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Environmental Report



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Polar Bear Listing May Threaten Projects

Nineteenth century coal miners used canaries as unwitting heralds of harmful air quality: their death brought silence. On the climate change front, the twenty-first century equivalent of the canary in the mine may be the polar bear on the Arctic ice cap. On May 14, Secretary of Interior Dirk Kempthorne announced his decision to accept the Fish & Wildlife Services' ("FWS") recommendation to list the polar bear as "threatened" throughout its ranges, pursuant to the Endangered Species Act ("ESA"). This decision capped several years of efforts by pro-environmental groups to force federal agencies to consider effects on climate change when they make permit or grant decisions.

Under Section 7 of the ESA, all federal agencies must ensure that any action they authorize, fund or conduct "is not likely to jeopardize the continued existence" of any species designated as threatened. They must also ensure that no such action results in the "adverse modifica-

tion" of any designated species' critical habitat, as determined by Secretary Kempthorne. These obligations are fulfilled through an often lengthy process of "consultation" with the FWS. The process yields a biological opinion that spells out precisely what measures must be implemented to protect any threatened or endangered species.

A species is to be declared "threatened" under the ESA if it is likely to become "endangered" within the foreseeable future. An "endangered" species is one in danger of extinction. In the case of the polar bear, Secretary Kempthorne determined after review of extensive scientific information that "the polar bear is threatened throughout its entire range by ongoing and projected changes in sea ice habitat." More specifically, he concluded that the species is "likely to become endangered throughout all of its range within the foreseeable future due to habitat loss."

There are an estimated 20,000 to 25,000 polar bears in 19 separate populations, some of

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which are thought to be stable or increasing, but the bears depend critically on sea ice for hunting and movement. Loss of that sea ice therefore threatens the polar bear's continued existence. In the years 2002-2007, the loss of Arctic sea ice exceeded all previous record lows. In 2007, it was 39 percent below the average for 1979-2000. Models predict declines in September sea ice of up to 80 percent by mid-century. In light of these analyses, we expect there will be mounting pressure to declare Arctic sea ice "critical habitat."

In announcing his decision, Secretary Kempthorne cautioned that the listing "will not stop global climate change or prevent any sea ice from melting." He said that the listing "should not open the door to use of the ESA to regulate greenhouse gas emissions from automobiles, power plants and other sources." He expressed the view that "the ESA is not the right tool to set U.S. climate policy." That, however, seems to have been precisely the intent of the Center for Biological Diversity, the organization that petitioned Secretary Kempthorne to list the polar bear. On June 6, that group and Pacific Environment notified the Department of Interior of their intent to sue to force Section 7 consultation over lease sales for oil exploration in the Beaufort and Chukchi seas off Alaska. Interior had completed the sales only days before Secretary Kempthorne announced the polar bear listing.

Comment

The listing of the polar bear is only the beginning of what we expect will be years of litigation over oil and gas development on federal lands, especially in Alaska, and over virtually every major fuel-burning project that requires a federal license or permit. Case law has established that state permit decisions are not subject to the protracted and detailed analysis and consultation required under Section 7 of the ESA. Therefore, in the vast majority of states, Title V and NPDES permits will be relatively unaffected. But for projects that require any federal permit or approval, project developers will overlook the polar bear only at their peril.

For more information on this topic, please contact the article author, William A. Anderson.

Court Upholds EPA's HON Residual Risk Rule

Section 112(d) of the federal Clean Air Act requires EPA to adopt regulations applicable to categories of major sources of hazardous air pollutant emissions specifying the maximum achievable control technology (MACT) for that source category. Section 112(f) requires EPA to conduct a review eight years after adopting the MACT standards and adopt more stringent HAP emission standards for the source category "if promulgation of such standards is required in order to provide an ample margin of safety to protect human health." Section 112(f) further specifies that if the MACT standards for a HAP source category "do not reduce lifetime excess cancer risks . . . to less than one in one million," EPA "shall promulgate standards under this subsection for such source category." This process is commonly referred to as EPA's residual risk review and rulemaking.

In 1994, EPA adopted MACT standards for HAP sources in the organic chemical industry. These MACT standards are commonly referred to as the HON (Hazardous Organic NESHAP). Although a little late, EPA conducted a residual risk review and rulemaking for the organic chemicals industry and in 2006, adopted a final rule that did not impose any further HAP emission control requirements beyond those in the HON. The Natural Resources Defense Council and the Louisiana Environmental Action Network filed suit in the U.S. Court of Appeals for the District of Columbia Circuit challenging EPA's HON residual risk review and rulemaking as illegal under the Clean Air Act.

In its analysis of the residual risks posed by HAP sources in the HON source category, EPA found that some sources of HAP emissions posed excess lifetime cancer risks to certain individuals in excess of one in a million. However, the excess lifetime cancer risk to the most exposed individuals did not exceed 100 in one million. EPA determined that because the cancer risk did not exceed 100 in one million, the existing HON standards provide "an ample margin of safety to protect public health." EPA therefore did not adopt more stringent emission standards for the HON source category.

NRDC argued EPA violated Section 112(f) by using a 100 in one million cancer risk as the residual risk standard. NRDC said the statute obligates EPA to adopt more stringent emission standards necessary to reduce the residual cancer risk to below one in one million. The U.S. Circuit Court of



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Appeals for the District of Columbia disagreed with NRDC and upheld EPA's approach.

The court first noted that the required residual risk standard specified in Section 112(f) is "an ample margin of safety to protect public health," not a bright line of one in one million as NRDC argued. The court agreed with EPA that the statute itself endorses EPA's use of the 100 in one million risk level as an ample margin of safety. Section 112(f) twice indicates specifically that the ample margin of safety shall be "in accordance with this section [Section 112] (as in effect before Nov. 15, 1990)," the date of the Clean Air Act Amendments of 1990 that radically changed EPA's approach to the regulation of hazardous air pollutants. The court noted that before the 1990 Amendments, EPA had specifically established an acceptable cancer risk of 100 in one million in its 1989 regulation of emissions of benzene, a carcinogen. This led the court to conclude that Congress was aware of the 100 in one million risk level EPA chose as an ample margin of safety in the benzene rule and specifically chose not to replace it with a one in one million risk level in the 1990 Amendments.

