

**Before The
U.S. House of Representatives
Committee On Energy And Commerce
Subcommittee on Environment And Hazardous Materials**

**Hearing on “The Environmental Protection Agency
Fiscal Year 2008 Budget Request”**

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SUMMARY OF TESTIMONY

The overall budget for EPA continues to shrink – by almost \$2.5 billion from the agency high when one considers inflation – despite very serious need. These cuts compromise the Agency’s ability to fulfill its mission to protect and safeguard human health and environment.

Among the most troubling issues raised by the Administration’s budget request are:

- ***Outsourcing of EPA Functions.*** NRDC is troubled by the degree to which the Agency has outsourced responsibility for some of its important functions in a manner that undermines scientific credibility and public accountability.
- ***Voluntary Program Oversight.*** NRDC is concerned that EPA has in recent years become increasingly reliant on voluntary programs instead of regulatory programs to reduce harmful pollutants and protect public health, and that in some cases these programs provide little or no real benefits and give the erroneous impression that important environmental and public health issues are being adequately addressed.
- ***Under-Funding of Critical Public Health Programs.*** NRDC is concerned that certain programs are continuing to receive less funding than they need to meet their potential, including the CERCLA Superfund, the Drinking Water State Revolving Fund, and the Leaking Underground Storage Tank program.
- ***Addressing Emerging Threats.*** NRDC believes that Congress should take this opportunity to send strong signals to EPA that it must take immediate action to address emerging issues, such as the need to safely sequester global warming gasses and the need to develop a precautionary regulatory framework for nano-materials.

INTRODUCTION

The Administration's fiscal year (FY) 2008 budget proposal cuts programs in the Environmental Protection Agency by \$400 million from the Continuing Resolution for FY 2007 to \$7.2 billion. This proposal represents the lowest funding request in this century in real dollars, FY 2004 being the high at \$8.4 billion. In fact, this request cuts almost \$2.5 billion from the agency high when one considers inflation. As funding continues to be slashed, the agency is suffering.

- The FY2008 request will eliminate the equivalent of nearly 250 full-time-positions (FTEs) - 91.5 FTE from the Superfund Program alone.
- Funding for drinking water infrastructure only receives a slight increase to \$842.2 million in the face of overwhelming identified needs. According to EPA's most recent estimates of national drinking water infrastructure needs (from 2003), the nation's water systems will need to invest \$276.8 billion in drinking water infrastructure over the next 20 years to protect public health.
- Funding for the cleanup of leaking underground storage tanks remains stagnant at \$72 million, even though there is an almost \$3 billion trust fund that is specifically dedicated to making sure that these costly leaks are addressed.
- Funding for State and Tribal Assistance Grants (STAG) are cut to \$2.7 billion from \$3.2 billion in FY2007 – a true concern considering that states are delegated almost 75% of agency programs.

The mission of the agency is to protect and safeguard human health and environment; yet, this budget continues down the path of deep cuts and outsourcing in the face of overwhelming evidence of need.

Unfortunately, not only does the Administration fail to adequately fund the EPA, it is failing to properly fund all environmental programs. The FY2008 budget request for Function 300 - the environmental spending account - cuts discretionary levels by 4.8% below FY2006. This amount is actually lower than the level at the start of this century

when adjusted for inflation. As a result of this low number, the agencies within Function 300 are not even keeping up with fixed costs. If the Function 300 number is not higher in the Congressional budget resolution, we believe that all environmental programs - including EPA - will suffer, and it will be impossible to adequately fund all critical programs without shifting funds away from other important areas of need. NRDC encourages the authorizing committee to work with the budget committee to ensure that Function 300 is sufficiently funded to ensure the vitality of all important environmental programs.

SPECIFIC CONCERNS

1. Outsourcing of EPA Functions

One of the most significant changes at EPA in recent years has been the degree to which the Agency has outsourced responsibility for some of its important functions in a manner that undermines scientific credibility and public accountability.

EPA is accountable to the people of the United States, the U.S. Congress, and the Executive Branch to fulfill its mission in a manner that meets both the letter and intent of the law and that appropriately identifies protecting human health and the environment as the primary objective of the agency's activities. To the extent that EPA farms out critical task, such as risk analysis, in many cases to the very industries that EPA is charged with regulating, without any transparency, oversight, or accountability, it seriously compromises both the public trust and the Agency's ability to truly ensure that it is meeting its obligation to the American public.

In fact, EPA is spending millions of dollars to fund entities that are specifically beholden to the industries that EPA regulates. Moreover, in many cases, this funding is

directed toward activities that are central to the Agency’s regulatory decision-making process. EPA does this without ensuring transparency, without adequate oversight, and without demanding public accountability. In particular, these arrangements are not subject to important laws intended to provide the public with access to the regulatory process, to level the playing field for the public, and prevent undue industry influence over Agency decisions. These “sunshine” laws include the Federal Advisory Committee Act (FACA) and the Freedom of Information Act (FOIA), and play a critical role in ensuring government accountability.

While the practice of encouraging these cooperative partnerships was originally intended to bring all stakeholders together for constructive dialogue regarding regulatory policy, in recent years it has transformed into something quite different, and many stakeholders (such as NRDC and other environmental and public health groups) have been shut out of the process. In many cases these partnerships have developed into little more than opportunities for regulated industry to take over direct responsibility for key activities that provide the foundation for EPA’s regulatory functions – in particular scientific analysis and risk assessment. This trend has had significant implications for the quality of the science upon which EPA relies for its regulatory activities.¹

One example of just such a relationship that has demonstrably compromised the quality of EPA’s scientific inquiry is the Agency’s relationship with the International Life Sciences Institute (ILSI). ILSI represents several hundred corporations in the chemical,

¹ A very similar issue was recently raised with regard to the National Institute of Health (NIH). In January of this year, Members of Congress, 44 prominent physicians, and 16 health organizations agreed that, in order to preserve scientific integrity, when appointing committees for drafting guidelines the NIH “must strive to ensure that all members are free from conflicts of interest.” This letter was prompted in part by specific concerns regarding the fact that many recent committees have been dominated by members with conflicts of interest. These same problems exist, perhaps to an even greater degree, at EPA.

processed food, agro-chemical and pharmaceutical industries and received at least \$2.1 million in EPA grants last year.² Members include companies such as DuPont, 3M, Syngenta, Eli Lilly, ExxonMobil Biomedical Sciences, and Dow Chemical.³ ILSI routinely hosts workshops (often co-funded by EPA) where industry specialists, academics and agency officials come together to discuss science and policy. There often is little or no effort made to inform the public or the public interest community about these meetings, and as a result the public health and environmental voice is frequently either entirely absent, marginalized, or ignored when final decisions are made. As a result, there are several examples of EPA making flawed policy decisions that emerged from this kind of process, and those decisions being overturned.

