

CLEANING UP:

Fixing New York's Broken Brownfield Cleanup Program

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TABLE OF CONTENTS

	PAGE
Introduction	3
Background on the Brownfield Cleanup Program	5
1. When is a Brownfield Not a Brownfield?	6
2. "Dirty" Cleanup Standards	7
3. Ignoring History: Standards Inferior to Past Superfund Cleanups	10
4. Brownfield Remedial Program Flaws: Tax Credits for "Dirty" Cleanups	12
5. State Survey Finds New York Has Second-Rate Standards	15
Conclusion	16
Appendix A. Description of the Brownfield Cleanup Tracks	17

Introduction

New York's Brownfield Law, enacted in 2003, has been the subject of a great deal of attention in recent months, including increased scrutiny brought by a lawsuit from environmental groups.

The purpose of this law is to encourage cleanup and redevelopment of contaminated properties, known as "brownfields," in New York State. The program provides tax credits and other incentives to developers in return for cleaning these sites to levels that are protective of their future intended uses.

The Brownfield Law, ushered in with great fanfare, has proved to be a disappointment on many levels—especially from the perspective of environmental, fiscal, and community development watchdogs. It is urgent that the state fix this program now before more sites enter the program.

To date, only partial solutions have been offered. Governor Eliot Spitzer has proposed changing the tax credits, most of which are going to site development rather than clean-ups. The State Senate has passed legislation to expand the program's eligibility and to improve the administration of the Brownfield Opportunity Area program, a unique planning component of the law. And this fall, the New York State Assembly and Senate Environmental Conservation Committees are conducting joint hearings to get a better understanding of what improvements are needed to ensure the Brownfield Law serves its purpose.

As important as the tax credit issues are, it is equally important that the cleanup requirements for brownfield sites receiving such benefits be strengthened to meet the letter and the spirit of the law. The New York State Department of Environmental Conservation (DEC) finalized new regulations for the state's environmental remediation programs last December in the waning days of the Pataki Administration. However, despite an outpouring of public comments during a lengthy public review process, the regulations fail to measure up to the law's cleanup requirements.

Governor Spitzer and DEC Commissioner Pete Grannis have the power—and the responsibility—to ensure that New York's Brownfield Cleanup Program results in sites where it is safe for people to live, work or play.

This report lays out the key problems with the DEC's Brownfield Cleanup Program regulations that need to be fixed. Although it is not a comprehensive study of the program's flaws, this report touches on several of the major shortcomings of the state's cleanup requirements, many of which were the basis for the environmental groups' lawsuit:

- 1) **Unfair eligibility requirements.** The DEC has placed arbitrary limits on brownfield eligibility by excluding sites that are contaminated by an off-site source. One effect of the unauthorized exclusion of these sites is to disqualify hundreds of properties, particularly in New York City, that are contaminated because tainted fill material was used on the site. These properties, referred to as historic fill sites, are being summarily rejected from the program regardless of the level of contamination on-site.

- 2) **Dirty cleanup standards.** The DEC and Department of Health ignored many of the Brownfield Law's important public health and environmental criteria when developing soil cleanup standards for contaminants found at brownfield sites. As a result, many sites that are "cleaned" under this program could still pose toxic threats to children, water, indoor air in homes, and fish habitats.
- 3) **Standards inferior to past Superfund cleanups.** The DEC ignored the law's directive to consider the cleanup levels that have been achieved here in the past when developing soil cleanup standards. A review of previous Superfund cleanups shows that dozens of soil cleanup standards could have been stronger. The new law sets industrial cleanup standards as high as 3,900 parts per million for lead and 10,000 parts per million for cyanide. In years past, when such levels were found at Superfund sites, these levels of contamination would have triggered the site being cleaned up. Now these are merely the levels to which the site must be cleaned.
- 4) **Loopholes in the Brownfield Cleanup Program perpetuate pollution.** The Brownfield Law is supposed to result in sites that are safe enough for their intended future use. But the DEC's regulations allow developers to leave polluted surface soils on site, or even bring in polluted back fill and soil cover, if the surrounding area is also polluted. This will result in cleanups that do not protect public health or the environment, yet still reap the program's generous tax credits and liability releases.
- 5) **Land use determination is inadequate and could harm future site users.** The level of cleanups at brownfield sites is determined by the site's future anticipated use. But the new rules do not ensure that future uses such as schools, day care centers, and residences are adequately protected. Whether a site use is determined to be "commercial" or "unrestricted" can have a significant impact on the amount of contamination that can be left on site.
- 6) **Use-based cleanup standards should not be applied to all cleanup programs.** Only the Brownfield Law allows use-based cleanup standards. The DEC has applied the same use-based cleanup standards to all three environmental remediation programs, despite the fact that both the Superfund law and the Environmental Restoration Program created under the 1996 Bond Act require "complete cleanups."
- 7) **Other states have safer standards.** A review of brownfield soil standards in California, Colorado, Connecticut, Delaware, New Hampshire and New Jersey found that New York's cleanup standards for highly toxic chemicals such as arsenic, lead, and vinyl chloride are in many cases significantly weaker.

