2012

Maryland
Attorney General's Office

Chesapeake Bay and Maryland Watersheds Environmental Audit

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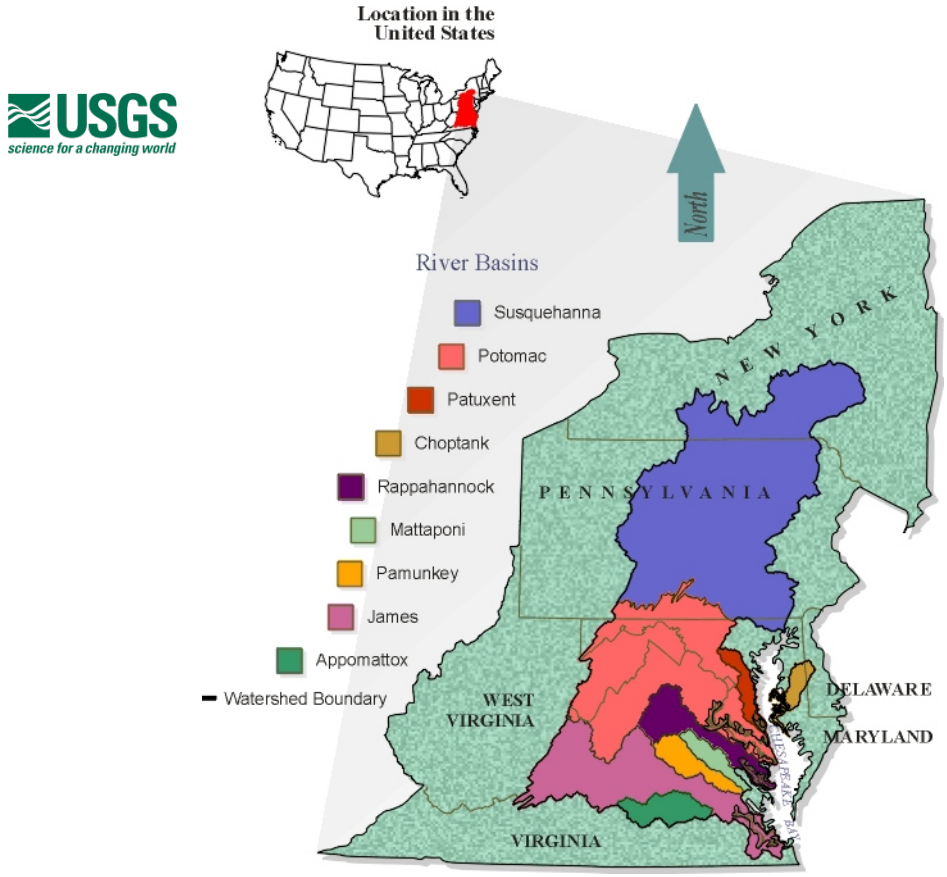
This report is available on the web at:
http://www.oag.state.md.us/reports/2012EnvironmentalAudit.pdf

INTRODUCTION

The Chesapeake Bay is North America's largest estuary. Supplied by water from the Atlantic Ocean and from some 150 rivers, streams, and creeks, the Bay contains more than 15 trillion gallons of water and has about 11,700 miles of shoreline.[1] The Chesapeake Bay watershed encompasses more than 64,000 square miles and includes parts of six states – New York, Pennsylvania, Delaware, Maryland, West Virginia, and Virginia –and all of the District of Columbia.[2]



For centuries, the Bay was the most bountiful and productive bay on the continent, providing the perfect natural habitat for thousands of different species. When Captain John Smith explored the region in 1607 and 1608, he described the Bay's incomparable beauty and marveled at an abundance of fish in greater numbers and variety than he and his men had ever seen.[3] Today, however, the health of the Chesapeake Bay is poor, the result of hundreds of years of stress and pollution.

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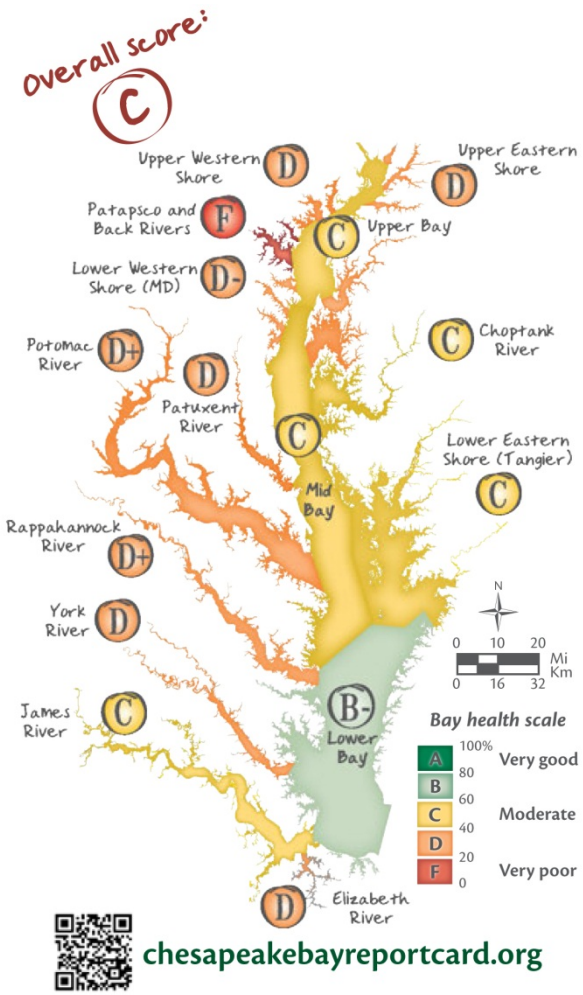
[1] http://www.chesapeakebay.net/discover/bay101/facts.

[2] *Id.* A watershed is an area of land that drains to a particular river, lake, bay or other body of water. Watersheds are also called "basins" or "drainage basins." http://www.chesapeakebay.net/discover/baywatershed.

[3] http://www.chesapeakebay.net/discover/bayhistory/johnsmith.

The decline of the Bay is linked directly to population growth within the Bay's watershed, which has doubled since 1950. As of 2008, approximately 16.9 million people lived in the watershed, a number that is expected to climb above 20 million people by 2030.[4] The growth and attendant development are associated with three of the biggest problems endangering the Bay: excess nitrogen, phosphorus and sediments.[5] Urban and suburban stormwater runoff, which contains significant quantities of these pollutants, is now the fastest-growing source of pollution to the Bay.[6] The agriculture industry supplies this growing population, and agricultural runoff is the single largest source of pollution to the Bay.[7]



The University of Maryland Center for Environmental Science ("UMCES") releases an annual assessment of the health of the Chesapeake Bay habitat. The assessment measures a variety of indicators that are combined into a single index to grade each of the 15 Bay regions. In the 2012 Report Card released July 2013, the Bay regions received grades ranging from B- to F, with the Bay receiving an overall grade of C.[8]

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[4] http://www.chesapeakebay.net/content/publications/cbp_50513.pdf (p. 4).

[5] *See* http://dnr.maryland.gov/bay/pdfs/LESbasinsum8505FINAL2007.pdf (p. 1).

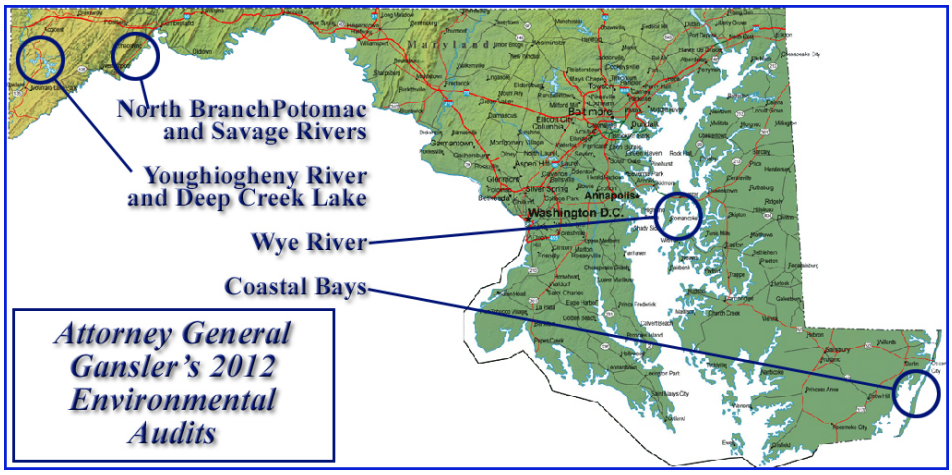
[6] *See* http://www.chesapeakebay.net/issues/issue/stormwater_runoff.

[7] *See* http://www.chesapeakebay.net/indicators/indicator/reducing_nitrogen_pollution; http://www.cbf.org/Page.aspx?pid=913 (noting that agricultural runoff contributes 40% of the nitrogen and 50% of the phosphorus entering the Bay). In Maryland, manure and waste from commercial chicken production also play a large role in nitrogen pollution to the Bay. On Maryland's Eastern Shore, chickens outnumber people approximately 1,000 to 1. *Id*. It is estimated that Maryland chickens create more than 1.5 billion pounds of manure annually, based on 2009 production numbers. *See* http://www.dpichicken.org/faq_facts/docs/factsmd2009.doc (on the number of chickens in Maryland in 2009; 291,900,000); J. Ronald Miner et al., Managing Livestock Waste to Preserve Environmental Quality (Iowa State University Press, 2000) (on the pounds of manure per chicken; approximately 5.88).

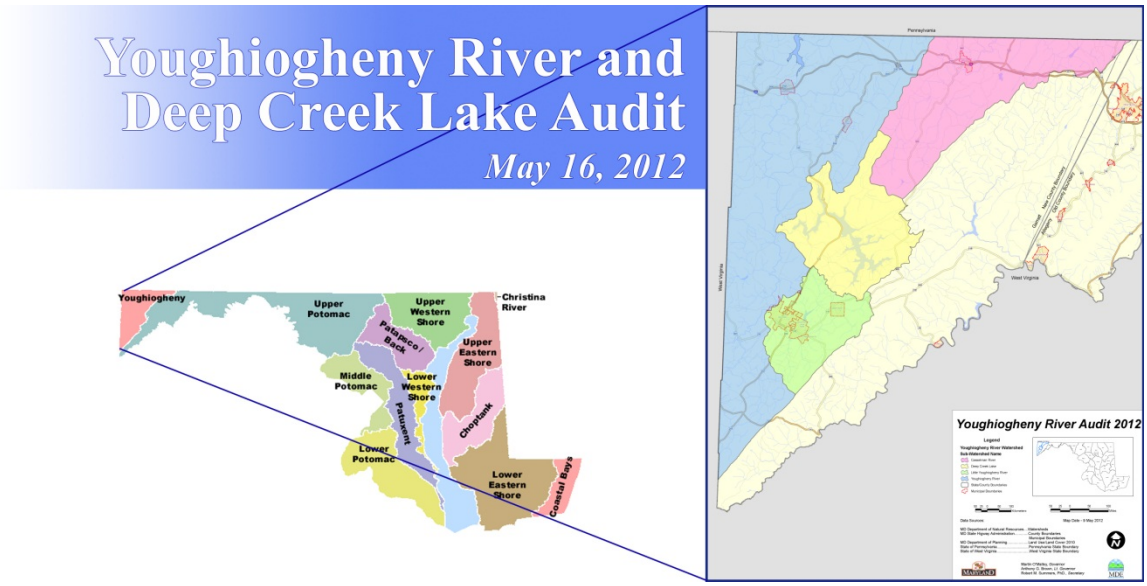
[8] http://ian.umces.edu/ecocheck/report-cards/chesapeake-bay/2012/. The Bay received a D+ in 2011, a C- in 2010, a C in 2009, a C- in 2008 and 2007, and a D+ in 2006. These previous report cards can be accessed at the same website by clicking on the appropriate year. http://ian.umces.edu/ecocheck/reportcards/chesapeake-bay/.

Beginning in April 2008, the Office of the Attorney General ("OAG") embarked on a river-by-river environmental audit to identify problems at their source and formulate solutions that will benefit the Bay. Communities and local activists in these rivers' watersheds are in the best position to know where problems exist, and the residents can offer practical and innovative solutions. This approach is central to the Attorney General's environmental audits. Traveling into communities in each watershed, the Attorney General is learning first-hand from those who know, use, and love the State's rivers. Each year, the Attorney General visits four of the Bay's tributaries, meeting with citizens, environmental leaders, and elected officials to learn about the specific problems in each individual watershed, as well as pollution issues common throughout the greater Chesapeake Bay watershed.

This year, the Attorney General decided to expand his environmental audits beyond the Chesapeake Bay watershed. The first two audits he conducted were outside of the Chesapeake basin, while the second two were located within the Bay watershed. This report contains the results of the Attorney General's 2012 environmental audits, which brought him to the Youghiogheny River and Deep Creek Lake, the Coastal Bays, the Wye River, and the Potomac River North Branch and Savage River. In each watershed, the Attorney General spent a full day meeting with local elected officials, environmental leaders, students, and citizens. He traveled by boat and walked the shores of the waterways to learn about the watersheds, their problems, and ongoing restoration efforts, and also to identify unique sources of pollution. River by river, the Attorney General's focus is on gathering information from those most intimately familiar with the rivers in order to develop solutions and enhance enforcement of those environmental laws that serve to protect the rivers and the Chesapeake Bay. The ultimate goal of the Attorney General is to improve the health of the Bay and Maryland's other bodies of water.



CHAPTER ONE: YOUGHIOGHENY RIVER AND DEEP CREEK LAKE



I. Background

The Youghiogheny River, a tributary of the Monongahela River in Pennsylvania, originates in Garrett County in western Maryland.[9] From there, the river flows north through Garrett County, northern West Virginia, and up into Pennsylvania where it merges with the Monongahela.[10] The Youghiogheny River is approximately 125 miles in length, with about 44 miles in Maryland, 75 miles in Pennsylvania and six miles in West Virginia.[11] Major tributaries in Maryland include the Casselman River, Little Youghiogheny River, Buffalo Run, Snowy Creek, Muddy Creek, Bear Creek and Cherry Creek.[12] The watershed covers approximately 285 square miles (excluding Deep Creek Lake) before the river enters the Youghiogheny Reservoir.[13] Land use in the watershed is 55 percent forestland, 34 percent agriculture, and 7 percent urban.[14]

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[9] *See* http://www.mde.state.md.us/programs/Water/TMDL/ApprovedFinalTMDLs/Documents/www.mde.state.md.us/assets/document/Yough_Sedimets_TMDL_20060928_final.pdf (p. 3).

[10] *See* http://www.mde.state.md.us/programs/Water/TMDL/ApprovedFinalTMDLs/Documents/www.mde.state.md.us/assets/document/Yough_pH_TMDL_maintext_final.pdf (at viii). http://dnr.state.md.us/publiclands/western/youghiogheny.asp.

[11] *See* http://www.mde.state.md.us/programs/Water/TMDL/ApprovedFinalTMDLs/Documents/www.mde.state.md.us/assets/document/Yough_Sedimets_TMDL_20060928_final.pdf (p. 3).

[12] http://www.dnr.state.md.us/irc/docs/00004404.pdf (p. 5).

[13] *See* http://www.mde.state.md.us/programs/Water/TMDL/ApprovedFinalTMDLs/Documents/www.mde.state.md.us/assets/document/Yough_Sedimets_TMDL_20060928_final.pdf (p. 3). The Youghiogheny River basin

In 1976, Maryland designated a 21-mile segment of the Youghiogheny as Maryland's first and only Wild River. Wild rivers are those which are "free-flowing" and "whose shoreline and related land are undeveloped, inaccessible except by trail, or [are] predominantly primitive in a natural state."[15] Today, whitewater rafting is a major use on the Youghiogheny River, colloquially called "The Yough", with an average of 3,000 commercial rafters annually.[16]

Located within the Youghiogheny River basin, Deep Creek Lake lies in the Allegheny Highlands and is bounded by several mountains.[17] With 65 miles of shoreline, Deep Creek Lake is the largest impoundment in Maryland; it averages 25 feet in depth and is 75 feet at its deepest point.[18] The lake has four major tributaries and more than 50 smaller streams.[19] Deep Creek Lake's watershed covers approximately 180,000 acres,[20] of which 62 percent is forested, 16 percent is agriculture land, 13 percent is urban, and 9 percent is water.[21] Most of the development is clustered around the lake's shore. Developments along the northern portion of the lake are served by sewer collection and those along the southern side largely use septic systems.[22]

Impounded in the 1920s, Deep Creek Lake and its dam were constructed to power a small-scale hydroelectric plant.[23] The State of Maryland now owns the lake, which is managed by the Maryland Department of Natural Resources.[24] The State leases the operation of the dam to Brookfield Power.[25] The earth and rock fill dam is 1,300 feet long and located approximately 1.75 miles upstream from its confluence with the Youghiogheny River, along Deep Creek near Mayhew Inn Road.[26] There is a power tunnel running from the lake to a powerhouse station on the shores of the Youghiogheny

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is the only basin in Maryland that drains into the Gulf of Mexico and not the Chesapeake Bay. It is part of the Mississippi River watershed. http://www.dnr.state.md.us/irc/docs/00004404.pdf (p.3).

[14] http://www.dnr.state.md.us/irc/docs/00004404.pdf (p. 4).

[15] http://dnr.maryland.gov/land/stewardship/scenicrivers.asp.

[16] http://esm.versar.com/PPRP/features/deepcrk/river.htm.

[17] *See* http://www.mde.state.md.us/programs/Water/TMDL/Documents/BSID_Reports/DeepCreek_BSID_Report_012412_revisedfinal.pdf (p. 2).

[18] *See* http://ian.umces.edu/press/newsletters/publication/305/deep_creek_lake_baseline_condition_assessment_2011-03-25/ (p. 9).

[19] *Id.*

[20] *Id.*

[21] *See* http://www.mde.state.md.us/programs/Water/TMDL/Documents/BSID_Reports/DeepCreek_BSID_Report_012412_revisedfinal.pdf (p. 4).

[22] *Id.*

[23] http://www.dnr.state.md.us/fisheries/recreational/fwhotdeepcrlk.html.

[24] *Id.*

[25] http://www.savedeepcreek.com/Docs/Brookfield%20Briefing.pdf.

[26] thttp://esm.versar.com/PPRP/features/deepcrk/deepcrck.htm.

River, near Hoyes Run.[27] The tunnel is over 7,000 feet long and drops 438 feet in elevation from the lake to the river.[28] An excavated tailrace directs powerhouse discharges to the Youghiogheny.[29]

Deep Creek Lake State Park is home to many plant and animal species and more than 95 percent of the park is regenerated hardwood forestland featuring mainly oaks and hickories.[30] Forest animals like black bears, wild turkeys, bobcats, whitetail deer, raccoons, opossums, skunk, chipmunks, and squirrels thrive in the protective park environment. In addition to boating and swimming, the lake is also a popular freshwater fishing destination. The lake is home to several valuable game fish stocks, including small and largemouth bass, walleye, yellow perch, northern pike, chain pickerel, bluegill and pumpkinseed sunfish.[31] In addition, there are brown and rainbow trout found in both Deep Creek Lake and the Youghiogheny River. Deep Creek Lake Park offers many public amenities for anglers, vacationers, and residents, including fishing piers, a swim area, a beach, boat ramp, pavilions, and camping spots.[32]

Perhaps because the Youghiogheny River and Deep Creek Lake are not part of the Chesapeake Bay watershed, there are few comprehensive reports detailing pollution problems in the water bodies or their watersheds. Several recent reports have identified a number of problems, but concluded that much more research will be required to fully analyze the current health of the Youghiogheny, Deep Creek Lake, and their watersheds.

In 2011, UMCES released a Baseline Assessment Report for Deep Creek Lake.[33] The report provided a baseline assessment of the health of the Deep Creek Lake watershed but also highlighted several important information gaps that should be addressed in order to more fully develop a "report card" type analysis of the health of the watershed. Based on geography and land use patterns, the report separated the lake into three areas, McHenry, Mid-lake,

Table i. Water quality and habitat scores for lake indicators.

