaintiffs had *parens patriae*\(^ {128}\) and Article III standing, and that

\(^{121}\) 451 U.S. 304, 328-29 (1981).


\(^{124}\) *Cf. Connecticut v. Am. Elec. Power Co.*, 582 F.3d 309 (2d Cir. 2009) (holding that the federal common law of nuisance is not displaced by the Clean Air Act for pollution caused solely by greenhouse gases such as carbon dioxide).

\(^{125}\) *Id.* at 309, 314.

\(^{126}\) *Id.* at 318.

\(^{127}\) *Id.* at 314.

\(^{128}\) *See infra* notes 144-52 and accompanying text.
the federal common law of nuisance is not displaced by the Clean Air Act in the arena of greenhouse gas emissions.\textsuperscript{129}

North Carolina has also pursued common law nuisance claims against the Tennessee Valley Authority for the emissions from its power plants, although North Carolina chose to seek redress under the authority of the nuisance law of the source state as opposed to federal common law.\textsuperscript{130} North Carolina alleged that pollution from nitrogen oxide (NO\textsubscript{x}), 2.5 micron particulate matter (PM\textsubscript{2.5}), and ozone (O\textsubscript{3}) caused acid rain, obstructed views in protected state parks, the exacerbation of asthma, and other harmful effects to its state-owned property and citizens.\textsuperscript{131} On January 13, 2009, the United States District Court for the Western District of North Carolina entered an injunction requiring the Tennessee Valley Authority to install new pollution control technology on the energy generating units, which were within 100 miles of North Carolina’s borders.\textsuperscript{132} The case is currently on appeal before the Fourth Circuit.\textsuperscript{133}

Maryland has recently begun to use nuisance law to address interstate pollution that is not adequately addressed by the current regulatory structure. A prominent example is the Office of the Attorney General’s recent settlement with PPG Industries. Many of western Maryland’s fresh waterbodies are impaired because of the level of mercury present in fish tissue.\textsuperscript{134} One of many contributors to this problem is a chlor-alkali plant located in Natrium, West Virginia, and owned by PPG Industries.\textsuperscript{135} The plant uses massive amounts of mercury as part of its chlorine manufacturing process, despite the adoption of non-mercury methods by 115 of the 119 chlor-alkali plants in the United States.\textsuperscript{136} Some of that mercury was emitted to the air and traveled to Maryland, contributing to the mercury impairments in Deep Creek Lake, Savage River Reservoir,
and Big Piney Reservoir. There are no regulatory limits on the amount of mercury that may be emitted into the air by this type of chlor-alkali facility, but the facility was still causing harm to Maryland residents.

On August 11, 2009, my office reached an agreement with PPG Industries that achieves an 87.5% reduction from 2004 mercury air emission levels by 2013. PPG Industries has also stated that it supports the goal of replacing its existing mercury-based production process at the Natrium facility with mercury-free technology. This is an example of how pursuing common law tort actions against polluters offers a valuable tool for Maryland to use in its efforts to protect its environment.

V. PERCEIVED PROBLEMS WITH COMMON LAW TORT ACTIONS

A. A Question of Standing

One commonly asserted defense to a common law tort suit seeking to redress pollution is that the plaintiff state lacks standing to bring the claim. The contention is that a state suffering from pollution cannot demonstrate a particularized harm different or greater in kind than that suffered by any other private citizen, a standing requirement of some state nuisance laws. This argument lacks merit.

In federal court, standing is a matter of federal law, even if the substance of the claim is governed by state law. States have Article III standing to assert public nuisance claims if they can prove injury to their interests either as parens patriae or in their role as property holders, like


140 See Nat’l Audubon Soc’y v. Dep’t of Water, 869 F.2d 1196, 1204-05 (9th Cir. 1988) (holding that state has a right to sue another sovereignty under federal common law but a private citizen or non-state entity lacks standing to bring suit under nuisance laws).

any private property holder. 142 The type of standing that is applicable to each case will be primarily dependent on the role the state has taken in the suit—are the harms asserted general harms to the public or are they specific harms to specific pieces of state-owned property? 143