This report highlights the critical need to correct the flaws in the Brownfield Cleanup Program regulations. The fact that taxpayers' dollars are being used to subsidize faulty and inadequate cleanups is a violation of public trust. We call on Governor Spitzer and Commissioner Grannis to truly "clean up" the Brownfield Program by revising the regulations so that they meet the letter and intent of the law.

Background on the Brownfield Cleanup Program

The 2003 Brownfield Law established a comprehensive program with directives on protective cleanup standards, as well as programmatic and financial rewards for developers that entered the program to clean up a site (ECL 27-1401-1433). Under the law, in exchange for cleaning up a brownfield site to a level that is "fully protective of public health and the environment," a developer would receive substantial tax credits, liability releases, and a streamlined process with timetables and certainty on remediation requirements with established soil standards.

The framework of the law was based on compromises crafted by the Legislature and Governor Pataki over a multi-year negotiation process. For the first time, the state approved a land-use based approach for soil standards, for which industry groups had been advocating for years. However, while the new Brownfield Cleanup Program would have different cleanup levels for residential, commercial, and industrial properties, these soil standards would be based on very protective environmental and health criteria, such as the protection of drinking water and sensitive populations such as children, leading Governor Pataki to state that it would *"be one of the most protective cleanup programs in the country."*

It took almost two years for the DEC and the Department of Health (DOH) to draft the Brownfield Cleanup Program regulations and soil cleanup standards. At the same time, the DEC revised the regulations for the State Superfund and Environmental Restoration Programs. As much as possible, the DEC attempted to harmonize the three environmental remediation programs under the new regulations (6 NYCRR Part 375), despite the clear differences in their statutory goals. When the draft regulations were finally released in November 2005, citizens, community groups and environmental groups from across the state called on the DEC and Governor Pataki to correct the deeply flawed regulations and unsafe soil standards.

Citizens' Environmental Coalition (CEC), Environmental Advocates of New York (EANY), New York Public Interest Research Group (NYPIRG), Sierra Club-Atlantic Chapter, New York City Environmental Justice Alliance (NYCEJA), and the Center for Health, Environment & Justice (CHEJ) submitted three sets of extensive comments to the DEC on the draft regulations. The groups also enlisted the expertise of scientists and doctors from Cornell University and Mt. Sinai Medical Center, who submitted detailed comments outlining serious problems with the soil standards.

For the most part, DEC rejected the recommendations made by scientists, doctors, and environmental groups. One notable exception was that, based on public comment, DEC was forced to significantly revise the soil standards for "unrestricted" cleanups. As a result, the DEC conducted a second round of public comment in 2006. The final regulations were issued on December 14, 2006, just weeks before the Pataki Administration left office.

Our groups have repeatedly conveyed our concerns about the Brownfield Cleanup Program to Governor Spitzer and his environmental appointees. On March 28, 2007, CEC, EANY, NYPIRG and Sierra Club filed an Article 78 lawsuit against the DEC challenging the new brownfield regulations. The lawsuit focuses on just a few of the many egregious problems with the regulations, which are detailed in this report.

1. When is a Brownfield Not a Brownfield? DEC Places Unfair Limits on Eligibility

New York State law defines a brownfield as:

“Any real property, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.” Environmental Conservation Law (ECL) § 27-1405 (2) (emphasis added).

The state’s definition leaves little room for interpretation. It clearly sets the basic parameters under which the DEC is to make a determination regarding a specific site’s eligibility for the Brownfield program. Despite the clarity of the statute, however, the DEC, through administrative rule-making during the Pataki administration, made the decision to “consider only contamination from on-site sources” (6 NYCRR § 375-3.3(a) (2)), thereby excluding from the program any sites that are contaminated by an off-site source.

The agency’s rationale for taking this position, though not supported by statute, is that it is preferable to address contamination at its source and work out from that source. The DEC further explained that addressing contamination at its source is in keeping with long-established agency practice when dealing with contaminated sites. (DEC Response to Comments, June 2006)

What the DEC fails to recognize is that the legislation is not a codification of the agency’s past practices, but instead created new— very specific—requirements for how the state’s brownfield sites must be addressed. The DEC’s actions excluding from the program all sites contaminated by off-site sources is counter to the intention of the law and endangers the health of New Yorkers.

