

**PROGRESS MADE, PROGRESS LOST:
THE BUSH ADMINISTRATION AND
THE ANNIVERSARY OF THE CLEAN WATER
ACT**

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Progress Made, Progress Lost: The Bush Administration and the Anniversary of the Clean Water Act

EXECUTIVE SUMMARY

October 18th marks the 32nd anniversary of the modern Clean Water Act. This landmark environmental statute established a national commitment to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. It is the main reason the Nation's waterways have shown dramatic improvement in water quality, even as the population has increased by nearly 40 percent. The Clean Water Act has been instrumental in improving the health of rivers, lakes, and coastal waters. It has stopped billions of pounds of pollution from fouling the water and dramatically increased the number of waterways that are safe for swimming and fishing.

The successes and failures of the Clean Water Act can be succinctly stated. In 1972, only one-third of the Nation's waters met water quality goals. Today, two-thirds of those waters meet water quality goals. The Nation has doubled the waters that meet water quality goals, but there is still much work to be done: one-third of our Nation's waters still fail to meet the water quality goals first established more than 30 years ago. For example:

- In 1972, most estimates were that only 30 to 40 percent of the assessed waters in the United States met water quality goals; today, States report that 60 to 70 percent of assessed waters meet those goals – an increase of 100 percent;
- In 1968, sewage treatment facilities served approximately 140 million people in this country, many at only a primary treatment level (a level of treatment that screens and settles solid pollution); today, after more than \$80 billion in Federal investments, 207.8 million people, representing more than 71 percent of the total population, are serviced by more than 16,000 publicly owned treatment works providing secondary treatment (a level of treatment that also incorporates bacteria to digest organic matter in wastewater) or more advanced treatment (additional measures typically intended to address nutrients, such as nitrogen and phosphorous);
- In 1972, the country lost an estimated 450,000 acres of wetlands each year; in the mid 1990s, wetlands losses were estimated to be less than one-fourth that rate.

The Nation now stands at a crossroads in the restoration and protection of its waters and wetlands. One path improves upon the successes of the last 32 years and will finally achieve the goals of the Clean Water Act of fishable and swimmable waters. The other path leads to the very real possibility that progress will be lost, potentially returning to the days when our waters were little more than open sewers. It is a simple question of priorities and commitment. Unfortunately for this and future generations, the Bush Administration is pursuing the latter path, in spite of clear warning signs that progress in cleaning up the Nation's waters is slipping.

The actions – or lack of actions – of the Bush Administration on water quality are steadily undermining the successes of the Clean Water Act. For example, in the first three years of the Bush Administration:

- President Bush undercut efforts to give States additional tools for addressing the more than 20,000 rivers, lakes, streams that remain polluted to the point of endangering public health, and instead, proposed ways to avoid reducing water quality impairments;
- President Bush provided no leadership on efforts to control nonpoint source pollution – the greatest continuing source of impairment to the Nation’s waters;
- President Bush undermined the efforts of previous administrations to control polluted runoff from animal feeding operations – a significant contributor to water quality impairment for many coastal cities and communities;
- President Bush seized upon the regulatory turmoil in the wake of the *Solid Waste Agency of Northern Cook County v. Army Corps of Engineers* decision to propose limiting the scope of Clean Water Act protections over waters and wetlands, and continues Administration policy that abandons Federal protections over one-fifth of the Nation’s waters;
- President Bush weakened the Corps’ Nationwide Permit program, overturning stricter environmental standards, and allowing the continuation of activities that destroy thousands of acres of wetlands and miles of streams every year, with little or no oversight;
- President Bush eliminated much of the Federal oversight and protections over mountaintop coal mining, making it easier for the mining industry to destroy mountain lakes and streams, and
- President Bush repeatedly undercut, under-funded, or simply ignored Federal enforcement of laws, programs, and policies related to water quality.

Especially disturbing is the opposition of the Bush Administration to bipartisan Congressional efforts to increase Federal investment in the Nation’s wastewater and drinking water infrastructure. As the population grows, we must substantially increase our wastewater and drinking water infrastructure to maintain and improve the quality of our water. Failure to make the necessary infrastructure investments will lead to a serious deterioration in water quality, and a potentially massive decline in productivity and economic prosperity for the Nation.

Taken as a whole, the 30-plus-year history of the modern Clean Water Act has been a tremendous success. The past 32 years have also provided us with significant insight on where the Clean Water Act has failed – most notably in controlling various nonpoint sources of pollution.

However, now, even when armed with the knowledge of how far the Nation has come, and how close it is to finally achieving the fishable and swimmable goals of the Act, the United States stands on the threshold of throwing all these successes away and reverting back to the days of rivers that burn, lakes that are dead, and waterways that are sewers.

The actions of the Bush Administration clearly demonstrate how easy it is to turn the clock back on protecting our Nation's waters. In just over three years, President Bush has shown that the decisions, priorities, and policy choices made by his Administration can mean the difference between concerted efforts to restore and protect our most vital natural resource from pollution, and efforts to undermine these protections.

During the last few years, we witnessed a dramatic reversal in water quality trends, with States reporting greater numbers of rivers, lakes, and coastal areas that fail to meet water quality standards. We see evidence from the Environmental Protection Agency that a failure to make significant, immediate investments in water infrastructure will lead to waters more polluted than existed prior to the enactment of the Clean Water Act. We see the reemergence of massive, unexplained "dead-zones" in the Great Lakes and the Gulf of Mexico, indicating that local water quality conditions are worsening rapidly.

Clearly, the Nation has a choice – the final chapters on the Clean Water Act have yet to be written. The questions remain – which path will be followed? Should we be satisfied with the progress that has been made, and resign ourselves to the fact that we have already witnessed the peak in water quality as conditions worsen? Or should we demand that next steps be taken to clean America's waterways?

The answer depends as much on our own commitment to finishing the job that began with passage of the Clean Water Act, as on ensuring that our elected officials share our views. Now, more than ever, we must reaffirm our commitment to restoring and protecting our Nation's greatest natural resource – our rivers, lakes, streams, coastal areas, and wetlands.

We owe future generations no less.

INTRODUCTION

October 18th marks the 32nd anniversary of the modern Clean Water Act. This landmark environmental statute established a national commitment to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. It is the main reason the Nation's waterways have shown dramatic improvement in water quality, even as the population has increased by nearly 40 percent. The Clean Water Act has been instrumental in improving the health of rivers, lakes, and coastal waters. It has stopped billions of pounds of pollution from fouling the water and dramatically increased the number of waterways that are safe for swimming and fishing.

The successes and failures of the Clean Water Act can be succinctly stated. In 1972, only one-third of the Nation's waters met water quality goals. Today, two-thirds of those waters meet water quality goals. The Nation has doubled the waters that meet water quality goals, but there is still much work to be done: one-third of our Nation's waters still fail to meet water quality goals first established more than 30 years ago.

Despite the successes, we still face significant challenges.

An overwhelming majority of Americans – 218 million – live within 10 miles of a polluted lake, river, stream, or coastal area.¹ States have identified almost 300,000 miles of rivers and streams and more than 7 million acres of lakes that do not meet State water quality goals – many of these waters are unsafe for swimming and unable to support healthy fish or other aquatic life.² Last summer, coastal areas reported more than 18,000 days where water quality and health concerns closed beaches to swimmers and other recreational users.³

Clearly, the Nation stands at a crossroads in the restoration and protection of its waters and wetlands. One path improves upon the successes of the past and will finally achieve the goals of the Clean Water Act of fishable and swimmable waters. The other path leads to the very real possibility that progress will be lost. It is simply a question of priorities and commitment. Unfortunately for this and future generations, the Bush Administration is pursuing the latter path, in spite of clear warning signs that our progress in cleaning up the Nation's waters is slipping.⁴

The actions – and lack of action – of the Bush Administration on water quality are steadily undermining the successes of the Clean Water Act, allowing greater numbers of polluters to discharge at levels in excess of those necessary to protect the quality of the Nation's waters. In addition, the Bush Administration stands idly by while the leading sources of pollutants to the Nation's waters – those from nonpoint sources, such as agricultural runoff, and municipal stormwater – remain unchecked.

The Bush Administration also proposed to expand efforts to fill, drain, or otherwise conduct activities that could destroy the remaining wetlands of the United States. In the absence of

¹ U.S. EPA. "Liquid Assets 2000: America's Water Resources at a Turning Point." May 2000.

² See U.S. EPA. "National Water Quality Inventory: 2002 Report." September 2002.

³ See Natural Resources Defense Council. "Testing the Waters 2004: A Guide to Water Quality at Vacation Beaches." August 2004.

⁴ See U.S. EPA. "National Water Quality Inventory: 2002 Report." September 2002. See also U.S. EPA. "The Clean Water and Drinking Water Infrastructure Gap Analysis." September 2002.

achieving this goal, the Administration directed Federal agencies responsible for overseeing water resources to look the other way while developers exploit the Nation's remaining waters and wetlands.

Finally, the Environmental Protection Agency (EPA) itself has reported that without additional efforts to upgrade pollution fighting efforts, within the next 20 years, U.S. waters could return to the polluted state that spurred the enactment of the original Clean Water Act in 1972 – back to the days when Lake Erie had been declared dead by *Life* magazine and the Cuyahoga River in Ohio caught fire. Yet, all the while, the Bush Administration has opposed making the necessary Federal investment to avoid this fallback, and has, in fact, annually proposed to cut the main source of Federal assistance to water and wastewater infrastructure.

HISTORY OF THE MODERN CLEAN WATER ACT

Since the latter half of the 20th century, national policy for water pollution control has been legislated primarily through the Federal Water Pollution Control Act (“FWPCA”). First passed in 1948, the FWPCA has been amended numerous times to gradually expand the involvement of the Federal government in regulating pollutant discharges from point sources to surface waters. Yet, until enactment of the 1972 Amendments to the FWPCA, more commonly known as the Clean Water Act, the primary responsibility for water pollution control was vested with the States.

Unfortunately for the health of the Nation’s waters, there was great diversity among the States in the terms of ability and willingness to pay the costs of building and upgrading publicly owned treatment works and to enforce water pollution control laws. Lack of consistent local water quality standards, monitoring data, and penalties for violators exacerbated the problem. Prior to the enactment of the Clean Water Act, national progress in improving water quality was hindered, in part, because unless a State formally requested intervention by the Federal government, Federal authority for regulating discharges was restricted to interstate and coastal waters.

Yet, all the while, little was being done to slow down the flow of pollution into the Nation’s waters and things continued to get worse. For example:

- In July 1970, the Department of Health, Education and Welfare’s Bureau of Water Hygiene reported that 30 percent of drinking water samples had chemicals exceeding the recommended Public Health Service limits.
- The Food and Drug Administration reported in February 1971 that 87 percent of swordfish samples had mercury at levels that were unfit for human consumption.
- A national pesticide survey conducted in 1967-1968 by the U.S. Bureau of Sport Fisheries measured DDT in 584 of 590 samples, with levels up to nine times the FDA limit.
- In 1969, the Hudson River contained bacteria levels 170 times the safe limit.
- Record numbers of fish kills were reported in 1969 – over 41 million fish – more than in 1966 through 1968 combined, including the largest recorded fish kill ever – 26 million killed in Lake Thonotosassa, Florida, due to discharges from four food processing plants.
- A 1968 survey found that pollution in the Chesapeake Bay caused \$3 million annually in losses to the fishing industry.⁵

And, on a Sunday morning in June 1969, the residents of Cleveland, Ohio witnessed a sight that had become all too common in their community – a fire on the Cuyahoga River. Similar to the previous fires of 1936 and the 1950’s, a floating oil slick on the Cuyahoga river, just southeast of Cleveland, burst into flames, causing significant fire damage to two key railroad trestles. While the exact cause of the fire was never determined, investigations in the days following the blaze pointed

⁵ Robert Adler, Jessica Landman, and Diane Cameron, “The Clean Water Act: 20 Years Later.” (Island Press 1993).

to a “discharge of highly volatile petroleum derivatives with a sufficiently low flash point to be ignited by a chance occurrence” – such as a spark from a passing train.⁶

Soon afterward, national attention focused on the water pollution problems that existed throughout the Nation – from the article in *Life* that Lake Erie was “dead,” to the statements of President Lyndon Johnson that the Potomac River in Washington D.C. was a “national disgrace,” to numerous rivers so clogged with pollution that you could almost walk across them.

In hindsight, although the Cuyahoga River fire lasted a mere 20 minutes, it helped ignite a different type of fire throughout the Nation – one that would eventually lead to the passage of the Federal Water Pollution Control Act Amendments of 1972, the modern Clean Water Act.

As noted in 1972 by the then-Chairman of the Committee on Public Works,⁷ John Blatnik, during consideration of the Conference Report, “[the] legislation before the House today, to which every member of the Public Works Committee has made an outstanding contribution, is not a victory for the position taken in conference by the House or that of the Senate. It is a victory for the people of this Nation and for the future of this Nation, whose very survival depends on the survival of our waters.”⁸

⁶ Van Tassel. “The Encyclopedia of Cleveland History.” (Indiana U. P., 1987).

⁷ The predecessor to the current House Committee on Transportation and Infrastructure.

⁸ See Committee on Public Works, “A Legislative History of the Water Pollution Control Act Amendments of 1972,” Jan. 1973 at 241.

WHERE WE WERE – AND HOW FAR WE HAVE COME

The 1972 Clean Water Act (“the Act”) is commonly viewed as one of the most successful environmental laws in America. In many ways, the Act truly did turn the tide on water pollution. Measures of the Nation’s progress since its enactment include the following:

In 1972, most estimates were that only 30 to 40 percent of the assessed waters in the United States met water quality goals such as being safe for fishing, swimming, or as a drinking water source. Today, States report that between 60 to 70 percent of assessed waters meet State water quality goals – an increase of 100 percent.⁹

In 1968, sewage treatment facilities served approximately 140 million people in this country, many at a primary treatment level.¹⁰ Today, after Federal investments of more than \$80 billion in wastewater assistance since the passage of the Clean Water Act, 207.8 million people, representing more than 71 percent of the total population, are serviced by more than 16,000 publicly owned treatment works providing secondary or more advanced treatment.¹¹

In 1968, about 39 percent (54.2 million) of the 140 million people served by publicly owned treatment works received less than secondary treatment (raw and primary). By 2000, the last year data is currently available, this percentage was reduced to just over two percent (6.4 million) of the 207.8 million people served by publicly owned treatment works.¹² In addition, the U.S. population served by publicly owned treatment works with secondary or greater treatment more than doubled between 1968 and 1996.¹³

In 1972, the country lost an estimated 450,000 acres of wetlands each year. During the latter 1990s, annual wetland losses were estimated to be less than one-fourth that rate,¹⁴ although the number of Federally-protected wetlands declined dramatically following the Supreme Court’s 2001 decision in *Solid Waste Agency of Northern Cook County v. Army Corps of Engineers*.¹⁵

⁹ U.S. EPA. “National Water Quality Inventory: 2002 Report.” September 2002.

