COMPOSITION

Safe School Siting Toolkit

Center for Health, Environment & Justice

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Safe School Siting Toolkit

Center for Health, Environment & Justice

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Mentoring a Movement
Empowering People
Preventing Harm

About the Center for Health, Environment & Justice

CHEJ mentors the movement to build healthier communities by empowering people to prevent the harm caused by chemical and toxic threats. We accomplish our work by connecting local community groups to national initiatives and corporate campaigns. CHEJ works with communities to empower groups by providing the tools, strategic vision, and encouragement they need to advocate for human health and the prevention of harm.

Following her successful effort to prevent further harm for families living in contaminated Love Canal, Lois Gibbs founded CHEJ in 1981 to continue the journey. To date, CHEJ has assisted over 10,000 groups nationwide. Details on CHEJ's efforts to help families and communities prevent harm can be found on www.chej.org.

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Chapter 1
Introduction

A Safe School Siting policy will allow our schools to concentrate on teaching instead of mitigating environmental hazards.

Parents across the country are shocked to find school building construction crews in their communities descending on or next to landfills, toxic sites or heavily polluting industries. Siting schools on or near contaminated land poses a great risk to the health and development of students and teachers. Unfortunately, this is usually legally allowed as there are no federal laws and very few state laws or regulations to prevent this from happening.

CHEJ created the Safe School Siting Toolkit to provide communities with the tools to protect their children's health by organizing for the passage of safe school siting policies. This toolkit is based on the lessons we have learned over the past 28 years of working with communities to fight back polluting facilities, build relationships with elected officials, and run successful local, regional, and national campaigns to end toxic chemical exposure.

We understand that creating a healthier and safer community isn't just about explaining the facts. It is also about filling your community's toolbox with strategic tools that can bring people together, motivate decision makers, and ultimately prevent schools from being built on or near sources of pollution. The facts can't get us there alone. As we stated in our publication, *Organizing Toolbox*, "Organizing to protect our communities from environmental harm means pulling together a large enough, diverse enough, active enough group of people to convince corporations and the government that they have to stop making people sick."

Some of the tools , such as the sample organizational resolution, can be adopted by your local or state PTA or teachers union. This will help build support for a school district or state policy. It will also help engage those that can have a powerful voice in the discussion of safe school siting. We also included a sample community presentation. It is often helpful to host community meetings where concerned people can ask decision makers questions and provide information. We included several fact sheets on how to get successful media coverage as it is key to publicize your concerns and the solution, a safe siting policy.

Understanding the scope of this national problem will help you inform others, so we included a comprehensive Children's Health and School Siting Fact Sheet. In 2005, Rhode Island Legal Services completed a 50 state survey on this issue. In their state-by-state analysis of laws, regulations, and policies on the siting of schools, they found only 14 states have a law or regulation that restricts building a school on toxic soil. Only five states have cleanup standards for contaminated soil, and only eight states have funding available for the siting or cleanup process. There is no question that our nation needs safe school siting policies in every state to prevent schools from being built near sources of toxic pollution.

The average U.S. public school is reaching 49 years of age. Reports show that 40 percent of America's schools need $36 billion to repair or replace building features such as a roof. Two-thirds of America's schools reportedly require $11 billion in repairs and renovations to address health and safety problems such as the removal of asbestos, lead in water or paint, underground storage tanks, and radon [1]. At the same time, schools show record enrollments. To address this problem, federal and state funding is being sought to provide billions of dollars for construction and renovation of public schools.

When constructing and renovating schools, thousands of school districts or school boards choose to build schools on land that is cheap. The problem is that it can be contaminated because there are often no policies restricting them from siting the school on polluted land. Pressed to save money, they can be enticed by donations of contaminated property, or hire uncertified or poorly trained contractors to inadequately evaluate environmental risks. In poor communities, often of color, children already suffer disproportionately from asthma, lead poisoning, and developmental disabilities. Constructing schools on contaminated land exacerbates the disproportionate injustices these communities face.

In 2007, Congress passed the Energy Independence and Security Act. It included a small provision directing the Environmental Protection Agency (EPA) to release national voluntary school siting guidelines. These guidelines are expected to be released in early 2010 and will provide guidance to states and school districts on how to safely site schools.

CHEJ released Model School Siting Legislation in 2005 after long discussions with local and regional organizations working on children's health and safe school siting.

This model legislation provides strong and comprehensive guidance and is included in the toolkit. The policy includes site investigation and cleanup recommendations to protect children so they are not exposed to chemical contamination in their school's air and soil. We must act on these recommendations, if America's children are going to grow up healthy and be educated in an environment that supports learning, rather than impedes it through chemical exposures.

CHEJ's Model School Siting Policy includes these recommendations:

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[1] *U.S. Department of Education, (2005) The Condition of Education 2000-2005, SDE, National Center for Education Statistics, Report # NCES 2000-062, Washington DC. Available at: http://nces.ed.gov/programs/coe/*

- Participation in the school site acquisition process should be open to parents, students, teachers, and community residents.
- To ensure precautionary approaches are taken when locating new schools, a complete site history, site visit, survey of surrounding potential sources of contamination, and testing and evaluation of the site property should be conducted. When there is a cause for concern, another site should be chosen.
- Under no circumstances should a school be built on top of a hazardous waste, garbage, or other landfilled property, or a former industrial site that is polluted with toxic chemicals.
- When other sites are not available, the proposed school property should be cleaned up to soil and water standards that protect children.
- No sources of contamination, such as a waste landfill, should be built within 1,000 feet of a school or Head Start facility. Nor should industrial or other facilities releasing chemicals be built or located within 2 miles of a school.

There is a growing body of evidence that the building of schools near sources of pollution is a disturbing national trend. In 2008, *USA Today* released a series of articles about air pollution and our nation's schools. Using government databases to map 127,800 public, private, and parochial schools, they found the air outside thousands of schools was more toxic than the air in the neighborhoods where students lived. *"At 16,500 schools, the air outside appeared at least twice as toxic as the air at a typical location in the school district* [2]*."*

As a result of these articles, on March 31, 2009, EPA announced it would begin air testing outside of 62 schools in 22 states to monitor air pollutants such as carbonyls, diisocyanates, metals like arsenic, cobalt and lead, and Volatile Organic Compounds such as acrolein and benzene, as well as the individual pollutants 4,4'-methylenedianiline and chromium VI. As of this printing the testing data of all schools have not been returned.

