

TESTIMONY OF

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NATURAL RESOURCES DEFENSE COUNCIL**

**BEFORE THE HOUSE COMMITTEE ON
TRANSPORTATION AND INFRASTRUCTURE'S WATER
RESOURCES AND THE ENVIRONMENT SUBCOMMITTEE**

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Mr. Chairman, members of the Committee, my name is Nancy Stoner. I am a senior staff attorney with the Natural Resources Defense Council (NRDC), and the Director of NRDC's Clean Water Project. NRDC is a national non-profit organization that has more than 500,000 members and has been working for more than 30 years to protect our nation's natural resources, including protecting our waterways from pollution. Thank you for inviting me to speak to the committee today about EPA's proposed policy, National Pollutant Discharge Elimination System (NPDES) Permit Requirements for Municipal Wastewater Treatment During Wet Weather Conditions (Proposed Blending Policy). I welcome the opportunity to address the subcommittee on this topic of great importance and interest to the American public.

As most people know, sewage is comprised of a singularly unhealthy and unappetizing mix of human wastes, industrial chemical wastes, and commercial wastes containing grease, toxins, bacteria, viruses, parasites, intestinal worms, pharmaceuticals, hormones and antibiotics. EPA estimates of the amount of raw sewage dumped into U.S. waters every year range from 1.3 trillion gallons to 860 billion gallons. About 50 trillion gallons of sewage flows through sewage treatment plants in the U.S. every day, according to EPA. EPA estimates the value of our wastewater infrastructure to be more than \$1 trillion dollars.

As the Chairman and Ranking member noted in a letter to the Chairman of the Budget committee earlier this year, experts estimate that each year, nearly 8 million Americans are sickened by waterborne illnesses. Many of these illnesses are due to contact with sewage discharges. Illnesses caused by contact with or consumption of sewage can range from cholera, hepatitis, gastroenteritis, and respiratory infections to giardiasis, cryptosporidiosis and dysentery. Small children, the elderly, cancer patients, and others with serious illnesses, 20-25% of the U.S population, are particularly vulnerable and are highly susceptible to outbreaks of pathogens.

Sewage pollution costs Americans billions of dollars every year in medical treatment, lost productivity and property damage. Sewage contaminates shellfish beds, pollutes drinking water supplies, harms fish and other aquatic wildlife, and damages coral reefs. Sewage is a major source of the nutrient pollution in many waters around the country that robs the waters of the oxygen that fish and shellfish need to survive and feeds toxic algal blooms.

Sewage discharges also harm local economies and small businesses. Sewage is the second largest known source of beach closures, a direct threat to businesses reliant upon coastal tourism. According to EPA estimates, coastal waters support 28.3 million jobs and generate around \$54 billion in goods and services each year. Sewage contamination of shellfish beds is a serious threat to many small businesses. As noted by the Pacific Coast Shellfish Growers Association, "harvest closures not only lead to the loss of a wholesome food that is produced domestically, they also lead to the loss of family-wage jobs in rural communities which otherwise provide little in the way of employment opportunities... On the West Coast alone, the farm-gate value of our shellfish exceeds \$89 million annually, which provides jobs and an important tax base in coastal communities."

Unfortunately, our nation's wastewater treatment infrastructure is not currently capable of fully protecting the public or our waters from the environmental and health threats posed by raw or inadequately treated sewage. In fact, in many communities across the country, our capacity to handle increased flows of sewage and stormwater continues to deteriorate. The American Society of Civil Engineers gave wastewater infrastructure a D- in its 2005 report card, down from the D rating it received in 2001, and as low a grade as it gave any type of infrastructure. Many sewer pipes are 50 or even 100 years old, and, like the rest of us, are not getting any younger. At the same time our infrastructure is deteriorating, more demands are being placed on many systems as populations increase, especially in coastal areas. Increased rates of land development are accompanied by an expansion of sewer lines, adding to the nation's million mile network of sewage collection pipes that have to be maintained. Meanwhile, global warming is likely to increase the size of storm events that treatment systems must contend with. In combination, these factors increase the threat of human and environmental exposure to sewage pollution. Unless investment in wastewater infrastructure substantially increases and treatment efficiency improves, EPA predicts that by 2025 sewage pollution will exceed 1968 levels – the highest in our nation's history.

The threats to public health, the environment, and local economies posed by sewage discharges and aging and overwhelmed infrastructure are compounded by the current efforts to cut federal funding for sewage treatment infrastructure. The most recent proposed cuts only worsen what EPA has estimated to be up to a \$13 billion annual shortfall in needed funding for wastewater infrastructure. EPA projects that the adverse impacts of this funding shortfall will only get worse unless we substantially increase investment in wastewater infrastructure.