Water quality & habitat indicators	*McHenry*	*Mid-lake*	*Southern lake*	*Overall*
Dissolved oxygen	93	79	93	87
Total phosphorus	100	95	81	88
Water clarity	67	83	69	74
Chlorophyll *a*	64	73	65	68
pH	100	100	99	100
Mercury	n/a	n/a	n/a	n/a
Aquatic grasses	n/a	n/a	n/a	n/a

Grading scale: 0% very poor — 100% very good; insufficient data

[27] *Id.*
[28] *Id.*.
[29] *Id.*
[30] http://www.dnr.state.md.us/publiclands/western/deepcreek.asp.
[31] http://www.dnr.state.md.us/fisheries/recreational/fwhotdeepcrlk.html.
[32] *Id.*
[33] *See* http://ian.umces.edu/press/newsletters/publication/305/deep_creek_lake_baseline_condition_assessment_2011-03-25/.

and Southern lake.[34] Current water quality monitoring showed that Deep Creek Lake water quality is high. McHenry had the highest water quality scores and Southern lake the lowest. The water is generally safe for swimming. However, this determination was exclusively from bacteria counts. The streams in the watershed are less healthy and most had low benthic macro invertebrates indicators.[35] The report listed "shoreline erosion, sedimentation of lake headwater areas, restrictions to dock access caused by sedimentation and excessive aquatic grass growth, and lake drawdown, and blooms of potentially harmful algae" as issues that need to be further investigated.[36]

The lake was previously on Maryland's 303(d) list for impaired waterways[37] for phosphorus based on eutrophication problems but the Maryland Department of the Environment ("MDE") issued a water quality analysis of eutrophication in September 2010 and reversed this listing.[38] In this eutrophication report, MDE concluded that the lake is meeting water quality standards. However, there is some evidence of localized impairments, which could ultimately result in localized areas being relisted as impaired by nutrients.[39] The lake is also impaired for mercury based on high mercury levels in fish tissue.[40]

A very recent 2012 report from MDE concluded that the Deep Creek Lake watershed is not meeting its "designated use of protection of aquatic life because of biological impairments".[41] Although the precise cause of the biological impairment is

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[34] *Id.* at 5.

[35] Sampling for stream health was inadequate to get a full assessment. However, anecdotal and photographic evidence indicates the streams are quite unhealthy: "these areas may be filling more rapidly with sediments, have high densities of aquatic grasses, and are more prone to potentially toxic algal blooms." *Id.* at 6.

[36] *Id.* at 7.

[37] The 303(d) list is a list that states are required to submit to the federal government under Section 303(d) of the federal Clean Water Act, in which they indicate which state water bodies do not meet minimum water quality standards. *See* http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/policy.cfm#statute (providing an overview of the Section303(d) statute); *see also* http://www.mde.maryland.gov/programs/Water/TMDL/Integrated303dReports/Pages/Programs/WaterPrograms/TMDL/Maryland%20303%20dlist/index.aspx (detailing Maryland's approach to this reporting requirement).

[38] *See* http://www.mde.state.md.us/programs/Water/TMDL/ApprovedFinalTMDLs/Documents/www.mde.state.md.us/assets/document/WQA_Deep_Creek_Nut_07292011_final.pdf (p. 1).

[39] *Id.* at 30.

[40] *See* http://www.mde.maryland.gov/programs/Water/TMDL/ApprovedFinalTMDLs/Documents/www.mde.state.md.us/assets/document/Deep_Creek_Lake_HG_final.pdf (pp. 5-6).

[41] *See* http://www.mde.state.md.us/programs/Water/TMDL/Documents/BSID_Reports/DeepCreek_BSID_Report_012412_revisedfinal.pdf (p. iii).

unknown, the report cites likely causes as low pH and stream morphology.[42] Low pH is attributable to both acid mine drainage and natural sources. The Deep Creek Lake watershed is fed mainly from first order streams, and has many boggy areas and extreme land topography ranging from very steep to essentially flat. All of these geographic characteristics, in addition to acid mine drainage, lead to the biological impairments observed in the lake.[43] First order streams generally do not have other bodies of water flowing into them and are characterized by less diverse habitat and biological community structure.[44]

The Youghiogheny River watershed has several impairments, including bacteria, sediment and pH. The probable sources of bacteria in the watershed are 21 percent wildlife, 23 percent human, 24 percent pet, and 32 percent livestock. [45] In 2009, the EPA approved final total daily maximum loads ("TMDLs") for fecal bacteria for Cherry Creek, a major tributary,[46] and for the Little Youghiogheny, another tributary.[47]

In 2007, the EPA approved MDE's TMDL for sediment in the Youghiogheny River Watershed. The TMDL budgeted solids based on general land use, allocating approximately 40 percent to crops, 23 percent to forests, 14 percent to pasture land, 21 percent to urban use, and 1 percent to permitted lands.[48] EPA also concurred with an MDE analysis of eutrophication in the Youghiogheny River in 2001 that concluded the Youghiogheny did not demonstrate evidence of eutrophication and therefore, should be removed from the 303(d) list of nutrient impaired waters.[49] The Youghiogheny is also impaired for low pH, and EPA approved MDE's final TMDL for low pH in 2007. A 2005 MDE study indicated that 25 segments in the Youghiogheny River watershed frequently violate water quality standards for pH. Pollutant sources included acid mine

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[42] *Id.* at iv.
[43] *Id.* at iv-v, and 22.
[44] *Id.* at iv.
[45] *See* http://www.mde.state.md.us/programs/Water/TMDL/ApprovedFinalTMDLs/Documents/www.mde.state.md.us/assets/document/Cherry%20Creek_Bacteria_TMDL%2007-21-09_final.pdf (p. 14).
[46] *See.* http://www.mde.maryland.gov/programs/water/tmdl/approvedfinaltmdls/pages/programs/waterprograms/tmdl/approvedfinaltmdl/tmdl_cherrycreek_final_ph.aspx
[47] *See* http://www.mde.state.md.us/programs/Water/TMDL/ApprovedFinalTMDLs/Pages/Programs/WaterPrograms/TMDL/approvedfinaltmdl/tmdl_final_little_yough_bacteria.aspxhttp://www.mde.state.md.us/programs/Water/TMDL/ApprovedFinalTMDLs/Documents/www.mde.state.md.us/assets/document/Little_Yough_Bacteria_TMDL_Final.pdf .
[48] *See* http://www.mde.state.md.us/programs/Water/TMDL/ApprovedFinalTMDLs/Documents/www.mde.state.md.us/assets/document/Yough_Sedimets_TMDL_20060928_final.pdf (p. 11).
[49] *See* http://www.mde.state.md.us/programs/Water/TMDL/ApprovedFinalTMDLs/Documents/www.mde.state.md.us/assets/document/Yough%20WQA%20nut.pdf.

drainage and atmospheric deposition but not all low pH stream segments had identified sources.[50]

II. Active Enforcement and Pending Matters

Prior to conducting his audit, the Attorney General identified a number of significant ongoing matters in the Youghiogheny River and Deep Creek Lake watersheds, including the following:

Richard Eggleston. This matter involved sediment and erosion control and nontidal wetlands violations in Broadford Run, a tributary to the Little Youghiogheny River. Without first obtaining an approved erosion and sediment control plan from the Garrett County Conservation District and without installing any sediment controls, the property owner placed fill and graded, ultimately disturbing more than 5,000 square feet and 100 cubic yards of earth. MDE issued a site complaint and order for the violations, and the owner performed corrective action. At the time of the audit, the Office of the Attorney General was in settlement discussions to resolve the claim for penalty.

I-Con International Contractors, Inc. The contractor was hired pursuant to a contract with the Maryland Department of General Services ("DGS") to resurface a parking lot in Deep Creek Lake State Park. Between October 17 and October 31, 2011, MDE inspectors found several violations of the approved erosion and sediment control plan. Specifically, I-Con failed to maintain silt fencing and stockpiled soil outside the approved limit of disturbance and in another unauthorized area without sediment controls. The failure to follow the approved plan placed sediment in a position where it was likely to be washed into waters of the State. On November 10, 2011, DGS terminated the contract for default because of delays and failure to meet the performance standards of the contract. Thereafter, another contractor was hired and the project was completed. At the time of the audit, the OAG was attempting to enter into an agreement with I-Con to resolve the penalty.

Ronald Sisler, Green Things. Ronald and Jeanine Sisler own property in Oakland, Maryland, that is used as a truck parking and maintenance facility for Green Things, Ronald Sisler's landscaping business. In May 2011, sand and gravel fill material was dumped on the site and pushed into a stream that is a tributary of the Youghiogheny River. The Sislers had not obtained an erosion and sediment control plan or implemented any sediment controls before the material was dumped. An MDE inspector saw the fill in the stream and sediment being washed into the stream from the fill. Sisler has since removed the material from the stream, stabilized the remaining fill, and installed silt fencing to prevent further sediment pollution until the site is permanently stabilized.

[50] *See* http://www.mde.state.md.us/programs/Water/TMDL/ApprovedFinalTMDLs/Documents/www.mde.state.md.us/assets/document/Yough_pH_TMDL_maintext_final.pdf (p. 10).

MDE offered a penalty settlement, but no agreement was reached. At the time of the audit, the OAG was preparing to file a formal enforcement action.

Rodney Youmans. Rodney Youmans performed grading, filling, and construction activities in the 100-year flood plain of the Casselman River, a tributary of the Youghiogheny River, without obtaining a waterway construction permit from MDE or obtaining a grading permit from Garrett County. The activities consisted of grading of parking and grassed areas, placing earthen fill along River Road, and constructing stone landscape features in the flood plain. After an MDE review of the site, Youmans was advised that the stone basin could not be approved and would have to be removed. Youmans maintained that he had done nothing on his property that required a permit and referred MDE to his attorney. At the time of the audit, the matter had not been resolved.

State Highway Administration, Lake Louise. In 1999 and 2005, MDE and the State Highway Administration ("SHA") entered into a consent agreement to address pollution discharges that emanated from the construction of the Route 68/219 Interchange that was impacting Lake Louise, a tributary to Puzzely Run. After installation of various treatment systems that were unable to meet discharge permit limits, the consent agreement required further upgrades that were underway and 95 percent complete at the time of the audit. These upgrades were expected to be effective in reaching discharge limits, particularly manganese, zinc, and pH.

Town of Accident Wastewater Treatment Plant. MDE and the Town of Accident entered into a consent agreement in 2003 to address persistent sewage overflows into Bear Creek, as well as discharge permit violations that were occurring as a result of excessive inflow and infiltration in the collection system. Since that time, the Town had been working to rehabilitate the collection system to address the problem. However, not all the violations had been completely abated and work continued at the time of the audit.

Cold Water Releases from Deep Creek Lake. The Youghiogheny River once held great populations of cold water fish, including brook trout, Maryland's only native trout. Deforestation increased temperatures and unregulated mining in the late 1800s and early 1900s literally poisoned the river and killed most aquatic life. Efforts to mitigate these and other human induced impacts brought the river back to life over time but the river remained too hot during the summer months to sustain cold water species. Cold water tributaries like Deep Creek were the last refuge of many of these species. The construction of Deep Creek Lake resulted in loss of many miles of wild trout habitat and cold water resources in that stream and further exacerbated the loss of cold water in the Youghiogheny River.

In 1995, MDE negotiated and included temperature enhancement releases in the lake's discharge permit issued by MDE, which restored more than four miles of quality cold water habitat and improved habitat further downstream. These releases are coordinated with white water releases to create greater opportunity for paddlers as well. DNR responded by stocking the river with fingerling trout. A high quality catch and

release trout fishing area was established and has become a premier trout fishery for locals and traveling anglers.

This fishery and the other cold water fauna are now threatened by demands to reduce summer discharges to the river from some Deep Creek Lake property owners. Drought conditions in 2010 and 2011 resulted in quicker than normal drops in lake levels during those summer seasons, leading some to call for summer discharges to be reduced.[51] However, discharge protocols are designed to maintain water temperatures just below the upper threshold of trout tolerance in order to minimize impacts to lake levels leaving little room for further compromise.

Marcellus Shale. Since 2006, energy companies have been looking at Garrett and Allegany counties as a possible source of natural gas from a geologic formation known as the Marcellus Shale. Until recently, the Marcellus had not been a target for gas exploration because it was not economical for the companies involved. However, new drilling techniques developed in the past ten years are being used in the Marcellus in Pennsylvania and West Virginia. The techniques involve (1) hydraulic fracturing ("fracking") the shale by pumping water into the shale under pressure to create vertical fractures in the shale layer, while at the same time introducing sand into the rock to keep the fractures open once the water is removed; and (2) drilling horizontally through the layer of shale to intersect the vertical fractures in the rock. Companies are now exploring the possibility of using these techniques in western Maryland and have been reviewing existing geologic and geophysical data as a first step in developing plans for leasing the mineral rights and drilling test wells. This initial step was followed by the arrival of "land men," an industry term for those who come to an area in advance of the actual drilling of test wells for natural gas to contract with land owners and mineral rights owners to lease the land on which to drill and obtain mineral rights for the gas beneath the surface.[52]

Marcellus Shale is a topic of great concern in Garrett County, with strong pro-drilling interests on one side and environmentalists on the other. Garrett County has established a county Marcellus Shale Advisory Committee.[53] A number of property owners in western Maryland contacted the Office of the Attorney General in 2010. Since that time, the OAG has met with interested citizens, attended public meetings to educate individuals about the issues, and created educational materials to be sure that Marylanders know how to protect their interests.[54] The Attorney General also put together an internal working group of 30 assistant attorneys general representing more than 20 separate divisions and units within the OAG to provide support and share information on the Marcellus Shale and other natural gas and drilling issues as they

[51] *See* http://www.savedeepcreek.com/.

[52] *See* http://www.mgs.md.gov/geo/marcellus.html.

[53] *See* http://www.marcellusshale.garrettcounty.org.

[54] *See, e.g.,* http://www.oag.state.md.us/Environment/MS_leasing.pdf and http://www.oag.state.md.us/Environment/DMIA_QAs.pdf.

arise.[55] In addition, members of the OAG have been assisting the members of the Marcellus Shale Safe Drilling Initiative Advisory Commission, tasked with making findings and issuing reports on the feasibility and safety of fracking, the last of which is due in 2014.[56]

III. The Youghiogheny River/Deep Creek Lake Audit, May 16, 2012: What the Attorney General Learned

The Attorney General's audit took place on May 16, 2012. The Attorney General was joined by 10 members of his staff, including the special assistant attorney general for the environment, principal and deputy counsel for the Maryland Department of the Environment, principal counsel for the Maryland Department of Natural Resources, principal counsel for Maryland Environmental Services, and principal counsel for the Maryland Department of Planning.

The Attorney General began his day at Garrett College in McHenry meeting with elected officials, including the register of wills, state's attorney, a county commissioner, and the mayor of Friendsville. From there, the Attorney General took a boat tour of Deep Creek Lake, during which he was briefed by representatives of Friends of Deep Creek Lake, the Deep Creek Lake Policy and Review Board, and Deep Creek Cellars.

Following the boat trip, the Attorney General toured the Brookfield Hydro Dam Station at Deep Creek Lake. He then had a working lunch, during which he was briefed by environmental professors at UMCES. After lunch, the Attorney General had an open meeting with a number of environmental leaders, including representatives from the Deep Creek Lake Policy Review Board, the Youghiogheny Watershed Association, Citizen

Criterion wind generation site visit in Oakland

[55] In order to protect the waters of Maryland, the Attorney General has also taken steps to ensure that hydraulic fracturing is responsibly undertaken in Pennsylvania. For example, in May 2011, he notified Chesapeake Energy of intent to sue for the release of fracking fluids into Towanda Creek, a tributary of the Susquehanna River, following a well blowout. *See* http://www.oag.state.md.us/Press/2011/050211.html. In August 2011, he wrote to the Susquehanna River Basin Commission urging caution in relaxing regulatory standards for hydraulic fracturing. *See* http://www.oag.state.md.us/Environment/SRBC_GanslerOnFracking.pdf.

[56] *See* http://www.governor.maryland.gov/executiveorders/01.01.2011.11.pdf and http://www.mde.state.md.us/programs/Land/mining/marcellus/Pages/Commission.aspx.

Shale, Deep Creek Cellars, Savage River Lodge, Save Western Maryland, and the Allegheny Highlands Conservancy. The Attorney General ended the day with a tour of the Criterion wind generation plant owned and operated by Exelon/Constellation in Oakland.

Throughout the audit, the Attorney General was advised by participants on a number of environmental matters, including the following:

Deep Creek Lake Water Levels. Water is released from Deep Creek Lake through operation of the dam for several reasons, including power generation and to provide water to the Youghiogheny River for whitewater rafting and trout fishing.[57] Property owners along the shoreline of the lake, particularly those in coves, complained that the water levels are so low during summer months that they cannot use their boats and are basically landlocked. One owner advised that by August she is unable to use her dock because of the low water level. She suggested that the lake should be dredged to restore previous depths of 16 feet in the center of the lake.

Shoreline Erosion and Sediment. Sediment is a growing problem for the lake. Shoreline erosion and landscape development are the most common sources of sediment delivery.[58] During his boat tour of the lake, the Attorney General observed a tree that fell several years ago because of shoreline erosion. According to participants, the Department of Natural Resources ("DNR") does not have the funding to maintain the shoreline, which it owns, leaving it to property owners to maintain. The Attorney General heard that sediment also contributes to water level issues. As sediment fills in, the water becomes shallower and warmer, creating a "stew" for algal blooms and grasses, which further restrict recreational use.

Deep Creek Lake tour, Eurasian Watermilfoil and sedimentation

Eurasian Watermilfoil. During the boat tour, one participant explained that DNR does not require boats from other areas to be cleaned prior to launching, resulting in the introduction of non-native invasive species. In particular, residents are concerned about Eurasian Watermilfoil,[59] which has caused significant problems in other states.[60] According to the residents, this submerged aquatic grass forms thick

[57] *See* http://www.savedeepcreek.com/.

[58] *See* http://dnr.maryland.gov/publiclands/pdfs/dcl_faqs.pdf (p. 4).

[59] This non-native species was introduced into Maryland from Europe and Asia in the late 1950s. http://dnr.maryland.gov/bay/sav/key/eurasian_wate.pdf.

[60] *See, e.g.*, http://www.ecy.wa.gov/programs/wq/plants/weeds/milfoil.html and http://www.dnr.state.mn.us/invasives/aquaticplants/milfoil/index.html.

mats on the surface of the water that entangle boats and swimmers by the end of summer. One participant suggested the introduction of weevils, which he said had been successfully used in western areas to eat the Watermilfoil.

Methamphetamine Labs. The state's attorney and a representative from the county health department advised that recently there had been four illegal methamphetamine labs in the county, primarily in rental properties. Concerned about the potentially continuing health and environmental hazards posed by such labs, they suggested a statute to require owners who lease or sell the properties to disclose tenants and buyers of the circumstances.

Mercury Levels in Fish. Participants expressed concerns about the mercury levels in the flesh of fish, which are caused in part by non-point source deposition from coal-fired power plants west of the state. The Attorney General was told that "only non-local fishermen eat the fish here."