It is imperative that communities work with their local and state leaders to pass safe school siting regulations to address this growing problem. A proactive policy for assessing sites will lead to a clean bill of health for many, and avoid student and staff health problems, falling property values, and lawsuits. For sites where contamination is found, schools will benefit from clear guidance to either effectively cleanup or abandon the site.

Through CHEJ's many years of assisting communities in finding safer school sites, we have seen that there is a gap in tools for communities and decision makers to develop and pass safe school siting policies. This toolkit is intended to provide you with a comprehensive box of tools that will help you gain support, organize your community and decision makers, and pass strong and comprehensive safe school siting policies.

[2] *USAToday, (2008) http://www.usatoday.com/news/nation/environment/2008-12-21-youngkids_N.htm*

Chapter 2
Children's Health and School Siting

Despite the health hazards that on-site and off-site environmental contaminants pose to children, twenty states have no laws that restrict the siting of schools near manmade or natural environmental hazards.

Today there exist few state and no federal laws preventing the building of schools on or near sources of pollution. The average US public school is almost 50 years old. As of 2005, 40% of America's schools report needing $36 billion to repair or replace building features such as a roof or plumbing. At the same time, schools show record enrollments and school districts are struggling with budget concerns.

Why are safe school siting policies necessary?

Environmental Health Impacts from Tight School District Budgets: When constructing and renovating schools, thousands of school districts and school boards choose to build school on contaminated property. They are too often pressed to save money and are often enticed to accept donated contaminated land or hire uncertified or poorly trained contractors to evaluate environmental risks. In poor communities, often of color, children already suffer disproportionately from asthma, lead poisoning, and developmental disabilities. Constructing schools on contaminated land exacerbates the disproportionate injustices these communities face.

A Wide Spread Problem: There is currently a critical gap in legislation with respect to siting schools on or near contaminated land or sources of pollution. Despite the health hazards that onsite and off-site environmental contaminants pose to children, 20 states have no laws that restrict the siting of schools near manmade or natural environmental hazards. Only 10 states have laws that prohibit this practice outright. This often vaguely worded criterion rarely provides school districts with the tools necessary to select, evaluate, and either eliminate from consideration, or if absolutely necessary, remediate a contaminated site. This means that districts often select and build on sites where they are unaware of the existence and extent of contamination.

Prevent Toxic Exposures to Ensure Healthy Communities: Health protective educational facilities siting regulations will prevent toxic exposures to children and school staff, reducing their daily exposures

to chemicals that can cause cancer, immune system impairment, birth defects, learning disabilities, asthma and other health problems.

The US mandates its schools to educate our children so that they can become vital contributors to society. Not only is education the foundation of a stable, just society, but critical to national economic competitiveness. Continued rises in rates of learning disabilities, lower IQ scores, hyperactive behaviors, and more could imperil our nation's future economic base. Current research shows a 10-point drop in blood lead level means an average 2.8 point IQ gain. Blood lead level plunged 15 points after lead was removed from gasoline in the US [1]. This gives every baby born today a 'gift' of four to five IQ points. Conservative calculations suggest each IQ point is worth about $8,300 in additional lifetime income. With about 4 million babies born annually, the elimination of lead has had an economic value of over $100 billion per year for the lifetime of those children [2].

Children are More Vulnerable and More Sensitive: During prenatal development, infancy, and adolescence, children are growing and adding new tissue more rapidly than at any other period of their lives. Because their systems are still developing and mature at different rates, they are susceptible to environmental chemical influences over an extended time. Crucial systems continue to develop from birth through adolescence, such as that of the reproductive system. Insulation of brain nerve fibers is not complete until adolescence.

Similarly, air sacs in the lung, where oxygen enters the blood stream, increase in number until adolescence [3]. Children move through several stages of rapid growth and development. From conception to age 7, growth is most rapid. The ensuing years, through adolescence, bring continued growth, as crucial systems, such as reproductive system mature. Insulation of brain nerve fibers is not complete until adolescence.

Children's immature systems are less able to handle toxic chemical exposures. For example, children absorb about 50% of the lead to which they are exposed, while adults absorb only 10–15%. In April of 2009, University of Iowa released a study that shows children who attend school within 10 -20 miles of known superfund site are almost twice as likely to have autism [4].

Children Have More Susceptible Activities: Normal school activities heighten children's exposure to site contamination. After school sports, recess, classes in which children explore the school site's ecosystem, children's natural curiosity, tendency to explore, and inclination to put their hands in their mouths all opens them to high levels of exposure.

Children Diseases Increasing: Environmentally linked diseases in children are on the rise across the board. Cancer is the number one disease-related cause of death in children [5].

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[1] *Wise, B. (1997) "Endorcrine disruptors and sexually dimorphic behaviors: a question of heads and tails," Neurotoxicology 18 (2): 581-586.*

[2] *Wirth, T.E. (2000) "environment &Health: A connection to the Current Debate on Education in America," Presented at the Roundtable on Environmental Health Science, Research & Medicine, The National Academy of Sciences, Washington DC, June 20.*

[3] *Needleman, H.L. and Landrigan, P.J. (1994)* Raising Children Toxic Free*, New York, NY: Farrar, Straus, and Giroux.*

[4] *DeSoto, MC. 2009. Ockman's Razor and Autism: The case for developmental neurotoxins contributing to a disease of neurodevelopment. Neurotoxicology doi:10.1016/j.neuro.2009.03.003*

Childhood learning disabilities, hyperactive behavior, and the inability to maintain attention have also soared nationwide. Attention deficit hyperactivity disorder has been estimated at an all time rate of 17% [6]. The number of children in special education programs increased 191% from 1977 to 1994 [7], and federal Special Education grants increase each year [8]. Autism appears to be skyrocketing. In California, childhood autism rose over 200% between 1987 and 1998 [9]. Asthma affects over 2 million people, and over 14% of New Yorkers over their lifetime, and is the primary cause of school absenteeism, which contributes to the national financial burden of $16.1 billion dollars per year due to asthma-related direct costs [10].