NRDC further argued that because EPA determined the cancer risk remaining after application of the HON exceeded the one in one million level, the agency is required to adopt emission standards under Section 112(f) that are more stringent than the HON. In other words, EPA could not simply leave regulation of HAP emissions from the organic chemical industry the way it was. The agency had to adopt a set of emission standards more stringent than the HON. Again, the court disagreed saying, "If EPA determines that the existing technology-based [MACT] standards already provide an 'ample margin of safety,' then the agency is free to readopt those standards during a residual risk rulemaking." The court found nothing in the statute that compelled a different outcome.

Finally, NRDC challenged EPA's rulemaking as arbitrary and capricious because the agency relied in part on emission data obtained voluntarily from sources in the HON source category. NRDC said such data were hopelessly incomplete and unreliable and, therefore, could not form the basis for EPA's decision not to adopt more stringent emission standards. But the court noted that EPA also relied heavily on the National Emissions Inventory and the agency had explained why it chose to rely on industry-supplied data. The court said the question is "whether EPA has acted reasonably, not whether it has acted flawlessly." The court ruled EPA had acted reasonably.

Comment

This decision is a major victory for EPA, an agency with a dismal recent track record in judicial challenges to its regulations. It is also a source of great relief to major HAP sources subject to MACT standards. Every one of these source categories is undergoing or will soon undergo an EPA residual risk review and rulemaking. Had the D.C. Circuit Court ruled that the "ample margin of safety" for cancer risk is one in one million, many of those residual risk reviews might have forced EPA to promulgate new HAP emission standards more stringent than the existing MACT standards. The result? The industry would have faced another round of costly emission controls just after installing controls to meet the technology-based MACT standards.

NRDC v. EPA, No. 07-1053 (D.C. Cir. June 6, 2008).

For more information on this topic, please contact the article author, Thomas E. Knauer.

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EPA Issues New Rule on Compensatory Mitigation

The U.S. Army Corps of Engineers and EPA recently issued a new rule governing compensatory mitigation for impacts to wetlands, streams and other aquatic resources. The purpose of the rule is to improve the quality and success of mitigation projects by creating more stringent requirements for planning, implementation and management. The new rule does not change the determination of when and how much mitigation is required. Rather, it focuses on how and where compensatory mitigation will be accomplished.

Background

Under Subpart H of the Clean Water Act's 404(b)(1) Guidelines, applicants for Corps permits for impacts to waters of the U.S. must avoid and minimize the adverse impacts of



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their proposed activities. If wetland impacts remain after avoidance and minimization, applicants may be required to establish, enhance or restore wetlands or other aquatic resources to compensate for the damage their proposed activities will cause. Before issuance of this rule, the compensatory mitigation program was administered in accordance with national and regional guidance documents issued by the Corps and EPA over the past 19 years. Because those documents were issued at different times and in different contexts, their use raised concerns not only about their effectiveness but also their predictability, consistency and fairness.

In November 2003, Congress called for the development of regulatory standards and criteria for the use of compensatory mitigation in the 404 program. It passed legislation requiring the Corps to issue regulations establishing performance standards and criteria for the use of on-site and off-site mitigation, mitigation banking and in-lieu fee mitigation as compensation for lost wetlands functions. The Corps and EPA published a proposed rule in the Federal Register (71 Fed. Reg. 15520) on March 28, 2006. Much of the justification and background for the proposed rule, and consequently this final rule, is based on a report issued by the National Research Council which evaluated the effectiveness of wetlands compensatory mitigation and provided recommendations on how to improve it.

Mitigation Hierarchy

Perhaps the most important aspect of the new rule is its mitigation hierarchy. Mitigation banks are now the preferred form of mitigation because they consolidate resources, provide financial planning and expertise, reduce temporal loss of wetland function and reduce risk and uncertainty about the long-term success of the mitigation project. If mitigation bank credits are not available or practicable, other mitigation options set forth in the rule are to be considered in the following order: in-lieu fee programs, permittee-responsible mitigation under a watershed approach, permittee-responsible mitigation through on-site and in-kind mitigation, and permittee-responsible mitigation through off-site and out-of-

kind mitigation. Corps district engineers (“DEs”) retain the discretionary authority to determine which form of mitigation should be required.

In determining which compensatory mitigation option is preferable, DEs must consider the following factors: the likelihood for ecological success and sustainability, the location of the compensation site relative to the impact site and its significance within the watershed and the costs of the project. Compensatory mitigation requirements should be commensurate with the amount and type of impact associated with a particular permit. Mitigation ratios remain unchanged, and DEs still retain the authority to stipulate when and how much mitigation is required.

Watershed Approach

The new rule introduces a watershed approach to siting compensatory mitigation projects. Under the watershed approach, projects should be located where they maintain and improve the quality and quantity of aquatic resources within watersheds. The sustainability of aquatic resource functions, habitat requirements of important species, sources of watershed impairment and current development trends are emphasized under this approach. The project location must be based on a watershed plan, if available. If one is not available, the DE will conduct his or her own analysis of the watershed based on information available from maps, surveys, photographs and local ecological reports. This task will be handled by the Corps with no additional cost to permittees, but it may slow down the permitting process in areas with no plan.

Permittee Requirements

The new rule also spells out more stringent standards for planning, documentation, and performance. Those contemplating submitting a permit application should discuss potential mitigation requirements and information needs with the Corps before proceeding. A mitigation plan must be approved by the DE before a permit will be issued. The mitigation plan must document the site selection process, maintenance plan,



“ *Perhaps the most important aspect of the new rule is its mitigation hierarchy.* ”



performance standards, monitoring requirements and financial assurance to be provided. The level of detail of the mitigation plan should be commensurate with the scale and scope of the impacts. The performance standards are designed to ensure that the project will develop into the desired resource type, provide the expected functions, and attain other applicable metrics such as size. These ecological performance standards must be based on the “best available science that can be measured and assessed in a practicable manner.”

Another section of the new rule specifically addresses monitoring compensatory mitigation sites. Monitoring is necessary to determine if a project is meeting performance standards and accomplishing its objectives. The scale and scope of the monitoring reports will depend on the complexity and size of the project. Monitoring periods must last for at least five years, but longer periods may be required for aquatic resources with slow development rates, such as forested wetlands and bogs.