In 2003, EPA issued a proposed a guidance (based on a proposed policy that was drafted by a sub-group of ILSI) on how to assess a class of chemicals that includes perfluorochemicals used by DuPont to make Teflon.⁴ The ILSI-EPA proposed policy claimed that while these chemicals caused cancer in laboratory animals, they were not carcinogenic to humans. An independent scientific panel rejected the ILSI-EPA draft policy because it was not supported by data.⁵ In fact, laboratory studies have reported that these chemicals are associated with liver and testicular cancer, developmental

² The ILSI IRS Form 990 for 2005 lists \$2.5 million in government contributions. The EPA Grants Awards Database reports over \$2 million in awards to the ILSI Risk Science Institute. In a January, 2007 response to a FOIA request from NRDC, the EPA provided a list of the ILSI projects on which the Health Effects Division (HED) of the Office of Pesticide Program (OPP) has participated since 2001. HED has participated in both ILSI-Risk Sciences Institute (RSI) and ILSI-Health and Environmental Sciences Institute (HESI) projects. FOIA Request HQ-RIN-0029-07.

³ See the ILSI website for a full list of its membership: <http://www.ilsiglobal.org/AboutILSI/>.

⁴ The ILSI Health and Environmental Sciences Institute (HESI) reports to the ILSI Assembly of Members. Although it is structured and claims to operate as a, “public, non-profit scientific foundation” (www.hesiglobal.org/AboutUs/), they state in their recent job advertisement for an executive director of ILSI-HESI that this person should “ensure that the scientific issues important to [ILSI] member companies are raised and appropriately addressed by the organization.” (Email to To: <hesi@hesiglobal.org>. Subject: Executive Director of HESI Job Description. Tue, 10 Oct 2006).

⁵ See EPA Advisors Split Over Use of Animal Studies In Human Risk Reviews, Inside EPA (Dec. 10, 2003).

impairment, and immune system suppression. Later, in December of 2005, DuPont paid more than \$16 million to settle charges that it hid information for more than two decades showing that its Teflon chemicals are a significant threat to human health.⁶

The consulting group Toxicological Excellence in Risk Assessment (TERA), which EPA funds to manage and review data that industry submits on toxic chemicals under the Voluntary Children's Chemical Evaluation Program (VCCEP),⁷ has also been the subject of criticism. In particular, the EPA stakeholder advisory committee, the Children's Health Protection Advisory Committee (CHPAC), which includes representatives of industry, state regulatory agencies, and public interest groups, has strongly criticized VCCEP as having a lack of transparency, accountability and efficiency resulting from, "severe structural flaws" in the program.⁸ In particular, they criticize a lack of public involvement or education and even imply that there has been a significant lack of fiscal clarity. Specifically, the CHPAC letter warns that, "the mechanism of engaging the third party organization [TERA] to run the peer consultation process prohibits EPA control over that process, thus compromising governmental accountability." This concern is heightened by the fact that, "no estimate of costs" to EPA for this program is publicly available, but, "the costs appear to be considerable."

EPA's continued use of Agency funds to support closed-door, industry-driven science that feeds directly or indirectly into the regulatory process is of tremendous concern from a public health and sound science perspective. Congress adopted strong sunshine laws in

⁶ See DuPont fined more than \$10M over Teflon, Randall Chase, [Associated Press](#) (December 14th, 2005); Consent Agreement, December 14, 2005. (available at: www.epa.gov/compliance/resources/cases/civil/tsca/eabmemodupontpfoasettlement121405.pdf).

⁷ VCCEP was called for by the 1998 [Chemical Right to Know Initiative](#), the goal of which is to give citizens information on the effects of chemicals to enable them to make wise choices in the home and marketplace.

⁸ A copy of CHPAC's June 30, 2006 letter is included as an attachment to this testimony.

part to prevent clandestine manipulation of the regulatory process, and that objective is in serious jeopardy to the extent EPA is permitted to outsource critical responsibilities. Congress should ensure that the money going to EPA is used in a manner that preserves the scientific integrity of the regulatory process and that any important science activities that the Agency funds are conducted with adequate transparency and direct lines of accountability.

2. Voluntary Program Oversight

In a similar vein, EPA has in recent years become increasingly reliant on voluntary programs instead of regulatory programs to reduce harmful pollutants and protect public health. While some of these voluntary programs may provide important and substantial benefits, in some cases these programs provide little or no real benefits and give the erroneous impression that important environmental and public health issues are being adequately addressed.

According to EPA, voluntary programs achieve environmental results by motivating companies, communities, organization and individuals to take actions that are beneficial to them and the environment. Such programs typically focus on “pollution prevention” as opposed to end-of-process emission reductions, thereby complementing environmental regulatory programs. In theory, these programs use incentives, such as information, public recognition, and technical assistance, to spur actions that are environmentally-sound, but not required by law.