Policy Gaps Exist and Action is Needed: To better inform policy discussions surrounding the siting of schools, a survey of the laws, regulations and policies related to the siting of schools on or near sources of pollution in fifty states was conducted by Steve Fischbach at the Rhode Island Legal Services [11], which grew out of a lawsuit challenging the siting of an elementary and middle school on top of the former Providence City Dump. The results of the survey show a pressing need for the adoption of policies to prevent the siting of public schools on sites where children may be exposed to unhealthy levels of hazardous substances or pollution. Below is a short summary of what was found:

- Only five states prohibit or severely restrict siting schools on or near hazardous or toxic waste sites. Another nine states have policies that prohibit outright the siting of schools on or near sources of pollution or other hazards that pose a risk to children's safety.
- Twenty-four states have no policies that require sponsors of new school projects to investigate or assess environmental hazards at potential school sites.
- Only five state have policies that specifically require sponsors of new school projects to undertake remediation or cleanup measures at contaminated school sites. In the other

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[5] *American Cancer Society (ACS) (2005)* Cancer Facts and Figures *2005, Atlanta, GA.*

[6] *Goldman, L. R., Genel, M., Bezman, R.J., and Slanetz, P.J. (1998) "Diagnosis and treatment of attention deficit disorder in children and adolescents"* Journal of the American Medical Association *279 (14): 1100-1107.*

[7] *Greater Boston Physicians for Social Responsibility (GBPSR) (2000) I*n Harm's Way: Toxic Threats to Child Development*, Greater Boston Physicians for Social Responsibility, Cambridge, MA, May.*

[8] *U.S. Department of Education (USDE) (2004) "Special Education: Grants to States." Available at http://www.ed.gov/programs/osepgts/funding.html.*

[9] *California Health and Human Services Agency (CHHS) (1999)* Changes in the Population of Persons with Autism and Pervasive Developmental Disorders in California's Developmental Services System: 1987 through 1998, A Report to the Legislature*, CHHSA, Department of Developmental Services, Sacramento, CA, March.*

[10] *American Lung Association (2005)* Trends in Asthma Morbidity and Mortality*, ALA Epidemiology & Statistics Unit, January.*

[11] *Fischbach, Steve (2006)* Not in the Schoolyard: Avoiding Environmental Hazards at School Through Improved School Site Selection Policies*, Rhode Island Legal Services*

forty-five states, contaminated school sites may be subject to cleanup requirements under state hazardous waste laws or other authority applicable to any contaminated site. The policies reported in this section specifically relate to contaminated sites used for new school construction projects.

- Twenty-one states have school siting policies that direct or suggest school siting officials "avoid" siting schools on or near specified man-made or natural environmental hazards, or direct the school district to 'consider' those hazards when selecting school sites. Fifteen of these states have adopted siting policies that direct school districts to either consider the proximity of sources of pollution when selecting sites or to avoid siting schools near those sources. Eight of these state have vaguely worded directive relating to environmental factors or safety of a proposed site, which provides little guidance to school officials on how to safely site schools.
- Twenty states have no policies of any kind affecting the siting of schools in relation to environmental hazards, the cleanup of contaminated sites, making information available to the public about potential school sites or providing some role for members of the public in the school siting process.
- Only seventeen states require the sponsors of school projects to solicit public input on school sites through the use of public notice and comment policies; limited notice and comment afforded to particular agencies or constituencies; school siting advisory committees; and vaguely worded directives that encourage public participation. Formal mechanisms for public input in school-siting decision making add a layer of accountability over those bodies vested with siting authority, to ensure those bodies give proper consideration to environmental hazards.
- Of the thirty states that have some policy regulating the siting of school in relation to sources of man-made or natural environmental hazards, in twenty state the policy is administered solely by the state education agency; in eight the policy is administered by the state education agency and another agency, usually the state environmental agency or health department; in one state, by the state health department and in one state, by local officials.

Additional CHEJ Resources

The ABC's of Healthy Schools
Creating Safe Learning Zones
Poisoned Schools: Invisible Threats, Visible Actions
Building Safe Schools: Invisible Threats, Visible Actions
Model School Siting Legislation
Fight to Win Leadership Handbook
How to Win Public Hearings

Chapter 3
CHEJ Model School Siting Policy

Exercising precaution in the siting of educational facilities will prevent future financial losses in terms of decreased student IQ's, increases in injuries and illnesses among children and employees, and increased potential for lawsuits costing facilities much needed education dollars.

This policy was developed by the Center for Health, Environment, and Justice (CHEJ) in collaboration with school, health, and environmental organizations, engineers and health professionals. This model draws upon a site assessment process developed by the California Department of Toxic Substances Control (CDTSC) to evaluate potential contamination at proposed school sites and cleanup criteria developed by the New York State Department of Environmental Conservation (NYDEC).

The original evaluation process was developed by CHEJ's Childproofing Our Communities Campaign and published in the campaign's *Poisoned Schools Invisible Threats, Visible Actions* report in 2001. This model policy can be tailored for individual state or local legislation. It is our expectation that the model will be used at various levels of government to begin the discussion of the need for such laws, laying the groundwork for protective laws in the near future.

1. Ensure Meaningful Public Participation in School Siting Decisions

The Public Body responsible for siting new schools is usually the local school board or a school committee. State law must require the "Public Body" (used throughout this section to mean the local school board or school district committee) to establish a school siting committee, whose job it is to recommend to the Public Body sites for building new schools, leasing space for new schools, and/or expanding existing schools. The committee shall include representatives of the Public Body as well as representatives from the following stakeholders: parents (particularly those from the schools that will comprise the new school's population), teachers, school health nurse or director, officials from local health departments, community members, local public health professionals, environmental advocacy groups, and age-appropriate students. The Public Body shall also establish a web site for the School Siting Committee, where information about candidate school sites

is posted, including notices of environmental evaluations required under this model legislation, public and agency comments received on those evaluations, and key correspondence of the Public Body regarding candidate sites.