The new rule emphasizes long-term protection and sustainability of mitigation projects. To meet these objectives, the rule prescribes site protections such as conservation easements and more stringent monitoring requirements. Projects should be self-sustaining and minimize active engineering features such as pumps. Where long-term care may be necessary, the responsible party must provide financial assurance and long-term financing mechanisms.

Banks and In-Lieu Fee Programs

Mitigation banks are now subject to new approval standards and timelines. Proposed mitigation banks will now be approved by an Interagency Review Team (IRT) comprised of representatives from the Corps, EPA, U.S. Fish and Wildlife Service, NOAA Fisheries, and the Natural Resources Conservation Service. The IRT will assist the DE in reviewing the prospectus, banking instrument and other appropriate documents before approval. The rule sets a timeframe for approval but the timeframes are only aspirational because there is no penalty or enforcement mechanism. A new dispute resolution provision was installed to handle controversial

approval decisions. Existing mitigation banking instruments approved prior to July 9, 2008 are grandfathered in, and are not subject to the requirements of the rule.

The Corps had contemplated the phase-out of the in-lieu fee program, but decided to retain it because the program can be effective in areas where on-site mitigation and mitigation banks are not feasible. In-lieu fee programs had been criticized for selling advance credits too cheaply, which in turn meant they sometimes had insufficient funds to provide the promised mitigation. Another concern was that use of these programs sometimes resulted in substantial delays between permitted impacts and compensation. In an effort to combat these problems, the new rule requires planning frameworks and caps the credits that can be sold before securing a site and conducting mitigation. In addition, in-lieu fee program sponsors are now restricted to governmental or non-profit organizations.

Comment

The new rule brings much needed structure and clarity to the process of compensatory mitigation. The new planning and performance standards should also enhance the effectiveness of compensatory mitigation. For parties who can't use mitigation bank or in-lieu fee credits, the new rule will probably increase the costs of obtaining approval. However, those that can use credits are likely to see a reduction in permitting time.

73 Fed. Reg. 19594 (April 10, 2008).

For more information on this topic, please contact the article author, Thomas B. Hodges, Jr.

“The new rule brings much needed structure and clarity to the process of compensatory mitigation.”



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What's EPA's Office of Air & Radiation Up To?

Twice a year, EPA publishes its regulatory agenda, a compendium of the regulations the agency is working on. The agenda can be accessed electronically, and the entries can be sorted by "stage of rulemaking," *e.g.*, pre-rule, proposed rule, final rule, and long term actions. Here's a list and summaries of some of the more significant air regulations that appear on EPA's latest semi-annual regulatory agenda.

Pre-rule Stage

The most significant item on the air agenda in the pre-rule stage is the regulation of greenhouse gas (GHG) emissions. EPA says the agency:

will solicit public input as [the agency] considers the specific effects of climate change and potential regulation of greenhouse gas emissions from stationary and mobile sources under the Clean Air Act. As EPA has considered how best to respond to the Supreme Court's decision in *Massachusetts v. EPA*, as well as how to respond to petitions and comments received in rulemakings asking EPA to regulate greenhouse gas emissions from mobile and stationary sources, it has become clear that implementing the Supreme Court's decision could affect many sources beyond cars and trucks. In this advance notice, EPA will present and request comment on the best available science including specific and quantifiable effects of greenhouse gases relevant to making an endangerment finding and the implications of this finding with regard to the regulation of both mobile and stationary sources. . . . Finally, the notice will also raise potential issues in the New Source Review program, including greenhouse gas thresholds and whether permitting authorities might need to define best available control technologies.

This is clearly the starting point for one of the most important rules EPA may ever promulgate under the Clean Air Act.



Proposed Rule Stage

In a related vein, EPA has begun the process of adopting a rule to "establish monitoring, reporting and recordkeeping requirements on facilities that produce, import or emit greenhouse gases above a specific threshold in order to inform future regulatory policy options related to greenhouse gases." This rulemaking responds to Congress' direction to EPA in the FY08 Consolidated Appropriations Act to develop a GHG emissions reporting rule.

EPA also intends to propose a rule to respond to the D.C. Circuit Court of Appeal's remand of the New Source Performance Standards and Emission Guidelines for Commercial and Industrial Solid Waste Incinerators. EPA says:

This action will include revised definitions in accordance with the recent vacatur of the CISWI Definitions Rule. This action also will propose several other amendments to the standards. We are considering covering the following types of units located at commercial or industrial facilities that currently are not covered under CISWI: units with waste heat recovery, units that burn more than 30 percent municipal solid waste at commercial/industrial facilities and cyclonic burn barrels. We also will clarify provisions regarding air curtain incinerators, the exemption for chemical recovery units, the exemption for spent sulfuric acid production, startup and shutdown and the definition of clean wood waste. Finally, in response to the voluntary remand of the CISWI rules, we will examine and revise as appropriate the methodology for developing the MACT floors and emission limits.

EPA lists several important hazardous air pollutant rules at the proposed rule stage, including:

- Area source standards for industrial, commercial, and institutional boilers. Interestingly, EPA's agenda lacks any entry for the agency's repromulgation of the "boiler MACT" rule, applicable to boilers located at major HAP sources, that was vacated by the D.C. Circuit as part of the litigation on the CISWI regulations.
- Area source standards for the chemical manufacturing industry category;
- Plywood and composite wood products MACT standards. The D.C. Circuit ordered EPA to re-evaluate the MACT floor for certain PCWP process unit

groups. These proposed amendments will make available for public review and comment EPA's evaluation and decisions regarding PCWP process unit groups that had "no emission reduction" MACT floors in the final rule.

Other notable rules at the proposed stage include:

- Revisions to the definition of "potential to emit." EPA says:

This rulemaking rule would revise the definition of the term "potential to emit" (PTE) used in numerous regulations to determine the applicability of major source requirements. The regulatory amendments will address enforceability issues raised in court decisions by the D.C. Circuit regarding the types of limitations allowed to be used in a source's PTE calculations. . . . In addition to addressing the issue of whether PTE limitations have to be federally enforceable, the revised definition of PTE would set forth the specific criteria a limitation must meet to be effective. Finally, the proposal would clarify that EPA now uses the term "federally enforceable" to refer only to the ability of the Federal government or citizens to enforce the requirement in federal courts, and not to the effectiveness of PTE limits as well.