What is the solution to the dual national problems of our aging sewage treatment infrastructure and a concomitant rise in the risks of waterborne illness, environmental degradation and associated economic consequences? NRDC supports maintaining the Clean Water Act's longstanding commitment to secondary treatment for sewage and providing substantially increased federal assistance to help communities provide that treatment, just as Congress provided in the construction grants program of the 1970's and 1980's. NRDC believes that effective sewage treatment is absolutely critical to protecting the public from the spread of waterborne illness.

EPA has a different approach. EPA proposes to authorize sewage to be routinely discharged without receiving any biological treatment during rain events. EPA would allow sewage treatment plants to rely solely on rudimentary solids removal during wet weather. Sewer operators would be authorized to use dilution and averaging to meet concentration limits instead of actual treatment. NRDC believes that EPA's proposed policy will worsen water quality, expose the public to greater risk of waterborne illness, and adversely affect the economy, including the shellfish industry, commercial and recreational sportfishing, and coastal tourism related industries. In addition, the policy undermines the Clean Water Act's requirement that sewage treatment plants provide a minimum of secondary treatment and violates EPA's longstanding prohibition on

bypassing, which is defined as the intentional diversion of waste streams from any portion of a treatment facility.

One of EPA's principal justifications for this weakening of treatment standards is the increasing cost of maintaining and upgrading sewer systems and treatment plants to provide full treatment. Yet, at the same time, EPA has cut by 40% over the past two years its proposed budget for "America's Clean Water Fund," the Clean Water State Revolving Fund, which assists communities to provide effective sewage treatment and meet other water quality needs. NRDC appreciates the leadership of the Chairman and Ranking Member in opposing these funding cuts to this program, which is so vital to the protection of public health and the environment.

EPA's proposed policy is also purportedly needed to address instances when precipitation (rainfall or snowmelt) is so heavy that a treatment system is overwhelmed and there is an elevated risk of "washout" of biological treatment units that provide the secondary treatment required by the Act. In fact, EPA's current rules already make an exception to the general prohibition on bypassing treatment for these types of instances. The existing rules allow for the bypassing of secondary treatment in such instances, provided the facility has taken appropriate measures to maintain and upgrade its system to handle routine operating conditions. If a system demonstrates that it is not feasible to prevent a treatment bypass, it is allowed to do so.

The proviso that before a system can bypass secondary treatment it must demonstrate that it has taken steps to maximize treatment is important to ensure that the incentives for treatment operators run in favor of investment in the nation's wastewater treatment infrastructure. Under the current EPA rules, bypassing secondary treatment, even if the diverted sewage is subsequently "blended" with fully treated sewage, is allowed only as a last resort if other methods of reducing or managing wet weather flows are not sufficient.

By contrast, EPA's proposed policy is so lacking in specifics and definition of basic terms that it would allow for the routine discharge of inadequately treated sewage virtually any time it rains. To begin with, the policy sets no threshold for the size of rain event below which bypassing will not be allowed. Indeed, there are reports from around the country that some systems currently bypass secondary treatment when there is little or no rainfall. Because it does not limit bypassing to any particular sized rain events, the proposed policy would allow this type of practice to become even more widespread.

In addition, the proposed policy eliminates the current legal requirement that a treatment system conduct a feasibility analysis to demonstrate that bypassing of treatment takes place only as a last resort, after other steps have been taken to ensure the entire treatment and collection system is operating and being managed as it should. The bypass rule does not require anyone to do the impossible, just to provide full treatment whenever it is feasible to do so by reducing the amount of stormwater flowing into the system and regulating or storing flows so that they can be fully treated.

One of the key policy issues is whether the water quality of “blended” effluent is the same as effluent that has received secondary treatment. While monitoring data on the full range of pathogens, toxic chemicals, and other pollutants in blended sewage effluent is still sparse, the data we have confirms what we would expect from an engineering perspective. If the sewage has not undergone biodegradation in the secondary treatment unit, it will contain significantly more of the various constituents that make inadequately treated sewage such a threat to public health: parasites, bacteria, viruses, intestinal worms, toxic chemicals, pharmaceuticals, antibiotics and hormones. It is for this reason that numerous states, public health authorities, and downstream business interests are opposed to EPA’s proposed policy. NRDC, “*EPA’s Proposed Sewage Dumping Policy: What the Public Thinks.*” (<http://www.nrdc.org/media/docs/040219a.pdf>).