Many states already require school districts to form School Facility Planning Committees, which could also serve as a School Siting Committee. Only public bodies that have appointed School Siting Committees representing such stakeholders should be eligible to receive federal or state money for the assessment, and cleanup of school sites, or the construction of a new school. State law must also require the Public Body to notify parents, school staff, members of the local community, and parents from the "feeder" schools to the new school of the plan to build, lease space for, a new school and to solicit their participation in writing and at public meetings. This outreach effort should include prominent placement of public notices about the proposed plan in commonly read local newspapers and other publications, as well as the web site of the School Siting Committee. A notice should also be posted in a conspicuous place in every school (in multiple languages if there are a significant number of non-English speaking parents). A copy should also be delivered to each parent-teacher organization within the jurisdiction, each labor union covered by a collective bargaining agreement, and each landowner within 1,000 feet of the proposed site.

Public participation is an essential element in the environmental evaluation and remediation of candidate school sites. The process, outlined in Section 3, contains additional public participation requirements that public bodies must follow when considering school sites that may be impacted by pollution.

2. Categorical Exclusions for Candidate Sites

Candidate sites for new school facilities (whether by new construction or leasing) shall exclude from consideration sites which are on top of or within 1,000 feet of a state or federal Superfund or Brownfield site, or a site where hazardous or garbage waste was land filled, or where disposal of construction and demolition materials were disposed of.

To determine whether a candidate school site has been used for these waste disposal purposes, an Initial Environmental Assessment should be undertaken, and, if necessary, a more extensive Preliminary Endangerment Assessment (see discussion below) shall be done. If either evaluation reveals that the site has been used for these purposes, or if the site is within 1,000 feet of any property used for these purposes, the site must be abandoned. For other sites impacted by on-site or off-site sources of environmental pollution, extreme care must be taken before such sites can be used for schools (see next section).

3. Evaluating Candidate Sites

Overview

To ensure that the Public Body selects school sites that do not present dangers to the health of students, teachers and school workers, CHEJ developed a process that ensures that candidate school sites are thoroughly investigated, evaluated and where necessary, cleaned up. The Public Body shall not proceed to acquire a site (purchase or leasing) or to prepare a site for construction of a school (including expansions), until the Public Body completes the required environmental investigations and evaluations and the state environmental regulatory agency has approved each of them. The process for evaluating candidate sites where a school might be built involves multiples steps.

The first step is an **Initial Environmental Assessment (IEA)**, often referred to as a "Phase I Assessment." Based on the information found during this initial assessment, a more extensive investigation, a **Preliminary Endangerment Assessment (PEA)**, may be required. This second step is often referred to as a "Phase II Assessment." The IEA and PEA proposed in this document are more comprehensive than those performed for typical Phase I and Phase II assessments, thus the use of different terminology.

The third step involves the Public Body making a decision on whether or not to proceed with building a school on a contaminated site. That decision should be based on a review of information gathered in steps 1 and 2, particularly evaluating contamination levels found during the PEA.

- The PEA might indicate that a proposed site is not contaminated and the site can be safely used for school purposes.
- The PEA may indicate that there is minor contamination at the site that needs to be cleaned up so the site can be used for a school.
- The PEA may reveal that the site contains amounts of contaminants at high enough levels that the Public Body should abandon the site.

If the Public Body decides to proceed with constructing a school on a contaminated site, a Site Remediation Plan needs to be developed by the Public Body with input from the public and approval by the state environmental agency. In any event, no school shall be built on any portion of a larger contaminated site unless the whole site is safely remediated.

Some sites that are abandoned due to the presence of substantial contamination identified by the PEA may be reconsidered as a "*Last Resort Site*" if the Public Body genuinely has no other choice of sites. Remediation measures for addressing Last Resort Sites are discussed in detail later in this chapter. This situation might occur in an urban setting where available sites are limited because of existing development. These sites should **only** be considered as a last resort, after all other candidate sites have been evaluated and eliminated (at least two other sites must be considered) and if specific remediation measures to clean up the site are used. Each step in this process is described in more detail below.

Step 1 - Initial Environmental Assessment
Once a candidate site is identified, the Public Body must hire a licensed environmental professional (typically a professional engineer or geologist, or an environmental health scientist with an engineering background) to conduct a three part Initial Environmental Assessment (IEA). The professional who conducts the IEA shall collect information on current and past site uses, evaluate past and/or existing site contamination, and identify potential sources of pollution located nearby and evaluate whether they might impact the candidate site. The purpose of the initial assessment is to determine whether a proposed site falls under the categorical exclusion for former waste disposal or landfill site and to determine whether the site was likely contaminated by hazardous substances and, thus, requires a more thorough investigation, referred to as a Preliminary Endangerment Assessment (PEA).

- **Part I of IEA: Research and Review the Site's History**
  An IEA starts with a review of public and private records of current and past land uses, historical aerial photographs,

environmental databases, and federal, state and local regulatory agencies' files. In addition, it includes a site visit and interviews with people familiar with the site's history, including past and present owners.

- **Part II of IEA: Identify Potential Environmental Hazards**
  The IEA identifies any of the following potential sources of contamination within two miles of the candidate site:
  - Any known or suspected hazardous, industrial, or municipal waste disposal site
  - Any private, commercial, industrial, military, or government facility where toxic chemicals were used, stored or disposed of
  - Refineries, mines, scrap yards, factories, dry cleaning facilities or sites where there have been chemical spills or other significant contamination
  - US EPA or state designated Brownfield site (even if remediated)
  - Facilities found on EPA's Toxic Release Inventory (TRI)
  - Agricultural land where pesticides and herbicides have been applied
  - Dust generators such as fertilizer or cement plants, or saw mills
  - Leaked gasoline or other products from underground storage tanks
  - Concentrated electrical magnetic fields from high intensity power lines and cellular communication towers
  - Areas of high concentrations of vehicular traffic such as freeways or highways
  - Railroad yards and beds
  - Wastewater treatment plants.

  If a candidate site was previously used for hazardous or garbage waste disposal, or for disposal of construction and demolition materials, or if it is within 1,000 feet of any property used for these purposes, the site would be abandoned.

  If a candidate site is within 1,000 feet of any potential source of contamination including those listed above, a more extensive site assessment, the PEA, must be conducted. A PEA shall also be required if any data or information collected in the Initial Environmental Assessment reveal that the site, or any portion of the site, is subject to serious hazardous chemical exposures as a result of the past or current presence of any of the above sources.