Current estimates of the number of EPA-sponsored “partnership programs” range from approximately 66 programs to 133 programs, depending on the source. More than half of these programs were started in the last 24 months. The agency spends about \$125

million, or 1.6% of the EPA's total budget for 73 of these programs. Individual voluntary programs may receive anything from minimal funding up to more than \$19 million depending on program reach, objectives and results, and Agency priorities. The average budget size is \$1.8 million. As of 2005, 547 FTEs (or 3% of the total staff) at EPA worked on partnership programs (446 in DC and 101 in regional offices). The average partnership program has 8.68 FTEs.⁹

When these programs are well designed and well implemented, they can provide very significant benefits by encouraging and rewarding important improvements in environmental performance.¹⁰ On the other hand, these programs also suffer from very serious limitations and pitfalls. One of the most significant issues with such partnership programs is the difficulty associated with accurately assessing their effectiveness. Indeed, the EPA Inspector General has identified the need for increased accountability of voluntary programs, in particular, the development of better measures, improving brand management and program design, and developing more consistent program guidelines.¹¹

Among the current challenges with respect to ensuring effectiveness and accountability for voluntary programs is the fact that very few of these programs are subject to transparent ongoing evaluation – in fact, few if any of these programs are evaluated using even the government's internal review mechanism, the Program

⁹ See attached draft document "EPA Partnership Programs, Frequently Asked Questions," dated September 7, 2006.

¹⁰ For example, certain programs, including [Indoor Air Quality Tools for Schools, Indoor Environments, and Energy Star Residential](#) have been remarkably successful, and while they should be subject to ongoing oversight and periodic reevaluation to ensure ongoing effectiveness, it appears that they will continue to play an important role in EPA's overall strategy for achieving its mission of ensuring a safer, cleaner environment.

¹¹ See Ongoing Management Improvements and Further Evaluation Vital to EPA Stewardship and Voluntary Programs, February 17, 2005 (Report Number: 2005-P-00007). Available at: <http://www.epa.gov/oig/reports/2005/20050217-2005-P-00007.pdf>.

assessment Rating Tool (or PART).¹² Rather, EPA examines most voluntary programs in groups, making it extremely difficult to individually evaluate program effectiveness.

In some circumstances, voluntary programs have as one component the loosening of otherwise applicable regulatory requirements, such as inspections, monitoring, and reporting. Where such programs include a deregulatory component, ensuring the effectiveness of the measures and holding program participants and EPA accountable to demonstrate the benefits of the program takes on heightened significance.

Meaningful Congressional oversight is one important mechanism for ensuring that these programs perform at a satisfactory level and that EPA is demanding results that justify the existence of each such program it administers. Historically, however, Congress has not aggressively examined these programs since they are not mandated or authorized by Congress. Because EPA has relied increasingly on these programs, and has allocated non-trivial amounts of Agency funds to support them, Congress should understand what these programs are, how much they cost, what they are intended to achieve, how they are being assessed for success, how effective they are in practice, and how they compliment or compromise the Agency's regulatory programs.

Performance Track as a Case Study:

While NRDC supports many partnership/voluntary programs, there are examples of programs that we believe have few tangible benefits and could actually harm the environment and human health. EPA's Performance Track is one of the best examples of a voluntary program gone awry.

¹² The Program Assessment Rating Tool (PART) is a questionnaire utilized by the OMB and federal agencies to determine the quality of a program's performance and management. See <http://www.whitehouse.gov/omb/expectmore/about.html>.

According to a recent survey of state support for performance based environmental programs, Performance Track's fundamental goal is to achieve better environmental results by focusing on environmental outcomes rather than operationally-based output measures. These programs advertises that they provide regulatory flexibility, give industry the opportunity to achieve higher environmental standards than are mandatory, and target financial and human resources more effectively.

However, our own research has found that these regulatory flexibilities come in the form of reduced or no inspections, regulatory "streamlining," and shutting the public and other stakeholders out of the process. In addition, there is little evidence to suggest that this program actually accomplishes better environmental results. Consequently, the program offers at least the impression of a willingness on the part of EPA to trade away existing public health protections (that EPA adopted in accordance with Congressional directives) for highly uncertain industry incentives and flexibilities, without an adequate mechanism for ensuring a return on the investment.

EPA's Office of Inspector General ("OIG") made several important observations in its February 17, 2005 report "Ongoing Management Improvements and Further Evaluation Vital to EPA Stewardship and Voluntary Programs." For example, the OIG has stated:

- EPA should determine how to measure the outcomes of stewardship activities so it is able to verify that it is achieving its goals.
- EPA needs to show that the programs it selects to meet its goals are more effective in achieving environmental results than other programs it runs.
- EPA needs to correctly measure the environmental benefits of these activities.

- The Agency should begin to address these needs by working to quantify how voluntary behavior change programs can assist EPA improving environmental and human health protection.
- Currently, only some voluntary programs require participants to commit to reporting outcomes from their activities.
- If EPA is unable to overcome these measurement challenges, it will not be able to determine program outcomes.
- Further evaluations of EPA's stewardship and voluntary programs are necessary to assist the Agency in tracking and measuring these efforts.

OIG Report at 21-22. Our review of EPA's publicly available Performance Track materials lead us to similar conclusions, and we are not aware the EPA has cured these program deficiencies.

In sum, NRDC is very concerned about EPA's expenditures on voluntary programs that are not subject to rigorous oversight, allow so-called regulatory streamlining or regulatory flexibility, and cannot demonstrate meaningful environmental pay-offs – especially where these programs appear to take the place of proven regulatory alternatives.¹³

3. Under-Funding of Critical Public Health Programs

NRDC is also concerned about the chronic under-funding of specific programs that EPA administers. In particular, NRDC views the adequate funding of the CERCLA Superfund program, the Safe Drinking Water Act State Revolving Fund and the Leaking Underground Storage Tank trust fund as vital to ensuring adequate protection of human health and the environment.

¹³ NRDC has commented extensively on the Performance Track program in the past, and some of these comments, along with other information about Performance Track, are included as attachments to this testimony.

a. Superfund

The Superfund was established in 1980 with the enactment of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Superfund is the nation's premier program for cleaning up hazardous waste. The fund was originally sustained by a tax on specific petroleum products and chemicals and at its height brought in about \$1.5 billion per year for cleanup of toxic contamination at abandoned sites. In FY1996, the fund topped out at \$3.8 billion. The tax expired in 1995 and the entire "Superfund" went bankrupt in 2004. In the 5 years prior to the expiration of the Superfund tax, revenues from the treasury contributed about 17% to the fund. Since the bankruptcy, virtually the all of the money for the fund comes out of the general treasury. There are Potentially Responsible Parties (PRPs) for about 70% of sites. Unfortunately, the other 30% are orphan sites that depend on money from the fund for cleanup and are therefore paid for on the backs of taxpayers.