¹⁰ U.S. EPA. “Progress in Water Quality: An Evaluation of the National Investment in Municipal Wastewater Treatment.” June 2000. Primary treatment is the first stage of wastewater treatment. It removes floating solids only. It generally removes 40 percent of the suspended solids and 30 to 40 percent of the BOD (biological or biochemical oxygen demand) in the wastewater.

¹¹ U.S. EPA. “Clean Watersheds Needs Survey 2000: Report to Congress.” August 2003. Secondary treatment is the second stage of wastewater treatment. It converts dissolved and suspended pollutants into a form that can be removed, producing a relatively highly treated effluent. Secondary treatment normally utilizes biological treatment processes (activated sludge, trickling filters, etc.), followed by settling tanks. It removes approximately 85 percent of the BOD and total suspended solids in wastewater. Secondary treatment is the minimum level of treatment required under the Clean Water Act for municipal wastewater. See U.S. EPA. “Progress in Water Quality: An Evaluation of the National Investment in Municipal Wastewater Treatment.” June 2000.

¹² Should all of the projects called for in the 2000 Needs Survey be constructed, the number of facilities that provide less-than secondary treatment is projected to decline from 47 facilities serving 6.4 million to 27 facilities serving 3.9 million, nearly all of whom (99.99 percent) will be served by facilities with special waivers allowing the discharge of less than secondary treated effluent to deep, well-mixed ocean waters. See U.S. EPA. “Clean Watersheds Needs Survey 2000: Report to Congress.” August 2003, and U.S. EPA. “Progress in Water Quality: An Evaluation of the National Investment in Municipal Wastewater Treatment.” June 2000.

¹³ U.S. EPA. “Progress in Water Quality: An Evaluation of the National Investment in Municipal Wastewater Treatment.” June 2000.

¹⁴ U.S. EPA and USDA. “Clean Water Action Plan.” February 1998.

¹⁵ *Solid Waste Agency of Northern Cook County v. Army Corps of Engineers*, 531 U.S. 159 (2001).

WHERE WE ARE TODAY – AND WHERE WE SHOULD BE

Despite some important successes, there is still a long way to go in order to achieve the goals of the Clean Water Act.

The State of the Nation's Waters:

Today, approximately 40 percent of assessed rivers, lakes, and coastal waters do not meet water quality standards (*See Appendix I*). States, territories, Tribes, and other jurisdictions report that poor water quality continues to affect aquatic life, fish consumption, swimming, and sources of drinking water in all types of waterbodies.

In the most recent Report on the National Water Quality Inventory, States, Tribes, territories, and interstate commissions report that they monitor only 33 percent of the Nation's waters. Of those, about 40 percent of streams, 45 percent of lakes, and 50 percent of estuaries were not clean enough to support their designated uses, i.e., fishing and swimming.¹⁶

While these numbers highlight the remaining need to improve the quality of the Nation's waters, they also demonstrate how this country's record on improving water quality is slipping – demonstrating a slight, but significant reversal of efforts to clean up the Nation's waters over the past 30 years.¹⁷

For example, in the 1996 National Water Quality Inventory report, States reported that of the 3.6 million miles of rivers and streams that were assessed, 64 percent were either fully supporting all designated uses or were threatened for one or more of those uses.¹⁸ In the 1998 report, this number improved to 65 percent of assessed rivers and streams.¹⁹ However, in the 2000 National Water Quality Inventory report, this number slipped to only 61 percent of assessed rivers and streams either meeting water quality standards or being threatened for one or more the waterbody's designated uses – a significant reversal in the trend toward meeting the goals of the Clean Water Act.²⁰

Similar reversals have been reported for the condition of the waters along the coastline, as well as in the Nation's estuaries.²¹ In addition, efforts to address the contamination and declining

¹⁶ U.S. EPA. "Water Quality Conditions in the United States: A Profile from the 2000 National Water Quality Inventory." September 2002.

¹⁷ While the EPA's National Water Quality Inventory report highlights only those waters of the United States that have been assessed, it the best information available on the health of the Nation's waters, representing the most timely and accurate information on the waters of the United States, as compiled by the States.

¹⁸ A threatened waterbody is a waterbody for which current water quality data supports its meeting a certain designated use, however recent data trends show a diminishing level of water quality such that it is likely that in the next listing cycle the waterbody will no longer be meeting its designated use. U.S. EPA. "National Water Quality Inventory: 1996 Report to Congress." April 1998.

¹⁹ U.S. EPA. "National Water Quality Inventory: 1998 Report to Congress." June 2000.

²⁰ U.S. EPA. "National Water Quality Inventory: 2000 Report." September 2002.

²¹ Compare U.S. EPA. "National Water Quality Inventory: 1996 Report to Congress." April 1998, and U.S. EPA. "National Water Quality Inventory: 1998 Report to Congress." June 2000, and U.S. EPA. "National Water Quality Inventory: 2000 Report." September 2002.

water quality in the country's 40 million acres of lakes has stagnated, effectively stopping the dramatic improvement in lake water quality achieved in the latter half of the last decade.²²

In fact, the only category that has demonstrated any "improvement" has been the Great Lakes – improving from 97 percent of assessed Great Lakes' shoreline waters being impaired in 1996, to 96 percent in 1998, to 78 percent in 2000.²³ However, even in the Great Lakes, where the *overall* percentage of impaired waters has declined, there has been a significant reversal in water quality; no waters along the Great Lakes' shoreline are completely safe for fishing and swimming. In 1996 and 1998, States along the Great Lakes reported that two percent of assessed waters along the shoreline fully met all designated uses; however, in 2000, these same States reported that no shoreline waters fully met water quality standards – *absolutely none*.²⁴

While it is true that EPA's National Water Quality Inventory reports do not provide information on the health of 100 percent of U.S. waters, they represent the best, if not the only, means of assessing trends in nationwide efforts to improve the waters of the United States. Given the fact that the true condition of all the Nation's waters could, in fact, only be worse than the reports reveal – any reversal of improvement in water quality is troublesome, especially in light of the Bush Administration's repeated lack of commitment to achieving the goals of the Clean Water Act.

Needed Wastewater Infrastructure Improvements:

To a great extent, the successes of the 1972 Clean Water Act resulted from a significant Federal investment in wastewater infrastructure improvements throughout the country. Since 1972, the Federal government has provided more than \$80 billion in wastewater assistance, which has dramatically increased the number of Americans enjoying better water quality and improved the health of the environment.

Treating, and in many cases eliminating, the flow of direct discharges of untreated sewage into U.S. rivers, lakes, and streams has been one of the best investments the American people have ever made. First through the Federal construction grants program, and now the Clean Water State Revolving Loan Fund ("CWSRF") program, the Federal investment in water infrastructure has been integral to improving the quality of the Nation's waters. The gains in water quality realized through Federal, State, and local investment in wastewater infrastructure have been significant, helping to achieve a 50 percent increase in the number of fishable and swimmable waters throughout the Nation. In addition, as a result of dramatic improvements in wastewater infrastructure, effluent discharges have decreased by one-half since 1970, despite the fact that waste loads grew by more than one-third due to population growth and an expanded economy.

However, these environmental achievements are now at risk.

According to a 2000 EPA report, entitled *Progress in Water Quality*, "without continued improvements in wastewater treatment infrastructure, future population growth will erode away

²² *See id.*

²³ *See id.*

²⁴ *See id.*

many of the Clean Water Act achievements in effluent loading reduction.”²⁵ For example, EPA projects that given the expansion of the U.S. population forecast over the next 20 years,²⁶ even with expected increases in wastewater treatment efficiencies, by 2016, wastewater treatment plants will be forced to discharge partially-treated effluent into U.S. waters at levels similar to those that existed in the mid-1970’s – only a few years after the enactment of the Clean Water Act.²⁷ Even more troublesome, if these population forecasts are projected further to the year 2025, without significant investment in additional treatment capacity, the level of partially-treated effluent being discharged into the Nation’s waters would reach rates not seen since 1968 – four years before the enactment of the Act – when they had reached the maximum level ever recorded.²⁸

Without increased investment in wastewater infrastructure, in less than a generation, the U.S. could lose much of the gains it made thus far in improving water quality and wind up with dirtier water than existed prior to the enactment of the 1972 Clean Water Act.

Of additional concern is the growing awareness that much of the wastewater infrastructure in this country is rapidly approaching or has already exceeded its projected useful life. Many cities and communities throughout the United States are currently facing a critical juncture in the age and reliability of their water infrastructure. For example, pipes installed at the beginning of the 20th century that had an expected useful life of 100 years are deteriorating next to pipes installed in the 1940’s and 1960’s, that, unfortunately have an expected life of approximately 60 years and 40 years, respectively. In addition, many of the wastewater treatment facilities constructed soon after enactment of the Act are now reaching the end of their expected useful life and are in need of repair or replacement.²⁹

Another looming need centers on upgrading aging infrastructure to control and eliminate combined sewer overflows. Combined sewer systems were among the earliest sewers built in the United States and continued to be built into the middle of the twentieth century. These systems were designed to carry both domestic and industrial sewage, along with stormwater, to treatment facilities before being discharged downstream. However, during precipitation events, such as heavy rainfall or snowmelt, the volume of stormwater and sewage entering the combined sewer system often exceeds its conveying capacity. To prevent damage to the infrastructure, combined sewer systems were designed to overflow directly to surface waters when their capacity is exceeded – discharging large volumes of untreated or partially treated sewage wastes – an estimated 850 billion gallons annually³⁰ – directly into local waters.³¹ However, because combined sewer overflows

²⁵ See U.S. EPA. “Progress in Water Quality: An Evaluation of the National Investment in Municipal Wastewater Treatment.” June 2000.

²⁶ See *id.* The Census Bureau has projected that in the next 20 years, the proportion of the U.S. population served by publicly owned treatment works will increase to an estimated 275 million people.

²⁷ See *id.* EPA has estimated that, by the year 2016, the expansion in population will likely result in a 45 percent increase in influent biochemical oxygen demand (BOD) loading to treatment works (68,030 metric tons per day) and a 20 percent increase in BOD discharges to surface waters (19,606 metric tons per day). BOD is a measure of the oxygen-consuming organic matter and ammonia-nitrogen in wastewater. The higher the BOD loading, the greater the depletion of oxygen in the waterway.

²⁸ See *id.* By the year 2025, EPA estimates that the amount of BOD loadings to the nation’s waters would reach 21,280 metric tons per day.

²⁹ See U.S. EPA. “The Clean Water and Drinking Water Infrastructure Gap Analysis.” September 2002.

³⁰ See U.S. EPA “Report to Congress: Impacts and Control of CSOs and SSOs.” August 2004.

³¹ See U.S. EPA “Report to Congress: Implementation and Enforcement of the Combined Sewer Overflow Control Policy.” January 2002.

contain raw sewage and contribute pathogens, solids, debris, and toxic pollutants to receiving waters, they create serious public health and water quality concerns. In addition, combined sewer overflows are often the direct cause of (or significantly contribute to) beach closures, shellfish bed closures, contamination of drinking water supplies, and other environmental and public health problems.³²

Combined sewers are found in 33 States across the U.S. and the District of Columbia.³³ The majority of combined sewers are located in communities in the Northeast or Great Lakes regions – where much of the oldest water infrastructure in the Nation is found; however, combined sewer overflows have also occurred in the West, such as in the States of Washington and California. To eliminate combined sewer overflows, communities must redesign their sewer systems to separate sewage flows from stormwater flows or provide significant additional capacity to eliminate the possibility that combined flows will exceed the limits of the infrastructure. Either way, this will be a massive undertaking – estimated by EPA to cost more than \$50 billion.³⁴

In the next few years, many communities could be compelled to replace large portions of their wastewater infrastructure or face the likelihood of increased failures in their wastewater treatment capacity – posing a significant threat to the country’s quality of life, economic prosperity, and the health and safety of both human populations and the environment.

The Clean Water Act requires EPA to report to Congress every two years with a detailed estimate of the costs of needed water infrastructure in each State. This report, which is compiled through a survey of the States, includes estimates of needed projects for improvement of U.S. waters, including publicly owned municipal wastewater collection and treatment facilities, facilities for the control of combined sewer overflows, activities to control stormwater runoff and nonpoint source pollution, and programs designed to protect the Nation’s estuaries.

EPA’s most recent assessments of wastewater infrastructure needs – the Clean Watersheds Needs Survey 2000: Report to Congress and the Clean Water and Drinking Water Infrastructure Gap Analysis – estimate that today’s total *documented* needs for the Nation are \$181.2 billion, and between \$300 billion and \$400 billion in capital investment is needed for restoration and replacement of the Nation’s aging wastewater infrastructure over the next 20 years.³⁵ (*See Appendix I for information on individual State needs.*) Considering that the average annual investment by EPA over the past few years has hovered around \$1.35 billion, the level of investment to address needs requires a renewed and expanded Federal commitment.

More needs to be done – future generations deserve no less. Congress made a commitment more than 30 years ago to restore and protect the Nation’s water quality, and the Bush Administration should stand ready to uphold this commitment. The size of the expected costs for Clean Water infrastructure cannot be an excuse for turning back the clock on water quality.

³² *See id.*

³³ *See* U.S. EPA. “Clean Watersheds Needs Survey 2000: Report to Congress.” August 2003.

³⁴ *See id.*

³⁵ *See* U.S. EPA. “Clean Watersheds Needs Survey 2000: Report to Congress.” August 2003, *and* U.S. EPA. “The Clean Water and Drinking Water Infrastructure Gap Analysis.” September 2002.