- Two rulemakings addressing the measurement of PM2.5 emissions. First, EPA will propose a regulation describing the performance specifications and procedures for the measurement of PM10 and PM2.5 using a dilution air technique to cause the formation of condensable particulate matter. Second, EPA proposes to amend Methods 201a and 202 to improve fine particulate measurement.
- Federal renewable fuels standards. This action will implement provisions of the 2007 Energy Independence and Security Act which set a modified standard for renewable fuels increasing the national requirement to 9.0 billion gallons in 2008 and rising to 36 billion gallons by 2022.

Of the latter total, 21 billion gallons is required to be obtained from cellulosic ethanol and other advanced bio-fuels. Renewable fuels produced from new biorefineries will be required to reduce by at least 20 percent the life cycle GHG emissions relative to life cycle emissions from gasoline and diesel.

Final Rule Stage

EPA's list of rules in the final stage of promulgation includes:

- PSD permitting. EPA anticipates finalizing several proposed rules governing various aspects of the PSD program, including debottlenecking, emissions aggregation and project netting, counting fugitive emissions toward the major source threshold, an hourly emissions increase applicability test for modifications to electric generating units, and setting significant impact levels and significant monitoring concentrations for PM2.5 emissions.
- Flexible air permits. EPA has proposed to revise its regulations governing Title V and NSR permitting programs based, in large part, on the lessons learned through EPA's pilot experience in which EPA worked closely with States and sources to develop flexible air permitting approaches that provide greater operational flexibility using advance approvals under NSR and alternative operating scenarios. The revisions also add major NSR requirements for Green Groups, which allow future changes to occur within a group of emissions activities, provided that they are to meet Best Available Control Technology ("BACT") or Lowest Achievable Emission Rate ("LAER") and control requirements, as applicable, and are determined to comply with all relevant ambient requirements.
- Petroleum refinery residual risk standards. This rulemaking is governed by a judicial consent decree obligating EPA to adopt a final rule by August 21 of this year. EPA will examine refinery control technologies to see what improvements have been made in the 12 years since the refinery MACT standards were promulgated. EPA will

“ *The most significant item on the air agenda is the regulation of greenhouse gas emissions.* ”



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also model the refinery emissions to determine the residual risk associated with the current MACT standards. For more on residual risk, see the article in this issue on the HON Rule.

Long-term actions

Some notable entries on EPA's list of long-term actions include:

- PSD routine maintenance and repair. EPA will develop a rule to define maintenance and repair activities (that are not equipment replacement) that qualify for the routine maintenance, repair or replacement exclusion to major NSR. EPA's agenda does not list any rulemaking activity with respect to the agency's 2003 equipment replacement rule that was overturned by the D.C. Circuit.
- MACT "once in, always in" policy. EPA lists this rulemaking, but Congress included a rider in the FY2008 funding bill for EPA that prohibits the agency from spending any money to adopt such a rule. Arguably, unless inserted in the next EPA appropriations bill, this prohibition dies at the expiration of FY2008.
- Clean Air Mercury Rule. This rulemaking would adopt a federal plan to implement the requirements of the CAMR for any states that do not have a timely, approved state plan. EPA lists the status of this action as "undetermined." In March, the D.C. Circuit issued its mandate vacating the CAMR. Subsequently, EPA and the Utility Air Regulatory Group separately filed petitions seeking rehearing of the Court's decision. EPA is putting the federal plan rulemaking action on hold during the pendency appeal period.

EPA's Semi-Annual Regulatory Agenda, <http://www.reginfo.gov/public/do/eAgendaMain>. See also 73 Fed. Reg. 24756 (May 5, 2008).

For more information on this topic, please contact the article author, Thomas E. Knauer.

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A Correction

In the last issue of the Williams Mullen Environmental Report, the article, "General Assembly Changes Air and Water Board Permitting Procedures," contained an error. We said: "Virginia's [air] regulations governing minor new source review, which EPA has approved into the Virginia SIP, do not require a public hearing prior to the issuance of minor NSR permits." That wasn't completely accurate. While the vast majority of minor NSR permits issued by the DEQ do not require a public hearing, some minor NSR permits do. For example, Virginia's SIP-approved minor NSR regulations mandate a public hearing prior to the issuance of a permit for the construction or modification of a facility that would result in an emissions increase of 100 or more tons per year. Such "state major" minor NSR permits would clearly be subject to the consideration of the Air Board under the new legislation.

NORTH CAROLINA

Coastal Resources Commission to Enforce Rule Requiring Removal of Sandbags

In May of this year, the deadline set by the Coastal Resources Commission (the "Commission") for certain ocean-front properties owners to remove their erosion control sandbags arrived. Though the obligation applies only to sandbags installed under a specific regulatory provision, the mandate takes effect just as the 2008 hurricane season is beginning, and many businesses and homeowners along the North Carolina coast are nervous.

In 2000, the Commission revised its regulations regarding permits for sandbags to provide that:

A temporary sandbag erosion control structure with a base width not exceeding 20 feet and a height not exceeding 6 feet may remain in place for up to five years or until May 2008, whichever is later regardless of the size of the structure if the community in which it is located is actively pursuing a beach nourishment project as of Oct. 1, 2001.



“*The Commission has authority to seek civil penalties from owners who do not remove sandbags.*”



(emphasis added). The measure was intended to allow owners to protect their property while communities implemented beach re-nourishment projects. And while many communities were pursuing such projects sufficiently to allow property owners to obtain sandbag permits in 2001, most of those projects have not yet been implemented, and sandbags are now the only thing protecting a large number of oceanfront properties from the sea.

The requirement to remove the bags is not self-implementing. The Commission's staff initiated a survey of sites with sandbag permits in late April and will notify property owners if they must remove their sandbags. Property owners will then have thirty days to comply. If an owner fails to remove the sandbags, the Commission may then initiate enforcement actions against individual permittees to require them to remove the bags. The Commission also has the authority to seek civil penalties from owners who do not remove their bags when ordered to do so.

Recently, a group of property owners petitioned the Commission to modify the rule, citing the individual hardships created by the deadline and the long-term effects of removing sandbags on the tax base of local governments. The group asked that the deadline for removal of sandbags be deleted from the Commission's rule and that sandbags be allowed to remain in place indefinitely in communities that are actively seeking to nourish or otherwise address shoreline erosion. Though the Commission was sympathetic to the group's concerns, it declined to amend the rule. As such, property owners who installed their sandbags pursuant to the 2000 regulation should expect to hear from the Commission soon.