In recent years, the President has failed to request and Congress has failed to allocate sufficient funds to cover the need. This trend continues today: the FY2008 budget asks for \$1.24 billion for Superfund cleanup. This is \$14.25 million less than the FY2006 request and \$10 million less than what was recently appropriated under the House passed continuing resolution (H.J.Res. 20). Most troubling is that the amount of the 2008 request is almost a half billion less than the approximately \$1.7 billion annually that Resources for the Future (RFF) has noted that the fund will need to adequately cleanup orphan sites.¹⁴

¹⁴ RFF's analysis was based on: (1) costs of completion of all sites currently listed on the NPL; (2) costs associated with additions to the NPL anticipated for fiscal year 2000 through fiscal year 2009; (3) costs associated with federal expenditures for the operations and maintenance at both existing and new NPL sites; (4) costs for emergency removals; (5) non-site specific costs assigned to other activities such as

At the same time that the fund has dried up, cleanups have also slowed.

Throughout the 1990s there was an average of 80 cleanups per year (ranging from a high of 88 in 1992 to a low of 61 in 1994). In contrast, in 2006 only 24 sites were cleaned up. In fact, in 2001 the number of site clean-ups dropped precipitously from 87 in 2000 to 47 in 2001.¹⁵

EPA has explained this slow-down by saying that many of the most expensive, and technically challenging sites are now in the construction phase of cleanup. If true, however, it is unclear why EPA is actually reducing their funding request and reducing the staff allocated to Superfund-related activities. The FY2008 budget actually calls for elimination of 91.5 Superfund FTEs.

Superfund continues to be one of the most important programs that EPA administers. It addresses contamination that would otherwise remain in place (often contaminating soil, surface water, and/or drinking water near populated areas) creating

research, administration, and interagency transfers; and (6) costs associated with five-year reviews at existing and new NPL sites and associated activities. RFF's report on the future of Superfund is available at:

http://www.rff.org/rff/RFF_Press/CustomBookPages/loader.cfm?url=/commonspot/security/getfile.cfm&PageID=15073

¹⁵ The history of site remediation is reflected in the following table:

Year	Constructions Completed
1992	88
1993	68
1994	61
1995	68
1996	64
1997	88
1998	87
1999	85
2000	87
2001	47
2002	42
2003	40
2004	40
2005	40
2006	24
2007	4

(Source: <http://www.epa.gov/superfund/sites/query/queryhtm/nplfy.htm>)

direct and substantial hazards to human health. Despite the modest Administration requests, there are still many sites currently in need of clean up, and more being discovered every year. The need for a robust Superfund is great, and under-funding this program will do a material disservice to the American public.¹⁶

b. Drinking Water State Revolving Fund

In 1996, Congress amended the Safe Drinking Water Act to create the Drinking Water State Revolving Fund (DWSRF). The program provides funding to capitalize state loan programs paying for the installation, replacement, and repair of drinking water infrastructure. Each year, Congress appropriates funding for grants to the states which the states then use to provide financing for community drinking water projects. Congress has provided roughly \$8.65 billion for the fund through FY 2006 (with another \$838 million awaiting enactment for FY 2007). While the program has provided significant funding, and has generally received better support from this Administration than the Clean Water SRF, the investment is still not adequate to address the needs identified by EPA itself. The Drinking Water SRF is one of a number of federal and state programs designed to help communities fund drinking water projects but it is an *essential* tool that must be maintained at an adequate level of funding.

The President's FY2008 Budget requests \$842.1 million for the DWSRF. This is an increase of about \$4.5 million over the 2006 and 2007 appropriated level but it is not enough to address the national need. For perspective, according to EPA's most recent estimates of national drinking water infrastructure needs (from 2003), the nation's water systems will need to invest \$276.8 billion in drinking water infrastructure over the next

¹⁶ The 2006 CRS Report "Superfund Overview and Select Issues" contains additional information on the current state of the Superfund: <http://ncseonline.org/NLE/CRSreports/06Jun/RL33426.pdf>

20 years to protect public health (an average of nearly 14 billion per year). This is a 60 percent increase over EPA’s 2001 assessment. Thus, while the assessment of the need has increased dramatically, funding for the DWSRF has actually *declined* since the high point of \$850 million in 2002, even without adjusting for inflation (see funding history below).

Drinking Water SRF Funding History								
(dollars in millions)								
1997	2001	2002	2003	2004	2005	2006	2007	2008
<u>Enacted</u>	<u>Enacted</u>	<u>Enacted</u>	<u>Enacted</u>	<u>Enacted</u>	<u>Enacted</u>	<u>Enacted</u>	<u>Enacted</u>	<u>Request</u>
1,275	825	850	844.5	844.9	843.2	837.5	837.5	842.1

(Data for 1997 through 2006 from CRS. 2007 is set equal to 2006 Enacted.)

The EPA assessments of the need for drinking water infrastructure provides an important index of what the U.S. will need to invest over the next 20 years to continue to protect public health and provide safe and reliable drinking water to American families. The agency classifies \$165 billion (60 percent) of this identified deficit as “current needs,” or projects that are high priorities for near term implementation. For example, current needs would include repairs that would prevent major main breaks in lines that are already known to be vulnerable (such as those that have already experienced multiple small leaks). The remaining \$111.8 billion are classified as future need – projects that were not necessary at the time of the assessment but will be needed within the next 20 years.