One effect of the DEC’s blanket exclusion of sites that are contaminated from off-site sources is to disqualify hundreds of properties, particularly in New York City, that are contaminated because tainted fill material was used on the site. These properties, referred to as “historic fill sites,” are being summarily rejected from the program regardless of the level of contamination.

This arbitrary disqualification of historic fill sites cannot be reconciled with the statute. The fact that the on-site contamination originated off-site does not mean that the site is any less contaminated. Moreover, it does not mean that the site should not be cleaned up, redeveloped, and put back into productive use.

A possible explanation for the DEC’s restrictive stance on eligibility is the potential financial impact that the brownfield tax credits will have on the state’s coffers. The tax credits are based primarily on the cost of site remediation and the cost of the redevelopment of the site. The DEC estimates that the state’s tax credit exposure for only 54 sites already in the program is more than \$1 billion. Because the tax credits are assigned as-of-right once a site has been accepted into the program and a certificate of completion has been issued, the state is facing an unsustainable financial burden under the current tax structure.

While the tax credits as currently structured are creating an unsustainable financial burden that threatens the success of the program, this does not justify the approach the DEC has taken to eliminate some sites from the program. What is needed is a more reasoned approach, established through statute, to restructure the tax credits to ensure that all sites that meet the definition of a brownfield are allowed into the program and that no one receives a tax credit windfall for participating in the program.

We are calling on the Governor and Commissioner Grannis to remove the arbitrary eligibility restriction and instruct the agency to make eligibility determinations based on site conditions and the statutory definition of a brownfield. In addition, the Governor and the Commissioner need to work with the Legislature to develop a legislative formula for the calculation of the tax credits that takes into consideration a variety of site-specific factors.

2. "Dirty" Cleanup Standards Pose Toxic Threats to Children, Water and Fish Habitats

Although the law clearly stated that the soil standards for toxic chemicals (known as Soil Cleanup Objectives or SCOs) should specifically protect children, water and fish habitats, the DEC ignored this legal directive and established cleanup standards that fail to protect them. The 2003 Brownfield Law stated clearly that standards shall be:

"protective of public health and the environment" and specifically included protecting "...groundwater... surface water and air (including indoor air); sensitive populations, including children; and ecological resources, including fish and wildlife." (ECL Section 27-1415)

A. Weak Soil Standards Threaten Children's Health

Children are a uniquely vulnerable population. Their growing bodies are more sensitive to toxic exposures than adults, and their behavior, such as playing in soil and placing their hands in their mouth, can cause them to be more exposed. Despite the law's recognition that children are especially vulnerable, the brownfield standards are not protective of children due to four pervasive problems identified by health experts.

- DEC and DOH assumed that children would have far less exposure to contaminated soil than is plausible and these inadequate exposure parameters are not protective.
- DEC and DOH did not use current scientific information on some chemicals, including toxicological and epidemiological data and risk assessment methods, and relied on older studies that demonstrated fewer health problems.
- DEC and DOH did not consider key health criteria, including a chemical's acute toxicity, the health risks from mixing similarly acting chemicals, and did not place limits on risks that can be generated on a site (e.g., no more than one in one million risk of cancer per person).

- DEC and DOH based the standards for children and adults on "predictive" models of human exposure, rather than preventive models. Based on a "predictive" model, exposures are assumed to be at the average or 50th percentile level, *which fails to protect the 50 percent of the population who are the most highly exposed*. When the Legislature declared that the remedial goal of the BCP was to "protect public health," they did not mean *only half* of the population. DEC should have used "protective" exposure assumptions, such as the 95th percentile levels, to ensure that a majority of children and other sensitive populations would be protected.

B. "Clean" Sites Pose Toxic Threat to Ground Water

Contaminated soil has caused long-term pollution of groundwater which is used for drinking water. For example, residents of Hopewell Junction, NY, unknowingly drank polluted well water for many years due to contaminated groundwater from a nearby site. [See Hopewell Site Box]

Unfortunately, DEC's Soil Cleanup Objectives (SCOs) for "restricted-residential," "restricted-commercial" and "restricted-industrial" use do not protect groundwater. In fact, these SCOs frequently exceed the DEC's separately established "protection of ground water" SCOs. The groundwater SCOs will only be applied at sites if the cleanup plan does not include engineering controls to address groundwater pollution, and DEC staff have stated that these SCOs will probably be used at a minority of sites. This means that in most cases cleanups at residential, commercial and industrial sites could leave behind residual contamination that can contribute to groundwater pollution.