Loss of the Nation's Wetlands:

Wetlands are those areas where the flow of water, the cycling of nutrients, and the energy of the sun produce specially adapted communities of plants and animals. Wetlands contribute to the environment in ways that parallel rain forests in more tropical climates and perform many functions that are important to the Nation's economy and quality of life.

As waters flow across watersheds through wetlands, chemicals that otherwise would contaminate surface waterways are removed through natural processes that assimilate pollution. When heavy rains fall and deep snowpacks melt, wetlands store and slow down the release of floodwaters, thereby reducing potential damage to downstream farms and communities. Wetlands can also recharge groundwater aquifers and sustain the yield of water for human use, as well as provide dry-season flows to rivers and streams.

Many plants and animals depend upon wetlands, which are essential for maintaining biodiversity. Wetland species are the base of commercial and recreational enterprises that provide jobs and income important to thousands of communities around the country. Three-quarters of the country's commercial fish and shellfish, which provide approximately \$2 billion of revenue annually, are dependent upon coastal bays and their wetlands for some portion of their life-cycle.³⁶ Trees that grow in southeast forested swamps are harvested for timber, and ducks, geese, and other migratory birds in all flyways use wetlands for feeding, nesting, and resting during migration.³⁷

Yet, because the importance of wetlands was poorly understood in the past, more than one-half of the wetlands that were in existence throughout the contiguous States at the time of European settlement no longer exist.³⁸ Ten States have lost 70 percent or more of their wetland acreage, and 22 States have lost more than 50 percent. Only three States – Alaska, New Hampshire, and Hawaii – have lost less than 20 percent of their original wetlands.³⁹ In some States and many watersheds, less than 10 percent of the original acreage of wetlands still exists.⁴⁰

In recognition of this enormous loss, as well as the importance of wetlands in achieving the goals of the Clean Water Act, in 1990, the U.S. Army Corps of Engineers ("Corps") signed a Memorandum of Agreement with the EPA outlining the position of the first Bush Administration to "achieve a goal of no overall net loss of [wetland] values and functions." From that time until recently, both Republican and Democratic administrations have enthusiastically defended the goal of "no net loss" as an effective tool in implementing the broader goals of the Clean Water Act.

Unfortunately, the all too common practice of draining, filling, and eliminating wetlands continues today. Although the rate of loss has been dramatically reduced in recent years, the United States continues to sustain a net loss of between 58,000 to 100,000 acres of wetlands every year – in

³⁶ See U.S. EPA and USDA. "Clean Water Action Plan." February 1998.

³⁷ See Stewart, Robert E. "United States Geological Survey Water Supply Paper 2425, Technical Aspects of Wetlands, Wetlands as Bird Habitat." U.S. Geological Survey.

³⁸ See Dahl, T.E. "Wetlands Losses in the United States 1780s to 1980's." U.S. Department of the Interior, Fish and Wildlife Service. 1990.

³⁹ See *id.*

⁴⁰ See U.S. EPA and USDA. "Clean Water Action Plan." February 1998.

spite of the Federal government's "no net loss" policy⁴¹ – although the expectation is that this rate of loss has expanded under the watch of the Bush Administration.

Uncontrolled Nonpoint Source Pollution:

Over the past 30 years, the modern Clean Water Act has made great advances in improving the quality of U.S. waters and controlling various sources of pollution, with one large exception – nonpoint sources – the unfinished agenda of the Clean Water Act.

Nonpoint source pollution refers to the polluting of water by diffuse sources rather than single identifiable "point" sources. These diffuse sources are usually associated with land use activities as opposed to end-of-pipe discharges. Examples of common nonpoint source pollution include: sediments, pesticides, and nutrients running off of farms and urban lawns; oil, grease, heavy metals, and other toxic materials carried on streets, highways, rooftops, and parking lots into storm sewers; farm animal wastes from barnyards and pet wastes from urban areas; and soil washed away from logging and construction areas.⁴²

Today, after more than 30 years of Federal and State efforts under the Clean Water Act, the number one cause of pollution to the waters of the United States is from nonpoint sources. For example, in 2000, States identified more than 128,000 assessed river miles currently impaired from agricultural sources.⁴³ An additional 28,000 assessed river miles are impaired from forestry sources and 34,000 more miles are impaired through urban and stormwater sources.⁴⁴ In addition, more than 3.1 million lake acres are impaired from agricultural sources and an additional 1.3 million lake acres are impaired from urban runoff or storm water sources.⁴⁵ Finally, of the 58,618 miles of ocean shoreline assessed in the United States, the majority (more than 55 percent) can trace the source of their impairment back to storm water runoff and an additional 32 percent are contaminated by other nonpoint sources of pollution.⁴⁶

The Clean Water Act has been unable to replicate its successes in controlling point sources of pollution to the problem of nonpoint. To a great extent, the reason for this is simple. Whereas the Clean Water Act has direct regulatory authority over the discharge of pollutants from point sources, there is no such authority to control or regulate nonpoint sources of pollution.

The lack of an effective national program to address nonpoint source pollution is a serious impediment to restoring and maintaining the health of U.S. waters.⁴⁷ Section 319 of the Clean Water Act requires States to prepare nonpoint source pollution programs, but does not require that such programs be implemented. In addition, unlike the mandatory technology-based controls imposed

⁴¹ See U.S. EPA. "National Water Quality Inventory: 2000 Report." September 2002. See also U.S. EPA and USDA. "Clean Water Action Plan." February 1998.

⁴² See Coast Alliance, "Mission Possible: State Progress Controlling Runoff Under the Coastal Nonpoint Pollution Control Program."

⁴³ See U.S. EPA. "National Water Quality Inventory: 2000 Report." September 2002.

⁴⁴ See *id.*.

⁴⁵ See *id.*

⁴⁶ See *id.* See also, U.S. Commission on Ocean Policy. "Developing a National Ocean Policy, Mid-Term Report of the U.S. Ocean Commission on Ocean Policy." September 2002.

⁴⁷ See Association of Metropolitan Sewerage Agencies: "Water... We've Got the Point. Now Let's Get to the Nonpoint..."

on point source discharges, the Act does not require the implementation or enforcement of any nonpoint source management plans, such as buffer strips or nutrient management plans, to fight polluted runoff. Finally, although nonpoint sources of pollution now cause more than 60 percent of water quality impairments, only three percent of Clean Water Act funds have been devoted to address this problem.

One approach that would have significantly improved the Nation's efforts to control nonpoint source pollution was H.R. 550, the Nonpoint Source Water Pollution Prevention Act of 1997, introduced in the 105th Congress. This legislation would have significantly increased Federal funding for the implementation of nonpoint source control programs. It would also have required States to create and implement plans to control nonpoint sources of pollution within their borders, but would have allowed for the EPA to step in to implement these programs where the States failed to act. In addition, H.R. 550 would have renewed the emphasis of controlling nonpoint sources of pollution on a watershed basis, directing that States target those watersheds most greatly impaired by nonpoint sources first to achieve the greatest overall improvement in water quality. Unfortunately, the Republican Leadership of the House refused to consider this legislation and has failed to take any other action since to control the flow of nonpoint source pollution.

If this country ever expects to achieve the goals of fishable and swimmable waters, the Bush Administration and Congress must significantly increase efforts, through both financial incentives and enforceable mechanisms, to control this massive, continuing source of impairment to U.S. waters. The controls and regulatory mechanisms necessary to reduce nonpoint source pollution are known – they have not changed significantly for decades. The problem is a lack of political will from the Bush Administration and Republicans in Congress to implement the necessary actions to reduce the largest continuing source of pollution to this country's waters.

Polluters Routinely Break the Law:

The primary objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. To that end, the Act established, as a goal, that the discharge of pollutants into navigable waters be eliminated by 1985, and makes it unlawful to discharge any pollutant into the Nation's waters without a permit.

Unfortunately, 1985 has come and gone, yet modern life necessitates that we continue the practice of granting permits for the discharge of pollutants, provided that these discharges have undergone significant review by EPA or the States on their potential threat to human health and the environment.

Even with provisions in the Act allowing for limited permitted discharges, polluters routinely break the law. For example, a 2002 report found that nearly 30 percent of major sewage treatment and industrial plants (1,798 facilities) in the United States, Puerto Rico, and U.S. Virgin Islands were violating the law during a 15-month period.⁴⁸ This represents an increase of more than 15 percent from a similar report issued just one year earlier.⁴⁹

⁴⁸ See U.S. PIRG. "Permit to Pollute: How the Government's Lax Enforcement of the Clean Water Act is Poisoning Our Waters." August 2002.

⁴⁹ See U.S. PIRG. "Polluters' Playground: How the Government Permits Pollution." May 2001.

The 2002 report highlights facilities in non-compliance with the law, including:

- 569 major industrial facilities, or 25 percent of the 2,276 major facilities currently operating in the U.S., Puerto Rico, and U.S. Virgin Islands.
- 1,190 major municipal facilities, or 31.3 percent of the 3,795 major municipal facilities currently operating in the U.S., Puerto Rico, and U.S. Virgin Islands.⁵⁰
- 39 major federal facilities, or 41.9 percent of the 93 major federal facilities currently operating in the U.S., Puerto Rico, and the U.S. Virgin Islands.

Other studies, including one performed by EPA's Office of Enforcement and Compliance Assurance (OECA), reaffirmed this finding, adding that one-half of the serious offenders exceeded pollution limits for toxic substances by more than 100 percent. In fact, the OECA report noted that 5 percent of the exceedances were *1,000 percent over legal limits*.⁵¹

Yet, even when large industrial water polluters are caught, they are rarely fined. For example, in its report, OECA demonstrated that about one quarter of the Nation's largest industrial plants and water treatment facilities are in serious violation of pollution standards at any one time, yet only a fraction face formal enforcement actions.⁵² Information provided by the States and EPA regional offices show that only a low percentage (9 to 13 percent) of enforcement actions are taken in a timely and appropriate manner, and less than 40 percent of this number ever result in penalties for significant non-compliance with the Clean Water Act.⁵³

Worse still, in those few cases when fines are imposed on polluters, the penalties are often too low – often less than \$5,000 per action – to act as a deterrent to future pollution.⁵⁴ In fact, EPA enforcement staff concluded that there was a demonstrable connection between States and regions with the lowest (and laxest) enforcement activity and those with the highest level of noncompliance with the law.⁵⁵ According to one environmental watchdog group, “[f]or many big polluters, breaking clean water laws has become standard business practice.”⁵⁶

⁵⁰ According to the report, the majority of major municipal facilities in Significant Non-Compliance with their NPDES permit were often as a result of discharges from industrial users that discharge into sewer systems rather than surface waters. Because most publicly owned treatment works are not designed to treat many industrial chemicals, toxics discharged into sewers either pass through the treatment works untreated or contaminated the facility's sludge. See U.S. PIRG. “Permit to Pollute: How the Government's Lax Enforcement of the Clean Water Act is Poisoning Our Waters.” August 2002.

⁵¹ See U.S. EPA. “A Pilot for Performance Analysis of Selected Components of the National Enforcement and Compliance Assurance Program.” February 2003.

⁵² See *id.* See also Guy Gugliotta and Eric Pianin, “EPA: Few Fined for Polluting Water,” *The Washington Post*, June 6, 2003, at A-1.

⁵³ See U.S. EPA. “A Pilot for Performance Analysis of Selected Components of the National Enforcement and Compliance Assurance Program.” February 2003.

⁵⁴ See *id.*

⁵⁵ See *id.*

⁵⁶ See Environmental Working Group. “Pollution Pays: An Analysis of the Failure to Enforce Clean Water Laws in Three States.” January 2000.

These unfortunate facts were echoed by EPA's Office of the Inspector General.⁵⁷ In 2001, the Office of the Inspector General noted that although States generally took enforcement actions on significant violators, these actions were often delayed for a year or more after the violation occurred. Further, the penalties imposed were often insufficient to prevent further violations, and were not always collected. According to the Office of the Inspector General, these practices may be a contributing cause to the large number of recurring violations – with more than one-third of the States reporting that over one-half of their major facilities with significant violations in 1999 also had recurring significant violations in 2000.⁵⁸

Failure to take consistent and prompt enforcement action not only encourages polluters to continue to pollute, it actually increases the level of pollution entering the Nation's waters as violations go unchecked. EPA and the States must take swift action not only to bring violators into compliance quickly, but also to establish a credible enforcement program to deter future polluters.

When polluters are caught, penalties must be imposed at sufficient levels to ensure that they do not realize any economic benefit from noncompliance. Otherwise, companies may decide that it makes greater economic sense to limit their costs on pollution controls with the expectation any penalties they may incur would be less than the expected increases in profit. For penalties to provide adequate deterrence against future non-compliance, they must be sufficient to eliminate the potential for economic gain, and they must be collected – otherwise the country's worst polluters are awarded a huge financial windfall.⁵⁹ Without these actions, companies will consider Clean Water Act penalties as just another “cost of doing business,” and will continue to pollute the country's rivers, lakes, and streams.

Beach Water Quality:

As a Nation, we are fortunate to have nearly 23,000 miles of ocean shoreline along the continental United States, more than 5,500 miles of Great Lakes shoreline, and 3.6 million miles of rivers and streams.⁶⁰ Beaches are an important part of the complex and dynamic coastal watershed, providing numerous recreational opportunities for millions of people including boating, fishing, swimming, walking, beachcombing, bird-watching, and sunbathing.

Lake, river, and ocean beaches are America's favorite vacation destinations. At least one-third of all Americans visit coastal and Great Lakes counties and their beaches each year, generating tens of billions of dollars in goods and services, and supporting tens of millions of jobs.⁶¹ However, as the national population is rapidly increasing, more people are moving to coastal areas, increasing

⁵⁷ See U.S. EPA Office of the Inspector General. “Water Enforcement: State Enforcement of Clean Water Act Dischargers Can Be More Effective.” August 2001.

⁵⁸ See *id.*

⁵⁹ See U.S. PIRG. “U.S. EPA Allows Polluters to Pay Less for Violations of Environmental Laws, Giving Violators at least a \$55 Million Windfall Over the Last Two Years.” January 2003.

⁶⁰ See U.S. EPA. “National Water Quality Inventory, 2000 Report.” September 2002.