Fish Kills. During the boat tour, the Attorney General heard about fish kills in shallow areas of the lake caused by increasingly hot weather and the inability of the fish to escape the confines of the lake. In July 2010, for example, the water temperature was the highest ever recorded and more than 200 fish of various species died.[61] Although the actual cause of death was bacteria, the fish were more susceptible to infection because of the stress associated with the elevated water temperatures.[62]

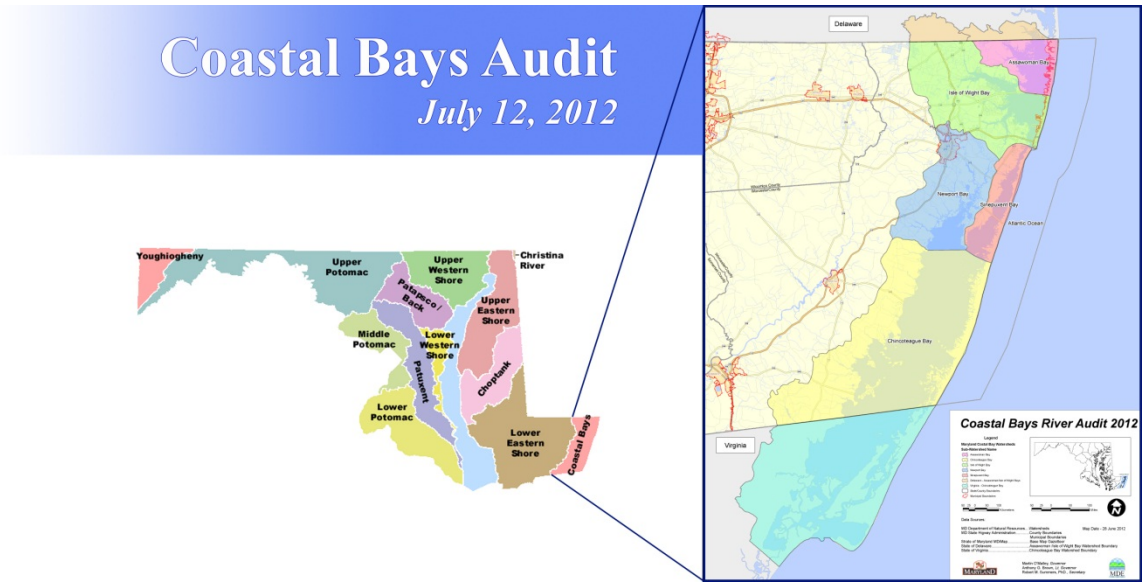
Marcellus Shale. Throughout the audit, many participants expressed genuine concern about natural gas extraction in the Marcellus Shale, especially in Pennsylvania and West Virginia. While individuals recognized the need for alternative fuel sources and economic development in Garrett County, they also worried about the environmental and public safety hazards. They noted that current drilling operations outside of Maryland are near waterways that flow into Maryland waters and could pose dangers to water quality here. These participants mentioned ongoing baseline stream monitoring being done by DNR that will be critical to determine whether future operations are in fact impairing Maryland water quality.[63] They urged the Attorney General to ensure that any fracking allowed in Maryland is appropriately and meaningfully regulated and that sufficient money is allocated for enforcement.

[61] *See* http://dnr.maryland.gov/dnrnews/pressrelease2010/072210.asp.

[62] *See* http://dnr.maryland.gov/publiclands/imptinfo.asp.

[63] *See, e.g.*, http://dnr.maryland.gov/publiclands/pdfs/2dcl2011waterquality.pdf.

CHAPTER TWO: COASTAL BAYS



I. Background

Maryland's Eastern Shore is home to five of the Atlantic Coastal Bays--Assawoman Bay, Isle of Wight Bay, Sinepuxent Bay, Newport Bay, and Chincoteague Bay. Together with the St. Martin River, the Coastal Bays form a shallow estuarial lagoon system that sits between the barrier islands that stretch along the coastline and the eastern coastal mainland of Maryland.[64] The bays are long and uniformly shallow (less than 10 feet deep) and have a 175 square mile watershed that covers more than 117,000 acres of land and 71,000 acres of water in Worcester County.[65] Land use in the watershed is primarily forest and agriculture, with some developed areas and wetlands.[66]

As one of the Eastern Seaboard's richest and most diverse estuaries, the Coastal Bays are home to a wide array of wildlife, including more than 115 species of finfish, 17 species of mollusks, 23 species of crustaceans, 360 species of birds, and 44 species of mammals.[67] The bays provide both recreational and commercial fishing opportunities. Anglers can find blue fish, menhaden, fatbacks, striped bass, weakfish, and spot. Historically, there was a large recreational fishing community for summer flounder but

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[64] *See* http://www.mdcoastalbays.org/content/docs/CCMP%2005-24-05.pdf (p. 7).

[65] *See* http://water.epa.gov/type/oceb/nep/upload/2007_05_09_oceans_nepccr_pdf_nepccr_nepccr_ne_partm.pdf (p. 179).

[66] *See* http://dnrweb.dnr.state.md.us/watersheds/MCB.pdf (p. 7, Land Use Map).

[67] *See* http://water.epa.gov/type/oceb/nep/upload/2007_05_09_oceans_nepccr_pdf_nepccr_nepccr_ne_partm.pdf (p. 179).

due to pollution and overfishing, the flounder population declined severely by 1990. Today, the population has rebounded thanks to strict management and harvest restrictions.[68]

Assateague Island is a unique and popular recreational and vacation destination. Sandwiched between the Atlantic Ocean and Sinepuxent Bay, Assateague State Park is Maryland's only oceanfront state park.[69] The Assateague National Seashore straddles the Maryland and Virginia border and is managed by the National Park Service. Assateague is probably most well-known for its wild horses.[70] There are two separate herds in Maryland and Virginia.[71] The Maryland herd is managed as a wild herd by the National Park Service. Part of the Virginia herd, the famous Chincoteague ponies are owned and maintained by the Chincoteague Volunteer Fire Company, which organizes the annual pony roundups on Chincoteague National Wildlife Refuge.[72]

The Coastal Bays are generally in good condition; however, population growth and increasing development are putting significant stress on the sensitive ecosystems.[73] The Coastal Bays are subject to similar pollution patterns as the Chesapeake Bay, but the Coastal Bays are less developed and therefore have fewer pollution inputs than the Chesapeake. However, the Coastal Bays are also much shallower and flush poorly so they have less contact with the Atlantic Ocean and pollutants stay in the water body longer. As a result, the Coastal Bays are more sensitive to pollution than the Chesapeake Bay.[74] Nutrient pollution from land uses, including agricultural and urban runoff, point source discharges, septic tank system loadings, atmospheric deposition, and groundwater flow all affect the water quality of the bays.[75]

The University of Maryland Center for Environmental Science annually releases a report assessing the health of the Maryland Coastal Bays. The assessment measures a variety of indicators that are combined into a single index to grade each of the six bay regions. In the 2011 report card, the individual bay regions received grades ranging from D+ to B-, with the Coastal Bays receiving an overall grade of C, with little change since

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[68] *See* http://www.dnr.state.md.us/coastalbays/publications/entire_publication.pdf (pp. 2-7, 2-8).

[69] *See* http://www.dnr.state.md.us/publiclands/eastern/assateague.asp.

[70] The horses are known as "wild horses" but are in fact feral horses that were introduced by humans at some point in time. *See* http://www.nps.gov/asis/naurescience/horses.htm.

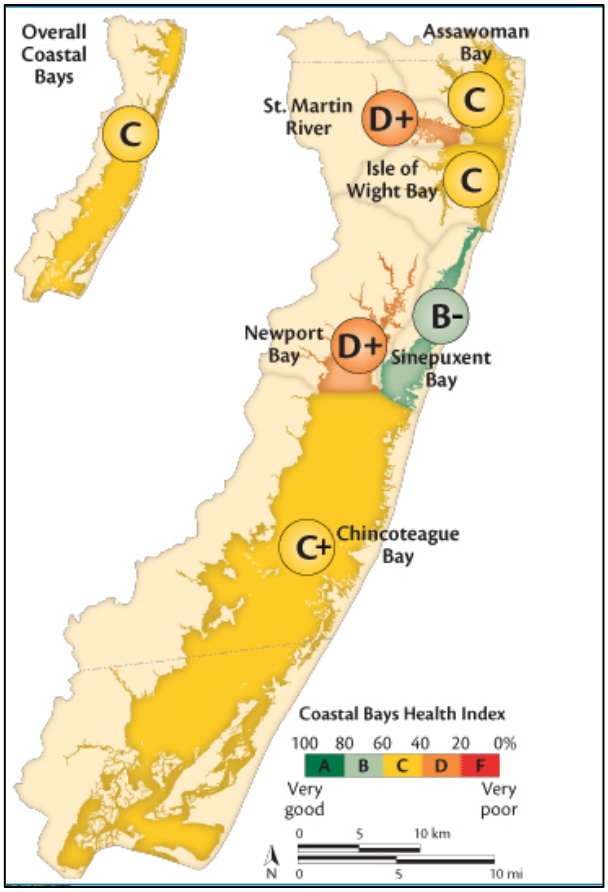
[71] *Id.*

[72] *Id.*

[73] Completion of the Chesapeake Bay Bridge in 1951 triggered a dramatic transformation in the Coastal Bay region. After more than three centuries of extremely slow population growth, Worcester County's population doubled between 1940 and 1996. *See* http://www.dnr.state.md.us/coastalbays/publications/entire_publication.pdf (pp. 2-7, 2-8). As of the 2010 Census, the most recent population count for Worcester County was 51,454. *See* http://quickfacts.census.gov/qfd/states/24/24047.html.

[74] *See* http://dnrweb.dnr.state.md.us/watersheds/MCB.pdf (p. 7).

[75] EPA National Estuary Program Coastal Condition Report. 2007, page 180, http://www.epa.gov/owow/oceans/nepccr/pdf/nepccr_ne_partm.pdf .



the previous year.[76] Chlorophyll *a* was good to excellent in all regions of the Coastal Bays, while seagrasses declined in all regions. Nitrogen and phosphorous were improved or stable, while oxygen generally declined. Hard clams generally improved throughout the regions of the bays.[77]

As of 2004, all five Coastal Bays watersheds were listed on the 303(d) list for low dissolved oxygen, nutrients and fecal coliform.[78] In 2005, after MDE studies found that the bays were meeting current water quality standards and recommended the basins be moved to Category Two of the State's list of impaired waters which means, "[s]urface waters that are meeting some standards and have insufficient information to determine attainment of other standards", the EPA concurred.[79]

II. Active Enforcement Efforts and Pending Matters

At the time of the Attorney General's audit of the Coastal Bays, there were a number of ongoing significant matters in the watershed, including the following:

Papa and Nana Buas, LLC. This case involves impacts to non-tidal wetlands and the wetlands buffer at property owned by Papa and Nana Buas, LLC. The owner placed fill material brought in from off-site and material excavated from an onsite ditch in non-tidal wetlands and the 25 foot wetland buffer. The owner also illegally

[76] http://ian.umces.edu/ecocheck/report-cards/maryland-coastal-bays/2011/. The Coastal Bays also received a "C" in 2010, and a "C+" in 2009 and 2008. These earlier reports can be accessed at http://ian.umces.edu/ecocheck/report-cards/maryland-coastal-bays/2011/ and clicking on the link for each year.

[77] *Id.*

[78] *See* http://www.mde.maryland.gov/programs/water/wetlandsandwaterways/aboutwetlands/documents/www.mde.state.md.us/assets/document/wetlandswaterways/cb_all.pdf (p. 41).

[79] *See* http://www.mde.state.md.us/programs/Water/TMDL/ApprovedFinalTMDLs/Pages/Programs/WaterPrograms/TMDL/approvedfinaltmdl/wqas_final_8basins_fc.aspx.

allowed clearing of mature trees in the non-tidal wetland buffer. As of March 23, 2011, the fill material had been removed from the wetlands and buffer and trees had been planted in accordance with an approved remediation plan. The OAG had been unable to reach a penalty settlement with the owner and planned to file a civil action for a penalty.

Bearing Construction, Inc. This case involves sediment control violations that occurred during construction to upgrade the Town of Berlin Wastewater Treatment Plant. Between July 2010 and May 2011, MDE documented a number of violations of the approved erosion and sediment control plan and general permit for stormwater discharges associated with construction activity, including failure to properly install or maintain sediment control devices and failure to adequately stabilize disturbed areas. These violations allowed sediment to be washed off the site. On March 1, 2012, the Department entered into a settlement agreement under which Bearing Construction agreed to pay a penalty of $15,000.

MDE v. Mystic Harbour Water and Wastewater Treatment Plant. In this matter, MDE pursued an enforcement action against the Worcester County Department of Public Works ("DPW") for effluent violations at the Mystic Harbour Water and Wastewater Treatment Plants, which are located between the Isle of Wight Bay and the Sinepuxent Bay. MDE determined that between January 2009 and January 2012, the Worcester County DPW repeatedly violated the effluent limits established in both state discharge permits. The Worcester County DPW responded that was upgrading the wastewater treatment plant, although it continued to have effluent violations. At the time of the audit, MDE was negotiating a consent order that would include requirements for implementing a plan and schedule for achieving and maintaining compliance for the facility, as well as to address penalties for both past and any future violations.

Blue Water Development Corp. Blue Water Development holds a ground water discharge permit for the discharge of treated effluent from Castaways Campground in Berlin, Maryland. The permit authorizes the discharge of treated sewage by subsurface drip irrigation to an approved area. Prior to discharge, the company is required to treat the wastewater. Beginning in May 2009, MDE found deficiencies in the facility's record keeping and reporting requirements, *e.g.,* failure to monitor the flow to the groundwater discharge area and to keep required monitoring reports. These deficiencies continued for an extended period of time. Moreover, in June 2010, MDE inspections documented the ponding of wastewater in the drip irrigation area, which violated the terms of the groundwater permit. At some point, the facility hired a new engineer to run the system. Although the recordkeeping issues were corrected, the monitoring reports documented effluent discharges that exceeded permit limits. Those violations were ultimately corrected for the most part. Subsequently, in February 2012, the MDE documented non-tidal wetland violations at the campground. Specifically, the campground placed sandbags on the beach and placed a floating platform in non-tidal wetlands to hold jet skis without a permit. At the time of the audit, the sandbags had been removed, but the platform was still in use. Because efforts to resolve the matter were unsuccessful, MDE intended to file an administrative enforcement action in the near future.

MDE v. John Burbage. John Burbage owns a residence on Ocean Reef Drive in Ocean City, adjacent to Sinepuxent Bay. In order to create a beach, he arranged for the placement of sand and fill material in tidal waters landward of a breakwater next to his property, without first obtaining authorization under the Tidal Wetlands Act. At the direction of MDE and the U.S. Army Corps of Engineers, Burbage removed the fill back to the original location of the mean high water line. Discussions to settle the claim for civil penalty were underway at the time of the audit.

MDE v Hi-Tide Marine Construction, South Bay Condominium. The South Bay Condominium is located on Edgewater Avenue in Ocean City, adjacent to Sinepuxent Bay. Hi-Tide Construction excavated an area of tidal wetlands 61 feet in length next to the South Bay Condominium and installed approximately 45 feet of tongue and groove bulkhead in tidal waters without the proper authorization. MDE directed Hi-Tide to restore the excavated areas of tidal wetlands, and either obtain authorization for the bulkhead or remove it, backfill the excavated areas, and properly stabilize the bank. All corrective action was completed and Hi-Tide was issued the proper authorizations for the work both from MDE and the U.S. Army Corps of Engineers. At the time of the Attorney General's audit, a claim for civil penalty was still pending and settlement discussions were underway with Hi-Tide.

Total Maximum Daily Loads, Coastal Bays Area. MDE has been working for several years with the Virginia Institute of Marine Science on a model to develop TMDLs for nutrients. The modeling work encompasses all of the bays as a single system. This project was expected to be available for public review in the fall of 2012.

Six Ls Packing Company, Inc. This case involves water pollution, water appropriation, and sediment control violations by Six Ls Packing Company, Inc., Kuzzens Inc., Lipman & Lipman, and W.T Brittingham, Inc., in Westover, Maryland.[80] The companies are all owned by the same family. Six Ls and Kuzzens operate a tomato packing plant and Lipman owns the farm where they dispose of unmarketable tomatoes. The violations included discharging the waste tomatoes into waters of the State, discharging wastewater from the packing plant to waters of the State, and appropriating water for the packing operation without a permit. Kuzzens obtained an appropriation permit, installed tanks to temporarily hold the wastewater, and got a permit to land apply the wastewater. Additional violations occurred during construction of a lagoon to hold the wastewater, including failure to get coverage under the general permit for construction and failure to implement sediment controls. W.T Brittingham was the contractor for the construction. At the time of the audit, the Office of the Attorney General expected to send a letter offering an opportunity to settle.

Bishopville Dam. The Bishopville Dam, located on Bishopville Road, was scheduled to be removed in the fall of 2012. It is expected that removal of the dam may

[80] Westover is in Worcester County, but is not located within the Coastal Bays watershed.

well release nutrients and sediments into Bishopville Prong, which leads to the St. Martin River. Prior to removal, the Maryland Geological Survey conducted a bathymetric and sediment assessment of the Bishopville Prong, a tributary of the St. Martin River, to document existing conditions. This information will provide assessment of the potential environmental impact from the dam removal project and a baseline for future monitoring efforts.

Offshore Wind. In anticipation of the potential development of the offshore wind energy project and to support fisheries and environmental management of State waters, mapping of bottom habitats off Ocean City and Assateague Island was underway at the time of the audit. DNR is using advanced acoustic technologies (side-scan sonar, sub-bottom profiling, acoustic classification procedures) to create maps of the habitat variability. The information is also useful for siting artificial reefs, assessing the effects of offshore sand mining for beach replenishment purposes, and advancing marine spatial planning efforts. The National Park Service has provided funding for work on a portion of the area off the Assateague National Seashore.

III. The Coastal Bays Audit, July 12, 2012: <u>What the Attorney General Learned</u>

The Attorney General's Coastal Bays audit was conducted on July 12, 2012. The Attorney General was accompanied by 10 members of his staff, including the special assistant for the environment, principal and deputy counsel for the Maryland Department of the Environment, principal counsel for the Department of Natural Resources, and principal counsel for the Maryland Environmental Services. He began the day at City Hall in Ocean City meeting with elected officials from Worcester County, Ocean City and Ocean Pines, including the register of wills, a state delegate, a county commissioner, and representatives from a state senator, the sheriff's office, and other county agencies.

Elected officials meeting in Ocean City

After the meeting with elected officials, the Attorney General took a boat tour of the Isle of Wight Bay and the Sinepuxent Bay, during which he was briefed by representatives of the Maryland Coastal Bays Program and Assateague Coastkeeper.

The Attorney General then returned to Ocean City for a briefing on the water quality of the Coastal Bays from a professor at the University of Maryland Center for

Environmental Science. He then returned to City Hall, where he met with the Coastal Stewards. The Attorney General then had an open meeting with environmental leaders, including members of the Lower Shore Land Trust, Maryland Coastal Bays Program, the National Park Service, the Maryland Coastal Bays Program, and the environmental engineer of the Town of Ocean City.

These individuals and associations advised the Attorney General about a number of environmental matters and concerns, including the following:

Skimmer Island. During the boat tour, the Attorney General saw Skimmer Island, a restoration project in the Sinepuxent Bay. Managed by the Coastal Bays Program in partnership with MDE, the Army Corps of Engineers and Sunset Marina, Skimmer Island is a vital breeding habitat for two endangered species—royal terns and black skimmers. The Coastal Bays Program has been putting dredge material that previously would have gone to a land fill onto the island. Winds and waves take care of the dredge material naturally, and the extra sand contained in the material creates an important habitat for the birds. The area is also significant for horseshoe crab nesting.

Skimmer Island, 2009. Credit: NAIP Imagery

Skimmer Island, March 2011, during restoration. The yellow line is a floating boom used to keep the sand from drifting off site. Credit: R. Jesien

Poultry Waste. Chicken farming is a big industry on the Eastern Shore. In 2010, Maryland was ranked as the eighth largest broiler producer in the country, having produced 300,500,000 broiler chickens in that year.[81] One of every 12 jobs in the region is in the broiler chicken industry.[82] Disposal of the waste generated by the chickens continues to be a concern in the Coastal Bays watershed. There are ongoing proposals to build a power plant fueled by chicken manure, which would serve the dual interests of generating needed power and properly disposing of the waste. Some environmental leaders expressed concern about incinerating poultry waste, which they felt could add to air pollution. One participant suggested anaerobic digestion as a sound alternative, and posited that 10 smaller 300 megawatt plants could be built in less time than it would take to get permits for one 500 kilowatt plant.