In reviewing these SCOs, we found that more than 30 of the industrial standards are 1,000 times *less* protective than the level needed to protect groundwater. Thus, soil cleaned to mandated "clean" levels at many sites will still pose a considerable toxic threat to groundwater quality, especially at industrial use sites. In the past, DEC set Superfund cleanup level guidance which did protect groundwater. Now, the agency's adoption of this new approach means that groundwater-protective cleanups will be non-existent at many sites. This approach fails to meet both the letter and spirit of the law because it threatens the goal of groundwater restoration and makes a mockery of the legal mandate for DEC to develop strategies "to protect groundwater from future degradation" (ECL Section 15-3109(1)).

C. Toxic Threats to Surface Water Ignored

Toxic chemicals can leach from contaminated soil and pollute nearby surface water. For example, toxic leachate from the GE Dewey Loeffel site in Nassau, NY, has polluted the nearby Nassau Lake with polychlorinated biphenyls (PCBs). DEC is aware of this problem, and has sediment cleanup criteria to protect against surface water contamination from 64 organic compounds and 12 metals (DEC Technical Guidance for Screening Contaminated Sediments). However, the agency designed soil standards that do not protect against surface water contamination, stating that it would address it on a site-specific basis. Not only does this contradict the agency's existing cleanup policies, but the 2003 law clearly stated that soil standards should protect against surface water contamination.

Nassau Lake Polluted Due to Botched Cleanup: The Dewey Loeffel Site

The Dewey Loeffel Superfund landfill in Nassau, New York received approximately 37,000 tons of polychlorinated biphenyls (PCBs) and other toxic waste from General Electric and other companies. In the 1980's, GE attempted to contain this State Superfund site with a slurry wall and clay cap but did not investigate contamination that had leaked from the landfill. Years later, state testing revealed nearby drinking water wells were polluted with volatile organic compounds and PCB's had spread a couple of miles downstream contaminating the Valatie Kill stream and Nassau Lake.

"The fish are uneatable in Nassau Lake due to GE's PCB poison. The state health department continuously issues Health Advisories every year warning people to not eat the fish. By refusing to investigate off-site pollution in the 1980's, GE allowed for the good people and animal habitats in our community to be unknowingly comprised. Every spring, people unknowingly catch and eat poisoned fish from Nassau Lake. We have documented increased cancers and other health problems in our community. DEC has seen what happens when you don't clean up all the pollution, it spreads and creates more pollution. It is a travesty that DEC ignored this reality and the law, and refused to protect surface water when setting the brownfield soil cleanup standards."

Kelly Travers-Main, United Neighbors Concerned About GE/Dewey Loeffel Landfill

D. "Clean" Sites Still Pose Toxic Threat to Fish

Contaminated soil can pollute and harm aquatic ecological resources, or fish habitats such as wetlands, streams and rivers. DEC states that *"soil contaminants can enter the bodies of fish directly from the water, or through the food chain, from microorganisms and algae, to zooplankton, invertebrates, and smaller fish."* (DEC Technical Support Document, 2006).

For example, fish in Nassau Lake are so polluted from PCB-contaminated groundwater emanating from the GE Dewey Loeffel site that the Department of Health has issued Public Health Advisories warning residents not to eat the fish. [See Dewey Loeffel Site Box] The DEC has three policies to protect aquatic resources from toxic contaminants, including its *Fish and Wildlife Impact Analysis for Hazardous Waste Sites*. Unfortunately, the agency specifically ignored the law's directive and set SCOs that do not protect fish habitats, stating merely that it *"declines to extend the protection of ecological resources to aquatic environments."* (DEC Response to Comments, October 2006). The legislature made it abundantly clear that "ecological resources" included protection of fish.

E. "Clean" Sites Still Pose Toxic Vapor Threat

Many New Yorkers are being exposed to polluted air in their homes from toxic vapor intrusion. The DEC notes that *"[v]olatile contaminants (e.g., solvents, gasoline, elemental mercury) in subsurface soil may migrate into soil vapor and subsequently contaminate indoor air."* (DEC Technical Support Document, 2006).