⁶¹ See U.S. EPA. “Coastal Watersheds: The Beach and Your Coastal Watershed.” April 1998. See also, U.S. Commission on Ocean Policy. “Developing a National Ocean Policy, Mid-Term Report of the U.S. Ocean Commission on Ocean Policy.” September 2002.

human demands and impacts on coastal and ocean resources.⁶² These changes have serious and deleterious effects on the health of estuaries, coastal waters, and oceans.

The good news is that America's waters are generally cleaner than they were 30 years ago, when rivers were burning and lakes were declared dead. The bad news is that far too many beaches are still unsafe for swimming due to pollution.

In 2003, at U.S. ocean, bay, freshwater, and Great Lakes beaches, there were at least 18,284 days of closings and advisories, 64 extended closings and advisories (seven to 13 weeks), and 60 permanent closings and advisories (more than 13 weeks) – the highest level for beach closings and advisories ever collected.⁶³ (*See Appendix I for additional information on beach advisories of individual States.*) Eighty-eight percent of the major closings and advisories were based on bacteria levels that exceeded health standards for swimming – up slightly from the previous year.⁶⁴

Most beach closings and advisories are based on monitoring that detects elevated levels of bacteria and indicates the presence of disease-causing organisms from human and animal wastes. These wastes typically enter coastal waters from polluted runoff and stormwater – combined sewer overflows, discharges of untreated or partially treated wastes from sewage-treatment plants and sanitary sewers, septic system failures, and stormwater runoff from urban, suburban, and rural areas.⁶⁵

To a great degree, beach closings tend to follow rainstorms, largely as a result of improperly designed or maintained sewer systems and drainage areas. For example, in many cities along the coast, when it rains – even as little as one-quarter of an inch – the volume in local combined sewers becomes too great for the treatment plants to handle. In these situations, the flow is diverted to nearby outfall points that discharge pollutants – including raw sewage, garbage, toxic industrial wastes, and contaminated stormwater – into the nearest stream, bay, or coastal recreational area. These untreated discharges can often be as potent as direct sewer emissions.⁶⁶

Contact with polluted water causes sickness. Waters that are polluted with untreated sewage or stormwater runoff may contain several different disease-causing organisms, commonly called pathogens. Waterborne pathogens can carry or cause a number of infectious diseases, including gastroenteritis, typhoid fever, bacterial dysentery, and cholera, and can be passed along to unsuspecting swimmers through accidental ingestion or contact with fecal-contaminated water. Waterborne viruses are also believed to be the major cause of swimming-associated illnesses, including hepatitis, respiratory illness, diarrhea, and ear, nose, and throat problems, including swimmers-ear.

⁶² See U.S. Commission on Ocean Policy. “Developing a National Ocean Policy, Mid-Term Report of the U.S. Ocean Commission on Ocean Policy.” September 2002.

⁶³ See Natural Resources Defense Council. “Testing the Waters 2004: A Guide to Water Quality at Vacation Beaches.” August 2004.

⁶⁴ See *id.*

⁶⁵ See *id.*

⁶⁶ See *id.*

Much can be done to protect individuals and their families from these swimming-associated diseases, as well as keep the Nation's coastal areas from becoming little more than open sewers. States and communities can conduct regular beach-water monitoring and public-notification programs to provide adequate protection to beachgoers. In 2003, roughly 56 percent of beaches conducted regular monitoring of water quality, including 11 States and 1 territory that monitor all or most of their coastal beaches at least once a week.⁶⁷

However, equally as important are efforts to control sources of coastal water pollution from entering the Nation's coastal recreational areas. This, again, highlights the importance of improving the wastewater infrastructure and nonpoint source controls throughout the Nation, especially to prevent sewage overflows both from combined and sanitary systems, polluted runoff, and urban stormwater discharges.

Fish Advisories on the Rise and Populations of Migratory Birds on the Decline:

One of the best indicators on the health of the environment, including the Nation's waters and wetlands, is the health of the fish and wildlife that depend on these waters for their survival. Unfortunately for many species, as well as for humans, recent trends are headed in the wrong direction.

In August 2004, EPA released its 12th annual listing of fish advisories (the *2003 National Listing of Fish Advisories*), a compilation of consumption advisories and safe-eating guidelines for fish caught in U.S. waters. Fish consumption advisories warn people about the risk of eating contaminated fish. The object of the advisory is to provide information about the chemical contaminants in fish (such as PCBs, dioxin, mercury, and DDT) to educate consumers about which waterbodies and fish species are of concern and to inform individuals about ways that they can reduce their exposure.

The *National Listing* reported that, as of 2003, there were 3,094 active fish advisories in the United States, a 10 percent increase from the previous year.⁶⁸ (*See Appendix I for additional information.*) The waters represented in these fish advisories cover 35 percent of the Nation's total lake acreage and 24 percent of the total river miles, again, increasing from the previous years' level of 33 percent of lake acreage and 15 percent of river miles covered by advisories. In fact, during the four years of the Bush Administration, the number and percentage of lake acreage and river miles requiring fish advisories have increased dramatically, rising by 128 percent for river miles and 34 percent for lake acres.⁶⁹

⁶⁷ See *id.* The eleven states are California, Connecticut, Delaware, Florida, Mississippi, New Jersey, North Carolina, Ohio, Pennsylvania, and South Carolina. The territory is Guam.

⁶⁸ Cf. U.S. EPA, "National Listing of Fish Advisories," August 2004, and U.S. EPA. "Update: National Listing of Fish and Wildlife Advisories," May 2003.

⁶⁹ See U.S. EPA, "Location of Waterbodies Under Consumption Advisory: National Trends," <http://www.epa.gov/waterscience/presentations/fishslides/2003_files/slide0038.htm> (last visited September 23, 2004).

Currently, there are U.S. fish advisories for 40 chemical contaminants, although most advisories involve five primary contaminants: mercury, PCBs, chlordane, dioxins, and DDT.⁷⁰ These chemical contaminants accumulate in the tissue of aquatic organisms at concentrations many times higher than concentrations in the water. As the contaminants move up the food chain, their concentrations increase. As a result, the fish at top of the food chain, including many species popular for human consumption, have concentrations of toxic chemicals in their tissue a million times higher than the concentrations in the water. It is this heavy concentration of toxic chemicals that poses a threat to human health through the consumption of contaminated fish.

For example, if you eat fish once a week and live within 20 miles of one of the Great Lakes, you are likely to have 440 parts per billion PCBs in your body. That is more than 20 times higher than people living elsewhere in America and not exposed to Great Lakes fish. Yet, even today, 100 percent of the near-shore waters of the Great Lakes and their connecting tributaries are under fish consumption advisories for toxic substances such as PCBs, dioxin, and mercury.

This is a national tragedy.

Equally concerning is the recent decline in duck populations throughout the continental United States. This past summer, the U.S. Fish and Wildlife Service, in partnership with the Canadian Wildlife Service, released a report, entitled *Waterfowl Population Status, 2004*, which documents recent trends in the population of migratory birds throughout the North American continent. What was alarming was that this report documented an 11 percent decline in migratory duck populations between 2002 and 2003, and a three percent decline in the number of ducks over the 1955-2003 long-term average.⁷¹ Chief among the reasons for the dwindling populations was a decrease in the availability of suitable breeding and nesting habitat, such as wetlands, as well as diminished water quality along the migratory bird flyways. According to the report, both of these factors were caused, in part, by “years of drought in parts of the U.S. and Canadian prairies, combined with intensive agricultural practices.”⁷²

As agricultural practices and development pressures expand, there is a correlating decrease in the availability of suitable habitat for fish and wildlife, including migratory birds. In the continental U.S., nowhere is this more apparent than along the Mississippi River flyway – a band of land that runs from approximately the Great Lakes to the Gulf of Mexico, and serves as a major migration route for millions of birds each year. Along this route, which roughly follows the path of the Mississippi River, development and agricultural conversions have taken a huge toll on the amount of land suitable for habitat – accounting for roughly one-third of all the wetlands lost in the history of the Nation.⁷³ Now, as suitable habitat becomes more scarce, smaller fluctuations in rainfall and development practices are likely to have greater impacts on fish and wildlife populations. As a result, it has become increasingly important to protect the habitat that remains, otherwise we may see more frequent and more dramatic declines in waterfowl populations in the years to come.

⁷⁰ See U.S. EPA, “National Listing of Fish Advisories,” August 2004.

⁷¹ U.S. Fish and Wildlife Service, “Waterfowl Population Status, 2004,” July 24, 2004.

⁷² *Id.* at 6.

⁷³ See Dahl, T.E. “Wetlands Losses in the United States 1780s to 1980’s,” U.S. Department of the Interior, Fish and Wildlife Service, 1990, at 10. Between the 1780s and the 1980s, approximately 36 million acres of wetlands have been developed along the Upper Mississippi and Missouri Rivers.

WHAT IS THE BUSH ADMINISTRATION DOING TO IMPROVE WATER QUALITY?

At best, very little...but what *is* being done is quickly undermining the successes of the Clean Water Act.

Suspension of the Total Maximum Daily Load (“TMDL”) Rule:

In the years immediately following the passage of the Clean Water Act, pollution problems were so prevalent that any reduction in pollutants immediately improved the health of waters. Today, however, some of the most obvious water pollution problems have been addressed; yet States continue to identify more than 20,000 rivers, lakes, streams, and other waterbody segments that remain polluted to the point of endangering public health. (*See Appendix I for additional information on impaired waters of individual States.*) To restore the health of these waters, existing programs need a more focused effort to identify specific polluted waters, definition of specific measures needed to restore them to health, and implementation these measures.

The authors of the 1972 Clean Water Act envisioned a time when this more focused approach to restoring the remaining polluted waters would be needed and they created the TMDL program to meet this challenge. The TMDL program calls for States to identify those waters or segments of waters that are not meeting the State’s water quality standards even after the implementation of the technology-based controls required under the Act, to identify the pollutants that are causing the impairment, and to develop individualized plans to reduce the pollutants of concern so that water quality standards can be met. The Act also requires that both the list of polluted waters and the specific TMDLs must be sent to EPA for approval; if EPA disapproves a State list or TMDL, the Clean Water Act requires EPA to establish the list or the TMDL for the State.

The TMDL program can be thought of as the Clean Water Act having come full circle. Before 1972, water quality programs were ambient water quality based, which was time consuming and ineffective, because all pollution control standards were to be individually developed. The 1972 Act changed the entire focus of water pollution programs from ambient water quality to technology-based standards. For industrial discharges, the basic standard is best available technology (BAT) that is economically achievable. For municipal discharges, the basic standard is secondary treatment. These technology standards are minimums that must be met by all dischargers, regardless of the quality of the receiving waters. Following implementation of technology-based controls, if a water body is still impaired, the TMDL program is applicable and ambient water quality based controls are applied. In effect, the TMDL program returns to the emphasis on water quality that existed before 1972, but in a more effective manner, focusing only on waters known to be impaired, and with technology-based controls as a backstop.

However, despite the existence of the TMDL program, until the early 1990’s, EPA and the States gave top priority to implementing general State clean water programs, and gave a lower priority to the more focused restoration authorities of the TMDL program. As a result, relatively few TMDLs were developed and many State lists were limited to a few impaired waters.

Then, several years ago, citizen organizations began bringing legal actions against EPA seeking to enforce the requirements of the Act on the listing of impaired waters and the development of TMDLs. To date, 22 of these cases have been resolved with agreement for State

actions to identify impaired waters and establish TMDLs.⁷⁴ Where a State fails to act, EPA is required to step in to identify the polluted waters and to establish TMDLs for those waters.

In 1996, EPA determined that there was a need for a comprehensive evaluation of the TMDL program, and, along with stakeholder assistance from a Federal advisory committee, developed recommendations for improving program implementation, including updating the TMDL program.

On July 11, 2000, the Clinton Administration signed final regulations (the “TMDL rule”) to revise and significantly strengthen the TMDL program based on the recommendations of the Federal advisory committee, numerous stakeholders from a variety of interests, including agriculture, and the general public. Although the TMDL rule was built on the foundations of the existing TMDL regulations, the proposal was intended to be a great improvement in the program.

In essence, the TMDL rule retained the essential core of the program envisioned in 1972, namely: (1) States identify those waters where the State’s water quality standards are not being met; (2) States identify the pollutants that are causing the water quality impairment; (3) States identify the sources of those pollutants; and (4) States assign responsibility for reducing those pollutants so that the waters can meet the uses that the States have established. In addition, the EPA backstop was retained to ensure final accountability for the development and implementation of the program.

To further strengthen the program, the TMDL rule also required specific plans and schedules for implementation of TMDL actions to restore the health of polluted waterbodies, more diverse sharing of pollution control responsibilities among point and nonpoint sources, and expanded and strengthened public involvement in the development of TMDLs. In addition, EPA revised earlier drafts of the TMDL rule to clarify provisions to respond to concerns of the agricultural community, and withdrew in its entirety provisions related to forestry activities.⁷⁵

Unfortunately, as has been the case with many attempts to strengthen laws and regulations to protect our Nation’s environment over the past decade, the Republican Leadership in Congress politicized the TMDL rule as too costly, too burdensome, and an overreach of Federal regulatory authority. During consideration of an unrelated appropriations bill, the Republican Leadership of the House and Senate included language to block Federal funds from being used by EPA to implement any new rule on the TMDL program during fiscal years 2000 and 2001.⁷⁶ The legislation was signed into law on July 13, 2000 – two days after the TMDL rule was made final – and effectively blocked any potential revision to or implementation of the TMDL rule, until October 1, 2001.

Then, on January 20, 2001 – the day of his inauguration – President Bush indefinitely blocked all regulations proposed by the Clinton Administration that had not been finalized and published in the Federal Register, including the TMDL rule.

⁷⁴ See EPA Website on TMDL Litigation Status. (last modified October 21, 2003) <<http://www.epa.gov/owow/tmdl/lawsuit1.html>>.

⁷⁵ See EPA Website on Background Information Regarding Rules Proposed in August 1999. <<http://www.epa.gov/owow/tmdl/smithforestry.html>> and <<http://www.epa.gov/owow/tmdl/pdf/tmdl45.pdf>>.

⁷⁶ See Conference Report to Accompany H.R. 4425, Making Appropriations for Military Construction, Family Housing, and Base Realignment and Closure for the Department of Defense for the Fiscal Year Ending September 30, 2001 (House Report 106-710).