In response to this assertion, proponents of EPA’s proposed policy argue that effluent resulting from “blending” fully treated and barely treated sewage will be required to meet end-of-pipe discharge standards. While a number of proponents of sewage “blending” are seeking to weaken discharge standard requirements to make it easier to bypass secondary treatment and meet end-of-pipe standards, more importantly, even if “blended” sewage meets end-of-pipe discharge limits, it still poses an increased risk to public health, the environment, and downstream economies.

Currently, federal standards exist only for a few pollutants, such as dissolved oxygen, turbidity and acidity. Neither the federal government nor the individual states have established water quality standards to protect the public from getting sick from many of the diseases carried by sewage – infectious hepatitis, meningitis, cryptosporidiosis, giardiasis, etc. The proposed policy would allow treatment plants to meet the few standards that are on the books by dilution of sewage with stormwater and averaging test results, instead of providing effective treatment. In short: the pathogens would not be effectively removed from the wastewater. The result would be an increased risk of waterborne illness, beach closures, contaminated shellfish beds, poisoned drinking water supplies, and degraded aquatic habitat. It is important to recognize that the same argument that proponents of sewage “blending” make today, i.e., that bypassing should not be prohibited when end-of-pipe discharge standards are met, was specifically rejected by the Reagan administration EPA in a rulemaking in 1984, 49 Fed. Reg. 37998, 38087 (Sept. 26, 1984), and upheld by the D.C. Circuit in 1987, *NRDC v. EPA*, 822 F.2d 104, 122-26 (D.C. Cir 1987), because of a concern that allowing discharges to bypass treatment would undermine the pollutant-reduction goals of the statute.

Supporters of EPA’s proposed policy also suggest that secondary treatment is not necessary because disinfection will kill the pathogens in sewage that make people sick. There are several problems with this argument. Disinfection is not required under the EPA’s proposed sewage dumping policy. In other words, sewage treatment plants that do not disinfect – and preliminary EPA data provided to NRDC suggest that many do not – will not be required to do so as a condition of skipping secondary treatment, even though secondary treatment is substantially more effective in removing pathogens than the gravity-based settling process used in primary treatment. Furthermore, even if disinfection were required for “blended” effluent, disinfection does not effectively kill

pathogens in the sewage globule laden wastewater that “blending” produces. Disinfection of the cloudy wastewater produced by “blending” is also likely to create more chlorinated organics, which have been linked with an increase risk of cancer.

Moreover, while much of the attention and concern about EPA’s policy has been directed toward the potential for increased exposure to pathogens, the policy would also result in an increase in the downstream discharge of industrial chemicals including toxic organic, metals, and other hazardous materials that biological treatment helps to remove. EPA has established technology standards for industries that discharge to sewage treatment plants. These categorical standards are based upon the concept that the industrial wastewater will receive secondary treatment prior to discharge to fulfill the technological requirements of the Clean Water Act. Since “blended” sewage will not receive full secondary treatment, this basic requirement of the industrial pretreatment program will not be met. Therefore, additional industrial waste controls would be necessary for equivalent human health and environmental protection.

It is important to keep in mind that this is a problem caused by faulty, leaking sewer lines, i.e., water leaking into a sewage system during wet weather. As you would expect, in some places, we are finding that the opposite is occurring in dry weather. That is, raw sewage is leaking out of the collection lines into our surface and ground waters during dry weather. The proposed EPA policy will aggravate this situation by reducing the incentives for communities to identify leaks and fix them.

One would think that, given the dramatic departure from longstanding Clean Water Act wastewater treatment requirements that EPA’s proposed policy represents, and the high level of concern such a policy raises amongst the public, EPA would be able to provide answers to key questions such as:

- What is the increased public health risk from acute or long-term illnesses posed by releasing “blended” as opposed to fully treated sewage?
- What are the likely immediate and long-term impacts on aquatic ecosystems of increased loadings of nutrients, pathogens, and toxic constituents of sewage, including damage to fish, shellfish, coral reefs, and other wildlife?
- Will the policy result in an increase of chemical discharges downstream from indirect discharges by industrial users? How much increase is likely and for which constituents of sewage?
- What are the likely increases in human health risk due to the decreased efficacy of disinfection for cloudy effluent? Will there be an increase in the amount of disinfection byproducts in the “blended” waste stream, and, if so, what are the associated health risks?
- What, if any, evaluation has been made of alternative treatment technologies to handle peak flows and their feasibility?

- What will be the increased pollution to our surface waters and ground waters from the leakage of raw sewage out of the municipal collection system during dry weather under this policy?
- What will be the increased costs for filtration and treatment of drinking water sources into which “blended” sewage effluent has been discharged?