Contaminants can also leach from soil into groundwater which may volatilize directly into indoor air, when for instance; water leaches into the basement of a house. DEC acknowledges that *"vapor intrusion may be an important exposure pathway at some brownfields."* (DEC

Response to Comments, 2006.) For example, residents of Hopewell Junction and Endicott, NY, have suffered from years of toxic vapor intrusion in their homes when polluted groundwater spread from nearby sites. [See Hopewell Site Box]. DEC did not account for toxic vapor intrusion in the SCOs, so soil will not be cleaned up to a level sufficient to protect against vapor intrusion. Instead, the agency decided to primarily rely on engineering controls at sites to limit the migration of contaminants. However, even the best engineering measures can fail. The Legislature made it abundantly clear that the SCOs should protect "indoor air."

Breathing Toxic Air for Decades: The Hopewell Precision Site

The Hopewell Precision Federal Superfund site in Hopewell Junction, NY was de-listed from the State Superfund registry in 1994 despite recommendations from the Department of Health to do more testing. Ten years later, the government found pervasive toxic vapor intrusion had contaminated dozens of homes. Chemical waste has polluted the drinking water of 123 homes and 141 homes have toxic vapor intrusion; 46 homes have vapor mitigation units installed.

"Vapors do not stay in the basement. While it's true that vapors enter through the basement, they can also invade the entire home. Although the Hopewell Precision Superfund site is getting protection we wonder what decades of exposure have done to us and our children. We have seen results of health statistic reviews in Endicott, another neighborhood suffering from vapor intrusion. Those results point to many cancers caused by breathing invisible, undetected toxic fumes. Now that more is known about vapor intrusion it is up to the DEC to prevent risking other communities to potential illness. It is unjust and unfair for the agency to ignore this health threat when establishing soil cleanup standards— it's not just a good idea to protect public health, it's the law."

Debra Hall, Hopewell Junction Citizens for Clean Water.

3. Ignoring History: Standards Inferior to Past Superfund Cleanups

DEC ignored the specific legal directive to consider past Superfund and other toxic site cleanup standards when developing the BCP Soil Cleanup Objectives. The law required DEC to:

"consider... the feasibility of achieving more stringent remedial action objectives, based on experience under the existing state remedial programs, particularly where toxicological, exposure, or other pertinent data are inadequate or non-existent for a specific contaminant." (ECL Section 27-1415.)

DEC ignored this directive and argued that while *"it may be possible to achieve cleanup values which are more stringent than those set forth in the SCO tables,"* it was unnecessary because *"both public health and the environment will be protected through the use of the SCOs and more stringent levels will not significantly increase this level of protection."* (DEC Technical Support Document, 2006). Unfortunately, this is not the case. The SCOs are not protective of children, water and fish habitats. In addition, the SCOs are based on inadequate data as there are uncertainties about the health impacts of many chemicals and new studies continue to uncover health risks. In fact, DEC repeatedly raised the issue of inadequate or non-existent data on

various chemicals. Since a lack of data creates uncertainties—particularly with respect to vulnerable populations such as children—how can DEC claim that no benefit would be gained by strengthening any of the standards? As the Assembly sponsor of the 2003 law, former Assembly member Thomas P. DiNapoli stated, *"the clear intent of the law was for DEC and DOH to consider feasibility [of strengthening the SCOs] in those situations where information on risk may be lacking and soil cleanup standards developed based on current knowledge may not be protective enough."* (Comments on Draft Regulations, 2006).

A review of State Superfund Records of Decision from the 1990s shows that DEC could have established substantially more protective Brownfield SCOs if it had considered historically achieved cleanup levels. During the early 1990s, the DEC required soil cleanup levels at State Superfund sites that were stricter than 7 of the current "unrestricted" Brownfield SCOs, 5 of the "restricted residential" SCOs, and 17 "commercial" and "industrial" SCOs. Below is a chart that highlights just a few of the large discrepancies between the current Brownfield SCOs and past State Superfund cleanup levels.

Comparison of Brownfield SCOs & Historic Cleanup Levels Achieved at State Superfund Sites

Chemical	BCP SCO Restricted Residential	BCP SCO Commercial	BCP SCO Industrial	Historic Superfund Cleanup Level	Site
Copper	270	270	10,000	25	Dublin Rd. (Orleans County)
Endosulfan II	24	200	920	4 – 7.3	Sigismondi Landfill (Monroe County)
Lead	400	1,000	3,900	350	Sigismondi Landfill (Monroe County)
Nickel	310		10,000	500	Sigismondi Landfill (Monroe County)
Toluene	100	500	1,000	1.5	Burroughs-Unisys (Monroe County)
Zinc	10,000	10,000	10,000	30	Dublin Rd. (Orleans County)

All soil cleanup objectives and Historic Superfund cleanup levels are in parts per million (ppm).