Picking up on the Republican Majority's mantra of "too costly, too complex, and an overreach of Federal authority," President Bush observed the 29th anniversary of the Clean Water Act by suspending,⁷⁷ and later revoking,⁷⁸ the TMDL rule to "consider whether and how to revise" the existing TMDL program. Apparently, when posed with the question on how to best address the remaining sources of impairment to the Nation's waters, the Bush Administration's best answer was to continue the status quo.

In the two years that have followed, various sources have reported that the Bush Administration is developing proposals to further weaken efforts toward addressing the remaining impaired waters, including changes that could undermine efforts now underway in States to develop TMDL programs, delay water quality improvements for years, and eliminate any EPA backstop for protection of the Nation's waters, if not completely derail the existing TMDL program for good.

One particularly damaging proposal rumored to be under consideration would allow States to forego developing TMDLs for impaired waters within their borders on the promise that a voluntary program might result in the waterbody meeting applicable water quality standards.⁷⁹ If this proposal were adopted, it would allow States to avoid their statutory responsibility to identify and address ongoing sources of pollution to State waterbodies – a duty which States have been unable or unwilling to achieve since enactment of the Clean Water Act. This proposal would be in direct violation of the Clean Water Act's provision that States identify impaired waters within their borders and develop an enforceable plan for addressing these impairments.⁸⁰

Watering-down those remaining beneficial aspects of the TMDL program will lead to further confusion about the future of the TMDL program and will contribute to further delays in developing clean-up plans for our most polluted waters. After nearly 30 years delay in implementing the TMDL requirements of the Act, many States are just beginning to tackle cleanups that will result in cleaner, safer water for swimming, aquatic life, and other important uses of the Nation's waters. The proposed delay threatens to further stall progress in these States because of uncertainty.

The TMDL process is the most fair and efficient way to finish cleaning up the Nation's waters. The TMDL rule developed by the Clinton Administration was not perfect, with many criticizing the proposal, including some in the environmental community. However, the TMDL rule proposed an effective program that would have provided States with the tools needed to achieve water quality standards. Unfortunately, the Bush Administration either fails, or is unwilling, to understand the importance of implementing the TMDL rule in achieving the goals of the Clean Water Act.

⁷⁷ See Effective Date of Revisions to the Water Quality Planning and Management Regulation and Revisions to the National Pollutant Discharge Elimination System Program in Support of Revisions to the Water Quality Planning and Management Regulations; and Revision of the Date for Submission of the 2002 List of Impaired Waters; Final Rule, 66 Fed. Reg. 53,044 (October 18, 2001).

⁷⁸ See Withdrawal of Revisions to the Water Quality Planning and Management Regulation and Revisions to the National Pollutant Discharge Elimination System Program in Support of Revisions to the Water Quality Planning and Management Regulation; Notice of Proposed Rulemaking, 67 Fed. Reg. 79,020 (December 27, 2002).

⁷⁹ See "EPA Officials Debating Voluntary Alternatives to TMDL Requirements", *Inside EPA Weekly Report*, July 23, 2004, at 1.

⁸⁰ 33 U.S.C. 1313 (d) – (e).

The Nation's citizens have already waited 32 years for the fishable and swimmable waters promised back in 1972 – apparently the Bush Administration's response is, "What is one or two decades more?"

The Bush Record on Wetlands:

The SWANCC Decision and Administration's Efforts to Narrow the Scope of the Clean Water Act:

In January 2001, the United States Supreme Court issued a 5-to-4 opinion, in the case of *Solid Waste Agency of Northern Cook County v. Army Corps of Engineers*⁸¹ ("SWANCC"), that denies Federal protection for thousands of waters and wetlands that serve as habitat for migratory birds.

Until *SWANCC*, Section 404 of the Clean Water Act served as the primary Federal protection for wetlands that serve important habitat, flood control, water supply, and water quality improvement functions. In the absence of section 404 protection, many isolated waters and wetlands throughout the United States could be filled, drained, or polluted, without review, without objections, and without limit, regardless of the impact on the environment or human needs. Unfortunately, the Supreme Court adopted a myopic reading of Congressional intent and determined that protection of small water bodies is beyond the reach of the Act. As stated in the dissenting opinion of Justice Stevens, "the Court takes an unfortunate step that needlessly weakens our principal safeguard against toxic water."⁸²

The essence of the Court's opinion is that when Congress used the term "navigable waters" in the Clean Water Act, Congress must have intended there to be some nexus to actual navigation. However, in fact, the legislative history and language of the Act make it abundantly clear that Congress intended the broadest possible constitutional interpretation for the provisions of this precedent-setting law. Congress was very deliberate and careful to define "navigable waters" as, "the waters of the United States, including the territorial seas."

Since the *SWANCC* decision, the Section 404 regulatory program has been in turmoil, with the regulated community and concerned citizens watching as the situation grows increasingly more confusing and chaotic. At the same time, many developers – including individuals who would otherwise prefer to see all Federal protections over U.S. waters and wetlands eliminated – have championed the broadest possible reading of *SWANCC*, advocating a legal bright-line test that would prohibit Federal protections over any non-traditionally-navigable water in the United States.

Seizing upon this regulatory confusion, the Bush Administration initiated a two-prong process to further abandon of decades-old interpretation on the scope of the Act, and radically reduce the scope of waters that remain under Federal protection.

On January 15, 2003, the Corps and EPA began soliciting public comment on dramatically changing the scope of the Act's jurisdiction over the waters of the United States.⁸³ Simultaneously, the Bush Administration issued two documents: an Advanced Notice of Proposed Rulemaking

⁸¹ *Solid Waste Agency of Northern Cook County v. Army Corps of Engineers*, 531 U.S. 159 (2001).

⁸² See *SWANCC*, 531 U.S. 159 at 174.

⁸³ See Advance Notice of Proposed Rulemaking on the Clean Water Act Regulatory Definition of "Waters of the United States (ANPRM)," 68 Fed. Reg. 1,991 (2003).

(“ANPRM”) initiating a formal process to curtail Federal protections over certain waters, including wetlands, throughout the United States, and a new guidance directive ordering Federal regulators to immediately begin withholding protections over certain streams, wetlands, lakes, and other waters.

These documents are troubling for many reasons.

First, both the ANPRM and the guidance document abandon, outright, an estimated one-fifth of the Nation’s waters that were subject to Federal protections prior to the *SWANCC* decision – waters and wetlands that provide vital flood protection, habitat, water supply, and pollution control for the entire country. Depending upon how the *SWANCC* decision is interpreted, somewhere between 30 to 60 percent of the Nation’s waters, including wetlands, are potentially removed from Federal protections of the Clean Water Act, and in the absence of any serious effort by the State to protect these waters, many will have no protection from pollution or destruction, whatsoever. Yet both the ANPRM and the guidance materials start from the false premise that the *SWANCC* decision must have been correct policy, and that the waters and wetlands abandoned in this case are forever outside the scope of Federal protection.

Second, these documents provide keen insight into how the Bush Administration believes the Clean Water Act should operate by soliciting public comment on further limiting the scope of Federal protections over U.S. waters. According to the ANPRM and agency testimony on this subject,⁸⁴ the Bush Administration explored the possibility of removing Federal protections over any water or wetland that does not fall within the traditional definition of navigable waters – those waters that are subject to the ebb and flow of the tide, or waters that are presently used, or have been used in the past, or may be susceptible for use, to transport interstate or foreign commerce. Such a narrow view would have eliminated Federal protection of non-navigable tributaries of traditional navigable waters, many wetlands adjacent to traditional navigable waters, and any other isolated, intrastate water.

Worse still, because the definition of “waters of the United States” is integral to both Federal authority over activities in U.S. waters, such as dredging and filling wetlands, as well as the discharge of pollutants, such as releases of chemicals or untreated sewage into U.S. waters, the President’s proposal could bring about a new open season for toxic discharges into the Nation’s waters. As a result, our citizens would likely see a return to the days when industries and municipalities relied upon the Nation’s waterways as open sewers – back to the days when the toxic accumulations that polluted our waters would kill virtually every living organism that came into contact with them, and the days when the waters, themselves, could catch fire.

Not surprisingly, the reaction to the Bush Administration’s proposal changing the scope of the Act was overwhelmingly negative. EPA and the Corps received approximately 135,000 public comments, of which approximately 99 percent opposed limiting the scope of the Act.⁸⁵ In addition, on November 24, 2003, a bi-partisan group of 218 Members of Congress urged the President to abandon his efforts to rewrite the scope of the Act and to withdraw the ANPRM. In light of this

⁸⁴ See Testimony of Dominic Izzo, Principal Deputy Assistant Secretary of the Army for Civil Works, and Robert Fabricant, General Counsel, EPA before the Government Reform Subcommittee on Energy Policy, Natural Resources, and Regulatory Affairs. September 19, 2002.

⁸⁵ See Earthjustice et.al., “Reckless Abandon: How the Bush Administration is Exposing America’s Waters to Harm,” August 2004.

immense public outcry, in December 2003, the Bush Administration announced that they “would not issue a new rule on federal regulatory jurisdiction over isolated wetlands.”⁸⁶

However, the Administration chose to leave in place its regulatory guidance materials that were issued along with the ANPRM.⁸⁷ This joint memorandum of the Corps and EPA was released to provide “clarifying guidance” regarding the *SWANCC* decision.⁸⁸ Yet, what this guidance material has done has been to throw additional uncertainty into an already chaotic regulatory process, leaving local Corps district offices to decide for themselves the meaning of the *SWANCC* decision. As a result, members of both the Association of State Wetland Managers and the Association of State Floodplain Managers – those responsible for State regulation of wetlands – have reported widely varying interpretations by field offices regarding the scope of Federal authority over U.S. waters. In the absence of any clear leadership from the Bush Administration, jurisdictional calls have become largely *ad hoc* and unpredictable.⁸⁹

Specifically, the guidance material directs district officials to come to their own conclusion on the status of the Clean Water Act, making “jurisdictional and permitting decisions on a case-by-case basis considering this guidance, applicable regulations, and any additional relevant court decisions.”⁹⁰ In practice, this has resulted in Corps district staff making numerous, undocumented determinations of no Federal jurisdiction, in spite of clear hydrologic connections to navigable waters,⁹¹ with little or oversight from EPA,⁹² and contrary to recent case law throughout the country.⁹³

⁸⁶ See U.S. Army Corps of Engineers and U.S. EPA, “EPA and Army Corps Issue Wetlands Decision,” December 12, 2003.

⁸⁷ See ANPRM at 1995.

⁸⁸ Interestingly, this guidance material superceded an earlier legal memorandum of the Corps’ and EPA’s General Counsel offices which directed the Corps and EPA to interpret the *SWANCC* decision narrowly, suggesting that the *only* waters which might be excluded from the definition of “waters of the United States” are those “covered solely by subsection (a)(3) that could affect interstate commerce solely by virtue of their use as habitat by migratory birds.” See Gary Guzy and Robert Andersen, “Legal Memorandum on Supreme Court Ruling Concerning CWA Jurisdiction over Isolated Waters,” January 19, 2001.

⁸⁹ See Association of State Wetland Managers and the Association of State Flood Plain Managers. “Position Paper on Clean Water Act Jurisdiction Determinations Pursuant to the Supreme Court’s January 9, 2001 Decision, *Solid Waste of Northern Cook County v. United States Army Corps of Engineers* (SWANCC) Presented to Administrator Whitman, United States Environmental Protection Agency.” December 2001

⁹⁰ See ANPRM at 1998.

⁹¹ See Earthjustice, et.al., “Reckless Abandon: How the Bush Administration is Exposing America’s Waters to Harm,” August 2004. In this report, the authors have identified 15 examples of rivers, lakes, and wetlands throughout the U.S. which the Corps determined were non-jurisdictional despite providing critical environmental value to the region, such as sources of drinking water or habitat, or often having direct hydrological connections to adjacent navigable (jurisdictional) waters.

⁹² See “Activists Face High Hurdles in Forcing EPA to Withdraw Wetlands Guide,” Inside EPA, September 24, 2004 (noting that on September 15, 2004, EPA filed a legal brief in the *American Petroleum Institute v. Leavitt* case, regarding the agency’s oil spill prevention rule, that suggests a broader definition of the scope of the Clean Water Act than specified in the Corps guidance materials).

⁹³ See *U.S. v. Deaton*, 85 Fed.Appx. 956 (4th Cir. 2004), *cert. denied*, 124 S.Ct. 2088 (2004); *Treacy v. Newdunn Associates, LLP*, 334 F.3d 407 (4th Cir. 2003), *cert. denied sub nom. Newdunn Associates, LLP v. U.S. Army Corps of Engineers*, 124 S.Ct. 1874 (2004); *U.S. v. Rapanos*, 339 F.3d 447 (6th Cir. 2003), *cert. denied* 124 S.Ct. 1875 (2004); *U.S. v. Krilich*, 303 F.3d 784 (7th Cir. 2002), *cert. denied* 538 U.S. 977 (2003); and *Headwaters, Inc. v. Talent Irrigation Dist.*, 243 F.3d 526 (9th Cir. 2001).

The only clarity provided by the guidance material is for Corps field staff to “continue to assert jurisdiction over traditional navigable waters (and adjacent wetlands). . .”⁹⁴

However, by either actively or passively limiting the scope of the Clean Water Act to “traditionally navigable” waters, the Bush Administration removes Federal protections on more than one-half of the Nation’s waters and wetlands in the hopes that State programs might take additional efforts to protect these natural resources. This would set back efforts to protect water quality to the decades preceding the 1972 Act – a return to the disastrous scenario where 50 different States might have 50 differing approaches to protecting (or failing to protect) water quality. There would be no quicker way for the Bush Administration to undermine the successes of the past 30 years on water quality.

Revisions to Nationwide Permits – Reversal of the “No Net Loss” Policy:

In January 2002, the Bush Administration announced the implementation of revised guidelines and requirements of the nationwide permits (“NWP”) program. These revisions, which went into effect in March 2002, significantly weakened the NWP program, overturning stricter environmental standards for the Nation’s waters that were adopted in 2000, and allow the continuation of activities that damage or destroy thousands of acres of wetlands and miles of streams every year.