Proper maintenance of the tens of thousands of public drinking water systems around the country is critical to protect the health and wellbeing of families and communities nationwide. The potential health effects of consuming contaminated drinking water range from minor to fatal, including nervous system or organ damage,

developmental or reproductive effects, and cancer.¹⁷ Numerous studies have looked at the effects of water borne disease outbreaks.¹⁸ These studies show that low-level waterborne infectious diseases continue in the US and discovered, among other things, that:

- Low-level water borne disease outbreaks are happening even at current disinfection levels
- Health effects included: gastroenteritis, acute respiratory illness, and dermatitis
- Between 2003 and 2004, 30 waterborne disease outbreaks associated with drinking water were reported by 18 states.
- Such outbreaks caused illness in approximately 2760 persons and 4 deaths.¹⁹

In order to keep pace with inflation, Congress must increase the funding for FY 2008 to at least \$866 million. However, given the upcoming challenges associated with

¹⁷ According to EPA:

Drinking inadequately treated water could result in nervous system or organ damage, developmental or reproductive effects, or cancer. Consuming water with nitrates at sufficiently high levels can result in potentially fatal alterations in the hemoglobin (the iron-containing pigment in red blood cells) of infants and very young children, called “blue baby syndrome.” National standards for public water systems are designed to provide levels of treatment that are protective against adverse health effects.

The consequences of consuming water contaminated with pathogens can include gastrointestinal illnesses that cause stomach pain, diarrhea, headache, vomiting, and fever. A microbial outbreak of *Cryptosporidium* in Milwaukee in 1993 sickened about 400,000 people and killed more than 50, most of whom had seriously weakened immune systems.

See <http://www.epa.gov/Indicators/roe/html/roeWaterDr.htm>.

¹⁸ Levin, Ronnie, et al. “U.S. Drinking Water Challenges in the Twenty-First Century” Environmental Health Perspectives 110 (supp.1) 43-52 (2002); Liang, Jennifer, et al. “Surveillance for Waterborne Disease and Outbreaks Associated with Drinking Water and Water not Intended for Drinking – United States, 2003-2004”. Other sources of information include: Waterborne Disease Research Summaries Published (Jul/Aug 2006) (http://www.epa.gov/NHEERL/articles/2006/waterborne_disease.html), and CDC MMWR surveillance for waterborne diseases (Dec 06) (http://www.cdc.gov/mmwr/mmwr_ss.html).

¹⁹ NOTE: this study was based on outbreaks “reported” to the CDC. There is a real concern of under-reporting, meaning this type of surveillance study will likely seriously understate the number and extent of water borne disease outbreaks. Also, this study focused on acute effects and did not examine chronic health effects.

maintaining safe and reliable drinking water systems nationwide, Congress should allocate additional monies to provide a real increase in program funding beyond inflation. For example, the Environmental Council of the States (ECOS) is calling for \$1 billion for the Drinking Water SRF in 2008.²⁰

The DWSRF is undeniably a good investment for the federal government and the funds are well spent.²¹ The program requires a 20% match from participating states and investments now will provide long term benefits because of the revolving nature of the program. Through June 2004, EPA had awarded \$5.74 billion in DWSRF grants. When combined with state matching funds, bond proceeds, interest payments, and other funds, the total rises to \$9.64 billion made available for assistance. Given the direct and tangible benefits of this funding program for citizens nationwide, there is no justification for under-funding the SRF.²²

c. Leaking Underground Storage Tanks

In the 1980s, EPA determined that many of the roughly 2.2 million underground storage tanks (USTs) in the United States were leaking. Many other tanks were nearing the end of their useful life expectancy and were expected to leak in the near future.

²⁰ See ECOS FY 2008 budget proposal:

http://ecos.org/files/2562_file_The_States_Proposal_to_Congress_for_EPAs_2008_STAG_final1_2.doc

²¹ According to the Administration's Program Assessment Rating Tool (PART) evaluation of the DWSRF, resources are used in a timely manner and for the intended purpose. The PART explains "The DWSRF program requires states to have a schedule with timing targets to ensure that federal grants are taken in a timely and efficient way. DWSRF funded projects are identified on each State's Priority Projects List. EPA Regional Offices review state programs annually. At the State level, 43 states conduct separate independent audits with the remainder scheduled for periodic audits by the EPA Inspector General, which also reviews the quality of the other independent audits. All grantees are required to submit annual reports and supply data to EPA national database (DWNIMS) that document the activities of loan recipients. The reporting and evaluations confirm that recipients are spending the funds designated to each project for the intended purpose." <http://www.expectmore.gov>.

²² Additional discussion of the DWSRF is available in the EPA Drinking Water Infrastructure Needs Survey and Assessment: Third Report to Congress (2003)

http://www.epa.gov/safewater/needssurvey/pdfs/2003/report_needssurvey_2003.pdf; and the

CRS report on Drinking Water State Revolving Fund: Program Overview and Issues

<http://www.ncseonline.org/nle/crsreports/06may/RS22037.pdf>

Approximately 50% of the U.S. population relies on ground water for their drinking water, and states were reporting that leaking tanks were the leading source of groundwater contamination.

In 1984, Congress responded to this growing environmental and safety threat and established a leak prevention, detection, and cleanup program for USTs containing chemicals or petroleum through amendments to the Solid Waste Disposal Act. This program directed EPA to establish operating requirements and technical standards for tank design and installation, leak detection, spill and overflow control, corrective action, and tank closure. The universe of regulated tanks was extremely large and diverse, and included many small businesses. Consequently, EPA phased in the tank regulations over a 10-year period (from 1988 through 1998). Strict standards for new tanks took effect in December 1988, and EPA's regulation required all tanks to comply with leak detection standards by late 1993. All tanks installed before 1988 had to be upgraded (with spill, overflow, and corrosion protection), replaced, or closed by December 22, 1998.

In 1986, Congress created a federal trust fund to help states clean up contamination caused by leaking underground storage tanks (or LUSTs).²³ The Trust Fund is financed by a 0.1 cent tax on each gallon of motor fuel sold nationwide. The federal UST program receives approximately \$70 million each year, of which an average of greater than 80 percent (approximately \$56 million) is allocated for use in the administration, oversight, and cleanup of sites within the states and in Indian country (including corrective actions where no responsible party has been identified or where a responsible party fails to comply with a cleanup order). The remaining money has been

²³ Trust fund money can be used to test for suspected leaks; to investigate contaminated sites; to assess exposures; to clean up contaminated soil and water; to provide safe drinking water; to relocate residents; and to cover reasonable administrative and planning expenses.

used by EPA for negotiating and overseeing cooperative agreements, implementing programs on Indian lands, and supporting regional and state offices. The current balance of the fund is almost \$3 billion. Money from that fund automatically goes into the general treasury unless appropriated by Congress.