[81] *See* http://www.dpichicken.org/faq_facts/ (accessed by link to "Maryland Facts 2010").

[82] *See* http://www.dpichicken.org/faq_facts/ (accessed by link to "Delmarva's Broiler Chicken Industry").

Prescription Drug Disposal. Participants at the elected officials meeting discussed the problem of proper disposal of prescription drugs and the need to educate the public not to dump them in sewers that lead to the waterways. The sheriff's office has held several drug disposal days at a supermarket parking lot, allowing citizens to drop off unneeded drugs, no questions asked. In addition, Ocean Pines has a permanent drop off spot that looks like a mail box. Elected officials reported that this seems to be working well; residents are using the drop box, the contents of which are periodically retrieved by the Drug Enforcement Administration for destruction.

Enforcement. There was a generalized complaint that sediment controls and other environmental laws are not being adequately enforced. In contrast, another participant suggested that getting compliance is more effective in stopping pollution than "fining people to death." Instead of fines, he said polluters should be required to do special environmental projects in mitigation.

Recycling. Although the county still collects recyclables, Ocean City stopped recycling about two years ago. Now, everything goes into the trash, which is transported out of state for waste-to-energy projects. By contrast, Ocean Pines began recycling about three months prior to the audit, resulting in collection of about 200 tons. The program is voluntary, but participation has been very high due to the curbside, single-stream model.

Pollution during Tourist Season. The elected officials talked about the increase of pollution during the tourist season. In 2011, for example, the City collected more than 69,000 cigarettes from the beach. They also mentioned that many diapers end up on the beach. Participants generally expressed the need for beach goers to engage in more self-enforcement on beach littering.

Septics. At the meeting with elected officials, the Attorney General heard that $1.5 million has been spent to upgrade septic systems in the Coastal Bays watershed. The region has also eliminated more than 200 septic systems by connecting them to sewage treatment plants. By contrast, Virginia is not doing well. For example, the whole of Chincoteague Island is on septics, which remove only solids and not nutrients. Concerned Marylanders have repeatedly gone to Virginia to talk to authorities, but nothing constructive has been done. To make matters worse, Virginia is supporting a new development called Captain's Cove that will exacerbate the problem.[83]

Assateague Island. Assateague Island is generally in good shape except for the salt marshes and forests. The salt marshes have been adversely impacted by the over grazing of the ponies. The National Park Service controls the ponies' population through contraception and sterilization. The marshes are also negatively affected by sea-level rise

[83] Captain's Cove is a recreational community located in Accomack County, Virginia, on the west shore of the Chincoteague Bay. *See* http://www.captscove.com/.

and invasive species, such as phragmites.[84] The forests are being degraded by impervious surfaces, as well as invasive species.

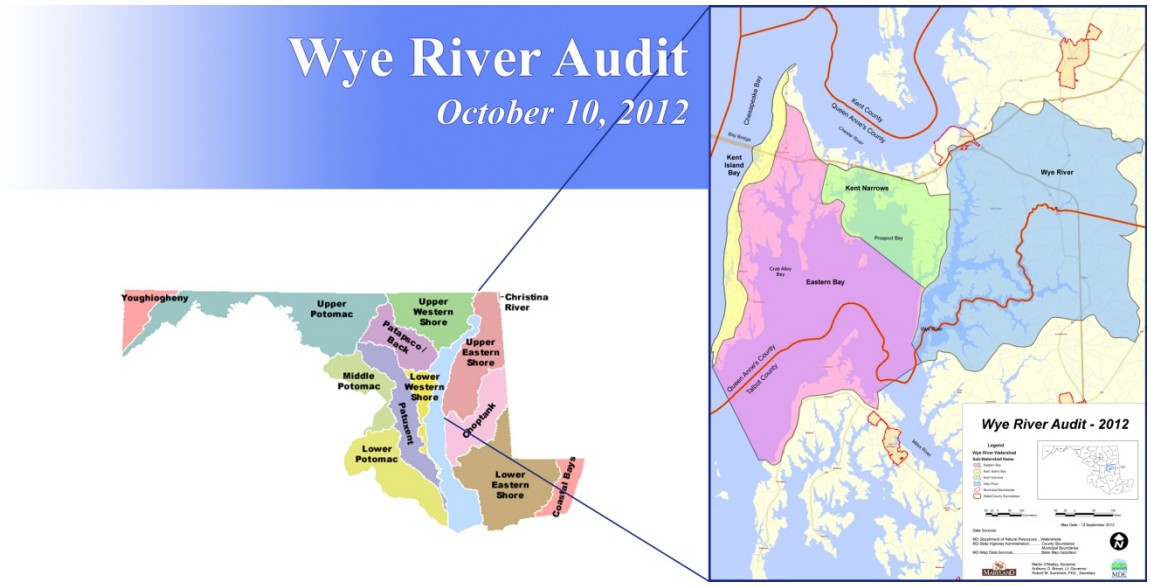
Coastal Stewards. Coastal Stewards is a summer youth employment program that was established as a green jobs pipeline.[85] The students, who live in Worcester and Wicomico counties, are driven each day to Assateague Island to work. Among other activities, the students have banded some 5,000 birds on the island so that they can be tracked. They have also been involved in setting up educational programs for younger children to teach them about the environment, nature, recycling, and the like. The Coastal Stewards have made rain barrels and planted buffer plants near the airport. As a result of participating in the program, one student was offered employment with the Maryland Fish and Wildlife Service and another was hired by the National Park Service.

Attorney General Gansler with the 2012 Coastal Stewards

[84] Phragmites are a long-lived invasive plant species that can grow to six feet in height. *See* http://www.invasiveplants.net/phragmites/.

[85] The program was initially funded by federal stimulus money. It is managed by the Maryland Coastal Bays Program and Delmarva Low-Impact Tourism Experiences, in partnership with the Lower Shore Workforce Alliance, Assateague Island National Seashore, Assateague State Park, the Maryland Conservation Corps, Worcester County Tourism, and Grow Berlin Green. *See* http://www.mdcoastalbays.org/education-students.

CHAPTER THREE: WYE RIVER



I. Background

The Wye River watershed is located on the Upper Eastern Shore and encompasses about 50,460 acres of land in Queen Anne's and Talbot Counties.[86] It is part of the Chester River basin.[87] Land use in the Wye River basin is primarily agricultural and forest, with some urban and wetlands areas.[88]

Located directly east of Kent Island, the Wye River has three main parts, the Wye River mainstem, the Wye East River and Wye Narrows.[89] A brackish tidal river, the Wye extends northwards up from Eastern Bay and splits around Wye Island to form the Wye East River and Wye Narrows. At the southwestern shore of Wye Island, the Wye East River branches out towards Wye Mills and forms the county line between Queen Anne's and Talbot counties.[90] Before reaching Queenstown, the Wye River splits a second time north of Wye Island forming Wye Narrows.[91] Although the Wye River system has some freshwater inflow, its water characteristics are primarily governed by the salinity,

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[86] http://mddnr.chesapeakebay.net/wsprofiles/surf/prof/wsprof.cfm?watershed=02130503.

[87] *See* http://dnr.maryland.gov/streams/pdfs/ea-00-1_small_sheds.pdf (Table 2-1).

[88] *See* http://mddnr.chesapeakebay.net/wsprofiles/surf/prof/wsprof.cfm?watershed=02130503.

[89] *See* http://www.mde.maryland.gov/programs/water/tmdl/approvedfinaltmdls/pages/programs/waterprograms/tmdl/approvedfinaltmdl/tmdl_final_wye_river_fc.aspx.

[90] *See* http://dnr.maryland.gov/land/stewardship/pdfs/wyeisland_nmraplan.pdf (p.12), and http://www.qac.org/Docs/LGE/PC%20APPROVED%20PLAN/Maps/ESA/Reduced_ESA_4_Watersheds_072210.pdf (map).

[91] *Id.*

temperature, and flow of the Chesapeake Bay.[92] The width of the river ranges from 300 meters to 600 meters upstream to about one kilometer at its mouth, where it flows into the Eastern Bay.[93]

Kent Island is one of three islands in the Wye River watershed and is the largest in the Chesapeake Bay watershed.[94] The island was also the location of the first European settlement in Maryland.[95] Located outside Queenstown in Queen Anne's County, Wye Island is one of the watershed's most notable features. Of its 2,800 acres, 2,514 (about 90 percent) are a designated Natural Resource Management Area that is maintained by the Maryland Department of Natural Resources State Forest and Park Service.[96]

Because of its many quiet coves, the Wye watershed is a favorite spot among Marylanders for fishing and crabbing.[97] The Wye River system has a reputation for producing some of the largest crabs in the Chesapeake, and the river's oyster and clam beds have historically produced abundant yields for commercial shell fishermen.[98] Other aquatic life common to the Wye River include striped bass, yellow and white perch, pumpkinseed, American eel, bluegill and catfish.[99] Many species of birds, including the bald eagle and the great blue heron, are part of the Wye River watershed ecosystem. Other notably rare species, like the Delmarva fox squirrel, inhabit the Wye River watershed as well.[100]

The Wye River was first identified on the 1996 303(d) list as impaired by sediments, nutrients, and fecal coliform in tidal portions; in 2002, listings of biological impacts in the non-tidal portions were added. In 2006, MDE established TMDLs for fecal coliform for the restricted shellfish harvesting areas in the Wye River basin, and plans to address nutrients, sediments and biological impairments in the future.[101] The most likely sources of these high bacteria counts are poor flushing, natural runoff from marsh areas, aging septic systems, boating-related pollution, and high nutrient level runoff from agricultural lands. Despite these high levels, the Wye is still believed to have some of the best habitat for subaquatic vegetation restoration.[102]

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[92] *Id.*

[93] *See* http://www.mde.maryland.gov/programs/water/tmdl/approvedfinaltmdls/pages/programs/waterprograms/tmdl/approvedfinaltmdl/tmdl_final_wye_river_fc.aspx.

[94] http://www.kentisland.com/kent-island-history.php.

[95] *Id.*

[96] http://www.dnr.state.md.us/irc/docs/00011182.pdf (p. 5).

[97] http://www.ohranger.com/md/wye-island-natural-resource-management-area.

[98] *See* http://dnr.maryland.gov/land/stewardship/pdfs/wyeisland_nmraplan.pdf (p. 19).

[99] *Id.*

[100] *Id.* at 19-20.

[101] *See* http://www.mde.maryland.gov/programs/water/tmdl/approvedfinaltmdls/pages/programs/waterprograms/tmdl/approvedfinaltmdl/tmdl_final_wye_river_fc.aspx.

[102] http://dnr.maryland.gov/land/stewardship/pdfs/wyeisland_nmraplan.pdf (p. 30).

Although UMCES does not issue an independent report card for the Wye River, it lies within the Upper Eastern Shore, which received a D in the 2011 report card.[103]

II. Active Enforcement and Pending Matters

Prior to the Wye River audit, the Office of the Attorney General identified a number of significant environmental matters, including the following:

Alliance to Restore Northwest Creek. Northwest Creek is located on the western side of Kent Island on the Chesapeake Bay in Queen Anne's County. The creek is a 115-acre area with a narrow winding connection to the Bay which opens and closes as a result of storm events. During periods of high rainfall, the creek is full and appears to be a thriving system. At other times, particularly during drought conditions, the creek dries up, resulting in stagnant conditions and fish kills. Formed by property owners on the pond, the Alliance applied to MDE and the Army Corps of Engineers for approval to dredge the creek to help address the problem. The Alliance also planned to create a new opening to the Chesapeake Bay, but did not include that plan in its application. The application then stalled when MDE requested the Alliance to supplement its application to reflect plans for the entire project. The Alliance did not revise the application and has complained that MDE was being unhelpful in moving the project forward. According to MDE, the solution to the problems with the pond and the proposed opening are extremely complex and the Alliance may not have the resources to address them properly. Several weeks prior to the audit, counsel retained by the Alliance met with the assistant attorney general who represents MDE and they agreed on a plan to help move the application.

Donkat Properties, LLC. While building a facility for Gross Mechanical Laboratories at a site located on Marion Quimby Drive in Stevensville, Maryland, Donkat Properties failed to properly install and maintain erosion and sediment controls and allowed soil or sediment to wash into waters of the State. Donkat Properties also failed to comply with the general permit for discharges of storm water associated with construction activity, which required self-monitoring of the Site and prompt correction of sediment control deficiencies. Specifically, during the period from August through October of 2010, sediment-laden storm water, carrying sediment from the large, disturbed drainage area on the site, overwhelmed the perimeter sediment controls during rain events and visibly polluted Thompson's Creek. MDE received multiple citizen complaints regarding sediment pollution originating from the site during the active construction phase of the project. At the time of the audit, MDE was pursuing an enforcement action for these violations.

[103] http://ian.umces.edu/ecocheck/report-cards/chesapeake-bay/2011/. The region also received a D in 2010, 2009, and 2008; it received its best grade, a D+, in 2006. The report cards can be accessed at http://ian.umces.edu/ecocheck/report-cards/.

Underground Storage Tanks. At the time of the audit, MDE was attempting to resolve ongoing compliance issues concerning several underground storage tanks[104] in the Wye River watershed:

■ **Pintail Point Farm.** This site, located on Pintail Point Farm Lane in Queenstown, had a 3,000 gallon heating oil tank that was out of compliance. In 2011, MDE sent a letter instructing the owner to bring the underground storage system into full compliance or to properly abandon it.

■ **Former McDonough's Country Store.** Located on McGinnes Road in Crumpton, this site is an old gas station that is no longer in use. At least three underground storage tanks that had been improperly abandoned remained onsite. At the time of the audit, MDE was in the process of giving the owner a deadline to remove the tank system.

■ **Piney Narrows Yacht Haven.** This matter involved a flex connector leak in a product pipe on the property located on Piney Narrows Road in Chester. After the flex connector was replaced and contaminated soil removed, MDE agreed to allow other underground storage tank flex connectors to remain in operation until the end of boating season (November 1, 2012). Thereafter, the contractor was to begin a complete tank top upgrade with containment sumps.

III. The Wye River Audit, October 10, 2012: <u>What the Attorney General Learned</u>

Meeting with Queen Anne's County elected officials

The Attorney General conducted an audit of the Wye River on October 10, 2012. Twelve members of his staff accompanied him, including the special assistant for the environment, principal and deputy counsel for the Maryland Department of the Environment, principal counsel for the Maryland Department of Natural Resources, and principal counsel for the Maryland Environmental Services. The Attorney General began the day in Centerville

[104] Owners of underground storage tanks ("USTs") must comply with state and federal regulations. MDE is responsible for regulating that compliance. *See* http://www.mde.maryland.gov/programs/Land/OilControl/UndergroundStorageTanks/Pages/Programs/LandPrograms/Oil_Control/USThome/index.aspx. USTs that are no longer in use can only be abandoned under strict guidelines. *See* http://www.mde.maryland.gov/programs/Land/OilControl/UndergroundStorageTanks/Documents/UST%20Compliance%20Outline%206.8.12%205%20pgs.pdf (p. 5).

meeting with elected officials from Queen Anne's County, including the state's attorney, the sheriff, the register of wills, the clerk of court, county commissioners, a state delegate, and the Centerville police chief.

Briefing from the Wye Riverkeeper Tom Leigh

Following that meeting, he took a boat tour of the Wye River and Eastern Bay. After the boat trip, the Attorney General traveled to Chesapeake College in Wye Mills, where he met with college officials and students.

The Attorney General ended the day meeting with environmental leaders, including representatives from the Midshore Riverkeeper Conservancy, Citizens Watch of Queen Anne's County, the Wye Island NMRA, the Audubon Society, and Chesapeake College.

Throughout the day, the Attorney General learned about environmental issues and concerns within the Wye River watershed, including the following:

Poor Flushing and Ditch Remediation. The Wye River has a naturally low flow with limited tidal action and few freshwater inputs. In addition, it is very deep at the mouth, which creates a "sink" that causes poor flushing and traps pollution. An environmental leader stated that one solution to the naturally occurring low flush issues would be to dig more ditches, an approach he did not endorse. Instead, he recommended ditch remediation as a possible solution. As he described them, ditches are capillaries to the Chesapeake Bay. Sediments and pesticides from agricultural use go into the ditches as the water drains off the land. From the ditches, these pollutants flow into the Wye River and ultimately into the Bay. Instead of being mowed, ditches should be planted and used as filters to stop this pollution runoff. By contrast, an elected official disagreed with that approach; according to him, there is no scientific proof that ditches have any effect and they should be tested before implementation of a remediation plan. He suggested that having shallower ditches would be more effective because they control water flow speed and prevent rapid runoff.

High Bacteria Counts. There are high concentrations of bacteria in the Wye River that have led to restricted shellfish harvesting. One elected official told the Attorney General that geese are a major source of the bacteria in the Wye. An environmental leader suggested that the State should do source tracking to determine

where the bacteria in the Upper Wye is coming from. One the source is pinpointed, the public could be educated and polluters could be held responsible.

Conowingo Dam. The Conowingo Dam is located in northeast Maryland on the Susquehanna River.[105] The dam collects massive quantities of silt, sediment, and debris that flow down the river. After a heavy rainfall and when the floodgates are opened, some of this debris and sediment flows over the dam and into the Chesapeake Bay and its tributaries, often with significant negative environmental impacts. The Conowingo is part of a hydroelectric power plant owned and operated by Exelon, which has a license from the Federal Energy Regulatory Commission ("FERC") that is due to expire on September 1, 2014. Exelon has filed an application with FERC to relicense the plant.[106] An elected official suggested that Exelon should be required to devise a long-term solution to the sediment problem as part of the relicensing process.

Wastewater Treatment Plants and Septic Systems. Participants raised a number of concerns related to wastewater treatment plants and septic systems.

- **Need for Upgrades.** Many of the municipal wastewater treatment plants and septic systems in the watershed are in need of upgrades. Local officials described the financial burden upgrades place on the community and called for cost-share programs to alleviate some of the cost. They also cited the need to get failing septic tanks out of the ground, as well as to eliminate septics altogether and get those systems connected to a sewage plant.

- **Spray Irrigation.** Chesapeake College has its own wastewater treatment plant and has a permit to discharge directly into the Wye River. There is a proposal to develop an intersection near the college, creating a new growth area. The college's wastewater treatment plant will not be able to accommodate this growth. According to a participant at the elected officials meeting, spray irrigation is the only solution but, he complained, the "heavy hand" of the State stands in the way. A county commissioner said that efforts to build a wastewater treatment plant in Sudlersville were prevented by MDE due to its concerns about adverse health effects from spray irrigation.

Living Shorelines. Although living shorelines are widely supported for habitat creation and presumptively required for shoreline erosion projects, one environmental leader expressed concern that the regulations regarding living shoreline construction are not tough enough and are being implemented evenly.[107] He observed

[105] The Attorney General visited the Conowingo Dam in 2009 as part of his audit of the Susquehanna River. *See* http://www.oag.state.md.us/Reports/2010EnvironmentalAudit.pdf (pp. 36-38).

[106] *See* http://www.exeloncorp.com/powerplants/conowingo/Pages/profile.aspx.

[107] In 2008, the General Assembly passed the Living Shoreline Protection Act of 2008, which generally requires shoreline stabilization projects to consist of nonstructural measures such as marsh creation or a living shoreline in the absence of a waiver. MDE is responsible for regulation and enforcing the requirements of the Act. Final regulations went into effect on February 4, 2013. *See* http://www.mde.maryland.gov/programs/water/wetlandsandwaterways/pages/tidalregslivingshoreline.aspx.

that there was no enforcement of the requirement that private property owners create living shorelines and that waivers are too freely granted.