The Clean Water Act authorizes the Corps to establish a program of nationwide permits for the expedited approval of certain activities involving the discharge of dredged or fill materials within the waters of the United States that are similar in nature and have a minimal cumulative impact on the environment. Activities performed under NWPs do not require significant public notice and comment, and they undergo a much less stringent review, if any, by the Corps than do projects performed under individual permits.

In spite of President Bush’s proclaimed “Earth Day” support for wetland protections,⁹⁵ the changes to the NWP program make it easier for developers, mining companies, and others to qualify for general permits, and seriously undermine the “no-net loss” commitment that has been in place since the first President Bush adopted it in 1990. For example, the January 2002 revisions eliminated the requirement for 1-to-1 mitigation for lost wetlands, by which developers were to create, restore, or buy one acre of wetland for every acre destroyed. Instead, each of the Corps’ 38 district offices would only have to ensure that their district, as a whole, breaks even.

In addition, the Corps revisions eliminate a thorough Clean Water Act review of activities in intermittent streams, allowing the Corps to waive a 300-foot limit on stream destruction under the NWP program. As a result, developers are able to expedite the elimination of potential safety buffer-zones in flood-prone areas that, although seemingly dry for a large portion of the year, provide a safe and environmentally sensitive means of controlling storm water runoff in heavy rains. As a result of the Corps changes, greater numbers of residents and business owners could potentially be subject to increased flooding and risk of harm.

⁹⁴ See ANPRM at 1998.

⁹⁵ Katherine Seelye and Douglas Jehl, “Bush Endorses Tougher Rule on Lead Reporting,” N.Y. Times, April 18, 2001.

Finally, the revisions loosen the restrictions on filling wetlands in flood-prone areas, making it easier for developers to build in these areas, and placing at risk the lives and property of individuals in and downstream of these areas.

The January 2002 changes represent a significant internal shift in Corps of Engineers policy with regard to the importance and protection of the Nation's wetlands. Since 1990, both Republican and Democratic Presidents have understood the importance of these vital natural areas for the benefit they provide in cleansing and storing reservoirs of potable water, providing flood protection to coastal and downstream areas, and maintaining essential habitat for the Nation's native species.

However, in this one document, President Bush turns his back on former President Bush's established policy of "no net loss" of wetlands, and reinforces the underlying motivation of the Bush Administration to deconstruct Federal protections over vitally important U.S. waters. The combined efforts of the Administration to diminish regulatory protections over U.S. waters and wetlands, if coupled with a reduction in the Act's scope to only traditionally navigable waters, will open hundreds of thousands of wetlands to destruction.

Mountaintop Removal Mining:

Mountaintop removal mining, as its name suggests, calls for the removal of the tops of mountains to more easily access and recover coal deposits contained within. This practice requires moving massive amounts of rock and earth, first loosened by explosives, then removed by immense earth-moving equipment capable of extracting hundreds of cubic yards of material in a single pass. Because of the topography, this material is often placed in valley areas, displacing streams and other waters of the U.S. Once the overlaying dirt and rock are removed, mining operations can easily recover and haul-away the coal – leaving behind potential ecological disasters of buried streams, damaged watersheds, and rock-piles as far as the eye can see.

After the process of coal removal is complete, Federal law requires that mining operations return the spoil⁹⁶ to the mined area and attempt to restore the mountains to their approximate original contour. Often, however, this cannot be accomplished because broken rock and excavated soils take up more volume than did the material prior to its removal, and there are stability concerns with the returned spoil pile.⁹⁷ As a result, mountaintop removal mining creates a tremendous amount of *excess* spoil – material that will no longer fit safely on top of the mountain. This material either remains or is commonly placed in valley fills on the sides of former mountains, burying any habitat, wildlife, or natural streams that flow through mountain valleys under tons or rock and debris.

⁹⁶ Spoil is the dirt and rock that was removed from the mountain above or in between coal seams.

⁹⁷ See generally, Copeland, Claudia. "Mountaintop Mining: Background on Current Controversies, CRS Report for Congress." Congressional Research Service, Library of Congress. 2003.

The disposal of excess spoils has an enormous impact on the natural environment surrounding the mining operation. This impact was described by a Federal District Court judge presiding over mountaintop mining litigation, who noted:

When valley fills are permitted in intermittent and perennial streams, they destroy those stream segments. The normal flow gradient of the stream is now buried under millions of cubic yards of excess spoil waste material, an extremely adverse effect. If there are fish, they cannot migrate. If there is any life form that cannot acclimate to life deep in a rubble pile, it is eliminated. No effect on related environmental values is more adverse than obliteration. Under a valley fill, the water quantity of the stream becomes zero. Because there is no stream, there is no water quality.⁹⁸

The practice of mountaintop removal mining is regulated both by the Clean Water Act and the Surface Mining Control and Reclamation Act (“SMCRA”). SMCRA addresses the necessary approvals for surface mining operations, issued either through the Office of Surface Mining of the U.S. Department of the Interior or by an appropriate State agency, as well as the inspection of and enforcement on mine sites until reclamation responsibilities are completed and all performance bonds are released.⁹⁹

However, it is the Corps, in conjunction with EPA, that is responsible for ensuring mountaintop mining operations avoid or minimize their impacts on U.S. waters. The Clean Water Act establishes that the discharge of pollutants into the waters of the United States, in the absence of a permit or an statutory exception, is unlawful.¹⁰⁰ Section 404 of the Clean Water Act designates the Corps as the lead Federal agency responsible for reviewing applications for permits to deposit dredged or fill materials into U.S. waters, such as the rock and soils disturbed in mountaintop mining operations.¹⁰¹

As with any application for a permit under § 404, the Corps is required by law to review the potential impact of the proposed activity in light of its responsibility under the Clean Water Act to restore and maintain the physical, chemical, and biological integrity of the Nation’s waters.¹⁰² Consistent with this responsibility, the Corps is obligated to reject proposals for activities where practicable, less-harmful alternatives exist¹⁰³ or, in the alternative, to minimize the potential impacts of proposed activities on U.S. waters.¹⁰⁴ In addition, the Corps is required to ensure compensation for resources lost as a result of activities conducted in U.S. waters and wetlands, such as reasonable and justifiable mitigation of impacts to the human or aquatic environment.¹⁰⁵

Because of the enormous, and often irreversible impact of mountaintop removal mining, the Corps (and EPA) should diligently review each application for the placement of fill material to ensure that mining operations avoid, where possible, or limit the impact on the aquatic environment

⁹⁸ See *Bragg v. Robertson*, 72 F.Supp.2d 642, 661.

⁹⁹ See Copeland, Claudia. “Mountaintop Mining: Background on Current Controversies, CRS Report for Congress.” Congressional Research Service, Library of Congress. 2003.

¹⁰⁰ 33 U.S.C. 1311(a).

¹⁰¹ 33 U.S.C. 1344(a).

¹⁰² 33 U.S.C. 1251(a).

¹⁰³ 40 CFR 230.10(a).

¹⁰⁴ 40 CFR 230.10(d).

¹⁰⁵ 33 U.S.C. 1344(b)(1) and 33 CFR 320.4(r).

surrounding the mine, as well as any downstream effects. Unfortunately, under the Bush Administration, the Corps and the other Federal agencies have taken the opposite approach – speeding up the process of approving mountaintop mining operations.

Since 2001, the Bush Administration has made good on campaign pledges¹⁰⁶ to special-interest groups to ease Federal rules governing this practice,¹⁰⁷ making it quicker and easier for the mining industry to remove the coal, regardless of the cost to the environment, and making it more difficult (if not impossible) for the public to voice concerns over these operations. As a result, permit approvals for mountaintop mining operations are increasing dramatically – up more than 200 percent between 2002 and 2003 alone¹⁰⁸ – leaving behind a legacy of miles of destroyed mountain streams, thousands of acres of denuded forests, and the leveling of mountain vistas that have existed for millennia.

To a great extent, this increase in mountaintop mining permit approvals has coincided with a steady *decrease* in Federal oversight over mining permit applications – including the impact of individual mountaintop removal mining operations on the environment and the cumulative impact of such operations on the Appalachian coal mining region. The Corps relies heavily on the use of its general permit authority (such as nationwide permit 21 or “NWP-21”) to approve mountaintop removal mining operations, despite the fact that activities performed under general permits do not require the same level of public notice and opportunity for comment, and undergo a much less stringent review, if any, by the Corps than do projects performed under individual permits. For example, since March 2003, a single Corps District office issued 75 permits for mountaintop removal mining operations – 74 using its NPW-21 authority, and 1 under an individual permit.¹⁰⁹ This is especially troublesome considering that under the NWP-21, there is no acreage limit on the size of mining operations and, according to Corps materials, activities approved under NWP-21 account for the greatest share of acreage approved under the entire nationwide permit program.¹¹⁰ Accordingly, some of the largest mountaintop mining operations imaginable can be rubber-stamped by the Corps under its general permit authority with little Federal oversight, contrary to the statutory requirement that there be minimal adverse effects, both individually and cumulatively,¹¹¹ and with no chance for public review or comment.

¹⁰⁶ See Joby Warrick, “Appalachia Is Paying Price for White House Rule Change,” *The Washington Post*, August 17, 2004, at A-1. This article notes that following the 2000 election, Bush administration officials publicly promised to remove the legal bureaucratic roadblocks to the mining permits, including a specific pledge by Deputy Interior Secretary J. Steven Griles, a former coal industry lobbyist, to “fix the federal rules very soon on water and soil placement.”

¹⁰⁷ Since January 2001, the Bush Administration has (1) proposed to eliminate a two-decade old ban on mining within 100 feet of a stream, the so-called “buffer zone” (69 Fed. Reg. 1,036 (2004)), (2) reversed Corps and EPA regulations to allow mining operations to dispose of mining “wastes” into streams, rivers and wetlands (67 Fed. Reg. 31,129 (2002)), and (3) reauthorized and streamlined nationwide permit 21 in spite of recommendations by U.S. Fish and Wildlife Service to suspend use of permit because it failed to meet the standard of “no more than minimal” impact of the environment (Memo of U.S. FWS on Proposed Nationwide Permit Program).

¹⁰⁸ See Christopher Drew and Richard A. Oppel, Jr., “Friends in the White House Come to Coal’s Aid,” *The New York Times*, August 9, 2004.

¹⁰⁹ Staff correspondence with the U.S. Army Corps of Engineers.

¹¹⁰ See U.S. Army Corps of Engineers, “Draft Programmatic Environmental Impact Statement: Nationwide Permits,” July 2001, at C-41.

¹¹¹ 33 U.S.C. 1344(e)(1).

For these reasons, in July 2004, a Federal District Court judge enjoined the Corps from approving any further mountaintop removal mining operations under its NWP-21 authority, and suspended authorizations for operations that have yet to commence.¹¹² In *Ohio Valley Environmental Coalition v. Bulen* (“*Ohio Valley*”), the Court reviewed the Corps use of NWP-21 to approve mountaintop removal mining activities in U.S. waters and determined that this procedure is prohibited by the Clean Water Act.

First, as noted earlier, the Court determined that the use of the Corps general permit authority unfairly limits public participation in reviewing applications and approving permits for activities, such as mountaintop removal mining operations, which pose a significant, and often permanent, impact on the local environment.¹¹³

Second, the Corps formulation of NWP-21 centers on the *procedure* of mountaintop removal mining, instead of permitting a *category* of activities, as required under the general permit authority of the Clean Water Act. As the Court articulated in *Ohio Valley*:

Section 404(e) of the Clean Water Act directs the Corps to determine that certain activities will invariably have only minimal effects on the environment. The statute unambiguously requires determination of minimal impact before, not after, the issuance of a nationwide permit. . . . In issuing NWP 21, however, the Corps did not define activities that will invariably have only minimal effects; rather, NWP 21 provides for a *post hoc*, case-by-case evaluation of environmental impact. It therefore runs afoul of the statutory requirement on initial certainty.¹¹⁴

Finally, the Court notes that NWP-21 fails to comply with the statutory directive that general permits set forth the requirements and standards which shall apply to any activity authorized by such general permit.¹¹⁵ According to Judge Goodwin, “[in] the case of NWP-21, the Corps has defined neither a category of activities that will cause only minimal adverse effects nor a set of requirements and standards”¹¹⁶ – a process that is expressly prohibited by the Clean Water Act. Consequently, “[if] the Corps cannot define a category of activities that will have minimal effects, absent individual review of each activity, the activities are inappropriate for general permitting,” and such applications should be reviewed under the Corps individual permit authority.¹¹⁷

On September 2, representatives of the Bush Administration filed an appeal of the *Ohio Valley* decision, on the grounds that invalidation of NWP 21 prevents the Corps from “effectively

¹¹² See *Ohio Valley Environmental Coalition v. Bulen*, 2004 WL 1576726 (S.D.W.Va. Jul. 08, 2004).

¹¹³ See *id.* at *14. (“The Corps does not dispute that valley fills and surface impoundments have the potential to affect the environment significantly.”)

¹¹⁴ See *id.* at *13.

¹¹⁵ 33 U.S.C. 1344(e). Seemingly, under NWP-21, there is no limit to the linear size of the stream that could be impacted, nor any limitation on the total acreage of a watershed that might be impacted, both of which run afoul with the statutory obligation of the Corps to define a discrete set of activities that can be approved under its general permit authority.

¹¹⁶ See *Ohio River* at *14.

¹¹⁷ See *id.* at *15.

using a less burdensome and more streamlined statutory program”¹¹⁸ to approve mountaintop removal mining operations. This approach is consistent with the Administration’s priorities to mine, drill, and otherwise exploit natural resources, with little public review or environmental oversight and regardless of the costs.

A more prudent approach, and one consistent with the goals to restore and protect the Nation’s waters, would be to completely revoke NWP 21 and to require mining companies to pursue individual permits for these large scale operations. To be clear, there are situations where mountaintop removal mining might be the only methodology possible for recovering coal seams, such as where natural conditions make other mining practices impossible. If, in these situations, public policy demands that mountaintop removal mining operations be conducted, they should be conducted only after the impacts to the environment are fully explored, avoided and/or minimized, and the public is given full opportunity to participate in the process.