In general, the cleanup costs typically have been paid for by a state fund, the responsible party, and/or private insurance. The LUST trust fund has also played an important role in helping to address tank leaks, although that role has been significantly smaller than state-based financial assurance programs.²⁴ Collectively these programs have been successful, helping to reduce dramatically the health risks associated with LUSTs, but the challenges moving forward are significant and even more can be accomplished.

The GAO reports that there are at least 117,000 known leaking underground tanks, and despite general success in getting responsible parties to foot the bill, some 54,000 of these will require public funds for clean-up.²⁵ GAO estimates that approximately \$12 billion in public funding will be required to clean up these already identified sites, and this number may substantially under-represent the total number and cost of needed cleanups.²⁶ Moreover, GAO estimates that an additional \$2.5 billion in public funds will be required to clean up contaminated sites that will be identified over the next five years. Again, this number may under-report actual need, because some states either did not report or were uncertain about the use of public funds. Thus, the

²⁴ The 2007 GAO Report indicates that states rely primarily on state-based programs, which brought in about 1.4 billion in revenue in 2005.

²⁵ The GAO's most recent report, "Leaking Underground Storage Tanks" (February 2007) ("2007 GAO Report"), indicates that of the releases in current backlogs States expect responsible parties to fully cover the cost of 34% of remedial actions, while at least some public funding will be required for the other 66%.

²⁶ Among other things, many states were unable to estimate the cost of cleanup for many sites, and several states either did not report (or provided incomplete reports) or did not know whether or not public funds would be required for some clean ups.

need just over the next five years will be at least *\$14.5 billion* according to the GAO Report.²⁷

The LUST trust fund has been used effectively by states – the GAO reports that of the approximately \$70 million appropriated annually in recent years, approximately 80% is distributed to states for UST-related projects (including investigation, enforcement, clean-up activities, and administrative costs). The remaining funds have been used by EPA for clean-ups on Indian Land and for the Agency’s own purposes. This funding, however, has not been enough. States have specifically indicated that limitations in available funds for LUST clean-ups have resulted in fewer clean-ups. Consequently, pollutants have remained in the environment longer than necessary, potentially increasing the extent of the contamination (and cost for clean up), compromising ground water and drinking water resources, and leading to greater public exposure and adverse health impacts.

Given the expectation that significant additional cleanups will be required over at least the next five years, and the potentially complicating presence of MTBE at many LUST sites, a well funded federal LUST fund makes sense.²⁸ Because timeliness makes a difference, this money should be made available now, when the need is greatest, at a level that is adequate to *fully* address the problem of leaking underground tanks.

Moreover, the Energy Policy Act of 2005 (EPAct) expanded the universe of activities for which LUST funds can be used. Title XV, Subtitle B, of the EPAct adds

²⁷ Note that these are just direct clean-up costs, not investigation, enforcement and administrative costs.

²⁸ While EPA estimates average cleanup at \$125,000 per site, according to the GAO Report, the presence of MTBE, and the migration of contaminant into ground water or drinking water can make clean up more expensive. While we have no way of knowing how many cleanups will be affected by MTBE, studies going back to 2001 found significant levels of MTBE contamination; for example, twenty-four states found MTBE water contamination at 60-100% of their leaking tank sites. In 2005, the American Water Works Association and the Association of Metropolitan Water Agencies estimated that the cost of MTBE cleanup for drinking water will be approximately \$25-33 billion nationwide.

new leak prevention and enforcement provisions to the UST program and authorizes EPA and states to use the Trust Fund to clean up MTBE leaks and to implement and enforce new requirements. As a result, States may have significant difficulty keeping up with demand. Mandating new requirements – even important program improvements – without an increase in funding further strains the ability of the States to meet program objectives.

In the face of all of these realities, the Administration's request for only \$72 million (out of the almost \$3 billion available) for cleanup and other LUST prevention activities is woefully inadequate. Given the overwhelming need to address old and new threats, and given the availability of money in the fund, Congress should ignore the President's budget request and use the money in the fund to address immediate cleanup needs instead of using the money as an offset for the general treasury. Given that state funding mechanisms will fall well short of covering need over the next five years, by approximately 1.5 billion per year, Congress should appropriate as much from the LUST Trust Fund as it can without compromising the integrity of the fund itself.

Additionally, Congress should look to other successful trust fund programs to explore whether the LUST fund could be improved. There are successful trust fund models currently in existence. The Pesticides Registration Improvement Act (PRIA) established a trust fund supported by fees that the industry pays in exchange for getting more stability in the agency registration and review process of new and traditional pesticides. This Act originated as an agreement between the public interest community, the agency and the industry and has been successful, in part, because of fiscal stability. In particular, the PRIA fund was set up to have "baseline protection" which prevented

Congress from appropriating below a certain amount for the program without jeopardizing the entire program.

The LUST fund is different in that it is funded not by the regulated industry, but by everyone who purchases gasoline. However, similar baseline protection language would allow a stable source of funding for LUST cleanups. A high funding baseline would also ensure that Congress's allocation adequately addresses the problem, instead of using the fund as a budget gimmick. Alternately, LUST legislation could be written simply to prevent the fund from being used as an offset for the general treasury.

4. Addressing Emerging Threats

a. UIC and CO₂ Sequestration

Global warming and the challenge of reducing our output of global warming gases is currently one of the most important and urgent social and environmental issues facing this country and the global community. The most recent report from the Intergovernmental Panel on Climate Change (IPCC) confirms the importance of addressing global warming. The IPCC report includes the following key findings:

- It is very likely that heat trapping pollution is the primary driver of global warming since 1950;
- If we do not curb emissions of global warming pollutants climate disruption is very likely;
- Increased hurricane intensity is likely attributable in part to global warming and will increase in the future;
- The earth will warm by 4-11 degrees Fahrenheit during the 21st Century if fossil fuel use is intensive, and by 3-8 degrees with a more moderate business-as-usual use of fossil fuels;
- Sea levels will rise by 7 to 23 inches during the 21st Century;
- Summer sea ice in the Arctic Ocean could disappear entirely before the end of

the Century;

- The oceans will continue to become more acidic due to CO₂ emissions.