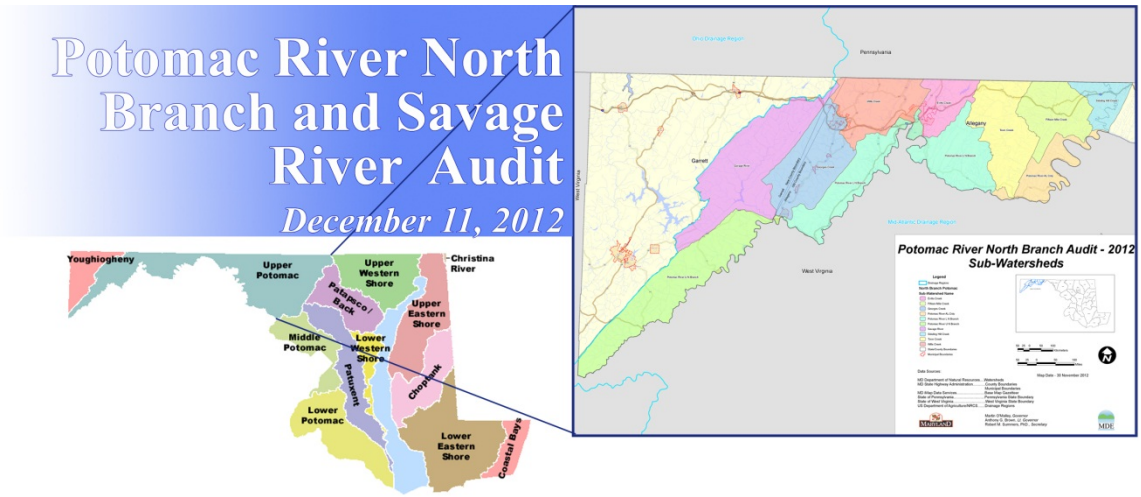
Kent Narrows Jetty

Kent Narrows Jetty. Just beyond the Kent Narrows Yacht Club, there is a concrete jetty that serves as a barrier to protect the harbor from heavy wave action and storm damage. At 11:00 p.m. on May 27, 2012, a boater from Hebron, Maryland was ejected and killed when his craft struck the unlit jetty.[108] Participants of the audit told the Attorney General that the unlit jetty is too low and difficult to see at night because of "light pollution" in the area. It was suggested that the jetty should be outfitted with lighting to avoid future accidents.

Sustainable Agriculture and Rural Issues. Several of the environmental leaders discussed the need to "change the way we farm," advocating less tilling and less fertilizer. They also favored creating a state policy that would label foods as "local" or "sustainable" to encourage local economy and provide incentives for changing farming practices. These leaders also advocated state restrictions on fertilizer, and argued that fertilizing should be based on average rainfall rather. There was, however, sharp disagreement on this issue among some participants at the elected officials meeting. One person said that rural life was being attacked at the state level and suggested that the State should focus its enforcement in populated areas rather than placing undue burdens in Queen Anne's County.

[108] *See* http://dnr.maryland.gov/dnrnews/pressrelease2012/052912.asp.

CHAPTER FOUR:
POTOMAC RIVER NORTH BRANCH AND SAVAGE RIVER



I. Background

The western headwaters of the Potomac River, known as the North Branch, originate as a small spring in Fairfax Stone, West Virginia.[109] From there, the North Branch travels 97 miles to its confluence with the South Branch.[110] It then travels along the eastern side of Backbone Mountain, forming the border between Maryland and West Virginia.[111] The Upper North Branch of the Potomac and the Savage River, which flows into the Upper North Branch,[112] are part of that headwater system,[113] and their watersheds are part of the Upper Potomac River Tributary Basin.[114] Other nearby tributaries within the basin include Georges Creek and Fifteen Mile Creek.[115]

The entire drainage area of the Upper North Branch watershed covers 182,200 acres, of which about 67,000 acres are in Maryland and 119,500 acres are in West Virginia.[116] The Maryland portion of the watershed is located entirely within Garrett

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[109] http://www.northforkwatershed.org/images/combinedNBPReport.pdf (p. 10)

[110] *Id.*

[111] *Id.*

[112] *See* http://www.mde.maryland.gov/programs/water/319nonpointsource/documents/watershed%20plans/casselman%20a-i%20plan/casselman_a-i_appendix_a.pdf (p.5).

[113] *See* http://www.mde.state.md.us/programs/Water/TMDL/Documents/BSID_Reports/Potomac_UNB_BSID_Report_011712_final.pdf (p. 2) and http://www.savageriverwatershed.org/about/about.htm.

[114] *See* http://mddnr.chesapeakebay.net/wsprofiles/surf/prof/upot_profmap.html (interactive map).

[115] *Id.*

[116] *See*

County.[117] Land use in the basin is primarily forest (72 percent) and agriculture (19 percent); less than five percent is urban, concentrated primarily near rivers and other bodies of water.[118] Major tributaries include Wolfden Run, Short Run, Lostland Run, Steyer Run, Crooked Run, Nydegger Run, Shields Run, Sand Run and Laurel Run.[119]

Headwaters of the Savage River originate in Finzel Swamp, not far from Frostburg.[120] The Savage River watershed lies primarily within Garrett County, with smaller areas in Allegany County.[121] The basin encompasses 74,222 acres of mostly forested land, with some agricultural, urban and wetlands areas.[122] The area is sparsely populated, with a number of working farms and designated "wildlands".[123] Much of the watershed lies within the Savage River State Forest, more than 11,000 acres of which are designated as wildlands.[124] The lack of development has allowed brook trout and other species that are sensitive to pollution and disturbance from growth to thrive, and the Savage River is one of the few places in Maryland that has intact populations of native brook trout.[125] Located near North Glade in Garrett County, the Savage River Reservoir is an impoundment created by an earth and rock fill dam on the Savage River, which supplies most of the water to the reservoir.[126]

The Georges Creek watershed covers 47,694 acres in Allegany and Garrett counties.[127] The main stem of Georges Creek flows southwest from Frostburg to below the town of Westernport, where it joins the North Branch of the Potomac. Its tributaries include Elklick Run, Mill Run, Winebrenner Run, and Koontz Run.[128] The watershed is predominantly forested (72 percent), with 16 percent developed and 10 percent agricultural.[129] The watershed also has several towns, including Frostburg, Midlothian,

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http://www.mde.state.md.us/programs/Water/TMDL/Documents/BSID_Reports/Potomac_UNB_BSID_Report_011712_final.pdf (p. 2).

[117] *Id.*

[118] *See* http://www.mde.maryland.gov/programs/water/tmdl/approvedfinaltmdls/documents/www.mde.state.md.us/assets/document/westernmd_ph_020608_final.pdf (p. viii).

[119] http://www.northforkwatershed.org/images/combinedNBPReport.pdf (p. 7).

[120] *See* http://dnr.state.md.us/wildlife/Publiclands/Natural_Areas/Finzel_Swamp.asp.

[121] *See* http://www.savageriverwatershed.org/about/WatershedMap.htm].

[122] http://mddnr.chesapeakebay.net/wsprofiles/surf/prof/wsprof.cfm?watershed=02141006

[123] http://www.savageriverwatershed.org/about/about.htm.

[124] http://www.dnr.state.md.us/publiclands/western/savageriverforest.asp.

[125] http://www.savageriverwatershed.org/about/about.htm.

[126] *See* http://www.mde.state.md.us/programs/Water/TMDL/ApprovedFinalTMDLs/Pages/Programs/WaterPrograms/TMDL/approvedfinaltmdl/tmdl_savageriver_final_hg.aspx.

[127] http://mddnr.chesapeakebay.net/wsprofiles/surf/prof/wsprof.cfm?watershed=02141004.

[128] *See* http://www.mde.maryland.gov/programs/water/tmdl/approvedfinaltmdls/documents/www.mde.state.md.us/assets/document/georges_creek_sediment_tmdl_20060928_final.pdf (p. 3).

[129] *Id.* at 6.

Midland, Lonaconing, Barton, Luke, and Westernport, as well as the Dans Mountain State Park and parts of the Savage River State Forest.[130]

The Fifteen Mile Creek watershed spans 33,148 acres in Allegany County.[131] Land use is primarily forest (93 percent), with much smaller agricultural and urban areas.[132] The watershed also has 1,326 wildland acres.[133] Originating in Pennsylvania, Fifteen Mile Creek flows 19.3 miles before it empties into the North Branch of the Potomac.[134] MDE has categorized a portion of Fifteen Mile Creek as a Tier II stream, which means that its water quality exceeds conditions necessary to support swimming and fishing.[135] Fifteen Mile Creek is also one of only 20 places in the world where Harperella, a federally and state endangered plant species, grows.[136]

For many years, the North Branch watershed was extensively mined.[137] Water pumped from these mines and discharged into streams resulted in acid mine drainage.[138] In addition, as many of these mining operations were discontinued, they left behind areas of abandoned mine land. Without remediation, these areas continued to release acid mine drainage, which elevates levels of metals and acidity in streams,[139] with significant adverse impacts on fish and native plants.[140] Acid mine drainage poses a threat to human health as well, and can dissolve bridge supports and pipes, smells foul and is unsightly.[141] Today, mining operations are still active in the Upper North Branch, Georges Creek and the Savage River watersheds.[142]

MDE has listed the waters of the Upper North Potomac Branch as impaired by metals, sediments, nutrients, low pH, methylmercury and impacts to biological

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[130] *Id.* at 3.

[131] http://mddnr.chesapeakebay.net/wsprofiles/surf/prof/wsprof.cfm?watershed=02140511.

[132] *Id.*

[133] *Id.*

[134] *See* http://www.dnr.state.md.us/feature_stories/Fifteen_Mile_Creek.asp

[135] *Id.*

[136] *Id.*

[137] *See* http://www.mde.maryland.gov/programs/water/319nonpointsource/documents/watershed%20plans/casselman%20a-i%20plan/casselman_a-i_appendix_a.pdf (p. 8).

[138] *Id.*

[139] *See* http://www.mde.maryland.gov/programs/Water/TMDL/DraftTMDLforPublicComment/Documents/www.mde.state.md.us/assets/document/UNPotomacMD_Fe_Al_TMDL_Report_081009_PN.pdf at 2.

[140] See http://www.mde.maryland.gov/programs/water/319nonpointsource/documents/watershed%20plans/casselman%20a-i%20plan/casselman_a-i_appendix_a.pdf (p. 8).

[141] *See* http://northforkwatershed.org/images/combinedNBPReport.pdf (pp. 18-19).

[142] *See* http://www.mde.maryland.gov/programs/water/tmdl/approvedfinaltmdls/documents/www.mde.state.md.us/assets/document/westernmd_ph_020608_final.pdf (p. 8).

communities.[143] Georges Creek is listed as impaired by sediments, pH, bacteria, and nutrients.[144] By contrast, Fifteen Mile Creek meets water quality standards; however, it is listed as a "Select Category 3: Need for Special Protection of Natural Resources."[145]

In 2002, based on data for mercury concentrations in fish tissue, MDE listed the Savage River Reservoir as impaired by mercury contamination and established a TMDL for mercury.[146] Currently, MDE has ongoing public fish consumption advisories to eat limited amounts of fish from Savage River Reservoir.[147]

The Savage River Watershed Association ("SRWA") monitors issues of concern to the watershed's environmental health.[148] Recently, the organization has expressed concern that the proposed use of hydraulic fracturing in Maryland will pollute the river and kill its fisheries. Accordingly, the association has begun conducting water quality assessments in partnership with DNR to ensure that there is accurate evidence of water quality before any impact from the new gas drilling activities.[149] Other SRWA concerns include acid mine and acid rock drainage from old mining sites,[150] and livestock being allowed to defecate in streams.[151] The association has received a grant to provide assistance to homeowners whose properties were eroded by the massive snowmelt during the winter of 2010; restoration was scheduled to begin in the spring of 2013.[152]

Although UMCES does not issue separate report cards for the Upper North Branch, Savage River, Georges Creek and Fifteen Mile Creek, they are tributaries of the Potomac River, which received a D in the 2011 UMCES report card.[153]

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[143] *See* http://www.mde.maryland.gov/programs/water/tmdl/approvedfinaltmdls/pages/programs/waterprograms/tmdl/approvedfinaltmdl/wqa_final_unb_potomac_eutro.aspx.

[144] *See* http://www.mde.maryland.gov/programs/water/tmdl/approvedfinaltmdls/documents/www.mde.state.md.us/assets/document/georges_creek_sediment_tmdl_20060928_final.pdf (p. iv).

[145] http://mddnr.chesapeakebay.net/wsprofiles/surf/prof/wsprof.cfm?watershed=02140511.

[146] *See* http://www.mde.state.md.us/programs/Water/TMDL/ApprovedFinalTMDLs/Pages/Programs/WaterPrograms/TMDL/approvedfinaltmdl/tmdl_savageriver_final_hg.aspx.

[147] *See* http://www.mde.maryland.gov/programs/land/recyclingandoperationsprogram/mercury/pages/programs/landprograms/recycling/mercury/fishmercury.aspx.

[148] http://www.savageriverwatershed.org/.

[149] http://www.savageriverwatershed.org/projects/projects.htm.

[150] http://www.mac-tu.org/Headwaters_Jan08_WEB_Version-2MBFINAL_HR.pdf

[151] *See* http://www.chesapeakebay.net/blog/post/watershed_wednesday_savage_river_watershed_association_garrett_county_md.

[152] *Id.*

[153] *See* http://ian.umces.edu/ecocheck/report-cards/chesapeake-bay/2011/summaries/potomac_river/. The region received also received a D in 2010, a C in 2009, a C- in 2008, and a D+ in 2007 and 2006. These reports can be accessed at http://ian.umces.edu/ecocheck/report-cards/.

II. Active Enforcement and Pending Matters

Prior to conducting the audit of the Upper North Branch Potomac River and Savage River, the Office of the Attorney General identified the following significant matters in the watersheds:

Darvin Moon and Runner-Up Properties, LLC. Runner-Up Properties owns a logging operation in Oakland, which Darvin Moon operates. The logging operations disturbed over 5,000 square feet without the required erosion and sediment control plan. In addition, without obtaining waterway construction permits, Moon installed skid road stream crossings on Trout Run and tributaries of Trout Run resulting in sediment being discharged into the streams from run-off. Moon subsequently obtained a sediment control plan for the operation, removed the unauthorized crossings, and installed the sediment controls required by the approved plan. As of the last inspection on October 10, 2012, he still needed to stabilize disturbed areas with seed and mulch after completion of the logging operation. Although MDE provided an opportunity to settle, Moon was unwilling to pay any penalty. The Office of the Attorney General intended to file a complaint seeking a penalty.

MDE v. Darrell Lambert. In this case, Darrell Lambert installed two culverts and replaced an existing culvert in streams on his property in Flintstone without permits, placed fill in non-tidal wetlands, and performed construction on a steep slope behind a rental unit without a sediment control plan. As a result of MDE's enforcement efforts, Lambert removed the fill from the wetlands, removed the two new culverts, and stabilized the slope behind the rental unit by installing a retaining wall. At the time of the audit, settlement negotiations were underway.

Mexico Farms, LLC. Located on the banks of the North Branch Potomac River in Cumberland, Maryland, Mexico Farms is an industrial waste pretreatment facility that treats wastewater generated by a related company, Fibred, before eventual discharge for final treatment to the Cumberland wastewater treatment plant. The site has a massive series of treatment and storage lagoons. Mexico Farms had an industrial wastewater discharge permit and groundwater discharge permit that authorized it to land apply a portion of its wastewater by spray irrigation on fields at the facility.

In February 2011, the OAG represented MDE at an administrative hearing on an enforcement action, following which the administrative law judge found numerous permit violations, including unauthorized discharge of wastewater directly to the North Branch via seeps and leaks from the storage lagoons and from runoff of wastewater to the river from the spray fields. There were also numerous odor violations at the facility. On May 26, 2011, the judge assessed a $50,000 penalty and issued an order directing Mexico Farms to cease spray irrigation and to substitute an interim alternative acceptable to MDE for the disposal of wastewater; to rehabilitate the soils of the spray fields so that they could be returned to productive use for cover crops; to employ a qualified professional

engineer to design, build and operate an upgraded wastewater treatment plant sufficient to allow all of its pretreated water to be discharged to Cumberland for final treatment; to employ a qualified professional engineer to inspect, assess, and repair the lagoons to stop all seepage or leakage; and to empty all lagoons. Each of corrective actions was to be completed according to a specific timetable set by the judge.

After the judge issued the order, MDE denied Mexico Farms' pending discharge permit renewal application. Mexico Farms appealed the judge's decision and the denial of the discharge permit to the Circuit Court for Allegany County. On June 15, 2012, the Circuit Court affirmed the denial of the permit and the judge's decision as to corrective action required, and issued a limited remand as to the penalty. A hearing on the penalty was held on October 4, 2012, and a decision was pending at the time of the audit.

In terms of compliance with the corrective action required by the judge's order, Order, Mexico Farms had ceased all spray irrigation. However, it had not rehabilitated the spray fields, upgraded its treatment process, nor emptied the lagoons. Under the order, the new treatment plant was to be fully operational by March 30, 2013.

Ronald Shaffer, Rolling Oaks Subdivision. Construction at this site resulted in sediment control and stormwater management violations. At the time of the audit, the sediment control violations had been resolved, but the site had not received county stormwater management approval. The matter had been referred to the Office of the Attorney General for enforcement action.

FEMA, Emergency Housing Distribution Center, Frostburg. In 2006, MDE notified the Federal Emergency Management Agency that it needed MDE approval to develop this 113-acre site for emergency housing storage. At that time, a number of acres had already been stripped and graded. MDE directed FEMA to do no further earth disturbance and FEMA later abandoned the site. At the time of the audit, FEMA was in the process of remediating the property.

New Page Paper Mill. New Page (formerly Westvaco) owns and operates a paper mill in Luke, Allegany County, Maryland. On June 29, 2011, an MDE inspector observed that fill materials originating from the filter backwash settlement ponds at the Beryl Wood Yard were being dumped outside the limits of disturbance of the soil conservation district approved rubble fill site. In addition, these filter backwash sediments were being disposed of without properly notifying MDE. One week later, on July 7, 2011, the inspector saw that approximately 300 gallons of paper mill wastewater had overflowed from a manhole just south of the pump/clarifier facility at the Luke Mill. Although the majority of spilled materials were contained on upland areas and were subsequently cleaned up, some of the spilled materials entered the North Branch Potomac River. After the corrections were completed, a settlement was reached. The penalty was

not collected because New Page filed for bankruptcy; the bankruptcy court accepted MDE's proof of claim for the outstanding penalty.[154]

Enforcement of Fishing Regulations. Enforcement of fishing regulations is an ongoing problem on much of the North Branch. Although the river belongs to Maryland, a reciprocal agreement allows anglers to fish from the West Virginia shore above the low water mark, where the Maryland Natural Resources Police cannot enforce the fishing regulations. The somewhat remote access makes poaching by locals relatively risk free, and complaints from guides and anglers are received every year.

Savage River Brook Trout Management. The Savage River is one of few remaining intact brook trout watersheds in the Mid-Atlantic. In 2007, after surveys indicated declines in population, DNR listed brook trout as a species in need of conservation and enacted a regulation that requires all brook trout to be released alive and prohibits the use of bait due to the high rate of mortality of fish caught on bait. Although there has been some vocal opposition to the regulation, anglers have generally supported the protective measure. Preliminary results from 2012 surveys indicate the greatest number of young fish since seen in a seven-year study period, likely the result of favorable conditions and the protection of the larger, most prolific spawners.

Marcellus Shale Stream Monitoring Coalition. Working with watershed associations, Trout Unlimited, colleges and other citizens in western Maryland, DNR organized the Marcellus Shale Stream Monitoring Coalition in March 2012. The primary goal of the Coalition is to collect water quality and biological data from streams and rivers in Garrett County to help characterize baseline stream conditions. The Coalition is critical, as it will supplement DNR's current and future stream monitoring efforts/needs and enhance spatial coverage in the Marcellus Shale region. Currently, there are 60 volunteers participating in this monitoring program where data are being collected from streams in the North Branch Potomac River, Youghiogheny River, Casselman River, and Savage River Watersheds. Although DNR staff and citizen volunteers are currently collecting data from 82 stream reaches, this amount of monitoring

Showing monitoring techniques at Big Run in Savage River State Forest

[154] The EPA has been in protracted litigation with the company for federal Clean Air Violations, for which it was found liable after a trial. A trial on the remedy was scheduled to begin on December 20, 2012.

effort accounts for less than 15 percent of the total number of stream reaches in Garrett County that could be affected by Marcellus Shale natural gas development. Furthermore, only a portion of the data needed for a comprehensive baseline characterization is being collected from these streams. Although important, the current monitoring effort is inadequate to establish comprehensive baseline stream conditions across Garrett County. Additional funding will be needed to accomplish this goal.