The only way to achieve this goal is through the Corps’ individual permit process where careful planning is conducted to ensure that the impact to neighboring streams and ecosystems are avoided, where possible, or otherwise minimized, and after all appropriate mitigation is implemented. To do any less violates the goals of the Clean Water Act.

Failure to Fund Necessary Water Infrastructure:

As noted earlier, the Nation’s water and wastewater infrastructure is getting old, and falling into disrepair. Many of the wastewater treatment facilities constructed soon after enactment of the 1972 Act are now reaching the end of their expected useful life, and are in significant need of replacement or rehabilitation. Without renewing our attention to and investment in water infrastructure, this Nation risks losing many of the gains made over the past 30 years in improving water quality.

The Bush Administration fails to understand the need for increased Federal investment in water infrastructure. Since the election, President Bush has continuously proposed to slash funding for the primary Federal program responsible for funding wastewater infrastructure programs throughout the Nation – the Clean Water State Revolving Fund (“CWSRF”). (*See Appendix II for a breakdown of the impact to individual State CWSRF programs from the President’s Budget Request.*)

In fiscal year 2002, President Bush proposed to cut the CWSRF program by almost 40 percent – from an appropriation of \$1.35 billion in fiscal year 2001 to \$850 billion in fiscal year 2002.

In fiscal year 2003, the President again proposed to cut the CWSRF program, this time by 10 percent – from an appropriation of \$1.35 billion in fiscal year 2002 to \$1.212 billion in fiscal year 2003.

¹¹⁸ See “Statement of Thomas L. Sansonetti, Assistant Attorney General for the Department of Justice Environment and Natural Resources Division, Regarding the Notice of Appeal in the Ohio Valley Environmental Coalition v. Bulen,” U.S. Department of Justice, September 2, 2004.

In fiscal year 2004, the President returned to propose cutting the program by almost 40 percent – from an appropriation of \$1.34 billion in fiscal year 2003 to \$850 million in fiscal year 2004.

Finally, in fiscal year 2005, the President again proposed to cut the program by almost 40 percent – from an appropriation of \$1.34 billion in fiscal year 2004 to \$850 million in fiscal year 2005.

Yet, during this entire time, EPA publicly acknowledges the significant funding gap of between \$4 to \$9 billion *per year* for wastewater infrastructure over the next 20 years.

In addition, despite the bipartisan efforts of the Committee on Transportation and Infrastructure to pass legislation to substantially increase the authorized level of funding for water infrastructure, representatives of the Bush Administration testified that the President is opposed to any increase in Federal investment to improve, repair, and replace necessary water infrastructure.¹¹⁹

Numerous sources, including EPA, have estimated significant needs for water infrastructure investment over the next 20 years, ranging from \$300 billion to \$400 billion. What remains unclear is how the Administration expects to close the funding gap while both cutting the Federal investment to State revolving loan funds and opposing potential increases in Federal investment toward water infrastructure.

Clearly, the current level of Federal spending is grossly inadequate to maintain and improve the quality of the Nation's waters and the health of the environment. What remains is the choice to make necessary investments in water infrastructure today, or to risk the achievements in public and environmental health to date, and pass along the job to future generations.

Devolution of Enforcement to the States:

As stated earlier, one of the key provisions of the Clean Water Act is the prohibition of pollutant discharges into the Nation's waters in the absence of a permit. Without adequate enforcement of the criminal and civil penalties provided in the Act, these provisions provide little deterrent for polluters not to contaminate or destroy the waters of the United States.

Even with provisions in the Act allowing for limited permitted discharges into U.S. waters, polluters routinely break the law. Reports have documented increasing numbers of illegal discharges by major facilities over the past year, with State enforcement authorities taking little action to prevent these occurrences. In addition, EPA's Office of Enforcement and Compliance Assurance and Office of the Inspector General both recently reported that State enforcement authorities have been lax in investigating and prosecuting illegal discharges – often delaying any action against polluters for a year or more. When State enforcement is finally taken, penalties imposed on polluters were often insufficient to prevent further violations, or infrequently collected.

In spite of these facts, over the past two years, the Bush Administration has been trying desperately to undercut Federal enforcement at EPA, and transfer this responsibility to the States. This is exactly the wrong decision at the wrong time.

¹¹⁹ Testimony of Benjamin Grumbles, Deputy Assistant Administrator for EPA's Office of Water before the Subcommittee on Water Resources and Environment, March 13, 2002.

In both the fiscal year 2002 and 2003 budgets, President Bush proposed significant cuts to the Federal enforcement offices of EPA – those offices charged with enforcing America’s most important and effective environmental laws, including the Clean Water Act. The enforcement efforts of EPA are essential in assuring that the agency can adequately protect the safety of our Nation’s air and water.

In the fiscal year 2002 budget, the President unsuccessfully attempted to cut \$25 million from EPA’s enforcement budget, specifically targeting compliance, monitoring, civil and criminal enforcement, and Superfund enforcement. This effort would have resulted in the elimination of 270 positions from the Office of Enforcement and Compliance. It would have resulted in 2,000 fewer inspections, an 11 percent reduction in criminal actions, and a 20 percent reduction in civil actions.

The fiscal year 2002 budget also proposed to transfer \$25 million to the States for enforcement. While States could use additional help in ensuring compliance with environmental laws, that help should not come at the expense of Federal enforcement programs. Fortunately, this effort failed as well.

Undaunted by this failure, the President again proposed to cut Federal enforcement programs in his fiscal year 2003 budget – this time by more than \$10 million. The proposal would have resulted in the elimination of 210 positions from the Office of Enforcement and Compliance Assurance (below FY2001 levels), and again, would significantly undermine the ability of the Federal government to ensure compliance with environmental laws, including the Clean Water Act. Again, fortunately, this provision failed to be enacted.

If any of these Presidential requests were enacted, there would be fewer inspections of regulated facilities, fewer prosecutions of individuals and companies who discharge unregulated pollutants into the waters of the United States, and weaker attempts to impose civil and criminal penalties against those convicted of violating the law.

Federal and State resources combined are not enough to fully enforce our Federal environmental laws as it is. Undermining and transferring scarce Federal resources to State programs when both are under-funded would exacerbate pollution control efforts. The fact is, the air and water quality in one State impacts the air and water quality in another State. There are no borders when the goal is a clean environment. States do provide an important part of enforcing environmental laws and undoubtedly need additional resources, but as most recognize, EPA still manages many federal programs directly and has enforcement responsibility for transboundary pollutants, large national corporations, and cases that are too complex or too politically charged for some States to handle. States cannot replace the unique role of EPA in this area.

A clean environment is a national priority.

Concentrated Animal Feeding Operations (CAFOs):

In the most recent water quality report to Congress, the States identified agriculture as the leading contributor to water quality impairment in rivers and streams by a wide margin.¹²⁰ Agriculture is also the leading source of impairment of lakes, ponds, and reservoirs.¹²¹ Even in estuarine areas, which are often highly urbanized, agriculture is a significant contributor to water quality impairment.¹²²

Most activities associated with agriculture are not regulated or otherwise subject to requirements under Federal or State clean water programs. Yet, agriculture remains one of the most significant sources of pollutants causing water quality impairment.

Traditionally, the water quality issues associated with agriculture have focused on runoff from fields that contain insecticides and herbicides. While these issues remain a problem, increasing attention is being paid to nutrient pollution from animal feeding operations.

Today, consolidation of animal feeding practices have resulted in massive operations that generate a tremendous amount of waste material. This results in larger facilities and in facilities becoming more concentrated geographically.¹²³ For example, the Economic Research Service of the Department of Agriculture reports that there was a decline of more than 50 percent in the number of farms with confined animals in the 1982 to 1997 period – a drop from 435,000 to 213,000.¹²⁴ At the same time, the number of animal units (AU) in production grew by more than 50 percent.¹²⁵

For example, in the Chesapeake Bay watershed, there are 185 million livestock animals present in the watershed – more than 11 times the human population. These animal operations produce 44 million tons of manure each year containing nearly 600 million pounds of nitrogen and 165 million pounds of phosphorous.¹²⁶

In addition, in the State of North Carolina, the population of farmed-raised hogs has grown faster than any State in the Nation, swelling from 2.6 million to 10 million hogs since 1987. These animals produce approximately 19 million tons of feces and urine a year, or over 50,000 tons every single day, yet are concentrated only in the eastern coastal plain.¹²⁷

The concentration of animals cause large amounts of nutrients to be imported into areas through feed, but the same nutrients are not returned to their source. Instead, the more common and traditional method of disposing of nutrients in animal waste has been through land application of manure nearby the animal operation. The practice results in an imbalance between what nutrients are placed on the land and what the crops can successfully use, with excessive nutrients finding their way into adjacent rivers, streams, and lakes.

¹²⁰ See U.S. EPA. “National Water Quality Inventory: 2000 Report.”

¹²¹ See *id.*

¹²² See *id.*

¹²³ See U.S. GAO, “Animal Agriculture: Information on Waste Management and Water Quality Issues.” June 1995.

¹²⁴ See USDA, Economic Research Service, “Confined Animal Production and Manure Nutrients.” June 2001.

¹²⁵ See *id.*

¹²⁶ See Chesapeake Bay Foundation, “Manure’s Impact on Rivers, Streams and the Chesapeake Bay: Keeping Manure Out of the Water,” July 2004..

¹²⁷ See “Hog Watch” <<http://www.environmentaldefense.org/system/templates/page/subissue.cfm?subissue=10>>

These excessive nutrients carry a heavy price for the environment and for public health. Pollutants in animal manure have resulted in the sudden death of thousands of fish; eutrophication and algal blooms; contamination of shellfish and subsequent toxin and pathogen transmission in the food chain; increased turbidity and negative impacts to benthic organisms; and, reduced biodiversity when rivers and streams become uninhabitable by resident species.¹²⁸ Pollutants in animal manure present a range of risks to human health when they contaminate drinking water or shellfish, when they are present in recreational waters, or when the pollutants escape from the manure into the atmosphere, such as ammonia gas or hydrogen sulfide, contributing to serious health impacts and reduced quality of life for nearby residents.

Cryptosporidium, E. coli, and Giardia are all associated with animal manure and all have serious health consequences including death. Recent examples include the Washington County Fair in New York State in 1999 (2 deaths, 71 hospitalized), Milwaukee, Wisconsin, in 1993 (104 deaths, 403,000 illnesses), and Walkerton, Ontario, Canada, in 2000 (7 deaths, 1,000 illnesses).¹²⁹

When nutrient laden runoff from agricultural and other nonpoint sources contaminate drinking water reserves, utilities are forced to add additional chlorine to kill any harmful microorganisms that may be present in the water. This combination of nutrient laden water and chlorine has been found to create “chlorine byproducts,” which have been linked to increased risks of cancer, and are further suspected to be a potential cause for increased risk of miscarriages and birth defects.¹³⁰

In response to concerns that EPA’s regulatory program needed to be brought up to date with current feeding practices, on January 12, 2001, the Clinton Administration proposed to revise the regulations governing concentrated animal feeding operations (“CAFOs”). The proposed rule on CAFOs would have modernized the CAFO program to reflect real world animal feeding practices, including lowering the threshold over which an animal feeding operation would come under the permitting requirements of the Clean Water Act.¹³¹ In addition, this proposal would have more closely followed the land application and disposal of animal wastes to ensure that excessive nutrients were less likely to appear in U.S. waters as nonpoint source pollution. Finally, the proposed CAFO rule would have required animal processors that exercise substantial control over contract growers to be more greatly involved in these operations, ensuring that large operations do not avoid the pollution controls by dividing up their operations to avoid permitting thresholds.¹³²

¹²⁸ See U.S. EPA, “Proposed Regulations to Address Water Pollution from Concentrated Animal Feeding Operations.” December 2000.

¹²⁹ See U.S. EPA, “Proposed Rule: National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines and Standards for Concentrated Animal Feeding Operations.” December 2001

¹³⁰ See Environmental Working Group and U.S. PIRG, “Consider the Source: Farm Runoff, Chlorination Byproducts, and Human Health.” October 2001.

¹³¹ CAFOs are defined as point sources under the Clean Water Act, and as such, are subject to permit requirements and the implementation of effluent limitations to reduce or eliminate pollutant loadings into the waters of the United States.

¹³² See U.S. EPA, “Proposed Regulations to Address Water Pollution from Concentrated Animal Feeding Operations.” December 2000.

Unfortunately, as noted in the earlier discussion on the TMDL rule, on the day of his inauguration, President Bush blocked all pending regulations, including the CAFO proposed rule. When the CAFO rule finally reemerged from within the Administration almost 18-months later, it was sufficiently weakened to the point where it is unlikely to significantly protect against the continued impairment of the Nation's waters from animal wastes.

The final rule leaves untouched the existing thresholds for implementing additional manure management controls, allowing far greater numbers of animal feeding operations to continue polluting the Nation's waters. The final rule eliminates any leveling of the playing field between corporate headquarters of animal operations and contract growers, placing the entire burden of handling these millions of tons of waste on the small growers, and allowing the corporate headquarters to reap all of the profits with zero responsibility for protecting the environment. Finally, the Bush Administration rule eliminated the potential authority to ensure the proper disposal of animal wastes in an efficient and environmentally beneficial manner – one of the largest on going sources of impairment to the Nation's waters – relying instead on the hope that people will do the right thing.

The Bush Administration's weakening of the CAFO regulations maintains the status quo on the release of animal wastes to the waters of the United States. When it comes to animal feeding operations, improved water quality and the elimination of human health risks must remain the goal.

CONCLUSION:

For the most part, the 30-plus-year history of the modern Clean Water Act has been a tremendous success. In this period, the Nation's waterways have shown dramatic improvement while there have been significant increases in population. In just over a generation, the number of assessed waters currently meeting water quality standards has doubled. However, the Clean Water Act has not achieved success. There is still much work to be done.

These years have provided us with significant insight on where the Clean Water Act has failed – most notably in controlling nonpoint sources of pollution from a variety of urban and rural sources. Now, even when armed with the knowledge of how far the Nation has come, and how close it is to finally achieving the fishable and swimmable goals of the Act, the United States stands on the threshold of throwing all these successes away, and reverting back to the days of dying lakes, rivers that burn, and waterways that are sewers.