EPA, through a grant to the Water Environment Research Foundation, has just begun to do the research to answer many of these questions. The results are not expected to be available until spring of 2007. There is no justification for finalizing this policy before the public has the answers to each of these fundamental questions about the potentially increased exposure to, and risk from, inadequately treated sewage.

NRDC’s position is that instead of trying to undermine long-standing Clean Water Act protections, EPA needs to enforce the law consistently across the country to ensure effective treatment for all sewage. The current legal standard is appropriate. Bypassing is authorized only when necessary to prevent harm and there is no feasible alternative. Instead of weakening the current safeguards, federal, state, and local authorities should hold sewer operators to their legal responsibility to provide effective sewage treatment whenever it is feasible to do so. Then, sewer operators will invest in the basic cost-effective system-wide measures that will protect the integrity of the sewer system and allow sewage to be fully treated, such as cleaning out the sewers, reducing infiltration and inflow, improving storage in the collection system, eliminating illicit connections, offloading stormwater from the sewer system, upgrading capacity to provide treatment for the expanded population base, rehabilitating and replacing aging sewer lines, and many more.

That’s why NRDC fully supports, and urges every member of the committee to co-sponsor The Save Our Waters From Sewage Act (H.R. 1126). This bi-partisan legislation, introduced by Reps. Shaw, Stupak, Kirk and Pallone would block EPA from finalizing its proposed sewage dumping (“blending”) policy; require EPA to implement the existing Clean Water Act rules requiring full sewage treatment under routine operating conditions; and require public notification of discharges of inadequately treated sewage. The public has no trouble understanding that sewage is a public health threat and that diluting it with stormwater does not change that. Members of the public deserve to know when they are swimming in rivers and lakes into which largely untreated sewage has been discharged. This bill will provide the public with access to that information.

In addition, Congress and the Executive Branch need to substantially increase federal funding for wastewater treatment infrastructure and enforcement. Federal funding for wastewater infrastructure received the largest cut of any environmental program in the EPA’s proposed budget for fiscal years 2005 and 2006. Funding for wastewater treatment infrastructure maintenance and upgrades is being cut while needs are spiraling out of control. Instead, of slashing funding, the federal government should greatly increase its contribution to water infrastructure needs through a clean water trust fund.

Just as a trust fund exists for highway and airport expenditures, the government should establish a trust fund for clean water. Until a trust fund is in place, funding should be increased substantially for the Clean Water State Revolving Fund, a program with an impressive track record of low-interest loans to localities for clean water projects.

The public strongly supports federal funding to invest in the maintenance and improvement of the nation's water treatment infrastructure. According to a recent poll conducted by the Luntz Research Companies, "an overwhelming majority – 86% – support legislation by the U.S. Congress that would create a long-term, sustainable and reliable trust fund for clean and safe water infrastructure." Luntz found that "[a]mong young and old, male and female, Democrat AND Republican, the demand for clean and safe water is universal. An overwhelming majority of Americans – 91% – agree that **if, as a country, we are willing to invest over \$30 billion dollars a year on highways and more than \$8 billion a year on our airways, we certainly should be willing to make the necessary investments in our nation's rivers, lakes and oceans.**" (emphasis in original).

Protection of the public's health and the aquatic environment are perhaps the two most fundamental purposes for which Congress enacted the Clean Water Act in 1972. Reducing the amount of raw and inadequately treated sewage discharged into the nation's waters has always been a central part of the nation's strategy to achieve those purposes. The Clean Water Act and EPA's current rules strike the proper balance between ensuring protection of the public whenever possible and recognizing the reality that, in some instances, full treatment of sewage won't be feasible. EPA's proposed policy would upset this balance, remove incentives for long-term investment in wastewater treatment infrastructure, and expose the public and the environment to greater risk of illness and death from waterborne pathogens and toxic chemicals.

EPA should not finalize this misguided and thinly supported reversal of long-standing safeguards for the nation's waters. To ensure this policy is not adopted, Congress should move quickly to enact the Save our Waters from Sewage Act (H.R. 1126) and increase funding for the Clean Water State Revolving Fund.

In 1910, Teddy Roosevelt observed that "[C]ivilized people should be able to dispose of sewage in a better way than putting it in the drinking water." Secondary treatment was first employed in sewage treatment in the U.S. only 6 years later, in 1916. What would Teddy Roosevelt say if he were here today – almost 100 years later – to see the Environmental Protection Agency on the cusp of finalizing a policy that would no longer require even that basic World War I era sewage treatment process to be used to protect our waterways from contamination?

Thank you for inviting me to participate in today's hearing. I would be happy to answer any questions you may have.