Terrapin Run Development. In June 2005, Terrapin Run Development filed an application with the Allegany Board of Appeals for a special exception to build a 935-acre, 4,300 unit residential development in a forested, rural region of eastern Allegany County. The developer's plans also included a shopping center with retail and commercial uses and a sewage and treatment plant along Route 40, a federally designated scenic by-way. The discharge from the sewage plant would flow into Terrapin Run (from which the developer derived its name), which is a tributary of Fifteen Mile Creek. This controversial project has led to significant litigation. After the Maryland Department of the Environment and the Maryland Department of Planning denied a water and sewer amendment for the property, Allegany County and the developer sued the State. By the time of the Attorney General's audit, Allegany County and the developer had agreed to dismiss the lawsuit in order to pursue a possible sale of the property for conservation purposes.[155]

Flow monitor in Terrapin Run

Terrapin Run site proposed for 4,300 unit development

III. Potomac River North Branch and Savage River Audit, December 11, 2012: What the Attorney General Learned

The Attorney General conducted an audit of the Potomac River Upper North Branch and Savage River on December 11, 2012. He was joined by 11 members of his staff, including the special assistant for the environment, principal and deputy counsel to the Maryland Department of the Environment, principal counsel to the Maryland

[155] The lawsuit was dismissed without prejudice, leaving open the possibility that it could be refiled.

Department of Natural Resources, principal counsel to Maryland Environmental Services, and principal counsel to the Maryland Department of Planning. The Attorney General began the day in Cumberland in Allegany County meeting with elected officials, including a representative for a state senator, the state's attorney, sheriff, clerk of the court, two county commissioners, the mayor and city administrator of Frostburg, and the mayor of Cumberland.

From there, the Attorney General traveled to the Savage River State Forest for a briefing. He then had a working lunch in Westernport, where he was briefed by the Potomac riverkeeper. After lunch, the Attorney General went to Barton to observe an abandoned acid mine drainage site. He then returned to Cumberland for a public meeting with environmental leaders, including representatives of the Nature Conservancy, the Savage River Watershed Association, MDE's Train Town Program, and the mining program of the Maryland Department of the Environment. The Attorney General ended the day with a tour of the proposed Terrapin Run development site.

Throughout the day, the Attorney General was advised about a number of environmental issues and concerns, including the following:

Conowingo Dam. As in virtually every other audit the Attorney General has conducted, participants expressed grave concerns about Conowingo Dam and damage caused by storms such as Hurricane Sandy. An elected official observed that the dam's poor condition and sediment build-up existed prior to the current utility assuming its control. He inquired what other states were doing to contribute to a solution and suggested that if cleanup costs were passed on to rate payers within the geographic area the utility serves, it would help spread the costs among New Jersey, Delaware and Pennsylvania residents.

Hydraulic Fracturing. Proposed hydraulic fracturing ("fracking") to recover natural gas from the Marcellus Shale was a source of considerable apprehension, and participants discussed several issues, including:

- **"Dry Fracking".** An elected official expressed particular concern about the wastewater that is a by-product of fracking and suggested that Maryland should look into "dry fracking," a fracking process that uses no water,[156] to avoid dealing with toxic wastewater. According to him, New York and Ohio are experimenting with dry fracking, and Canada has been doing it already. He mentioned that gel fracking, a form of dry fracking that relies on propane gel as a water substitute,[157] could be tried. Another method uses compressed carbon dioxide instead of water.[158] This elected official observed that the Governor's Marcellus Shale Safe-Drilling

[156] http://www.gizmag.com/dry-extraction-fracking/23513/.

[157] http://www.rsc.org/chemistryworld/News/2011/November/15111102.asp.

[158] http://www.newscientist.com/article/dn22232-fracking-could-be-combined-with-carbon-capture-plans.html.

Initiative Advisory Commission[159] is underfunded and lacks enough time to give the issue proper consideration. He mentioned that Allegany County was willing to have a test well drilled to see if dry fracking works, but that offer has not been accepted. Although dry fracking is more expensive in some ways than using water, it doesn't involve purchasing, treating, transporting, and disposing of the water.

■ **Severance Tax.** A severance tax is one that is imposed when resources are extracted or "severed" from the earth.[160] Although Maryland does not have a state severance tax on the extraction of natural gas,[161] Garrett and Allegany counties both have a 5.5 percent severance tax, although none has yet been levied for Marcellus Shale gas. There was discussion about how revenue from the severance tax could go into a fund to mitigate any negative effects of the drilling.

■ **Savage River Forest.** Samson Resources, a company based in Tulsa, Oklahoma,[162] owns substantial mineral rights in western Maryland, including in the Savage River Forest where it has proposed a fracking well pad.[163] Fracking at that location would require building a new bridge over Big Run Creek, major road excavation, logging, and piping. Members of the Savage River Watershed Association are adamantly opposed to fracking within the Savage River Forest. As a result, the association, with the assistance of DNR, is monitoring water quality at a number of stations downstream of possible drilling sites to be able to detect changes if and when fracking begins.[164]

■ **Moratorium.** While the Marcellus Shale Safe-Drilling Initiative Advisory Commission is studying environmental issues associate with fracking, MDE is not issuing permits, which amounts to a de facto moratorium. However, at the environmental leaders meeting, one participant argued for legislation that would impose a formal moratorium on fracking until studies can be adequately funded.[165]

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[159] http://msa.maryland.gov/msa/mdmanual/26excom/html/23marcellus.html.

[160] *See* http://www.mde.state.md.us/programs/Land/mining/marcellus/Documents/National_Conference_State_Legislatures_The_Fracking_Debate_A_Policymakers_Guide2012.pdf (p. 5).

[161] *See* http://www.ncsl.org/issues-research/energyhome/oil-and-gas-severance-taxes.aspx. During the 2012 legislative session, there were proposals for a severance tax that would be used to monitor natural gas production and for remediation of negative environmental impacts. *See* SB 768 (http://mgaleg.maryland.gov/webmga/frmMain.aspx?tab=subject3&ys=2012rs/billfile/sb0768.htm) and HB 907 (http://mgaleg.maryland.gov/2012rs/bills/hb/hb0907t.pdf. The measures did not pass.

[162] *See* http://www.samson.com/company/.

[163] Samson has submitted four permit applications to MDE to drill Marcellus Shale gas. Only one is presently pending; the rest are on hold. *See* http://www.mde.maryland.gov/programs/Land/mining/Non%20Coal%20Mining/Pages/GasApps.aspx.

[164] *See* http://mddnr.chesapeakebay.net/mbss/googlemap/marcellusmonitoringmap.html.

[165] During the 2012 legislative session, bills to impose a moratorium were introduced but were not passed.

Costs of Environmental Regulation. Elected officials discussed the financial burdens imposed by the need to comply with environmental regulations. One participant said that Allegany County had spent more than 3,300 hours over three years to develop its required watershed implementation plan. "We need a break from environmental mandates," he said, "so we can digest environmental regulations and procedures and figure out how to pay for them." Moreover, he expressed dissatisfaction with MDE's approach to upgrades for local wastewater treatment plant. According to him, MDE had "picked on" smaller plants instead of the big ones, which was hurting smaller counties. For example, MDE required Allegany County to correct deficiencies and upgrade the Georges Creek Wastewater Treatment Plant. The project was very costly and local residents and users were assessed an average annual fee of $530.[166] The general consensus was that the county needs more financial support from the State for upgrades. Another elected official observed that Allegany County should not be subjected to a "one size fits all" regime under PlanMaryland[167] since it contributes such a small portion of contaminants to the Chesapeake Bay. Unlike many other counties, Allegany County needs growth and should be allowed to develop for a few more years before being required to comply with regulations that stifle growth.

Out-of-State Discharges into the Potomac. There are a number of permitted facilities (mostly wastewater treatment plants) in West Virginia and Virginia that discharge directly into the Potomac River. According to one environmental leader, those states do not enforce infractions "at the end of the pipe" because those involve Maryland's waters, not their own. On other hand, Maryland cannot enforce the permits because the facilities are out of the State's jurisdiction. Although MDE used to do joint inspections with these neighboring states and submit comments to applications for non-Maryland permits that discharge into Maryland waters, it no longer does either.

See SB 601 (http://mgaleg.maryland.gov/webmga/frmMain.aspx?id=sb0601&stab=01&pid=billpage&tab=subject3&ys=2013RS) and HB 1274 (http://mgaleg.maryland.gov/webmga/frmMain.aspx?id=hb1274&stab=01&pid=billpage&tab=subject3&ys=2013RS.

[166] *See* http://www.appindie.org/index.php/community-news/88-community-news/2452-georges-creek-wastewater-treatment-plan-summary.

[167] PlanMaryland is the State's first comprehensive plan for sustainable growth and development. *See* http://www.plan.maryland.gov/whatIsIt/whatIsIt.shtml. It contains 12 "visions" that local jurisdictions are required to include in local comprehensive plan and to implement through zoning ordinances and regulations.

Acid Mine Drainage. Although the days of active mining in the area are largely over, acid mine drainage continues. Groundwater that seeps into the mines mixes with the chemicals in the shafts; when it leaches out, it carries acid drainage into streams and waterways. During the audit, the Attorney General observed a demonstration of a working doser on abandoned mine land that is used to remediate acid mine drainage. The doser releases calcium oxide into the waterway to neutralize the acidity. There are 12 such dosers in Maryland's coal region.[168]

Drainage from an abandoned mine site in Barton

Other Public Roads. Many of the roads in western Maryland are known as "OP" or "other public" roads, which were built a hundred years ago when the goal of road construction was to get water off the road, channelized, and sent down a hill. The runoff from these roads typically goes into streams. There are many miles of these small, unpaved roads in the region, but they are "orphans", meaning they were built by individuals and are not state or county owned, maintained or regulated. Although the local governments are aware of best practices for these roads, such as new culverts, new ponds and raised roadbeds, they lack the funds to implement them. Fifteen Mile Creek suffers from problems caused by OP roads.

[168] *See, e.g.,* http://www.mde.maryland.gov/programs/researchcenter/reportsandpublications/pages/researchcenter/publications/general/emde/vol2no1/shallmar_photo2.aspx.

CHAPTER FIVE: UPDATES AND FOLLOW-UP

The Attorney General is pleased to report the following updates and actions taken since the 2012 audits began on May 16, 2012:[169]

I. Youghiogheny River and Deep Creek Lake

Richard Eggleston. This matter involved sediment and erosion control nontidal wetlands violations in Broadford Run, a tributary to the Little Youghiogheny River. At the time of the audit, MDE and Eggleston were in settlement discussions for a penalty. A resolution has since been reached.

Ronald Sisler, Green Things. On June 14, 2012, MDE issued an administrative complaint in this enforcement action for improper disposal of fill material into a stream that is a tributary to the Youghiogheny River. On December 28, 2012, MDE, represented by the OAG, reached a settlement with Sisler, who agreed to pay a penalty of $8,000 over a period of two years.

State Highway Administration, Lake Louise. SHA did not eliminate discharges; instead, the agency installed two upgraded treatment systems, which are currently being fine-tuned. SHA has also reported additional violations, and further corrective work may be required.

II. Coastal Bays

Papa and Nina Buas, LLC. The OAG filed a civil complaint on September 26, 2012. On January 10, 2013, the parties entered into a settlement agreement under which the defendants agreed to replant certain portions of the wetlands buffer, submit annual monitoring reports for three years to MDE, and take further remedial actions as necessary to reestablish the wetlands buffer. In addition, the defendants will pay a penalty of $7,500 for the past violations, as well as stipulated penalties if they fail to complete the required corrective actions.

MDE v. Mystic Harbour Water and Wastewater Treatment Plant. In January 2013, the Worcester County commissioners agreed to pay a civil penalty of $25,000 to the Clean Water Fund to resolve effluent limit discharge violations at the Mystic Harbour water and wastewater treatment plants in Berlin. The commissioners also agreed to enter into a consent order to establish a plan and schedule for construction of improvements that will enable the plants to comply with permit limits at all times. The

[169] As is apparent, a number of issues that arose during the 2012 audits were not limited to a single watershed but had more general application. Those issues are discussed *infra* in Section V, entitled "Miscellaneous".

consent order also includes interim performance standards that will be in effect during construction and start-up of the upgrades, as well as provisions for stipulated penalties for effluent limit violations that may occur during this phase. The upgrades must be completed by August 31, 2013.

Blue Water Development Corp. The company had already made improvements to the wastewater treatment plant and drip irrigation system, but was having operational issues. On January 9, 2013, Blue Water agreed to pay a penalty of $25,000 and to remove the floating platform.

Total Maximum Daily Loads, Coastal Bays Area. This project is still continuing. Comments from the Science and Technical Advisory Committee of the Maryland Coast Bays Program are currently being considered. Public review is now anticipated within a few months.

Six Ls Packing Company, Inc. On June 29, 2012, the Office of the Attorney General sent the defendants a letter outlining the violations and offering them an opportunity to meet to discuss settlement. The meeting was held on August 7, 2012, however, no settlement has yet been reached. If the matter cannot be resolved, the OAG will initiate an enforcement action.

Aquaculture Lease Activity. The Office of the Attorney General is representing the Maryland Department of Natural Resources in two cases involving aquaculture leases to cultivate shellfish in the Coastal Bays region. The first involves Donald Marsh, who sought to develop a shellfish aquaculture project in Chincoteague Bay near South Point, Worcester County. After extensive notice and public comment, DNR approved the project. Opponents to the project filed a legal challenge and obtained a favorable ruling by an administrative law judge (*Tunis, et al. v. DNR*). The OAG has appealed to the Circuit Court for Anne Arundel County. In the second case, John Apple and Bay Landing Shellfish sought a license to develop an oyster aquaculture project, also in Chincoteague Bay. After DNR granted the license, opponents similarly filed a complaint. In that case, the administrative law judge ruled in favor of DNR (*Smith, et al. v. DNR*).

III. Wye River

Donkat Properties, LLC. On January 14, 2013, Donkat Properties agreed to pay a penalty of $40,000 to the Clean Water Fund to resolve erosion and sediment control violations that began on January 29, 2010, and continued until August 16, 2011.

Pintail Point Farm. In the fall of 2012, a new owner purchased the property and associated underground storage tank system. Since the purchase, the new owner has registered the system with MDE and had it emptied and taken out of service. On March 15, 2013, soil boring and soil samples, as well as samples of the onsite drinking water

supply, were taken and submitted to MDE for laboratory testing. Although no contamination was observed while the samples were being taken, test results have not yet been received.

Former McDonough's Country Store. The underground storage tanks have not been removed. MDE has made several site visits and attempted to contact the owner. On March 11, 2013, MDE issued a notice of violation directing the owner to remove the tanks.

Piney Narrows Yacht Haven. In early February 2013, the contractor began the required upgrades to the system. The upgrades will include installing containment pumps to isolate all flex connectors and new spill and catch basins. The contractor has finished upgrades to the diesel tank tops and is working on the upgrades to the gasoline tank tops. Once that work is completed, the contractor will install new dispenser containment pumps and dispensers.

IV. Potomac River North Branch and Savage River

Darvin Moon and Runner-Up Properties, LLC. As of the last inspection in October 2012, Moon had corrected most of the violations, including removal of the two illegal stream crossings; however, further stabilization was needed. Thereafter, Moon did not respond to MDE's request to conduct a final inspection. On March 5, 2013, MDE issued an administrative complaint.

MDE v. Darrell Lambert. On February 22, 2013, Lambert entered into a settlement agreement resolving the violations; he agreed to pay a penalty of $500.

Mexico Farms, LLC. Mexico Farms has requested that the deadlines for completion of corrective action be extended. That request was under consideration as of April 2013.

Ronald Shaffer, Rolling Oaks Subdivision. On January 16, 2013, Shaffer agreed to pay a penalty of $6,500 to the Clean Water Fund to resolve sediment control and stormwater management violations at the site. He also agreed to complete design of and submit all necessary plans for the site, to complete construction by July 31, 2013, and to obtain certification of completed structures on the site by August 31, 2013. The settlement agreement and consent order provide for stipulated penalties if the deadlines are not met.

FEMA, Emergency Housing Distribution Center, Frostburg. FEMA has completed measures to remediate the property and is awaiting MDE approval to remove sediment controls.

V. Miscellaneous

Toll Brothers, Inc. On June 21, 2012, Attorney General Gansler and 22 other states reached a settlement with Toll Brothers, Inc., one of the nation's largest homebuilders. The settlement involved Clean Water Act violations of the stormwater management and permitting requirements of the company's construction sites in Maryland and the other states, including locations within the Chesapeake Bay watershed. Toll Brothers' construction sites involved in the settlement included individual residential home locations in Anne Arundel, Baltimore, Harford, Howard, Montgomery, Prince George's and Worcester counties.

The complaint, filed simultaneously with the settlement agreement in the United States District Court for the Eastern District of Pennsylvania, described more than 600 stormwater violations that were discovered through site inspections and by reviewing documentation submitted by Toll Brothers. The majority of the violations involved Toll Brothers' repeated failures to comply with permit requirements at its construction sites, including requirements to install and maintain adequate stormwater pollution controls.

Under the settlement, Toll Brothers agreed to invest in a company-wide stormwater compliance program to improve employee training and increase management oversight at all current and future residential construction sites in the 23 states involved and to inspect its current and future construction sites routinely to minimize stormwater runoff. Toll Brothers agreed to pay a civil penalty of $741,000, including $22,000 to Maryland.

The EPA estimated the settlement will prevent millions of pounds of sediment from entering U.S. waterways every year, including sediment that would otherwise enter the Chesapeake Bay, North America's largest and most biologically diverse estuary. The bay and its tidal tributaries are threatened by pollution from a variety of sources and are overburdened with nitrogen, phosphorus and sediment that can be carried by stormwater. Polluted stormwater runoff and sediment from construction sites can flow directly into the nearest waterway, affecting drinking water quality and damaging valuable aquatic habitats.[170]

Atlantic Menhaden. Atlantic menhaden are an ecologically critical fish species for the Chesapeake Bay, acting as both a major filter of Bay water[171] and a major food source for Maryland game fish such as bluefish, rockfish and osprey.[172] Unfortunately, menhaden are in the midst of a serious decline – an 88 percent drop in population in the last 25 years[173] – and research indicates that there is now an insufficient

[170] *See* http://www.oag.state.md.us/Press/2012/062112.html.

[171] *See* Ryan Grim, *Menhaden Madness*, CITY PAPER, Aug. 10, 2005, http://www2.citypaper.com/news/story.asp?id=10385.

[172] *See* http://dnr.maryland.gov/fisheries/fishfacts/menhaden.asp.

[173] *See* http://www.cbf.org/about-the-bay/chesapeake-bay/creatures-of-the-chesapeake/menhaden/facts.

number of menhaden to support the nutritional needs of rockfish in the Bay.[174] Much of this decline appears linked to large-scale commercial fishing for menhaden that occurs in the Virginia portion of the Chesapeake Bay (that practice has been banned in Maryland waters for over 50 years).