The actions of the Bush Administration clearly demonstrate how easy it is to turn the clock back on protecting our Nation's waters. In just over three years, President Bush has shown that the decisions, priorities, and policy choices made by his Administration can mean the difference between concerted efforts to restore and protect our most vital natural resource from pollution, and efforts to undermine these protections.

Clearly, the Nation has a choice – the final chapters on the Clean Water Act have yet to be written. The questions remain – which path will be followed? Should we be satisfied with the progress that has been made, and resign ourselves to the fact that we have already witnessed the peak in water quality as conditions worsen? Or should we demand that next steps be taken to clean America's waterways?

The answer depends as much on our own commitment to finishing the job that began with passage of the Clean Water Act, as on ensuring that our elected officials share our views. Now, more than ever, we must reaffirm our commitment to restoring and protecting our Nation's greatest natural resource – our rivers, lakes, coastal areas, streams, and wetlands.

We owe future generations no less.

APPENDIX I

Sources of State-by-State Information on the Status of the Nation's Waters

ALABAMA – 183 Waterbodies on State Impaired Waters List

- **List of Impaired Waters in Alabama:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=AL
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Alabama:**
<http://www2.nrdc.org/water/oceans/ttw/sumala.pdf>

ALASKA – 48 Waterbodies on State Impaired Waters List

- **List of Impaired Waters in Alaska:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=AK
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

AMERICAN SAMOA – 1 Waterbody on State Impaired Waters List

- **List of Impaired Waters in American Samoa:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=AS
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

ARIZONA – 103 Waterbodies on State Impaired Waters List

- **List of Impaired Waters in Arizona:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=AZ
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

ARKANSAS – 103 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Arkansas:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=AR
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

CALIFORNIA – 509 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in California:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=CA
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in California:**
<http://www2.nrdc.org/water/oceans/ttw/sumcal.pdf>

COLORADO – 79 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Colorado:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=CO
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

CONNECTICUT – 250 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Connecticut:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=CT
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Connecticut:**
<http://www2.nrdc.org/water/oceans/ttw/sumcon.pdf>

DELAWARE – 381 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Delaware:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=DE
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Delaware:**
<http://www2.nrdc.org/water/oceans/ttw/sumdel.pdf>

DISTRICT OF COLUMBIA – 36 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in the District of Columbia:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=DC
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

FLORIDA – 823 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Florida:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=FL
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Florida:**
<http://www2.nrdc.org/water/oceans/ttw/sumflo.pdf>

GEORGIA – 445 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Georgia:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=GA
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Georgia:**
<http://www2.nrdc.org/water/oceans/ttw/sumgeo.pdf>

GUAM – 3 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Guam:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=GU
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Guam:**
<http://www2.nrdc.org/water/oceans/ttw/sumgua.pdf>

HAWAII – 18 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Hawaii:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=HI
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Hawaii:**
<http://www2.nrdc.org/water/oceans/ttw/sumhaw.pdf>

IDAHO – 838 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Idaho:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=ID
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

ILLINOIS – 803 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Illinois:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=IL
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Illinois:**
<http://www2.nrdc.org/water/oceans/ttw/sumill.pdf>

INDIANA – 1125 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Indiana:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=IN
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Indiana:**
<http://www2.nrdc.org/water/oceans/ttw/sumind.pdf>

IOWA – 184 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Iowa:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=IA
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

KANSAS – 1365 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Kansas:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=KS
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

KENTUCKY – 231 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Kentucky:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=KY
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

LOUISIANA – 351 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Louisiana:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=LA
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Louisiana:**
<http://www2.nrdc.org/water/oceans/ttw/sumlou.pdf>

MAINE – 228 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Maine:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=ME
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Maine:**
<http://www2.nrdc.org/water/oceans/ttw/summai.pdf>

MARYLAND – 408 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Maryland:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=MD
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Maryland:**
<http://www2.nrdc.org/water/oceans/ttw/summar.pdf>

MASSACHUSETTS – 775 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Massachusetts:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=MA
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Massachusetts:**
<http://www2.nrdc.org/water/oceans/ttw/summas.pdf>

MICHIGAN – 351 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Michigan:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=MI
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Michigan:**
<http://www2.nrdc.org/water/oceans/ttw/summic.pdf>

MINNESOTA – 1402 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Minnesota:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=MN
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Minnesota:**
<http://www2.nrdc.org/water/oceans/ttw/summin.pdf>

MISSISSIPPI – 734 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Mississippi:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=MS
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Mississippi:**
<http://www2.nrdc.org/water/oceans/ttw/summis.pdf>

MISSOURI – 197 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Missouri:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=MO
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

MONTANA – 527 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Montana:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=MT
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

N. MARIANA ISLANDS – 2 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in N. Mariana Islands:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=CN
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in N. Mariana Islands:**
<http://www2.nrdc.org/water/oceans/ttw/sumnmi.pdf>

NEBRASKA – 128 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Nebraska:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=NE
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

NEVADA – 37 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Nevada:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=NV
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

NEW HAMPSHIRE – 226 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in New Hampshire:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=NH
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in New Hampshire:**
<http://www2.nrdc.org/water/oceans/ttw/sumnewh.pdf>

NEW JERSEY – 953 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in New Jersey:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=NJ
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in New Jersey:**
<http://www2.nrdc.org/water/oceans/ttw/sumnewj.pdf>

NEW MEXICO – 206 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in New Mexico:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=NM
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

NEW YORK – 718 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in New York:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=NY
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in New York:**
<http://www2.nrdc.org/water/oceans/ttw/sumnewy.pdf>

NORTH CAROLINA – 629 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in North Carolina:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=NC
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in North Carolina:**
<http://www2.nrdc.org/water/oceans/ttw/sumnor.pdf>

NORTH DAKOTA – 257 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in North Dakota:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=ND
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

OHIO – 238 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Ohio:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=OH
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Ohio:**
<http://www2.nrdc.org/water/oceans/ttw/sumohi.pdf>

OKLAHOMA – 436 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Oklahoma:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=OK
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

OREGON – 1551 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Oregon:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=OR
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Oregon:**
<http://www2.nrdc.org/water/oceans/ttw/sumore.pdf>

PENNSYLVANIA – 4298 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Pennsylvania:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=PA
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Pennsylvania:**
<http://www2.nrdc.org/water/oceans/ttw/sumpen.pdf>

PUERTO RICO – 83 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Puerto Rico:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=PR
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality Puerto Rico:**
<http://www2.nrdc.org/water/oceans/ttw/sumpue.pdf>

RHODE ISLAND – 155 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Rhode Island:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=RI
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality Rhode Island:**
<http://www2.nrdc.org/water/oceans/ttw/sumrho.pdf>

SOUTH CAROLINA – 710 Waterbodies on State Impaired Waters List

- **List of Impaired Waters in South Carolina:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=SC
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in South Carolina:**
<http://www2.nrdc.org/water/oceans/ttw/sumsou.pdf>

SOUTH DAKOTA – 176 Waterbodies on State Impaired Waters List

- **List of Impaired Waters in South Dakota:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=SD
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

TENNESSEE – 863 Waterbodies on State Impaired Waters List

- **List of Impaired Waters in Tennessee:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=TN
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

TEXAS – 147 Waterbodies on State Impaired Waters List

- **List of Impaired Waters in Texas:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=TX
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Texas:**
<http://www2.nrdc.org/water/oceans/ttw/sumtex.pdf>

UTAH – 197 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Utah:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=UT
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

VERMONT – 182 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Vermont:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=VT
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

VIRGINIA – 1084 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Virginia:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=VA
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Virginia:**
<http://www2.nrdc.org/water/oceans/ttw/sumvir.pdf>

VIRGIN ISLANDS – 19 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in the Virgin Islands:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=VI
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in the Virgin Islands:**
<http://www2.nrdc.org/water/oceans/ttw/sumvi.pdf>

WASHINGTON – 1327 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Washington:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=WA
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Washington:**
<http://www2.nrdc.org/water/oceans/ttw/sumwas.pdf>

WEST VIRGINIA – 1152 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in West Virginia:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=WV
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

WISCONSIN – 604 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Wisconsin:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=WI
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>
- **Beach Water Quality in Wisconsin:**
<http://www2.nrdc.org/water/oceans/ttw/sumwis.pdf>

WYOMING – 128 *Waterbodies on State Impaired Waters List*

- **List of Impaired Waters in Wyoming:**
http://oaspub.epa.gov/waters/state_rept.control?p_state=WY
- **2003 National Listing of Fish Advisories:**
<http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- **Clean Watersheds Needs Survey 2000 - Report to Congress:**
<http://www.epa.gov/owm/mtb/cwns/2000rtc/toc.htm>

APPENDIX II

State-by-State Cuts to the Clean Water State Revolving Loan Fund Accounts Fiscal Year 2004 Levels vs. Fiscal Year 2005 Presidential Budget Request

State	FY04 Enacted	FY05 Budget	Cut	Job Loss ¹³³
Alabama	\$14,819,554	\$9,386,209	-\$5,433,345	-1,035
Alaska	\$7,931,942	\$5,023,827	-\$2,908,116	-165
Arizona	\$8,951,408	\$5,669,522	-\$3,281,886	-425
Arkansas	\$8,670,041	\$5,491,313	-\$3,178,728	-315
California	\$94,784,160	\$60,033,111	-\$34,751,049	-2,340
Colorado	\$10,600,352	\$6,713,908	-\$3,886,444	-700
Connecticut	\$16,235,551	\$10,283,054	-\$5,952,497	-1,075
Delaware	\$6,506,784	\$4,121,179	-\$2,385,605	-140
Dist. Of Columbia	\$6,506,784	\$4,121,179	-\$2,385,605	n/a
Florida	\$44,734,794	\$28,333,520	-\$16,401,274	-1,095
Georgia	\$22,407,312	\$14,192,041	-\$8,215,271	-475
Hawaii	\$10,264,020	\$6,500,886	-\$3,763,134	-245
Idaho	\$6,506,784	\$4,121,179	-\$2,385,605	-140
Illinois	\$59,937,793	\$37,962,590	-\$21,975,203	-1,360
Indiana	\$31,939,777	\$20,229,584	-\$11,710,192	-1,760
Iowa	\$17,936,843	\$11,360,595	-\$6,576,247	-620
Kansas	\$11,962,694	\$7,576,769	-\$4,385,924	-645
Kentucky	\$16,867,647	\$10,683,402	-\$6,184,244	-360
Louisiana	\$14,568,286	\$9,227,064	-\$5,341,222	-305
Maine	\$10,258,785	\$6,497,571	-\$3,761,214	-315
Maryland	\$32,052,324	\$20,300,868	-\$11,751,456	-685
Massachusetts	\$44,996,531	\$28,499,295	-\$16,497,236	-3,250
Michigan	\$56,984,090	\$36,091,813	-\$20,892,277	-2,980
Minnesota	\$24,358,562	\$15,427,897	-\$8,930,665	-1,495
Mississippi	\$11,940,446	\$7,562,678	-\$4,377,768	-260
Missouri	\$36,738,726	\$23,269,078	-\$13,469,648	-2,245
Montana	\$6,506,784	\$4,121,179	-\$2,385,605	-140
Nebraska	\$6,778,991	\$4,293,585	-\$2,485,405	-145
Nevada	\$6,506,784	\$4,121,179	-\$2,385,605	-190
New Hampshire	\$13,243,897	\$8,388,240	-\$4,855,656	-275
New Jersey	\$54,157,329	\$34,301,438	-\$19,855,892	-1,980
New Mexico	\$6,506,784	\$4,121,179	-\$2,385,605	-140
New York	\$146,280,931	\$92,649,440	-\$53,631,491	-8,445
North Carolina	\$23,918,844	\$15,149,394	-\$8,769,450	-505
North Dakota	\$6,506,784	\$4,121,179	-\$2,385,605	-235

¹³³ See American Federation of State, County, and Municipal Employees, AFL-CIO, et al., “All Dried Up: How Clean Water is Threatened By Budget Cuts”, September 2004. The job loss number reflects the direct impact of reduced funding for Clean Water State Revolving Funds, plus the corresponding loss of jobs in light of the State’s leveraging history – roughly 47,500 jobs per \$1 billion of investment in clean water facilities.

State	FY04 Enacted	FY05 Budget	Cut	Job Loss ¹³⁴
Ohio	\$74,608,156	\$47,254,306	-\$27,353,850	-2,340
Oklahoma	\$10,707,664	\$6,781,876	-\$3,925,788	-250
Oregon	\$14,971,361	\$9,482,359	-\$5,489,003	-310
Pennsylvania	\$52,496,607	\$33,249,592	-\$19,247,015	-1,105
Rhode Island	\$8,899,061	\$5,636,367	-\$3,262,694	-490
South Carolina	\$13,576,303	\$8,598,775	-\$4,977,527	-290
South Dakota	\$6,506,784	\$4,121,179	-\$2,385,605	-145
Tennessee	\$19,252,071	\$12,193,617	-\$7,058,454	-400
Texas	\$60,573,814	\$38,365,424	-\$22,208,390	-2,845
Utah	\$6,983,145	\$4,422,890	-\$2,560,255	-150
Vermont	\$6,506,784	\$4,121,179	-\$2,385,605	-140
Virginia	\$27,122,506	\$17,178,486	-\$9,944,019	-765
Washington	\$23,047,259	\$14,597,362	-\$8,449,897	-490
West Virginia	\$20,660,217	\$13,085,489	-\$7,574,728	-440
Wisconsin	\$35,827,881	\$22,692,179	-\$13,135,702	-735
Wyoming	\$6,506,784	\$4,121,179	-\$2,385,605	-140
American Samoa	\$1,189,595	\$753,450	-\$436,145	n/a
Guam	\$861,115	\$545,401	-\$315,714	n/a
Puerto Rico	\$17,285,117	\$10,947,814	-\$6,337,303	n/a
Virgin Islands	\$690,986	\$437,647	-\$253,339	n/a
Total	\$1,342,035,000	\$850,000,000	-\$492,035,000	47,520

¹³⁴ See American Federation of State, County, and Municipal Employees, AFL-CIO, et.al., “All Dried Up: How Clean Water is Threatened By Budget Cuts”, September 2004. The job loss number reflects the direct impact of reduced funding for Clean Water State Revolving Funds, plus the corresponding loss of jobs in light of the State’s leveraging history – roughly 47,500 jobs per \$1 billion of investment in clean water facilities..