- **Part III of IEA: Render Professional Judgment About Whether to Conduct a Preliminary Endangerment Assessment (PEA)**
  If a PEA is not otherwise required as stated above, then all the IEA data and information identified and collected will be fully assessed. Such information might include test results from samples collected from soil, soil gases, surface water, groundwater, sediment and ambient air. Other factors that could affect candidate sites include the direction of surface or groundwater flow, wind direction and patterns, and contaminant transport processes identified in soil or sediment at the site. This evaluation shall be conducted by a licensed environmental professional (typically a professional engineer or geologist, or an environmental health scientist with an engineering background) who will use professional judgment to decide if a PEA is warranted for a candidate site. For example, a candidate site that is located downwind from stationary or mobile sources of air pollution that could impact children attending school at a candidate site might warrant a PEA in the judgment of an environmental professional.

If existing contamination is discovered as a result of previous sampling conducted at the site, the levels found should be compared to the Brownfield Cleanup Program soil cleanup standards for unrestricted use developed by the New York State Department of Environmental Conservation (See Appendix and Remedial Program Soil Cleanup Objectives, 6 NYCRR Subpart 375.6.3 in Table 375-6.8(a) at http://www.dec.ny.gov/regs/15507.html#15513. [1]

If contaminant levels exceed any of these values, a more extensive site assessment, a PEA, must be conducted. If any portion of a candidate site is contaminated, then the entire site must undergo a PEA.

The state environmental regulatory agency must review the final draft of the Initial Environmental Assessment. Depending on the thoroughness of the assessment, the state agency shall give preliminary approval to the assessment, disapprove the assessment, or request more information.

When the final draft of the IEA assessment is complete and has received preliminary approval by the state environmental regulatory agency, the Public Body shall publish a notice in newspapers of general circulation (including foreign language newspapers if the school district has a sizable number of non-English speaking parents) and create a website where this notice is posted and includes the following information:

- A statement that an Initial Environmental Assessment has been completed
- Prior uses of the site that were identified that might raise health and safety issues
- Proximity of the site to environmental hazards (waste disposal sites, point sources of air pollution, etc.)
- A brief statement describing the results of the assessment such as a list of contaminants found in excess of regulatory standards
- A brief summary of the conclusions of the assessment; the location where people can review a copy of the assessment or an executive summary written in the appropriate foreign language (if applicable)
- An announcement of a sixty-day public comment period including an address where public comments should be sent.

A copy of this notice shall be posted in a conspicuous place in every school within the Public Body's jurisdiction (in multiple languages if there are a significant number of non-English speaking parents). A copy shall also be delivered to each parent-teacher organization within the jurisdiction, each labor union covered by a collective bargaining agreement signed by the Public Body, and each landowner within 1,000 feet of the proposed site.

The state environmental regulatory agency will review all comments

[1] *New York State Department of Environmental Conservation (NYSDEC) (2006) Brownfield Remedial Program Soil Cleanup Objectives for Unrestricted Use in State Regulations 6 NYCRR Subpart 375.6.3 in Table 375-6.8(a). NYSDEC, Division of Environmental Remediation, December 14, 2006.*

received on the Initial Environmental Assessment. This agency will then accept or reject the conclusion of the assessment, determine whether the site can be used without further remediation or study, whether the site is categorically excluded for use as a school, or whether further study (i.e., a Preliminary Endangerment Assessment) is required. The state environmental agency shall explain in detail the reasons for accepting or rejecting the assessment.

After the state environmental agency has approved the Initial Environmental Assessment, the local School Siting Committee must also review the assessment and public comments received. The purpose of this review is for the School Siting Committee to make a recommendation to either abandon the site or continue evaluating the impact of environmental hazards at the site with a Preliminary Endangerment Assessment. If no environmental hazards were identified on the property, if no identified sources of pollution located nearby were considered likely to impact the candidate site, and if no concerns were raised during the data and information evaluation step, then the property would be considered suitable for school site development.

If a PEA is required, the School Siting Committee should recommend to the Public Body whether to abandon the site or proceed with a PEA. Alternative sites and options should be considered at this point. An IEA should be completed for any alternative site being considered. Then, the Public Body must vote whether to abandon the site originally investigated, conduct an IEA for the alternative sites, or proceed with a PEA for the candidate site.

Step 2 - Preliminary Endangerment Assessment (PEA)

A Preliminary Endangerment Assessment (PEA) is an in-depth assessment of the environmental contamination present at a site. A licensed environmental professional must do this assessment. As with the IEA, this will typically be a professional engineer or geologist, or an environmental health scientist with an engineering background. The state environmental regulatory agency shall oversee the PEA process and issue regulations that prescribe the precise contents of the PEA.

A model for such regulations can be found in California, where the assessment must meet the California Department of Toxic Substances Control Preliminary Environmental Assessment Guidance Manual requirements. [2] The PEA must also be approved by the state environmental regulatory agency before the Public Body may acquire or lease a proposed site for school purposes or start construction of a school.

The Public Body must perform a Preliminary Endangerment Assessment if the results of the Initial Environmental Assessment indicate one or more of the following:

- The proposed site is likely to have been contaminated by hazardous substances as a

[2] *California Health and Human Services Agency (CHHS) (1999)* Changes in the Population of Persons with Autism and Pervasive Developmental Disorders in California's Developmental Services System: 1987 through 1998, A Report to the Legislature*, CHHSA, Department of Developmental Services, Sacramento, CA, March.*

result of the past or current use of the site or adjoining properties

- The proposed school site was found to be within 1,000 feet of any of the potential sources of contamination listed above (Step 1, Part II)
- The proposed school site was likely to be impacted by potential sources of contamination that are more than 1,000 feet away, based on the professional judgment of a licensed environmental professional

Before any work is done on the PEA, the Public Body must develop a public participation plan that ensures public and community involvement in the PEA process. The plan shall indicate what mechanisms the Public Body will use to establish open lines of communication with the public about the potential construction of a school on a candidate site. Activities such as public meetings, workshops, fact-sheets, and websites are all appropriate ways to notify the public about the proposed PEA investigation activities, such as taking soil, groundwater or air samples, holding public meetings, a comment period and releasing the results of the PEA. The state environmental regulatory agency must approve the public participation plan before the Public Body can begin PEA-related activities.