In 2011, the Atlantic States Marine Fisheries Commission ("ASMFC"), the interstate body tasked with managing the menhaden fishery for the entire Eastern Seaboard,[175] recognized that the menhaden population is at risk of collapse, and that the current fishery management plan for menhaden – which was allowing the population to be fished down to 8 percent of its maximum spawning potential – was unsustainable. Accordingly, it agreed to adopt a new addendum to the fishery management plan aimed at restoring the population, and sought public comment.[176]

The Attorney General submitted comment to the ASMFC in November 2011, calling on the ASMFC to adopt an addendum that would greatly reduce the number of menhaden allowed to be removed through the fishery and asking the ASMFC to commit to much more sustainable fishery management practices.[177] Later that month, after reviewing comments, the ASMFC took the historic step of approving a new addendum, Addendum V, which established new fishing limits and, for the first time, agreed to implement management tools to ensure that those new limits are met.[178] The Attorney General's advocacy on this issue contributed to the ASMFC's new, more sustainable direction.

As the ASMFC weighed management options for reaching new catch limits, the Attorney General continued to seek effective limits, particularly for large-scale commercial fishing. In April 2012, the Attorney General offered comment on the range of options under consideration and urged the ASMFC to include options for achieving the target quickly, improving catch reporting, and implementing targeted catch allocations that place proportionately greater restrictions on the fishing operations that catch the most menhaden.[179] The ASMFC included those options in the draft fishery management plan (FMP) that it released in September 2012.[180]

In the final round of public comment, the Attorney General pressed the ASMFC to do more to ensure that the menhaden catch be reduced expeditiously and in a way that distributed the burden of catch reduction equitably. In comments submitted in November 2012, the Attorney General strongly recommended that the ASMFC bind itself to achieving a 50 percent reduction in catch, reducing the catch to that target level within 5

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[174] *See id.*

[175] *See* http://www.asmfc.org/.

[176] http://www.asmfc.org/press_releases/2011/pr15AtlMenhaden.pdf.

[177] *See* http://www.oag.state.md.us/Press/Comment_on_ASMFC_menhaden.pdf.

[178] http://www.asmfc.org/press_releases/2011/pr43AtlMenhadenAddendumV_Approval.pdf.

[179] *See* http://www.oag.state.md.us/Press/2012/041912.html.

[180] *See* http://www.asmfc.org/speciesDocuments/menhaden/fmps/atlMenhadenAmendment2forPublicComment.pdf.

years, distributing more of the responsibility for the catch reductions on the more high-impact fisheries, and disallowing quota rollovers, among other steps.[181] The ASMFC ultimately adopted a FMP that pledged to achieve a 20 percent reduction, distributed by state according to their history of catch (not by fisheries), with limited quota rollovers, and with no clear deadline but a plan for review in three years.[182]

Although the methods of reduction adopted by the ASMFC are not optimal, the Attorney General is pleased that the ASMFC has finally taken the historic steps of requiring catch limits that will lead to fewer menhaden being harvested. He continues to look for ways to better protect "the most important fish in the sea."[183]

Prescription Drug Disposal. While he was Co-Chair of the Environment and Energy Committee of the National Association of Attorneys General, the Attorney General identified the safe return and disposal of unused prescription drugs as a priority issue. Unused prescription drugs present potential for abuse when in the wrong hands[184] and the improper disposal of unused prescription drugs causes environmental problems in both surface waters and drinking water supplies.[185] Unfortunately, no simple, coherent system exists for the safe disposal of prescription drugs, and states have no ability to implement programs to facilitate clear and convenient methods of prescription drug disposal, given the current state of federal drug laws and regulations.[186]

In an effort to address this growing problem, the Attorney General's Office has been active in efforts to improve federal regulations in ways that would allow Maryland to implement an effective prescription drug disposal program. In 2011, the Attorney General testified at a public meeting held by the U.S. Drug Enforcement Administration ("DEA") to recommend that the DEA pass regulations enabling states to operate pharmacy-based programs for the surrender of unused prescriptions for controlled

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[181] *See* http://www.oag.state.md.us/Press/2012/121312c.html.

[182] *See* http://www.asmfc.org/speciesDocuments/menhaden/fmps/atlanticMenhadenAmendment2_Dec2012.pdf.

[183] Darryl Fears, *Atlantic Fisheries Commission Limits Menhaden Catch*, WASH. POST, Dec. 14, 2012, *available at*: http://articles.washingtonpost.com/2012-12-14/national/35846796_1_menhaden-omega-protein-chesapeake-bay-foundation-fisheries.

[184] *See Emergency Department Visits Involving Nonmedical Use of Selected Prescription Drugs --- United States, 2004—2008*, CDC MORBIDITY & MORTALITY WEEKLY REPORT, June 18, 2010, *available at* http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5923a1.htm?s_cid=mm5923a1_w (study showing a 111% increase in emergency room visits involving nonmedical use of prescription opioid pain relievers in 5-year period).

[185] *See* Sonia Shah, *As Pharmaceutical Use Soars, Drugs Taint Water and Wildlife*, ENVIRONMENT360, Apr. 15, 2010, *available at* http://e360.yale.edu/content/feature.msp?id=2263.

[186] Under the Controlled Substances Act ("CSA"), 21 U.S.C. § 801 *et seq.*, holders of prescriptions for controlled substances are prohibited from giving them to others – like licensed pharmacists – for disposal because it is unlawful for others to possess the holders' prescriptions once dispensed. 21 U.S.C. § 844(a) ("It shall be unlawful for any person knowingly or intentionally to possess a controlled substance unless such substance was obtained directly, or pursuant to a valid prescription or order, from a practitioner, while acting in the course of his professional practice").

substances.[187] Such programs are expressly contemplated by the Secure and Responsible Drug Disposal Act of 2010, Pub. L. No. 111-273, 124 Stat. 2858, which tasked the DEA with issuing new regulations governing prescription drug disposal.[188] They are also viewed favorably by the White House Office of National Drug Control Policy.[189] The Attorney General has also been working with the Maryland Board of Pharmacy and the state legislature to develop laws and regulations that will enable Maryland to put a pharmacy-based prescription drug disposal program into place.

On December 21, 2012, the DEA issued notice of proposed regulations that would enable pharmacy-based prescription drug disposal programs and sought comments.[190] The Attorney General submitted favorable comments soon thereafter, in which he emphasized both the value of such programs and the need to ensure that they are compliant with applicable environmental statutes. He continues to work with members of the federal government and the pharmaceutical industry to explore how to put in place an effective prescription drug disposal program in Maryland once the DEA's regulations are implemented.

Poultry Manure Management. The Attorney General has been a long-time advocate of converting poultry litter to energy to address three important issues: reducing environmental risks posed by an industry important to the State's economy, protecting farmers and farm-related jobs and producing renewable, environmentally-friendly energy.

In 2008, Attorney General Gansler championed a bill to move poultry litter into Tier 1 of Maryland's Renewable Energy Portfolio Standard, paving the way for its use as a renewable energy source in Maryland. Maryland's poultry industry produces over 1.5 billion pounds of poultry litter annually. Converting the waste into energy instead of applying it to land as fertilizer where it can contribute to runoff pollution is good for the Chesapeake and Coastal Bays and good for Maryland's poultry growers.

In January 2013, Green Planet Power Solutions was the successful bidder on a state contract for the electricity purchase agreement and builder of Maryland's first poultry litter-to-energy facility. When completed, the Lower Shore plant is expected to supply a minimum of 10 megawatts (10 million watts) of electricity annually to the State of Maryland and the University System of Maryland under a 15-year power purchase

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[187] http://www.deadiversion.usdoj.gov/drug_disposal/non_registrant/meeting_010511.htm. A full transcript of that public meeting is available here: http://www.deadiversion.usdoj.gov/drug_disposal/non_registrant/transcript_diposalmtg_011911.pdf.

[188] Pub. L. No. 111-273, § 2(5), 124 Stat. 2858, 2858 (2010). *See id.* § 2(6) (stating that the goal of the Act "is to encourage the Attorney General to set controlled substance diversion prevention parameters that will allow public and private entities to develop a variety of methods of collection and disposal of controlled substances, including some pharmaceuticals, in a secure, convenient, and responsible manner.").

[189] *See* http://www.deadiversion.usdoj.gov/drug_disposal/non_registrant/tcondon.pdf (pp. 17-24).

[190] *See* http://www.reginfo.gov/public/do/eAgendaViewRule?pubId=201210&RIN=1117-AB18.

agreement.[191] In addition, poultry farmers will now have another market where they can sell their poultry waste, providing a new and cleaner source of income.

Out-of-State Pollution. The Attorney General heard concerns about pollution originating from outside the State that ultimately reaches the Chesapeake Bay and other Maryland bodies of water and their watersheds. The Office of the Attorney General is involved in significant litigation and other measures related to this issue.

■ **Chesapeake Energy.** On May 2, 2011, the Attorney General sent a letter to Chesapeake Energy Corporation and its affiliates, notifying the companies of the State of Maryland's intent to sue for violating the federal Resource Conservation and Recovery Act ("RCRA") and the Clean Water Act. On April 19, following a blowout of a well at a natural gas drilling site owned and operated by Chesapeake Energy, thousands of gallons of hydraulic fracturing fluids were released into Towanda Creek, a tributary of the Susquehanna River, which supplies 45 percent of the fresh water in the Chesapeake Bay. In addition to supplying the drinking water for approximately 6.2 million people, the Susquehanna River is home to sensitive Bay fish populations such as the American shad and striped bass. Exposure to unknown quantities of potentially toxic and carcinogenic fracking chemicals put the Bay, its wildlife and millions of Maryland and Pennsylvania residents at risk.

In response to the Attorney General's notice of intent to sue letter and related regulatory actions taken by other state and federal agencies, Chesapeake provided documentation of the circumstances surrounding the blowout and its impact on adjacent tributaries of the Susquehanna.

On June 14, 2012, as a result of negotiations with the Attorney General, Chesapeake Energy agreed to donate $500,000 to the Susquehanna River Basin Commission for water quality monitoring within the river basin. In addition to providing significant financial support to water quality monitoring within the river basin, Chesapeake also agreed to implement certain best practices designed to minimize the effect that its drilling activities have on water quality and the environment.[192]

■ **American Electric Power.** In February 2013, the Attorney General, joined by seven other states, reached an $8.5 million settlement with Ohio-based American Electric Power ("AEP"), which also agreed to reduce air pollution emissions to downwind states from its coal-fired electric power plants. The eight-state coalition, the U.S. Environmental Protection Agency and numerous citizens' groups jointly negotiated the revised consent decree that enhances a 2007 air pollution settlement with AEP.

[191] *See* http://www.oag.state.md.us/Press/2013/012513a.html.
[192] *See* http://www.oag.state.md.us/Press/2012/061412.html.

Under the terms of the modified consent decree filed with the U.S. District Court for the Southern District of Ohio, AEP and its subsidiaries must meet more stringent emissions reductions of sulfur dioxide (SO2) at its plants east of the Mississippi River. By 2029, AEP will also reduce its total SO2 emissions by approximately 90 percent from its baseline emissions before the original 2007 settlement. This will have the effect of reducing annual SO2 emissions by an amount equal to the SO2 released from 28 million homes that burn home heating oil in cold-weather areas such as New England. In addition, over time AEP will fund up to $714,000 of environmental mitigation programs designated by Attorney General Gansler. Maryland, Connecticut, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont will share a total of $6 million. An additional $2.5 million in mitigation funds will go to citizen groups in Indiana for local environmental mitigation projects.[193]

■ **PPG Industries, Inc.** Concerned about the deposition of mercury in western Maryland from out of state, the Attorney General initiated an enforcement action in 2009 against PPG Industries, Inc., which operates a chlorine manufacturing facility that sits on the Ohio River in Natrium, West Virginia, approximately 72 miles west of the West Virginia/Maryland border. A portion of the facility, which was built in 1957, uses an outdated, mercury-based production process that remains in use at only four of the 119 chlorine plants in the United States. The mercury-based process is being eliminated in many countries, and the EPA has banned construction of new plants that use the process. For decades, mercury released by the plant has polluted Maryland's air and water. In addition to discharging into the Ohio River, the Natrium facility emits airborne mercury that is carried by prevailing winds into Maryland and deposited onto the land and into the waters of Maryland, particularly in western Maryland, where it accumulates in lakes and waterways. On August 11, 2009, the Attorney General's Office entered into a settlement agreement with PPG. The agreement requires the company to reduce mercury emissions to no more than 150 pounds per year by 2011 and no more than 145 pounds by 2013 – an 87.5 percent reduction from 2004 emission levels. The agreement also provided for penalties of up to $240,000 per year if the company exceeds the emissions limits set forth in the agreement.[194]

Based on PPG's 2011 report to the EPA, its mercury emissions in the calendar year 2011 did, in fact, exceed the limits imposed by the agreement. Accordingly, on April 17, 2013, the Attorney General sent PPG a letter demanding a penalty payment of $12,000, a prorated amount based on the number of months in the year involved in the violations.

■ **EPA Soot Pollution Standards.** In February 2012, Attorney General Gansler and 10 other states sued the Environmental Protection Agency over its failure to revise in a timely manner its existing lax air standards for soot, which is a required provision of the Clean Air Act. Soot and other particulate matter

[193] *See* http://www.oag.state.md.us/Press/2013/022513.html.
[194] *See* http://www.oag.state.md.us/Press/2009/081109.htm.

pollution are most commonly released from industrial smokestacks, motor vehicle exhaust and wood-burning stoves. It contributes to haze and carries numerous adverse health consequences, including elevated risk for respiratory problems (asthma attacks, bronchitis) and decreased lung function.

Maryland has made great strides in improving the State's air quality in recent years, thanks in part to the implementation of the Healthy Air Act, the Clean Cars Program, the adoption of EmPOWER Maryland and other programs and regulatory actions that focus on environmental preservation, public health, energy efficiency and the development of renewable energy sources. However, nearly 70 percent of Maryland's air pollution comes from upwind states and more stringent federal rules are needed to further improve Maryland's air quality.

On June 15, 2012, a settlement agreement was reached that required the EPA to issue new standards by December 14, 2012. In accordance with the agreement, EPA issued new standards within the time required. The new rule set the maximum allowable standard for soot at a range of 12 to 13 micrograms per cubic meter of air, rather than the previous standard of 15 micrograms per cubic meter.[195]

■ **EPA Mercury Emissions Standards.** In March 2012, the Attorney General joined 11 states and the District of Columbia in defending the Environmental Protection Agency's Mercury and Air Toxics Standards ("MATS") rule against an appeal in federal court, arguing that mercury emissions by electric power plants are highly toxic and a threat to public health. After the EPA issued its standards in February 2012, various industry groups brought cases challenging the standards, which aim to reduce mercury emissions by 90 percent through the implementation of technology already used in the industry.

Mercury is highly toxic to humans, especially to developing fetuses and children, and wildlife. Deposited mercury can change into methylmercury, an even more toxic form, which can accumulate in the food chain, causing serious illness and learning disabilities.

As a sector, electricity generating plants are the largest domestic source of mercury emissions in the United States. The MATS allows existing sources three years to comply, and notes that up to two additional years may be allowed in certain special cases. The EPA estimates that health benefits of the MATS rule will range from $37 to $90 billion annually, and will cost electric power plants only $3 to $9 billion a year.

The MATS will ensure that power plants in the rest of the country are subject to the same low mercury emissions limits already in place in Maryland. In 2006, Maryland enacted the Healthy Air Act, which required major reductions in

[195] *See* http://www.oag.state.md.us/Press/2012/061512.html.

mercury emissions to be phased-in at Maryland power plants starting in 2010 with additional reductions in 2013. The Healthy Air Act impacts Maryland's largest coal-burning power plants, which account for over 95 percent of the State's power plant emissions. At full implementation Maryland's Healthy Air Act will reduce mercury emissions by 90 percent. In fact, data from the last four quarters submitted by these coal-fired plants in Maryland show mercury emissions have already been reduced by 88 percent (953 pounds per year to 110 pounds per year) without affecting reliability.[196]

EPA and the intervening states filed briefs in the United States Court of Appeals for the District of Columbia Circuit in April 2013. The case has not yet been scheduled for oral argument.

Greenhouse Gas Emissions. Recognizing the importance of reducing greenhouse gas emissions, the Office of the Attorney General participated in significant successful litigation on this issue.[197]

■ ***Coalition for Responsible Regulation, et al. v. EPA and Ohio Coal Association, et al. v. EPA***

In the first case (Coalition) Maryland joined with several other states in support of the EPA against the petitioners, who were seeking review of the EPA's decision to adopt light-duty vehicle greenhouse gas emission standards for model years 2012 to 2016.[198] The new EPA rules were adopted pursuant to a national program advanced by the federal government, California, and the automobile manufacturing industry. If the federal government adopts greenhouse gas emission standards equivalent to California's already-adopted and approved standards, California would allow compliance with the federal standards to be deemed compliance with its standards; in turn, the automobile industry would drop its lawsuits challenging the California standards and would not challenge these federal standards.

The second suit (Ohio Coal) challenged the EPA's "Tailoring Rule," which became final on June 3, 2010, and which tailors the applicability of permitting requirements under the Prevention of Significant Deterioration ("PSD") and Title V programs of the Clean Air Act for new and modified stationary sources of greenhouse gas emissions. Maryland joined 12 other states in intervening in July 2010 in support of the EPA in this matter. This rule essentially phases in regulation of greenhouse gas emissions over time, starting with those sources that are already subject to PSD and Title V permitting requirements for other pollutants, followed by other sources that are the largest emitters of greenhouse

[196] *See* http://www.oag.state.md.us/Press/2012/031612a.html.
[197] All of these petitions for review were filed in the United States Court of Appeals for the District of Columbia Circuit.
[198] *See* Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards; Final Rule, 75 Fed. Reg. 25, 324 (May 7, 2010).

gases, but are not already subject to PSD/Title V requirements for other pollutants.

These two cases were consolidated by the United States Court of Appeals for the District of Columbia Circuit. The Court ultimately dismissed the petitions for review and found in favor of the EPA, on whose behalf Maryland and the other states had intervened. The United States Supreme Court granted an extension of time within which to petition for a writ of certiorari, and some of the petitioners are preparing their petitions for review.

■ ***Chamber of Commerce of the United States of America, et al., v. EPA, et al***. In this suit, the Chamber of Commerce and the National Automobile Dealers Association are challenging the EPA's decision to grant California's request, under section 209(b) of the Clean Air Act, for a waiver of preemption for California's regulations to control greenhouse gas emissions from new motor vehicles. Because Maryland has adopted California's emissions standards, Maryland joined this case as an intervenor with several other states opposing the challenge.

The United States Court of Appeals for the District of Columbia Circuit ultimately dismissed the case for lack of jurisdiction, a victory for Maryland and the states.

■ ***American Gas Association et al. v. EPA***. This suit challenged the reporting rule for greenhouse gases associated with petroleum and natural gas systems. In April 2011, Maryland joined nine other states to intervene in support of the EPA's rulemaking. The case is currently being held in abeyance pending settlement discussions.

■ ***American Chemistry Council et al. v. EPA.*** This suit involves the reporting rule for greenhouse gases associated with seven greenhouse gases. In January 2011, Maryland joined 10 other states and New York City to intervene in support of the EPA's rulemaking. Six of the eight petitions were dismissed; the other two are being held in abeyance pending settlement negotiations.

Natural Resources Violations. The Attorney General's Office was instrumental in the planning and implementation of a pilot enforcement program for natural resource violations. Historically, fishing, hunting and forestry criminal violation cases were not always prosecuted aggressively in Maryland courts. To address this problem, the OAG worked closely with the Department of Natural Resources and the Maryland District Court to establish a special natural resources docket in the Anne Arundel County District Court. Since January 2010, all natural resource cases in Anne Arundel County have been heard on a designated day each month on a special docket in the Anne Arundel County District Court. The natural resources docket allows prosecutors and judges to focus on natural resources law, become acquainted with repeat offenders, and better assess the gravity of natural resource violations. In August 2011, the

program was expanded into Dorchester, Somerset, Wicomico and Worcester counties, which now have special natural resources dockets.[199]

On April 10, 2013, the program was expanded again to include Calvert, Charles, and St. Mary's counties.[200] Later in April 2013, Assistant Attorney General Michelle Barnes, the chief of the Attorney General's Environmental Crimes Unit, will be meeting with Judge Baker in Cecil County to discuss further expanding the natural resources court program into the Upper Shore counties (Caroline, Cecil, Kent, Queen Anne's and Talbot).