Comment

It is unlikely the Commission anticipated it would have to enforce the deadline when it promulgated the rule eight years ago, but property owners who receive sandbag removal notices are not without options. For example, the rule contains a host of other provisions that may allow permittees to seek a variance from the deadline. Moreover, if an owner's sandbags are covered by sand and by stable, natural vegetation, the Commission will not be able to require the owner to remove them.

For more information on this topic, please contact the article author, Sean M. Sullivan.

NORTH CAROLINA

Consent Decree Restricts Beach Access on the Outer Banks

A federal district court recently approved a consent decree settling a lawsuit between the National Park Service ("NPS") and environmental groups, including Defenders of Wildlife and the National Audubon Society. The lawsuit alleged inadequacies in the federal government's management of Cape Hatteras National Seashore (the "seashore" or "Cape Hatteras"), including the management of protected species and the regulation of off-road vehicles ("ORV"), and it sought additional protections for the breeding and nesting areas of various threatened and endangered species. The settlement will bring about big changes for those who use the seashore. Most areas of the seashore to remain open to recreational use, but access will be restricted in certain areas during the breeding seasons of federally-protected wildlife.

Under the consent decree, NPS must implement a number of interim strategies to protect birds and sea turtles that breed at Cape Hatteras. Among other things, NPS must:

- Increase the frequency and extent of monitoring and protection efforts for certain shorebird species and for all sea turtle species;
- Establish and enforce larger beach closure areas around nesting areas;
- Mark, monitor and enforce pedestrian and ORV corridors along the shoreline; and
- Enforce a prohibition regarding vehicles on beaches at night during breeding seasons.

In addition to these requirements, the federal government must complete an ORV management plan for Cape Hatteras by Dec. 31, 2010.



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Waterbird and Shorebird Protections

By March 15 of each year, NPS must establish “pre-nesting areas” in historic nesting sites on Bodie Island Spit, Cape Point, South Beach, Hatteras Spit, and north and south Ocracoke. These areas will be closed to vehicles and pedestrians in order to allow shorebirds and waterbirds to establish breeding territories and colonies without disturbance. Pre-nesting areas will remain closed until the later of July 15 or two weeks after the last protected chick within the area has fledged, based on two consecutive monitoring events.

Once protected birds begin to exhibit breeding behavior and establish nesting colonies, NPS must establish buffers for these areas as well. For the threatened piping plover, NPS must establish a 50-meter zone for ORVs and pedestrians around nests, and it must establish a buffer zone around chicks of 1000 meters for ORVs and 300 meters for pedestrians. For the American Oystercatcher, NPS must create an ORV and pedestrian buffer of 150 meters around breeding pairs and nests and a 200-meter ORV and pedestrian buffer around chicks. For colonial waterbirds, the consent decree requires buffers of 100-200 meters around breeding pairs and nests, and buffers of 200 meters around chicks.

Protections for Sea Turtles

The consent decree also restricts driving on the beach at night to protect sea turtles that use the beach to nest. In general, non-essential ORV use on Cape Hatteras is now prohibited between the hours of 10 p.m. and 6 a.m. from May 1 through November 15 of each year. Between September 16 and November 15, however, drivers may operate ORVs on the beach if they obtain a permit (which will include restrictions on light usage) and receive training regarding wildlife preservation efforts at Cape Hatteras. Permittees do not gain unlimited access for night driving, though. NPS retains discretion to limit night driving to certain areas and routes based on resource protection considerations, and it must close any beach areas containing nests with un-hatched eggs.

Stiff Penalties

The consent decree includes stiff penalties to deter violations. Not only do violators face up to \$5,000 in fines and imprisonment of up to six months, but other users of the beaches will suffer as a result of violations as well. Violations of buffer areas or closure areas that disturb or harass wildlife, or acts of vandalism towards fencing, nests or plants will result in the expansion of buffer areas by 50 meters for the first violation, 100 meters for the second violation, and 500 meters for the third violation. Already, a recent act of vandalism directed towards several “Area Closed” signs has resulted in the expansion of a restricted area by 50 meters.

Public Education

Finally, the consent decree includes requirements for NPS to educate the public about the environmental consequences of driving on the beach. NPS must provide educational information about protected species at all ORV access points, and it must redesign the Seashore’s driving brochure to educate beach users regarding the regulations and the potential penalties for violations. NPS also must establish a 24-hour phone line that citizens can use to report illegal activity.

Comment

For the time being, local residents, fishermen and park visitors will have to adjust their use of some portions of the beaches on Cape Hatteras. The new restrictions will not only result in certain areas of the seashore being closed entirely, but will likely result in substantially limited access to other areas as well. Local business owners are rightfully concerned about the negative economic consequences that may be caused by the loss of access to prime surf fishing locations. On the other hand, environmental groups see the consent decree as a victory for the seashore’s protected species. There is substantial evidence indicating that the mere presence of humans during the breeding cycles of some species can have drastic effects on reproduction, to say nothing of the immediate threat that night-time beach driving can pose to adult sea turtles.

Regardless of where any party’s allegiances may lie at the moment, no one should become too comfortable with the status quo. NPS has approximately two and a half years to develop a comprehensive ORV management plan, the contents of which will likely stir the passions of both sides again. In addition, North Carolina’s congressional delegation has already introduced legislation seeking to nullify the consent decree. The bill seeks to reinstate the Interim Management Strategy



that previously governed ORV use on Cape Hatteras until NPS issues the comprehensive management plan.

Defenders of Wildlife v. National Park Service, No. 2:07-CV-45 (E.D.N.C. Apr. 16, 2008).

For more information on this topic, please contact the article author, Sean M. Sullivan.

VIRGINIA

Governor to Air Board: Follow the Law

It's been no secret that recent permitting decisions by the Virginia State Air Pollution Control Board have been controversial. Indeed, some say that those decisions were the impetus behind recent changes to Virginia law concerning the make-up of the Air Board and the procedures it uses to make decisions.

On June 10, Governor Tim Kaine sent a letter to members of the Air Board that is frank and straight-forward. The governor told the board that he was "writing to provide you with clear direction on my expectations for the process to be utilized in issuing permits." He said his "intent in issuing this directive is not to influence the subject of any decision you may make, but to assure consistency, certainty and predictability in the process of issuing decisions." "My expectation and directive to you," he continued, "is to exercise your authority in accordance with the board's duly adopted regulations and regulatory processes while giving due consideration to the advice of the board's legal counsel. I further direct you not to address any media other than air quality in your permitting decisions."