The primary objective of the PEA is to determine if there has been a release or if there is a potential for a release of a hazardous substance that could pose a health threat to children, staff, or community members. The PEA will include full-scale grid sampling and analysis of soil, soil gases (if any), surface water, groundwater, sediment, and air in order to accurately define the type and extent of hazardous material contamination present on the candidate site.

Before any sampling is conducted as part of the PEA, a work plan must be prepared that defines the goals of the sampling; the rationale for the sampling strategy including the number and location of sampling sites and what substances to test for; the sampling methods and procedures that will be used and the analytical methods and procedures.

The public will be involved in the development of the work plan and be given the opportunity to review the final draft and prepare comments. The work plan will be approved by the state environmental regulatory agency.

The PEA will also include an evaluation of the risks posed to children's health, public health, or the environment based on the contamination found. This evaluation shall include:

- A description of all possible pathways of exposure to those substances by children as well as adults using a school on the candidate site
- The identification of which pathways will more likely result in children being exposed to those substances
- A description of health consequences of long-term exposure to any hazardous substances found on the site

The state environmental regulatory agency must review the final draft of the PEA. Depending on the thoroughness of the assessment, the state agency must give preliminary approval to the assessment, disapprove the assessment, or request more information.

When the final draft of the PEA is completed and has received preliminary approval by the state environmental regulatory agency, the Public Body shall publish a notice in newspapers of general circulation

(including foreign language newspapers if the school district has a sizable number of non-English speaking parents) and create a website where this notice is posted, and includes the same information released for the Initial Environmental Assessment:

- A statement that a PEA of the site has been completed
- A brief statement describing the results of the PEA, such as a list of contaminants found in excess of regulatory standards, prior uses of the site that might raise health and safety issues, the proximity of site to environmental hazards (waste disposal sites, point sources of air pollution, etc.)
- A brief summary of the conclusions of the PEA
- The location where people can review a copy of the PEA or an executive summary written in the appropriate local language(s)
- An announcement of a sixty-day public comment period, including an address where public comments should be sent.

As described for the IEA, a copy of this notice shall be posted in a conspicuous place in every school within the Public Body's jurisdiction (in multiple languages if there are a significant number of non-English speaking parents). A copy shall also be delivered to each parent-teacher organization within the jurisdiction, each labor union covered by a collective bargaining agreement signed by the Public Body, and each landowner within 1,000 feet of the proposed site.

The state environmental regulatory agency will review all comments received on the PEA. The state environmental agency shall then either accept or reject the conclusion of the PEA, determine whether the candidate site can be used without further remediation or study, whether the site is categorically excluded for use as a school, or whether a Site Remediation Plan is required. The state environmental agency shall explain in detail the reasons for accepting or rejecting the PEA.

Step 3 - Decide Whether to Clean Up or Abandon a Contaminated Site

After the state environmental agency has approved the PEA, the local School Siting Committee must also review the assessment and public comments received. The purpose of this review is for the School Siting Committee to make a recommendation to either abandon the site or consider remediation. Alternative sites and options should be considered at this point. Then, the Public Body must vote whether to abandon the site, consider an alternative site or option, or proceed with a remediation plan.

To help decide whether to abandon a site or proceed with cleanup of a contaminated site, the Public Body should carefully evaluate the levels of contamination found on the site in the PEA and pay close attention to how widely dispersed contaminants are across the site (both laterally and depth-wise).

The Public Body shall use the Brownfield Cleanup Program soil cleanup standards for unrestricted use developed by the New York State Department of Environmental Conservation. Calculated values for the protection of public health, groundwater and ecological resources were considered in developing these unrestricted use soil cleanup standards for Brownfield and other contaminated sites in the state. A complete listing of all 85 soil standards can be found in the Appendix or at: http://www.dec.ny.gov/regs/15507.html#15513.

The results of soil samples collected during the PEA should be specifically compared to the NYS Brownfield Soil Cleanup Objectives for Unrestricted Use (See Appendix). If these or

other results from the PEA sampling effort indicate that some contamination of the candidate site exists, and that some minor cleanup will be needed, then the PEA will provide recommendations on cleanup levels that are at least as stringent as the NYS Brownfield Soil Cleanup Objectives. A Site Remediation Plan (see Step 4 below) shall be developed to reduce contaminant levels to the applicable safety standard for each contaminant before the site could be used.

If the PEA indicates that the site has substantial contamination, the Public Body must abandon the site and consider alternative sites. At this time, specific criteria for defining when a site has a substantial contamination problem is not included. Information in the PEA, such as the types of contaminants found on the site, whether the levels of contamination exceed the NYS Brownfield Program soil cleanup standards and the number of locations on the site where contaminants were found should help inform this determination. Additionally, the health effects of the contaminants found on the site and the age of students that will use the site should be additional considerations in making this decision.

The Public Body may choose to consider alternative sites at this point. At least two other sites must be considered. At a minimum, an Initial Environmental Assessment (IEA) should be completed for any alternative site being considered. If, however, no alternative sites to a substantially contaminated site exist, the Public Body could reconsider this site by agreeing to adopt the Last Resort remediation measures outlined in Step 5 below. These engineering measures are intended to reduce risk to the maximum extent by cutting off all potential routes of exposure. Adopting these measures at a candidate site should only be considered as a last resort, after all other potential sites have been evaluated, and eliminated and if the specific remediation guidelines outlined in Step 4 below are followed. The Public Body has no choice but to abandon the candidate site if the PEA reveals that the site was previously used for hazardous or garbage waste disposal,for disposal of construction and demolition materials, or is within 1,000 feet of any property used for these purposes.

Step 4 – Develop a Cleanup Plan for Contaminated Site

If the Public Body decides to proceed with the cleanup of a contaminated site, a Site Remediation Plan must be developed. This plan must:

- Identify methods for cleaning up the entire site to contaminant levels that meet the New York State Brownfield Cleanup Program unrestricted use soil standards
- Contain a financial analysis that compares estimated costs for the identified cleanup methods that will bring the site into compliance with applicable safety standards
- Recommend a cleanup plan from the alternatives identified
- Explain how the recommended cleanup option will prevent children from being exposed to the hazardous substances found at the site
- Evaluate the suitability of the site in light of available alternative sites and alternative cleanup plans.