The Climate Change Technology Program Strategic Plan shows that capturing CO₂ emissions from fossil fuel plants and disposing of it in deep geologic formations is a critical technology for preventing serious climate disruption. For this to become a commercially and legally viable option for mitigating greenhouse gas emissions, a robust and transparent regulatory framework for geologic CO₂ injection will need to be put in place in the immediate future. Whether this happens in a timely manner will depend on EPA's willingness to take the initiative to aggressively move forward to lay the foundation for the deployment of this important emerging mitigation tool. We recommend directing EPA to devote at least \$5 to \$10 million per year, starting in FY2008, to the development of regulations and guidelines appropriate for commercial-scale CO₂ disposal projects and a management framework to ensure the long-term success of this effort (this sum would include funds for state grants to effectively administer these regulations).

EPA is the only agency with the necessary experience and authority develop a regulatory framework for large-scale CO₂ injection at the Federal level. In a July 2006 memo (which is included as an attachment to this testimony) the EPA Office of Water concluded that geologic sequestration of carbon dioxide through well injection meets the definition of "underground injection" in section 1421 (d) (1) of the Safe Drinking Water Act (SDWA). As a result, the Agency and Primacy States as co-regulators are responsible for protecting underground sources of drinking water (USDWs) from any potential endangerment by CO₂ disposal projects.

While DOE is actively researching geologic carbon sequestration through small-scale pilot projects, it does not have the experience or authority necessary to develop a regulatory framework for the eventual permitting and oversight that will be necessary for large, commercial-scale applications of this technology. To facilitate such large-scale deployment, the EPA needs to adapt its current well classification system to incorporate a comprehensive regulatory framework that addresses large volume injection of carbon dioxide.

The development of a regulatory framework for commercial scale CO₂ disposal in deep geologic reservoirs is likely to take several years. Therefore, this process must begin as soon as possible if deployment of commercial scale projects is to proceed in the needed timeframe. Already there are several projects on the drawing board to capture and dispose of CO₂ in deep geologic formations: BP's Carson project in Long Beach, CA and a project that Xcel Energy is considering in Colorado are examples. The absence of a clear and environmentally robust set of rules for safe and permanent CO₂ disposal will impede these projects and others like them, and ultimately impair our ability to address global warming as quickly as needed. Furthermore, in order to ensure public acceptance and national regulatory certainty for industry, such authority should not be relegated to individual states or the Interstate Oil and Gas Compact Commission.

Currently EPA has the authority under the Safe Drinking Water act within its Underground Injection Control program to initiate the regulatory process and begin a public dialogue on underground injection of CO₂. As an interim solution, EPA has permitted injection wells associated with the DOE/NETL and the Regional Geologic Sequestration Partnership as UIC Class V experimental technology wells and/or Class II

wells.²⁹ However, EPA has not determined how or when these classifications might change if these wells begin to sequester large volumes of CO₂ for permanent disposal. To date, EPA has not appropriated resources specifically for this purpose or provided any clear signals that this activity requires priority status.

It is imperative that the key components of the necessary regulatory framework include:

- Guidelines for comprehensive injection site characterization and selection;
- Safety and operational standards for the injection process itself as well as for subsequent closure and decommissioning;
- Future monitoring of the injection site and verification that the injected CO₂ does not leak; and
- Clarification of the liability and indemnification provisions for the various aspects and stages of CO₂ capture, transport, injection and disposal.

In order to accomplish this objective in a timely manner EPA must begin immediately to:

- Collect technical data to support the development of a regulatory framework (e.g., from DOE and USGS);
- Formulate site-specific requirements to protect drinking water;
- Establish appropriate monitoring and verification standards for retention of CO₂;
- Identify potential risk and mitigation management options;
- Provide capacity building and technical support for states to implement regulations and process permits; and
- Establish a process for stakeholder input to include public outreach and communication.

²⁹ Indeed, while EPA has recently issued draft guidelines for permitting underground injection of CO₂ in connection with these pilot projects (giving states and regional officials wide latitude to evaluate sites on a case-by-case basis), EPA's guidance also specifically warns project developers to plan for more stringent oversight upfront if there is a possibility they will want to increase the size of a project in the future. EPA explains: "A site that is deemed to be appropriate for pilot CO₂ injection may not necessarily meet future requirements for commercial scale operations." See attached Inside EPA article, and: http://www.epa.gov/safewater/uic/wells_sequestration.html.

In light of the above discussion, this is an opportune moment to ensure that EPA proceeds to develop the guidelines and regulations that will be necessary for the deployment of commercial scale projects, where millions of tons of CO₂ could be injected annually for a single project. This effort is likely to require on the order of \$20 to \$40 million over 4 years, and the program does not currently have the resources and budget necessary to adequately pursue this work.

b. Nanotechnology

Nanotechnology (the creation and manipulation of matter on a scale of less than 100 nanometers, the width of just a few atoms) has emerged as one of the most rapidly developing, dynamic, and exciting fields of scientific research and commercial development. Nano-materials in particular offer the potential for tremendous advances in fields ranging from medical technologies to power generation and storage to environmental remediation strategies. Nano-materials are extremely heterogeneous, including materials composed of various elements (such as carbon, silver, cerium, silicon, etc.) – indeed, nanotechnology is likely the future of chemistry. However, the rapid emergence of new nano-materials and their increasing use in products and processes raises serious concerns regarding the potential for adverse impacts on human health and the environment.