The manner in which the board has considered permit applications clearly was a concern to the governor. He noted that while his letter seemed "to state obvious parameters within which to exercise your authority, recent reports to me necessitate that I remind you of them." He went on to note that

permitting decisions "are not opportunities to institute regulatory changes directly or by implication."

Comment

Let's give credit where credit is due: Governor Kaine stepped up. Nothing compelled him to write such a letter, but apparently he saw things he didn't like and – quite diplomatically – let the Air Board know. That Governor Kaine is willing to take the political heat that will undoubtedly come from some corners in response to his letter is a feather in his cap.

For more information on this topic, please contact the article author, Channing J. Martin.

VIRGINIA

DEQ Issues 2008 Water Quality Report

DEQ has released a draft of its 2008 CWA § 305(b) and § 303(d) Integrated Report describing water quality conditions in Virginia for the period from Jan. 1, 2001 through Dec. 31, 2006. The primary purpose of the report is to satisfy water quality reporting requirements under the federal Clean Water Act and the Virginia Water Quality Monitoring, Information and Restoration Act.

Water quality in Virginia is assessed based on whether the condition of the water body supports certain "designated uses" described in Virginia's Water Quality Standards. These uses are aquatic life, fish consumption, shellfish consumption, swimming, public water supply, and wildlife. The overall goal of the water quality assessment program is to identify "impaired" waters that do not support their designated uses and then develop and implement a water quality management plan, called a Total Maximum Daily Load ("TMDL") for each such water.

The assessment undertaken by DEQ analyzed data from DEQ ambient water quality, biological, sediment and fish tis-

“*Governor Kaine stepped up.*”



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sue monitoring, other special studies, and/or non-DEQ water quality data. The data were then compared to both numeric and narrative criteria for the designated uses mentioned above. DEQ used data from over 6,000 monitoring stations throughout the state, including data from several hundred citizen monitoring stations that met “the highest level of quality assurance.”

The assessment approach used in the 2008 report, like the prior report in 2006, is based on the Integrated Reporting Guidance developed by EPA. The 2008 report combines DEQ’s overall assessment of Virginia’s water (required by CWA § 305(b)) with DEQ’s assessment of “impaired” waters (required by CWA § 303(d)). All Virginia waters assessed in the 2008 report were placed in one of five categories based on whether the water quality supports the designated uses for those waters. The five categories are:

Category 1 – Water fully supports all designated uses.

Category 2 – Water fully supports all designated uses for which data are available but there is insufficient information regarding the remaining designated uses.

Category 3 – Insufficient data to determine if any designated uses are being met.

Category 4 – Waters are impaired or threatened but do not need a TMDL.

Category 5 – Waters are impaired and need a TMDL.

EPA’s guidance allows states to establish subcategories to address state water quality program needs, and DEQ has done that for each of the five main categories.

Streams and Rivers

There were sufficient data available to assess one or more designated uses in only 16,191 miles (31.7 percent) of Virginia’s 51,021 miles of free-flowing streams and rivers. The

remaining stream miles had insufficient data to determine if any designated uses are being met. DEQ placed 5,587 of those 16,191 miles in Category 1 (supports all designated uses) or Category 2 (supports some designated uses, but insufficient data to assess all uses). DEQ placed a total of 10,604 miles into Category 4 (impaired or threatened, but not needing a TMDL) and Category 5 (impaired and needing a TMDL). DEQ placed the remaining 34,830 miles of streams in Category 3 because the agency lacked sufficient data to determine whether these stream segments support all of their designated uses or are impaired waters.

DEQ says the leading cause of the impairment of designated uses in Virginia’s rivers and streams is violation of the water quality standards for *E. coli* bacteria. (In 2003, Virginia adopted three new bacteria criteria for fecal coliform, *E. coli* and enterococci.) Agricultural practices appear to be the primary source of the violations of these bacteria standards. However, the report notes that urban runoff, urban storm sewers, leaking sanitary sewers, failing septic tanks, domestic animals and wildlife can be significant contributing sources.

Lakes and Reservoirs

Virginia has 122 “significant” lakes and reservoirs with an estimated 114,884 total acres. (“Significant” lakes and reservoirs are those that are publicly accessible, greater than 100 acres, and/or serve as a public water supply.) For the 2008 report, 112,189 acres (97.7 percent of the total) were monitored and assessed with sufficient data for one or more designated uses, while the remaining 2,695 acres have insufficient data to make an assessment of designated uses (Category 3). A total of 18,150 acres supported some or all designated uses (Categories 1 and 2). The vast majority, 94,039 acres, of the lake and reservoir waters were found to be impaired (Categories 4 and 5).

Many reservoirs were previously considered impaired for aquatic life use, primarily due to natural stratification causing dissolved oxygen (DO) depletion in the bottom waters. However, nutrient standards adopted in 2007 limit DO assessment to the top layer above stratification during the warmer months of the year. This has eliminated from assessment Category 4 many natural DO reservoir impairments due to stratification. Exceedances of the fish tissue standard for PCBs remain a major cause of fish consumption use impairment in lakes and reservoirs.





Tidal Estuaries

The 2008 report includes an assessment of the Chesapeake Bay under the new Chesapeake Bay Water Quality Standards adopted in 2005 and refined in 2006 and 2007. These new standards cover 30-day dissolved oxygen concentrations and “submerged aquatic vegetation,” which is associated with the aquatic life designated use. In addition, the estuarine evaluation in the 2008 report is based on benthic conditions and sediment toxicity data for the Bay.

Sufficient data were available for assessment of at least one or more designated uses in all 2,308 square miles of Virginia’s estuarine waters. The report found that only 122 square miles of estuarine waters supported one or more designated uses (Categories 1 and 2). The remaining 2,185 square miles are impaired (Categories 4 and 5).

The leading cause of impairment in Virginia’s estuarine waters is violation of the new standard for submerged aquatic vegetation adopted in 2005. Dissolved oxygen violations during summer months are also widespread in estuarine waters. Another major cause of impairment is violation of the fecal coliform bacteria standard associated with shellfish consumption advisories.