Remediation Goals and Objectives

For any site where the PEA requires remediation, the following cleanup goals will need to be achieved:

- Cut off and eliminate all exposure

pathways. This will prevent people from coming into contact with contaminated soil and with contaminants present in the soil, water, or air.
- Avoid mixing clean and contaminated soil. A multi-layered engineered barrier must be part of any effort to achieve this goal (see Step 5).
- Include as much redundancy as possible in the remedial work plan in order to eliminate or cut off the exposure pathways. This approach compensates for uncertainties in information about the site.
- Establish a plan to monitor the on-going integrity of the cleanup efforts.

Site Characterization and Identification of Exposure Hazards

In order to achieve these goals, the preliminary Endangerment Assessment (PEA) must properly characterize the site and identify all existing and potential exposure pathways. Exposure pathways show how contaminants move through a medium such as groundwater, and from one medium to another, such as occurs when volatile organic compounds (VOCs) evaporate from soil into the air. Unless the site is completely characterized, it will not be possible to identify all the exposure pathways.

The PEA must include sufficient testing of all media – soil, groundwater, surface water, and air – across the site to be reasonably confident that you have an accurate assessment of the extent and severity of the contamination existing at the site. This testing must be done using a grid or similarly consistent pattern for determining sample locations as described in the discussion of the PEA (see Step 2).

For any site where the PEA requires remediation, cleanup levels will be at least as stringent as the NYS Brownfield Program unrestricted use soil cleanup standards. Soil with contaminant levels that exceed these guidelines must be completely removed to a depth below which there is no anticipated excavation at any time in the future.

The PEA must also determine the highest seasonal level of the groundwater table and incorporate remedial measures that take this factor must be taken into consideration as part of the Site Remediation Plan. This will ensure that if groundwater levels at a candidate site rise at any time during the year to a level that is above any proposed barrier or other underground remedial measure that would be installed at the site, it will be addressed as part of the Site Remediation Plan.

The Site Remediation Plan should also provide requirements for the final site sampling to be conducted after the cleanup has been completed to ensure that all the contamination has been removed and the soil meets the NYS Brownfield soil cleanup standards.

Site Remediation Plan

The Public Body shall submit the Site Remediation Plan to the state environmental regulatory agency for approval. Before submitting this plan, a draft remediation plan shall be given to the School Siting Committee for review and comment. If the agency has a Technical Assistance Grant program, the Committee should be encouraged to obtain a grant so they may hire a technical consultant to review the plan and ensure that it meets public health protection goals. Once the remediation plan is submitted

to the state agency for approval, the Public Body shall proceed with a public notification and outreach plan similar to that conducted for the Initial Environmental Assessment and the Preliminary Endangerment Assessment. This will include publishing a notice in newspapers of general circulation (including foreign language newspapers if the school district has a sizable number of non-English speaking parents) and creating a website where this notice is posted that includes the following information:

- A statement that a Site Remediation Plan has been submitted to the state environmental agency for approval
- A brief statement describing the Site Remediation Plan, including a list of contaminants found in excess of regulatory standards and a description of how the plan will reduce the level of contamination to meet those regulatory standards
- The location where people can review a copy of the Remediation Plan or an executive summary written in the appropriate local language(s)
- An announcement of a sixty-day public comment period and the address of the state environmental agency where public comments should be sent.

A copy of this notice shall be posted in a conspicuous place in every school within the Public Body's jurisdiction (in multiple languages if there are a signifi cant number of non-English speaking parents). A copy shall also be delivered to each parent-teacher organization within the jurisdiction, to each labor union covered by a collective bargaining agreement signed by the Public Body, and each landowner within 1,000 feet of the proposed site.

At least thirty days after the conclusion of the public comment period the state environmental regulatory agency shall conduct a public hearing on the remediation plan in the neighborhood or jurisdiction where the candidate site is located.

The state environmental agency shall publish a notice of the hearing in newspapers of general circulation (including foreign language newspapers if the school district has a sizable number of non-English speaking parents) and post this notice on their website stating the date, time and location of the hearing. The state environmental regulatory agency shall provide translators at the public hearing if the school district has a sizable number of non-English speaking parents.

After the public hearing and after reviewing any comments received during the public comment period, the state environmental regulatory agency shall either approve the Site Remediation Plan, disapprove the Site Remediation Plan, or request additional information from the Public Body. If the state agency requires additional information, a copy of the letter requesting additional information shall be sent to the School Siting Committee. Any additional information submitted by the Public Body to the state environmental regulatory agency shall also be given to the School Siting Committee. After reviewing any additional information, the state environmental regulatory agency

must approve or reject the Site Remediation Plan. The state environmental agency shall explain in detail the reasons for accepting or rejecting the Site Remediation Plan.

After the state environmental regulatory agency approves the Site Remediation Plan, the local School Siting Committee must also review the plan and recommend to the Public Body whether to abandon the candidate site or proceed with acquiring the site and implementing the remediation plan. Alternative sites or options should be considered at this point. The Public Body must then vote whether to abandon the site or to acquire the site and implement the remediation plan. Only upon voting to acquire the site and implement the remediation plan may the Public Body take any action to acquire the site and prepare the site for remediation and eventually construction of a school.

Prior to the onset of any school construction on the candidate site, the remediation effort must be completed, including demonstration that the cleanup goals have been achieved. This will be verified by a final sampling effort in accordance with the guidelines established in the PEA, though perhaps modified by the Remediation Plan. Documentation regarding the implementation of the plan and all final sampling results will be subject to review by the state environmental agency who may require additional sampling and/or remediation efforts as they deem appropriate. Any modifications to the Remediation Plan will also have to go through the appropriate public review processes. Only after the state has agreed that remediation is complete may any school construction begin.

Step 5 - The Last Resort – Develop a Cleanup Plan with Engineering and Institutional Controls for a Last Resort Site that is Highly Contaminated

There are times when the Public Body may be forced to reconsider a site that would have been abandoned during the Preliminary Environmental Assessment (PEA) process because of the presence of substantial contamination. This situation might occur in an urban setting where the number of undeveloped sites is limited because of existing development. There may be other times when the Public Body will be left with no other choice of sites. These sites should only be considered as a last resort after all other potential sites have been evaluated and eliminated. A minimum of two other sites must be considered before a Last Resort site would be considered.