In fact, the very qualities that make nano-materials commercially desirable can also make them potentially more toxic than their normal-sized counterparts. For example, nano-scale materials may dissolve in different ways, take on different magnetic properties, react differently to chemicals, or reflect light differently than they would at normal size. Moreover, because they are so small—the head of a pin is about 1 million

nanometers across – nano-materials can be extremely mobile, finding their way to the blood stream when inhaled, swallowed, and possibly when applied to the skin. Once inside the body, they seem to have access to most or all tissues and organs, including the brain and possibly also fetal circulation, and may cause cell damage in ways that we are only beginning to understand.

In fact, very little is currently known about the potential health effects of engineered nano-materials. The few studies that do exist that specifically examine the health consequence of exposure to a very limited universe of nano-materials provide significant reasons for concern. Additionally, we know from long experience with conventional air pollution that inhalation of ultra-fine (nano-scale) air pollutants is associated with asthma attacks, heart disease, strokes, and respiratory disease. The development of a much more comprehensive data set on nano-material toxicity is vital to ensuring the safe, productive, and beneficial development of this exciting field.

However, despite our limited understanding of the effect of nano-materials on human health, manufacturers already are incorporating these structures into hundreds of consumer products. Products as diverse as sunscreen, lotion, house paint, and stain-proof clothing already contain nano-materials.³⁰ Given that we already have good reason to believe that some of these materials may pose serious health and/or environmental risks, the widespread use of these materials (particularly in a manner that is likely to involve significant human exposure) is clearly unwise without meaningful up-front evaluation for potential toxicity and a framework for precautionary regulation.

³⁰ In fact, EPA recently reviewed 15 new chemical uses for nano-scale substances. However, EPA is withholding all information regarding these substances based on claims of Confidential Business Information (CBI), so no information is available to the public.

Given the rate at which the field of nanotechnology is progressing, and the pace at which nano-material are being incorporated into commercial products, regulators must begin to take action *now* to identify and address concerns from cradle to grave. Such a life-cycle approach must address concerns associated with the production and manufacture of the nano-materials themselves and the products into which they are incorporated, potential in-use exposures, and the safe end-of-life disposal of products containing nano-materials. Moreover, until we better understand the risks, nano-materials should be presumed dangerous to consumers and workers.³¹

Congress should specifically direct EPA to allocate adequate resources not only to examine nano-material toxicity (an absolutely essential first step), but simultaneously to aggressively develop a robust regulatory framework that is adequate to ensure that nano-materials that make it into the marketplace are safe, and that unsafe materials are appropriately managed from cradle to grave. Any such framework should be based on a precautionary approach to managing toxic chemicals and should:

- **Prohibit the untested or unsafe use of nano-materials.** Because the full scope of risks is unknown, and preliminary data demonstrates the potential for toxicity, risk management practices must presume worst-case scenarios to fully protect health and prevent unsafe releases of nano-materials to the environment.
- **Include full lifecycle environment, health, and safety impact assessments as a prerequisite to commercialization; assess all nano-materials as new substances.** Independent testing is urgently needed to understand the hazards of nano-material exposure across the lifecycle of a product. Because the toxicological profile of nano-materials cannot be predicted from the known properties of larger particles of the same chemical composition, assessing nano-materials as new substances is important. The results of testing should be made available to the public.

³¹ Notably, labor unions and environmental justice advocates have recently joined together to call on the U.S. Environmental Protection Agency (EPA) to move quickly to fully disclose hazards and take protective action to prevent harm to workers and their families from nanomaterials.

- **Incorporate full and meaningful participation by public and workers in nanotechnologies development and control.** The potential of nanotechnologies to transform the global social, economic, and political landscape means we must move the decision-making out of corporate boardrooms and into the public realm.
- **Ensure prompt action on early warnings to protect communities and workers.** Specific regulations are vital to ensure that there is a mechanism for quick and effective action when it becomes apparent that a particular nano-material or class of nano-materials is like to pose a health or environmental hazard. This framework must be designed to identify and address health risks before people become exposed.

In this context, EPA must not wait to close the door until the horse has left the barn. Such an approach would be both irresponsible and inconsistent with the Agency's mission. The time is ripe for Congress to send a strong signal to EPA that addressing nano-materials is an important national priority.

5. Taking a Stand on Environmental Justice

The Administration budget proposal would cut the EPA Office of Environmental Justice (OEJ) budget by more than 28% to \$4.6 million from \$6.3 million. This funding request flies in the face of overwhelming evidence that low-income communities and communities of color are still among the most burdened by pollution. For example, in Southern California alone, 71 percent of African-Americans and 50 percent of Latinos live in non-attainment areas for air quality. Nationally, people of color are three times more likely to be hospitalized or die from asthma and other respiratory illnesses linked to air pollution.

The Administration's request is even more startling given recent reports that EPA is currently failing to implement the requirements of Executive Order 12,898 on Environmental Justice. In 2004 and 2006, reports from the Office of the Inspector General ("OIG") at EPA concluded the Agency was failing to properly implement the

Executive Order, and made specific recommendations on how the Agency should properly implement the Order. In 2005, EPA issued a memo reaffirming its commitment of EJ and directing the agency officials to “implement programs and activities to ensure that they do not adversely affect populations with critical environmental and public health issues, including minority and low-income communities.” With significant cuts to OEJ’s budget, it will be even more difficult for EPA to execute the recommendations of OIG and fulfill the Agency’s recognized obligations under the Executive Order.

Moreover, Congress has passed amendments to EPA’s appropriations bill directing the Agency to not spend any congressionally appropriated funds in a manner that contravenes or is inconsistent with the Executive Order or delays its implementation.³² It appears that the Administration’s response to the appropriations constraints is to instead reduce the budget available to implement the Order.

NRDC believes that the proposed budget cuts to this important program are irresponsible, unjustified, and directly contrary to the Agency’s obligations under the Executive Order and Congress’s mandate to properly implement that Order.

That concludes my testimony, thank you.

³² See Public Law No: 109-054; See also § 202 of H.R. 2361, Department of the Interior, Environment, and Related Agencies Appropriations Act, 2006: “None of the funds made available by this Act may be used in contravention of, or to delay the implementation of, Executive Order No. 12898 of February 11, 1994.”