Fish Consumption Advisories

The Virginia Department of Health issues fish consumption advisories. As of Dec. 31, 2007, there were 54 fish consumption advisories in Virginia, 39 for PCBs, 20 for Mercury, and one for Kepone. Five advisories are for both PCBs and Mercury and three others have overlapping PCBs and Mercury segments and one for Kepone and PCBs. The fish consumption advisories due to mercury are attributable to DEQ fish tissue monitoring in certain waterbodies that have environmental conditions which have been associated with increased potential for bioaccumulation of mercury in fish. These environmental conditions include low pH, low DO and high organic matter. Many of these waterbodies are swamp waters (Class VII) and have little or no industrial or municipal dischargers and have not been sampled before.

Significant Changes from the 2006 Report

The number of stream miles listed in Categories 4 and 5 as impaired increased from 8,984 in the 2006 report to 10,604 in the 2008 report. The number of acres of impaired lakes and reservoirs dropped from 109,208 to 94,039, principally because of the change to the DO standard in 2007. Nearly 95

percent of Virginia’s estuarine waters were listed as impaired in both the 2006 and 2008 reports. All in all, the 2008 report indicates that while progress has been made, Virginia still has work to do to achieve desirable water quality in all of its rivers, lakes and the Bay.

For more information on this topic, please contact the article author, Thomas E. Knauer.

VIRGINIA

DEQ Issues Annual TRI Release Report

Virginia industry increased the release of chemicals from its facilities to the environment by 18.6 percent and increased on-site management, e.g., recycling, by nearly 40.4 percent in 2006 compared to 2005 according to the latest annual Toxics Release Inventory (“TRI”) report issued by DEQ. The TRI is a public database of annual reports to EPA and DEQ of releases and off-site transfers of certain reportable chemicals from facilities (1) that employ ten or more full time employees, (2) are in certain Standard Industrial Classification code categories, and (3) that manufacture or process 25,000 pounds or more or otherwise use 10,000 pounds or more of any reportable chemical during the calendar year. Federal facilities that manufacture, process, or otherwise use reportable chemicals above the thresholds must also report annually. For 2006, 467 Virginia facilities filed TRI reports, a decrease of 21 facilities from the 2005 reporting year.

DEQ’s 2006 TRI report contains the most recent data regarding on-site releases and regarding the management and off-site transfers of reportable chemicals by Virginia industries. On-site releases include emissions to the air, discharges to water and disposal on the land. On-site management includes recycling, energy recovery and treatment. Off-site transfers include transfers of reportable chemicals to wastewater treatment works, landfills, incinerators or other facilities for treatment or disposal, including recycling or energy recovery. It is important to note that the overwhelming majority of these releases and transfers were legally permissible under EPA



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and DEQ regulations and permits designed to ensure such releases and transfers do not pose unacceptable risks to human health or the environment.

EPA maintains a list of over 650 “toxic” chemicals and chemical categories to report in the TRI. However, the adjective “toxic” is sometimes a misnomer. Some chemicals are found on EPA’s list of reportable chemicals that many would not consider to be toxic.

On-site Releases

In 2006, Virginia companies released 66.3 million pounds of reportable chemicals on-site to the air, water or land. By far, most of the releases – nearly 42 million pounds – were to the air. Hydrochloric acid, accounting for nearly 38 percent of the air releases, remained the top TRI air pollutant. As usual, nitrate compounds were far and away the top water pollutant, accounting for over 99 percent of the 19.5 million pounds of TRI chemicals released on-site to water. Releases to land were over 4.9 million pounds. Barium compounds, accounting for over 35 percent, remained the top TRI chemical released on-site to the land. Compared to 2005, on-site releases in 2006 to air increased 1.9 percent, to water increased 96.9 percent, and to land increased 1.0 percent, for an overall increase of 18.6 percent. DEQ notes that the large increase in the on-site discharge of TRI chemicals to water resulted from “a very high value reported for FY2006 for one of the facilities as compared to previous years’ reporting due to recalculation of facility activities.”

Off-site Transfers

Overall off-site transfers of reportable chemicals from Virginia facilities in 2006 were down 20.8 percent from the 2005 reporting year. About 11.8 million pounds were sent off-site to publicly-owned wastewater treatment works in 2006, a 38 percent decrease from the 2005 reporting year. About 57.2 million pounds (down nearly 11 million pounds from 2005) were transferred off-site for recycling, energy recovery (burning as fuel) or other treatment or disposal.

Releases by Industrial Sector

The industrial sector with the greatest releases of reportable chemicals on-site was electric, gas and sewer utilities (28.3 percent) followed by chemical manufacturing (19.7 percent), paper manufacturing (16.1 percent), wood product manufacturing (8.4 percent), food manufacturing (6.5 percent), fabricated metal product manufacturing (4.9 percent), plastics and rubber products manufacturing (2.8 percent), primary metal manufacturing (2.2 percent), transportation equipment manufacturing (2.0 percent) and nonmetallic mineral product manufacturing (1.9 percent). All other sectors combined totaled 7.2 percent of the releases.

On-site Management

As large as the release numbers may seem, they are dwarfed by the numbers reflecting on-site management of TRI reportable chemicals. Over 634 million pounds of TRI chemicals were managed through treatment (167.8 million pounds), recycling (441.6 million pounds) or energy recovery (24.8 million pounds) on-site at Virginia facilities. For comparison, in 2005 nearly 452 million pounds of TRI chemicals were managed on-site through treatment (89.9 million pounds), recycling (350.1 million pounds) or energy recovery (11.6 million pounds). On-site recycling at Virginia facilities jumped over 40 percent from 2005 to 2006.

PBT Releases

DEQ’s TRI report for 2006 also summarizes releases of “persistent bioaccumulative toxic” (PBT) chemicals. PBT chemicals are those that remain in the environment for long periods of time, are not readily destroyed and build up or accumulate in body tissue. There are 20 chemicals and classes of chemicals on EPA’s PBT list, including substances such as dioxin, PCBs, lead and its compounds, and mercury and its compounds. For 2006, 3.51 million pounds of PBTs, mostly lead and lead compounds, were released to the environment on-site (389,153 pounds), transferred off-site for treatment, recycling, energy recovery, or disposal (3.11 million pounds) and managed on-site through treatment or recycling (5,164 pounds). This represents an 86.6 percent increase from reporting year 2005.