_Parens patriae_ is an ancient common law privilege, which "is inherent in the supreme power of every state" and is "often necessary to be exercised in the interests of humanity, and for the prevention of injury to those who cannot protect themselves." 144 For over a hundred years, the state's interest as _parens patriae_ has provided sufficient footing to establish Article III standing. 145 In _Missouri v. Illinois_, the United States Supreme Court stated that, "if the health and comfort of the inhabitants of a state are threatened, the state is the proper party to represent and defend them." 146 In _Georgia v. Tennessee Copper Co._, the Court emphasized that the suit was different than one between two private parties:

The very elements that would be relied upon in a suit between fellow-citizens as a ground for equitable relief are wanting here. The state owns very little of the territory alleged to be affected, and the damage to it capable of estimate in money, possibly, at least, is small. This is a suit by a state for an injury to it in its capacity of quasi-sovereign. In that capacity the state has an interest independent of and behind the titles of its citizens, in all the earth and air within its domain. It has the last word as to whether its mountains shall be stripped of their forests and its inhabitants shall breathe pure air. 147

The modern test for determining whether a state is asserting an adequate quasi-sovereign interest as _parens patriae_ to support Article III standing was developed in _Alfred L. Snapp & Son, Inc. v. Puerto Rico ex rel. Barez_. 148 The _Snapp_ Court emphasized that the "set of interests that the State has in the well-being of its populace" may be too broad and vague to satisfy the case and controversy requirements for Article III standing. 149 To support standing under a _parens patriae_ theory, a state must: (1) "articulate an interest apart from the interests of particular private parties, _i.e._, the State must be more than a nominal party"; (2)

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143 Id. at 335-36.
144 _Late Corp. of the Church of Jesus Christ of Latter-Day Saints v. United States_, 136 U.S. 1, 57 (1890).
146 Id. ("That suits brought by individuals, each for personal injuries threatened or received, would be wholly inadequate and disproportionate remedies, requires no argument.").
149 Id. at 602.
“express a quasi-sovereign interest”; and (3) have an “alleged injury to a sufficiently substantial segment of its population.” In cases brought to address major air and water pollution sources, a state will generally have these types of interests in protecting its public from specific harms, just as Georgia and Missouri had at the turn of the century.

The test for parens patriae standing is different than the test a normal litigant would face. That familiar test for Article III standing is set forth in Lujan v. Defenders of Wildlife:

First, the plaintiff must have suffered an injury in fact—an invasion of a legally protected interest which is (a) concrete and particularized and (b) actual or imminent, not conjectural or hypothetical. Second, there must be a causal connection between the injury and the conduct complained of—the injury has to be fairly traceable to the challenged action of the defendant, and not ... the independent action of some third party not before the court. Third, it must be likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision.

In contrast to the more global considerations of parens patriae standing, a private litigant bears the burden of proving a “concrete and particularized” injury and that the risk of harm is “actual and imminent.”

Recently, in Massachusetts v. EPA, the Supreme Court introduced a different type of standing test applicable to state interests, in a case where the lower court had focused on the harms to Massachusetts’ proprietary interests as opposed to parens patriae interests. There, the Court applied a modified-Lujan test to the asserted proprietary harms, making explicit reference to the “special solicitude” it would grant Massachusetts in that inquiry, given “Massachusetts’ stake in protecting its quasi-sovereign interests.” The question whether the states must pass the Lujan test in addition to asserting parens patriae standing was thus left open.

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150 Id. at 607.
152 Id. at 560.
154 Id. at 520.
However, like in *Massachusetts v. EPA* and *Connecticut v. American Electric Power Company*, courts will usually find that the *Lujan* test is satisfied in pollution cases. States generally own large undeveloped land areas, often in the form of state parks, which suffer actual injury when threatened with major pollution of the type states seek to redress with common law nuisance actions. Similarly, pollution can often be redressed through the appropriate judicially crafted injunction. These state properties can form the basis for a claim of "actual and imminent" injury needed for traditional Article III standing.

**B. Standing in Maryland**

Maryland's common law test for "standing to bring a judicial action generally depends on whether one is aggrieved, which means whether a plaintiff has an interest such that he or she is personally and specifically affected in a way different from . . . the public generally."\(^{156}\) When applied to a Maryland state entity, the test results in the application of *Snapp*'s requirement for *parens patriae* standing, wherein the State "must articulate an interest apart from the interests of particular private parties."\(^{157}\) Maryland has such an interest in the health of the environment and the welfare of its citizens.\(^{158}\)

Maryland retains a quasi-proprietary right to a variety of natural resources under the public trust doctrine. The types of resources

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\(^{156}\) *Jones v. Prince George’s County*, 378 Md. 98, 118, 835 A.2d 632, 644 (2003) (internal quotations and alterations omitted).