BCP SCO = Brownfield Cleanup Program Soil Cleanup Objective

Sources: NYS Department of Environmental Conservation *Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives*, December 14, 2006. NYS Department of Health *Site-Specific Soil Action/Cleanup Levels* summarizes NYS State Superfund Site cleanup levels from 1992 to 1995, and was provided in June 1996 to Citizens' Environmental Coalition.

Industrial cleanup standards as high as 3,900 parts per million for lead and 10,000 parts per million for cyanide endanger the health of New Yorkers. In years past, when such levels were found at Superfund sites, these levels of contamination would have triggered an action threshold *resulting in the site being cleaned up*. Under the new regulations, however, this is merely the

level that developers will have to *clean up to*—leaving extensive amounts of residual contamination that will threaten the environment and future generations.

4. Brownfield Remedial Program Flaws: Tax Credits for “Dirty” Cleanups

A. How the Cleanup Tracks are Supposed to Work

The Brownfield Law created four different cleanup “tracks.” Cleanup levels at these tracks are based, in whole or in part, upon the site’s future anticipated use. A site to be used for industrial purposes, for instance, would not have to be cleaned up as much as a site intended for commercial use. (See Appendix A for a description of each of the tracks).

Track 1 (unrestricted) clean-ups are the most protective, suitable for any future site use without restriction. The other tracks allow contaminated soil and groundwater to remain on site provided there are institutional controls and/or engineering controls. Institutional controls include restrictions on the use of the site, such as prohibiting the use of polluted groundwater, while engineering controls include the installation of groundwater treatment systems, vapor barriers, pavement, and other mechanisms to prevent exposure to toxic chemicals left on site. All four tracks require removal of any on-site sources of contamination.

The Brownfield Law has a stated preference for “permanent” (i.e. Track 1 or “unrestricted”) cleanups, and provides a higher tax credit for Track 1 cleanups. However, the small differential in the tax credits (12% for Track 1 versus 10% for the other tracks) has not provided enough of an incentive to date for sites entering the BCP. Of 29 sites that are currently in remediation, only three are Track 1 cleanups—the lion’s share are Track 4, the dirtiest of the tracks. (Source: Brownfields Cleanup Program: DEC Survey of Sites in Remediation).

The creation of “use-based” cleanup standards was one of the most controversial aspects of the proposed brownfield law when it was debated in the State Legislature. Ultimately, the Legislature and Governor Pataki forged a compromise that linked the use-based approach to extremely protective environmental and health criteria for brownfield cleanups and soil standards. At the same time, the Legislature maintained the State Superfund’s pre-disposal cleanup goals, rather than bowing to industry pressure to apply the “use-based” approach to the State Superfund program, as well.

Unfortunately, the new regulations finalized in the waning days of the Pataki Administration are inconsistent with the intent of both the Brownfield Law and the Superfund law. The regulations create loopholes where none exist in the law, and memorialize past DEC practices that a strict interpretation of the new law would disallow. Furthermore, despite the Legislature’s clear intent, the DEC applied the use-based cleanup standards developed under the Brownfield Law to *all* of its environmental remediation programs, including the State Superfund program.

B. Spreading the Dirt Around: How the Brownfield Regulations Perpetuate Pollution

Of the four tracks, Track 4 clean-ups are the least stringent. These are site-specific cleanups, which only require developers to remove any on-site sources of contamination and ensure that

exposed surface soils meet applicable SCOs, depending on the site's future use. (See Appendix A for more detail).

A Track 4 cleanup gets the same tax credit as a Track 2 cleanup, and it is clear from the early entries into the BCP that most of the cleanups are happening under Track 4. For all of these reasons, it is especially important to ensure that these sites are required to be cleaned to the extent that the law allows.

However, the DEC's regulations governing Track 4 cleanups provide that exposed surface soils need only be remediated if they exceed "*the site background values for contaminants of concern.*" Similarly, while the regulations require that any soil brought to a site that is used for soil cover or backfill must meet the applicable SCOs for the site, they allow DEC to issue site-specific exemptions based on site conditions, including but not limited to "... *background levels of contamination in areas surrounding the site.*"

Historically, the DEC has determined "site background" at State Superfund sites based on pollution levels in the neighborhood surrounding a site. In other words, if a site is located in an area that is heavily polluted, surface soils do not have to be cleaned up any more than the surrounding area.

The DEC insists that considering site specific background levels "is completely consistent with past practice" and that it "does not consider soils exhibiting levels less than background to be contaminated as a result of activities at the site." (DEC Response to Comments, June 2006.) But just because this is how the agency has always done it does not make it right – or legal.