Historic Trends

How does 2006 stack up against prior years going back to the inception of TRI reporting in 1988? It’s not always possible to draw quantitative conclusions from the data because



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since 1988 the universe of TRI substances has increased by 286 chemicals and the universe of reporting facilities has increased with the addition of seven new facility categories (including the addition of electric power generation facilities). With this said, though, the data clearly show a dramatic downward trend in TRI releases in Virginia. For example, on-site releases to air, water and land of a smaller universe of TRI chemicals by a smaller universe of reporting facilities totaled about 150 million pounds in 1988. In 2006, on-site releases totaled only 66.3 million pounds, less than 45 percent of the 1988 amount. That's a significant reduction and one that few seem to focus on. Such data allow DEQ to conclude that "the amount of TRI chemicals released or otherwise managed has historically decreased" over the years.

2006 Virginia Toxics Release Inventory Report (March 2008) available at <http://www.deq.virginia.gov/sara3/3132006.html>.

For more information on this topic, please contact the article author, Thomas E. Knauer.

VIRGINIA

Water Board Proposes Revisions to Water Quality Standards

The State Water Control Board has proposed revised water quality standards as part of the statutorily-mandated triennial review of Virginia's water quality. The proposed changes should benefit the environment and the regulated community alike. The proposed revisions reflect updated information about specific resources and a realization that some existing criteria are unreasonable and unattainable. This article discusses some of the more significant changes, including changes to dissolved oxygen ("DO") and pH criteria for swamp waters, increases in the E.coli criteria for freshwater, additions to the Table of Parameters and new site-specific standards for Lake Curtis, Kerr Reservoir and Little Calpasture River.

Background

Section 303(c) of the Clean Water Act and Virginia Code §62.1-44.15(3a) mandate that the State Water Control Board review and, as appropriate, modify and adopt water quality standards every three years. The corresponding federal water quality regulation at 40 CFR 131.6 requires states to promul-

gate use designations, water quality criteria to protect the designated uses, and an anti-degradation policy. Since late 2006, DEQ – on behalf of the board – has reviewed the standards, addressed public comments and consulted with an ad hoc advisory committee consisting of the public, industries and environmental organizations.

New and Revised Criteria

The board has proposed new criteria for bacteria in freshwater because the existing criteria resulted in unreasonable and unattainable endpoints. Modeling showed that, under the current criteria, some watersheds would be required to eliminate 100 percent of the bacteria load, including natural inputs from wildlife. The board has proposed an increased standard of 206 colony forming units (CFUs)/100 ml of water, based on a risk level of 1.0 percent (10 out of 1000 swimmers may get ill). The existing criteria is 126 CFU/100 ml of water with a risk level of 0.8 percent. EPA has issued guidance finding these risk levels to be acceptable, but the board has asked for public comment on the costs and benefits of this change. DEQ has also proposed listing the geometric mean as the main standard of evaluation.

Based on new information about the natural characteristics of certain swamp waters, DEQ has proposed a narrative exemption from the DO and pH criteria. These swamps, located mainly in eastern Virginia, are naturally low in DO and pH but have been listed as impaired in the past. Under the proposed regulation, "water quality standards will not be considered violated when conditions are determined by the board to be natural and not due to human-induced sources." In addition, the pH criterion will be adjusted from 4.3-9.0 to 3.7-8.0.

The board also proposed changes to the human health and aquatic life criteria. Changes have been proposed to 93 of the human health criteria for two reasons. First, research suggests that the public eats as three times more fish than was previously estimated, and therefore concentrations of certain chemicals in fish must be reduced to ensure humans are not ingesting unsafe amounts. Second, some of the criteria included a



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Relative Source Contribution Factor, which means EPA has determined that humans are potentially exposed to these chemicals not only from contaminated water and fish, but also from other sources.

The board proposed new aquatic life criteria for nonlyphenol and diazinon. Nonlyphenol is an organic chemical that causes negative reproductive effects in aquatic organisms. It is often found in wastewater treatment plant effluent. Diazinon is particularly toxic to aquatic invertebrates and can be found in wastewater treatment plant effluent and urban and agricultural runoff. The board has also proposed making the aquatic life criteria for cadmium and lead more stringent and making that same criteria for tributyltin less stringent than the existing criteria.

Site-Specific Standards

Several new special site-specific standards were proposed. A special pH standard was proposed for Lake Curtis in Stafford County to maintain the fishery. To protect the aesthetic qualities of the water supply, a special manganese criterion was proposed for one intake location on the Kerr Reservoir. A new benthic numerical criterion for a section of the Little Calfpasture River was proposed to reflect conditions created

by the presence of Goshen Dam. This last proposed standard is limited to a very small segment immediately below the impoundment (less than 200 yards) and will avoid imposition of a TMDL which, according to DEQ, cannot reasonably be achieved without removal of Goshen Dam.

Comment

The new exemptions for pH and DO as well as the special standards noted above will give regulators and the public a more accurate portrayal of whether the affected waterbodies are truly impaired. They will also reduce the time and cost associated with developing TMDLs. Some may object to the proposed increase in the bacteria standard on the ground that the Board is lowering the bar on water quality. However, the estimated illness rate presented by the proposed criteria was found to be acceptable by EPA in recently published guidance. That, along with the difficulty of achieving the existing criteria because of natural bacteria loading, should lend support to promulgation of the new criteria into a final rule.

24 Va. Reg. 2029 (March 31, 2008)

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“...some watersheds would be required to eliminate 100 percent of the bacteria load, including natural inputs from wildlife.”

GLOSSARY OF ABBREVIATIONS

Abbreviations for June/July Environmental Report

CAA	Clean Air Act
CAMR	Clean Air Mercury Rule
DEQ	Virginia Department of Environmental Quality
DO	Dissolved Oxygen
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
GHGs	Greenhouse Gases
HAP	Hazardous Air Pollutant
HON	Hazardous Organics NESHAP
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOAA	National Oceanic and Atmospheric Administration
NO_x	Nitrogen Oxides
NPS	National Park Service
NSR	New Source Review
ORV	Off-road Vehicle
PM_{2.5}	Particulate Matter less than or equal to 2.5 micrometers in diameter
PM₁₀	Particulate Matter less than or equal to 10 micrometers in diameter
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
SO₂	Sulfur Dioxide
TRI	Toxics Release Inventory



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