\(^{157}\) *Connecticut v. Am. Elec. Power Co.*, 582 F.3d 309, 335 (2d Cir. 2009); *see State v. Jonathan Logan, Inc.*, 301 Md. 63, 77, 482 A.2d 1, 8 (1984) (Consumer Protection Division of the Office of the Attorney General, absent statutory authorization, may not recover on behalf of citizen-claimants when no injury beyond the damages suffered by the individual claimants was alleged.).

\(^{158}\) *E.g.*, MD. CODE ANN., ENVIR. § 4-402 (2007). Section 4-402 of the Environmental Law Article states:

> Because the quality of the waters of this State is vital to the public and private interests of its citizens and because pollution constitutes a menace to public health and welfare, creates public nuisances, is harmful to wildlife, fish and aquatic life, and impairs domestic, agricultural, industrial, recreational, and other legitimate beneficial uses of water, and the problem of water pollution in this State is closely related to the problem of water pollution in adjoining states, it is State public policy to improve, conserve, and manage the quality of the waters of the State and protect, maintain, and improve the quality of water for public supplies, propagation of wildlife, fish and aquatic life, and domestic, agricultural, industrial, recreational, and other legitimate beneficial uses.

*Id.* *See also* MD. CODE ANN., ENVIR. § 2-102 (2007) ("It is the policy of this State to maintain the degree of purity of the air necessary to protect the health, the general welfare, and property of the people of this State."); MD. CODE ANN., ENVIR. § 16-102 (2007) ("It is the public policy of the State, taking into account varying ecological, economic, developmental, recreational, and aesthetic values, to preserve the wetlands and prevent their despoliation and destruction.").
specifically identified in Maryland common law include fish, and the land underneath navigable waterways. Maryland most likely has a similar public trust over wildlife. The status of groundwater, also termed subterranean or percolating water, is more uncertain. In Bausch & Lomb, Inc. v. Utica Mutual Insurance Co., the Court of Appeals of Maryland clearly held that the State has no proprietary interest in groundwater for the purposes of the insurance policy, although it retains a regulatory interest. Bausch & Lomb did not directly address the question whether the State maintained some quasi-proprietary interest that falls short of a full proprietary interest, but it did hold that the State retains the power to “preserve and regulate” groundwater. Such an interest is sufficiently different from an ordinary citizen’s interest in groundwater, supporting Maryland’s ability to pursue a tort claim for injury caused by major instances of groundwater pollution that affect large portions of the State.

Maryland also has the ability to seek redress from harm to its property. Maryland owns hundreds of thousands of acres of state parkland that provide valuable recreational opportunities and aesthetic value, any injury to which could support standing by itself. The multiplicity of Maryland’s interests demonstrates the importance of actively pursuing sources of pollution that can be mitigated through regulation and the common law.

VI. CONCLUSION

As Maryland looks to the future, it must not ignore the fact that much of its most troublesome pollution comes from immediately beyond its borders. Maryland should continue to lead in developing innovative solutions for the environment in the new green economy, while, at the same time, continuing to take action against wrongdoers who continue to pollute the environment. At times, this will mean a close investigation of pollution sources outside Maryland borders, and, when the pollution is

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159 Bruce v. Dir. of Chesapeake Bay Affairs, 261 Md. 585, 598, 276 A.2d 200, 207 (1971) ("[T]he State holds the title to fish in public waters in trust for the public.").


161 Id. at 46-47 (noting that the right to submerged lands may be granted to others by the State while the right to exclusive use of navigable waters may not be).


164 Id.

165 See, e.g., Summers v. Earth Island Inst., 129 S.Ct. 1142, 1149 (2009) (citing Sierra Club v. Morton, 405 U.S. 727, 734-36 (1972) ("While generalized harm to the forest or the environment will not alone support standing, if that harm in fact affects the recreational or even the mere esthetic interests of the plaintiff, that will suffice."))

egregious and an equitable remedy is possible, these new applications of common law principles will provide another method to repair the health of the Chesapeake Bay and other threatened areas of Maryland’s environment.