The intention of the Brownfield Law was to make sites cleaner, not perpetuate pollution. Allowing polluted site background levels to dictate the level of soil remediation at contaminated sites will result in cleanups that are not protective of public health and the environment, but still reap the tax credits and other benefits of enrolling in the program.

C. What's the Use?

As noted previously, the use-based cleanup approach was one of the major compromises of the Brownfield Law. The legislation gives the DEC clear direction on how to develop soil cleanup standards that would be protective for unrestricted, commercial, and industrial uses. However, the legislation is not as specific about defining what those use categories would include. As interpreted by the DEC, even if the soil standards met the law's stringent health-based criteria, future site users could still be threatened by decisions regarding the level of cleanup required for each site. Whether a site use is considered "commercial" or "unrestricted" can have a huge impact on the amount of contamination that can be left on site.

Here are some examples of how the DEC's land use determination is inadequate and could harm future site users:

1. **Determination of land use categories is inadequate.** A central component of the new BCP is its reliance on a site's intended future use to determine the required level of cleanup. However, the regulations are vague regarding what uses fall into which category. Schools,

day care centers, playgrounds, hospitals, and senior centers are not mentioned in the regulations. Common sense would dictate that such facilities would require “unrestricted” clean-ups, but there is no such assurance in the regulations.

2. **New restricted residential use categories should be eliminated.** The Brownfield Law specified only three use categories: unrestricted, commercial (restricted), and industrial (restricted). Many people assumed that residential uses would fall under the “unrestricted” use category, and thus require permanent cleanups. But the DEC added two new Track 2 restricted residential use categories, including one that prohibits home gardening. Unless the DEC creates an army of “garden police” to enforce this provision, it is practicably unenforceable and therefore not protective of likely future uses.
3. **Cleanups should be protective of all site uses, not just ground level activities.** The new regulations require sites to be cleaned up only enough to protect the first floor use of the property. Thus, under the regulations, if a developer proposes to put a storefront or garage on the first floor of a building, and residential units on upper levels, the site only needs to be cleaned up to commercial standards—not residential.
4. **Cleanups should be consistent with local zoning and allow for public input on any land use changes.** The regulations allow DEC to conditionally approve a use-based remedy if it can be shown that zoning changes *are or will be sought*. Under state law, the standards for granting a use variance are high and it is by no means assured that just because an applicant is seeking a variance that it will be approved. Pre-approving a cleanup for a use that might not be allowed means DEC and developers will make decisions prior to a zoning process, depriving citizens of opportunities to have input into important land use decision-making. It could also unduly influence local governments to approve the requested zoning changes.

D. Use-Based Cleanup Standards Should Not be Applied to All Cleanup Programs

Environmentalists scored a significant victory in 2003 when the Legislature refinanced the State’s Inactive Hazardous Waste Disposal Site Remedial Program (commonly known as “Superfund”) without weakening the law’s cleanup requirements. Governor Pataki and others had advocated applying use-based cleanup standards to the Superfund program as well as the Brownfield program. Instead, the Legislature decided to leave the Superfund’s statutory goal of “complete cleanups” intact.

The victory was short-lived, however. When the DEC developed its new regulations, the agency applied the use-based cleanup standards to all three of the State’s environmental remediation programs – Brownfields, State Superfund, and the Environmental Restoration Program (ERP) created under the 1996 Bond Act. The Legislature did not give the DEC sufficiently broad authority to fundamentally alter the remedial goals of the Superfund law or the ERP.

5. State Survey Finds New York Has Second-Rate Standards

A review of other state brownfield soil standards found that New York is no longer an environmental leader in setting protective remediation policy. Throughout the 1980's and 1990's, the state led the way in establishing protective State Superfund cleanup policies and drinking water standards. Now, New York has developed second rate standards for many chemicals, especially in the industrial and commercial use categories.

For the common toxic chemical lead, New York allows unsafe amounts of contamination behind at an industrial site at 3,900 parts per million—compared to California, Connecticut, Delaware, New Hampshire and New Jersey which require stricter cleanups in the range of 400 to 1,000 parts per million (ppm).

Arsenic, a known carcinogen, is allowed to remain up to 16 parts per million at New York restricted residential, commercial and industrial sites—in contrast to California, Colorado and Delaware which require protective cleanups to a range of 0.82 to 4 parts per million.

Vinyl chloride, an especially toxic chemical, can be left at industrial sites in New York up to 27 ppm. Whereas, the six states surveyed require dramatically more protective cleanups ranging from 0.1 to 9 ppm.