Environmental Crimes Enforcement. During his audits, the Attorney General heard repeated concerns about enforcement against polluters. He has worked diligently to respond to those concerns by supporting greater environmental enforcement statewide and prosecuting polluters for environmental crimes. Over the past year, the Environmental Crimes Unit of the Office of the Attorney General ("ECU") prosecuted a number of environmental crimes statewide, including the following:

■ ***State v. Tucker.*** On February 1, 2012, Teresa R. Tucker of Thurmont pleaded guilty in the District Court of Maryland for Carroll County to one count of failing to sample wastewater treatment plant discharges and one count of making false statements in reports required to be maintained by MDE. Tucker, an operator at the Silver Oak Academy Wastewater Treatment Plant in Keymar, admitted to failing to take or analyze wastewater discharge samples and then logging false entries in the records. She was sentenced to a 60-day suspended sentence for failing to sample the wastewater discharge and fined $10,000 with all but $1,000 suspended, to be paid to the Maryland Clean Water Fund. For making false statements in a report, she was placed on probation for 18 months and ordered to perform 50 hours of community service.[201]

■ ***State v. Branham***. On February 24, 2012, John Branham of Port Republic was convicted in the Charles County District Court of engaging in well drilling without a license. The conviction resulted from Branham's attempt to replace a pump from a malfunctioning well at a La Plata residence, work that must be done by a licensed well driller or a master plumber. Branham admitted that he lost his well driller's license in 1998. The illegal activity was discovered when homeowner Jean Collins became concerned with the quality of Branham's work on her well. She contacted the Charles County Health Department and was informed that Branham did not possess the proper license. Branham was sentenced to three months incarceration, all of which was suspended, a $200 suspended fine, placed on three years' probation, and ordered to pay restitution of $650 within 60 days to the homeowner.[202]

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[199] *See* http://dnr.maryland.gov/naturalresource/fall2011/14.asp.

[200] *See* http://news.maryland.gov/dnr/2013/04/10/natural-resources-court-program-expands/.

[201] *See* http://www.oag.state.md.us/Press/2012/020112.html.

[202] *See* http://www.oag.state.md.us/Press/2012/022412a.html.

■ ***State v. Branching Out Tree Service, Inc.*** On March 29, 2012, Branching Out Tree Service, Inc., of Pasadena, through its owner Steven J. Everd, Jr., pleaded guilty in Anne Arundel County Circuit Court to the unpermitted clearing of property within a Chesapeake Bay Critical Area buffer zone. The defendant was ordered to pay $10,000 to the Maryland Clean Water Fund and sentenced to five years' probation.

The privately owned waterfront property is located along Merrimac Drive in Davidsonville. In May 2011, the South River Federation Riverkeeper noted during a patrol that workers at the Merrimac Drive property were cutting and clearing trees and shrubbery within the buffer zone in a manner that violated land management regulations. The riverkeeper contacted Anne Arundel County investigators. The Critical Area Commission was later notified and the ECU was called in to assist. ECU investigators spoke with the homeowner and the property caretaker, who said that the defendant company was contracted to remove some limbs, but the work done far exceeded the pruning they had authorized. The Anne Arundel County forester determined that the clearing and tree-topping done by the defendants was not in accordance with accepted horticultural practice and would likely prove fatal to the trees involved. At a cost of more than $14,000, the homeowner has completed mitigation for the violations committed by the company.[203]

■ ***State v. Rodgers.*** On September 6, 2012, George E. Rodgers, Sr., of Mitchellville pleaded guilty in Prince George's County District Court to illegally conducting an open fire burn without a permit at the site of his business, Rodgers Brothers Services, Inc., in Capitol Heights. He received a $20,000 fine with $10,000 suspended, a 90-day suspended sentence and five years' probation. On November 29, 2011, inspectors from Prince George's County and the Maryland Department of the Environment were at the site of the business, which represents itself as an environmental construction and demolition debris recycling company. When the inspectors arrived, they saw Rodgers overseeing a burning of debris and advised him that the large piles of debris and the burn sites were illegal and unpermitted. Rodgers said that he understood and that he would extinguish the burning immediately and have all the debris piles cleaned up within 30 days. Thereafter, the MDE inspector returned to the property on several occasions and found Rodgers conducting illegal burns and continuing to maintain large piles of construction debris. No permits had been requested or issued for the burning or the open dump.[204]

■ ***State v. Discount Dry Cleaners, LLC, and Sium.*** On September 7, 2012, Discount Dry Cleaners, LLC, located in Laurel, through its owner, Mehret Sium, pleaded guilty in Anne Arundel County to illegal disposal of hazardous materials.

[203] *See* http://www.oag.state.md.us/Press/2012/032912.html.
[204] *See* http://www.oag.state.md.us/Press/2012/090612.html.

Sium also pleaded guilty personally to two counts of failing to comply with hazardous waste transportation requirements. Discount Dry Cleaners received a $30,000 fine with $22,000 suspended (the balance must be paid to the State Hazardous Substance Control Fund) and was ordered to pay $6,251 in restitution to the State for the cost of removing and properly disposing the materials. The business was also placed on five years' probation. Sium received a $20,000 fine and six months incarceration, both of which were suspended. She was placed on three years' probation and ordered to perform 850 hours of community service.

The conviction arose out of an incident that occurred on March 9, 2012, when the MDE's Hazardous Response Team was contacted for a suspected hazardous drum dumping on Dicus Mill Road near Millersville. They asked the Attorney General's Environmental Crimes Unit investigators to come to the site. Investigators found 18 drums in sizes varying from 5 to 35 gallons that contained hazardous waste from dry cleaning solvent had been placed on the side of the road. Numerous containers had no lids and none was properly packaged, labeled or marked pursuant to Department of Transportation regulations. The drums were traced back to Discount Dry Cleaners. Sium said she had a man remove the drums, which she knew contained hazardous waste, from the outside yard of the business. Sium also knew that the person she authorized to transport the materials was not a certified hazardous waste hauler and the drums were not going to be properly disposed of at an authorized facility.[205]

■ ***State v. Kirkley Road Sales, Inc.*** On November 1, 2012, Kirkley Road Sales, Inc., developer of the Cooke's Hope subdivision in Easton, pleaded guilty in Talbot County District Court to multiple counts of improper solid waste disposal by open-fire burning and violation of air pollution regulations. The defendant corporation was ordered to pay a fine of $15,000. The investigation of the incident revealed that on January 4, 2012, representatives of Kirkley Road Sales collected numerous trash and waste items from a local retail store in Queenstown. The manager of the defendant corporation was associated with the retail store and directed company employees to transport the debris to an area inside the Cooke's Hope subdivision where they doused the debris with kerosene and lit it on fire. The burning pile included plastic shelving, display racks and metal shelves and was approximately five feet high and 20 feet wide. The burn continued for six days, until finally being extinguished on January 10. No permit had been sought or issued, nor would one have been issued, for the burning of such items. Numerous residents reported being overcome by heavy smoke and the sickening smells of burning plastics and rubber. Complaints from residents included breathing problems and an inability to be outside because of the smoke and fumes during the time of the fire.[206]

[205] *See* http://www.oag.state.md.us/Press/2012/090712.html.
[206] *See* http://www.oag.state.md.us/Press/2012/110112.html.

■ ***State v. Ivan.*** On November 8, 2012, Eastern Shore contractor, Peter Ivan, of Eden, pleaded guilty in Wicomico County Circuit Court to multiple counts of improper solid waste disposal by open burning and violation of disposal regulations. Ivan was fined $30,000, with $10,000 of that to be paid during a five-year probation period; he also received a six-month suspended sentence and was ordered to complete 100 hours of community service. The conviction arose from an incident that occurred on April 2, 2011, when Ivan was burning a large construction debris pile on his property. Wicomico County Health Department officials responded to the site and called the Fruitland Fire Department when it was clear the defendant's employees were unable to contain the fire. The fire department dispatched five units to extinguish the fire. Large debris piles on the site measured approximately 100-feet by 100-feet, with one-third of that ablaze. It took approximately one hour to extinguish the fire. Items observed in the solid waste piles included lumber, vinyl siding, plastic goods, insulation, cabinetry, carpeting and other debris from the defendant's construction business, which had been dumped on his property to avoid paying proper landfill fees.[207]

■ ***State v. American Contractors Inc.*** On November 14, 2012, American Contractors, Inc. of Hyattsville, pleaded guilty in the Circuit Court for Calvert County to unlawfully disposing solid waste and performing construction without obtaining an approved sediment control plan. The defendant company was placed on five years' probation, fined $30,000 with all but $10,000 suspended, and ordered to pay $14,290 in restitution to the property owner for the cost of cleaning up the dumped waste. The illegal activity was discovered by the Calvert County Department of Planning and Zoning in response to a complaint of illegal dumping. It was referred to MDE and the ECU. An investigation revealed that the property owner's son had responded to an ad on Craigslist for free fill dirt and contacted American Contractors, Inc. to deliver dirt to his mother's property located on Yellow Bank Road in Dunkirk. Investigators found truckloads of solid waste consisting of construction and demolition debris, mattresses, pipes, toilet fixtures and other debris dumped on the property. In addition, the land had been disturbed without obtaining an approved sediment control plan.[208]

■ ***State v. Francis.*** On November 15, 2012, Gilbert W. Francis of Temple Hills pleaded guilty in the Circuit Court for Calvert County to unlawfully placing soil and sediment in a location where it is likely to be washed into waters of the State. He received a 30-day suspended sentence and a $500 fine; he was also placed on probation for one year and ordered to perform 20 hours of community service. This conviction arose out of the incident involving American Contractors, described above. When investigators went to the site in response to a complaint, they found Francis operating a Bobcat on the property. The solid waste and soil was dumped on an extremely steep slope leading to a stream below that is a

[207] *See* http://www.oag.state.md.us/Press/2012/110812.html.
[208] *See* http://www.oag.state.md.us/Press/2012/111412.html.

tributary of the Patuxent River, and the runoff would likely have polluted the river.[209]

■ ***State v. Shortall.*** On December 5, 2012, Purnell A. Shortall and his Talbot County business, Shortall Building Supplies and Hardware, Inc. pleaded guilty in Dorchester County Circuit Court to multiple counts of improper solid waste disposal. Shortall pleaded guilty to conducting open fire burning and maintaining an illegal open dump. The corporation pleaded guilty to two counts of illegal open dumping on the business property at 11523 Cordova Road in Cordova. The defendant corporation was fined $10,000 with $5,000 suspended and placed on five years' probation. Shortall was given a six-month suspended sentence, a $15,000 fine with all but $4,000 suspended, and five years' probation, and ordered to complete 100 hours of community service.

Ongoing inspections of the business site of Shortall Building Supplies and Hardware, Inc. had been regularly conducted by MDE. Despite repeated instructions to clean up the site and discontinue open dumping on the property, Shortall continued to accumulate materials on the property. In May 2009, an inspector found extensive dumping along the tree line and behind buildings on the property. Located in the large piles of debris were items such as construction and demolition building materials of all types, including wood, carpet and roofing materials. Also located on site were metals of various types, such as box spring mattress remnants, barrels, tanks and burned tires. On a subsequent visit in December 2010, inspectors found that the solid waste still remained and active burning was taking place at the site. Dark smoke and odors were released from the pile, which included vinyl chairs, metal bands, and construction materials. Because of the repeated failure to comply with Maryland regulations of which Shortall was aware, MDE referred the matter to the ECU.[210]

■ ***State v. Allaband and Gibbs.*** On December 13, 2012, Gerald Allaband and Homer Gibbs, Jr., pleaded guilty in Caroline County Circuit Court to multiple counts of environmental violations involving the illegal transportation and dumping of scrap tires. Allaband pleaded guilty to one count of illegally transporting and dumping scrap tires. The dump site was located on the property of Gibbs, who pleaded guilty to three counts of criminal environmental violations for maintaining an illegal refuse disposal site, operating an illegal open dump and illegally accepting and storing scrap tires on his property. Allaband was sentenced to 30 days incarceration, all of which was suspended, and fined $15,000 with all but $5,000 suspended. Gibbs was sentenced to six months incarceration, all of which was suspended, and fined $25,000 with all but $5,000 suspended. Gibbs was also ordered to complete 300 hours of community service. Both men were placed on five years' probation.

[209] *See* http://www.oag.state.md.us/Press/2012/111512.html.
[210] *See* http://www.oag.state.md.us/Press/2012/120512a.html.

On April 11, 2012, Allaband was stopped by the Caroline County Sheriff's Department after a caller reported the dumping of tires on Gibbs' property. The Office of the Attorney General's Environmental Crimes Unit was contacted to conduct a follow-up investigation. During its investigation, the ECU learned that Allaband had an agreement to remove tires from another property. When Allaband decided he would not make any money by properly disposing of the tires, he contacted Gibbs, who agreed to take the scrap tires on his property for a fee. On April 12, when an ECU investigator went to the site to make contact with Gibbs, he observed evidence of potential tire burning and multiple scrap tire dump sites. It was determined that there were over 3,000 tires on three separate sites.

Illegal open dumps can be a source for rodent and insect infestation that can cause severe illnesses to residents. There is significant concern, especially in rural areas, that runoff from illegal dumps can contaminate wells and ground water in the area. Illegal dumps are also a danger because they may cause flooding issues and fires.[211]

■ ***State v. Beans.*** On January 23, 2013, Todd A. Beans of Riva pleaded guilty in Anne Arundel District Court to unlawfully disposing of cans of paint at various locations along Anne Arundel County highways. He received a 30-day suspended sentence and a $500 fine. Beans was also placed on probation for one year and ordered to perform 100 hours of community service. On February 9, 2012, the Anne Arundel County Highways Department responded to three separate locations in the Riva and Edgewater areas for illegal dumping complaints. Crews arriving found a total of 109 containers of latex paint dumped on the travelled portions of the roadways. Labels on the containers indicated the distributors, through which the Maryland Department of the Environment's Emergency Response Division was able to identify the purchaser as being Cypress Paint Systems. Investigation by the Attorney General's Environmental Crimes Unit revealed that Cypress Paint Systems owners had hired Beans to transport frozen paint to a local landfill. Beans returned to the office claiming that he had taken care of it and collected $150. After the company was advised of the dumping, Beans admitted that he was responsible.[212]

■ ***State v. Paddy.*** In April 2013, Dennis R. Paddy, Sr., was convicted in Anne Arundel County Circuit Court on three counts of critical area violations for removing and improperly cutting dozens of trees in the expanded buffer area of residences along Bellehahn Court in Severna Park. He was sentenced to 12 months' probation and ordered to perform 80 hours of community service. During the trial, testimony established that more than 70 trees in diameters of up to 25 inches were completely cut or "topped" by Paddy, who was hired by co-defendants Nilos and Kelly Sakellariou. The couple sought to open a clear view

[211] *See* http://www.oag.state.md.us/Press/2012/121312.html.
[212] *See* http://www.oag.state.md.us/Press/2013/012313.html.

to the Severn River from their house and, according to testimony provided by a neighbor, "increase (their home) property value by $500,000." The Sakellariou property is not waterfront and sits behind the two affected residential properties in the heavily wooded neighborhood. All of the properties, including the home of the co-defendants, are within critical area expanded buffer zones. Although none of the defendants ever sought the necessary permits to complete the work, no permit for this work would have been granted because of the extent and manner of cutting, as well as the fact that the area is within a critical area expanded buffer zone.

A trial date has not been set for co-defendants Nilos Sakellariou and Kelly Sakellariou, who also face criminal charges.[213]

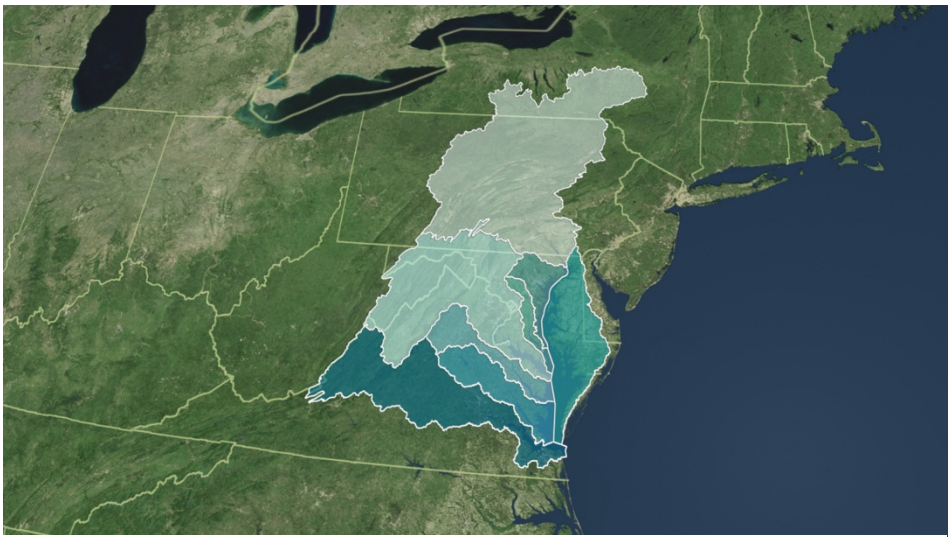
■ ***State v. A-1 Septic Services, Inc.*** In April 2013, A-1 Septic Services, Inc., a Pasadena septic waste and wastewater hauler pleaded guilty in the District Court for Baltimore County to illegal water pollution discharges. The incident involved the spillage of industrial wastewater on the Frances Scott Key Memorial Bridge in January 2012. The company was placed on three years' probation and ordered to pay a $5,000 fine, half of which was suspended, to the Clean Water Fund.

The case was investigated by the ECU after a unit investigator saw the spill while driving on the bridge. At the same time, he spotted a leaking valve on a hauling truck owned and operated by A-1. The truck was transporting industrial wastewater to the Back River Wastewater Treatment Plant for proper disposal. The owner of the company arrived at the scene and cleaned up the spillage as directed by the ECU investigator.[214]

[213] *See* http://www.oag.state.md.us/Press/2013/040913b.html.

[214] *See* http://www.oag.state.md.us/Press/2013/041813b.html. The Attorney General conducted an audit of the Back River in 2011.

CONCLUSION



NASA image of the Chesapeake Bay watershed

During the 2012 environmental audits, the Attorney General met with elected officials, environmental leaders and community members from the Youghiogheny River, Deep Creek Lake, Coastal Bays, Wye River, Potomac River North Branch and Savage River watersheds. At each watershed audit, the Attorney General learned about environmental matters specific to that location, ranging from invasive non-native species, to new technologies for drilling natural gas, to agricultural animal waste, to acid mine drainage. Just as often, however, the audits revealed concerns common among the watersheds. Notable among these was a concern related to urban and residential growth, primarily from stormwater, erosion, sediment and wastewater treatment. Other common issues included the concern about pollution from out-of-state sources and the benefits of greater enforcement against polluters. As this information was gathered from each watershed, the Attorney General worked with his regulatory partners to identify and target polluters; initiated and concluded criminal prosecutions and civil enforcement actions and lawsuits; and obtained significant civil and criminal monetary penalties that will enhance future enforcement efforts.

Much remains to be done to save the Chesapeake Bay and to protect other Maryland waters, as the Attorney General is acutely aware. The actions he and his office are able to take as a result of these environmental audits, however, help improve the health of the Bay and other State waters in important ways. For instance, information provided by the watershed communities he visits allows the Attorney General to identify and target individuals and corporations that pollute, as well as to determine where carefully tailored legislation can make a difference. Through the audits, the Attorney General has also established relationships with those citizens in Maryland's watersheds who provide eyes and ears to help identify polluters and other environmental threats. Communication continues long after the day spent at each river, as new issues and problems arise with regularity, and what has been learned will inform future audits and enhance their effectiveness.

Youghiogheny River and Deep Creek Lake, May 16, 2012

Coastal Bays, July 12, 2012

Wye River, October 10, 2012

Potomac River North Branch and Savage River, December 11, 2012

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