The survey confirmed that New York has weak commercial and industrial standards for many chemicals which are not protective of children, workers, water and fish and wildlife.

Comparison of NY Brownfield SCOs & Those of Six Other States

	NY Res	NY Co	NY In	CA C/I	CT C/I	CO Co	CO In	DE C/I	NH In	NJ C/I
Chemical										
Arsenic	16	16	16	2.7	10	1.04	0.82	4	11	20
Lead	400	1,000	3,900	750	1,000	2,920	1460	780	400	600
Nickel	310	310	10,000	150	7,500			4,100	3,900	2,400
Pentachloro phenol	6.7	6.7	55	5	48	1.95	1.87	48	3.3	24
Vinyl Chloride	0.9	13	27	0.04	3	0.1	0.07	3	9	7

All standards are in parts per million (ppm). Key: Res = Restricted Residential; Co = Commercial; In = Industrial; and C/I = Commercial/Industrial.

Sources: NYS Department of Environmental Conservation *Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives*, 2006; *Application of Risk-Based Screening Levels and Decision Making to Sites with Impacted Soil and Groundwater*; California Regional Water Quality Control Board, 2001 *NHDES Contaminated Sites Risk Characterization and Management Policy*; *Regulations Concerning the Remediation of Polluted Soil, Surface Water, and Groundwater*; State of Connecticut, Judicial Branch, Commission on Official Legal Publications in the Connecticut Law Journal, 1996; *Proposed Soil Remediation Objectives Policy Document*; State of Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division, 1997; *Remediation Standards Guidance Under the Delaware Hazardous Substance Cleanup Act*, State of Delaware Department of Natural Resources, December 1999; and New Hampshire Department of Environmental Services, 1998.

Conclusion

New York's Brownfield Cleanup Program is on the wrong track. While it is up to the Legislature and the Governor to amend the law to adjust the tax credits, the problems we have laid out in this report can all be addressed at the agency level, without an act of the State Legislature. It is time for Commissioner Grannis to take a hard look at the regulations that were finalized in the waning days of the Pataki Administration and make the necessary changes to protect public health and fulfill the promise of this new law.

The flawed eligibility requirements, remediation policy loopholes, and dirty cleanup standards must be fixed to protect the health of New Yorkers across the state. Without these reforms, New York will be using public funds to subsidize inadequate cleanups, and the state will be certifying sites as safe for their future uses, when they are not.

Appendix A

Description of the Brownfield Cleanup Tracks

The statute establishes four different “tracks” that a developer can follow in remediating a site.

Under Track 1, a remedial program “shall achieve a cleanup level that will allow the site to be used for any purpose without restriction and without reliance on the long-term employment of institutional or engineering controls.” ECL § 27-1415(4). With respect to soil remediation, the statute directs that Track 1 cleanups “shall achieve” the generic SCOs designed to allow for unrestricted future use of the property. *Id.* A developer who remediates a site to Track 1 standards receives a greater tax credit than is available for remediation under the other three tracks. *See* New York Tax Law § 21(a)(5).

Under Track 2, a remedial program “may include restrictions on the use of the site or reliance on the long-term employment of engineering and/or institutional controls.” ECL § 27-1415(4). With respect to soil remediation, however, the statute directs that a Track 2 cleanup “shall achieve” the generic SCOs appropriate for the future use of the property “without the use of institutional or engineering controls to reach such objectives.” *Id.*

Under Track 3, the developer does not need to achieve the generic SCOs, but instead “may use site specific data to determine” soil remediation objectives. ECL § 27-1415(4). Those site-specific objectives must “conform with the criteria used to develop” the generic SCOs. *Id.* Like the generic SCOs, soil remediation objectives developed by the applicant pursuant to Track 3 “shall not exceed an excess cancer risk of one in one million for carcinogenic end points and a hazard index of one for non-cancer end points,” except where rural soil background contamination exceeds that risk level. ECL § 27-1415(6)(b).

A Track 4 remedial program “shall achieve a cleanup level that will be protective for the site’s current, intended or reasonably anticipated residential, commercial, or industrial use with restrictions and with reliance on the long-term employment of institutional or engineering controls to achieve such level.” ECL § 27-1415(4). The statute instructs that “[f]or Track 4, exposed surface soils shall not exceed the generic contaminant-specific [SCOs] developed for unrestricted, commercial, or industrial use pursuant to this subdivision which conforms with the site’s current intended, or reasonably anticipated future use.” ECL § 27-1415(6)(d). The statute defines “exposed surface soils” as “two feet for sites used for residential use and one foot for sites used for commercial or industrial use.” *Id.*