In these situations, extra precautions need to be taken to ensure to the maximum extent possible that students, teachers, parents, administrative staff or workers will not be at risk from exposure to toxic chemicals. These precautions include a number of redundant cleanup measures and engineering controls that go beyond meeting standard requirements. This redundancy is needed to provide the necessary level of safety and public confidence to permit the construction and operation of a school on a contaminated site.

Remediation Goals and Objectives

The Remediation Goals and Objectives for a Last Resort Site are the same as those described in Step 4. Achieving these goals will identify potential exposure pathways and to eliminate to the maximum extent possible exposure of any users of the site to toxic chemicals. These steps would be taken at a site that would have been abandoned during the PEA site evaluation and was not categorically excluded from consideration, such as a site located on top of, or within 1,000 feet of land where

hazardous or household garbage waste was landfilled, or where disposal of construction and demolition materials occurred.

- Fully cut off and eliminate all exposure pathways. This will prevent people from coming into contact with contaminated soil and with contaminants present in the soil, water, or air
- Prevent mixing of clean and contaminated soil. A multi-layered engineered barrier must be part of any effort to achieve this goal
- Include as much redundancy as possible into the remedial work plan, in order to eliminate or cut off the exposure pathways. This approach compensates for uncertainties in information about the site and will minimize risks associated with building on a contaminated site
- Establish an on-going monitoring plan to monitor the integrity of the cleanup efforts

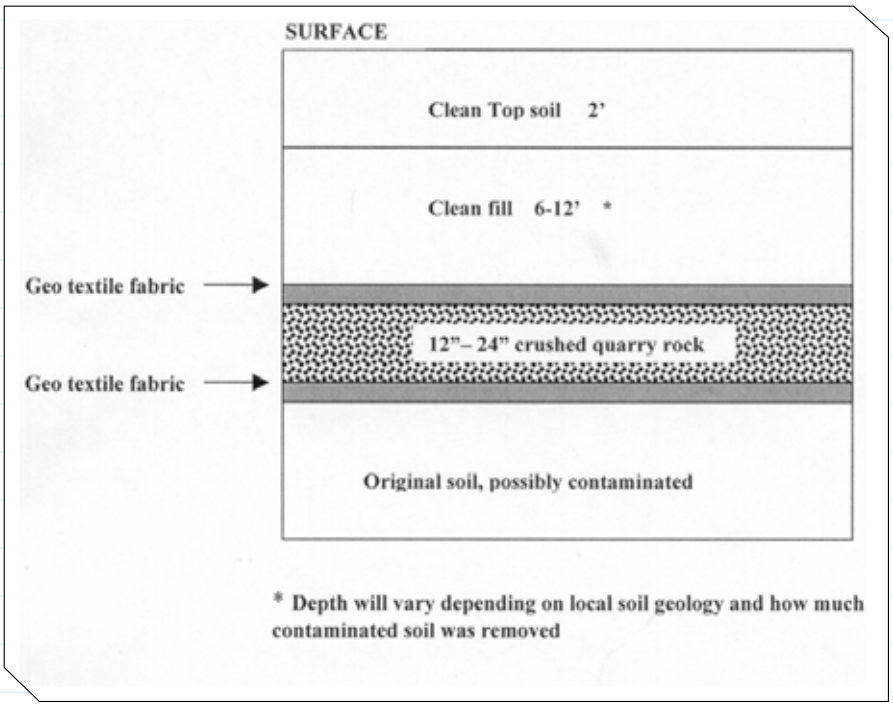
Properly Characterize the Site and Identify Exposure Hazards

- The site must be completely characterized. There must be sufficient testing of all media – soil, groundwater, surface water, and air – across the site to be reasonably confident that you have an accurate assessment of the extent and severity of the contamination existing at the site. This testing must be done using a grid or similarly consistent pattern for determining sample locations. An evaluation consistent with a Preliminary Endangerment Assessment (PEA) would be appropriate (see Step 2).
- Identify all existing and potential exposure pathways. Exposure pathways describe the ways that people who use a site might come into contact with toxic substances at the site. They also show how those substances move through a medium such as groundwater, and from one medium to another, such as occurs, when volatile organic compounds (VOCs) evaporate from soil into the air. Unless the site is completely characterized, it will not be possible to identify all the exposure pathways.
- Identify all areas that exceed the NYS Brownfield Soil Cleanup Objectives for Unrestricted Use. The testing done at the site should identify all contaminants present in soil and other media. Soil with contaminant levels that exceed the NYS Soil Cleanup Objectives, as described in the Appendix, must be completely removed to a depth below which there is no anticipated excavation (see Figure 1).
- Determine the highest seasonal level of the groundwater table. Evaluate whether the groundwater at a candidate site rises at any time during the year to a level that is above any proposed barrier or other underground remedial measure that would be installed at the site. If this occurs, then this factor must be taken into consideration as part of the Site Remediation Plan.

Required Remediation Steps

- **Remove all contaminated soil on the proposed site that exceeds the NYS Brownfield Soil Cleanup Objectives up to the "excavation depth."** Soil containing levels of contaminants in

Figure. 1



excess of these standards must be removed to at least a depth below which there is no anticipated excavation, such as might result from the installation of utility lines and connections, or con struction of footers to support a building. This is referred to as the "excavation depth" and might reasonably range from 8 to 14 feet, depending on local site geology. The Site Remediation Plan must include provisions for covering any residual soil contamination with clean topsoil and fill (see Figure 1).

- **Install a multi-layered barrier over any contaminated soil left in place at the site.** This multi-layered barrier will separate clean soil from any residual contamination left in place. Starting at the surface and moving downward, this barrier shall consist of the following layers (see Figure 1). First, there is a minimum of 2 feet of certifiably clean topsoil. Second, is a layer of 6-12 feet of certified clean fill to replace contaminated soil removed to the excavation depth (this depth will vary depending on how much contaminated soil was removed). Third, is a layer of 12 to 24 inches of sharp, angular crushed rock (quarry rock, not crushed cement or some other stone that will disintegrate with high acidity) surrounded on both sides by a brightly colored orange Geotextile fabric (see Figure 1). The cover soil and fill shall be underlain by a continuous layer of an orange-colored geo textile material designed to provide a long-term future warning to others who might disturb or excavate to below this level. This multi-layered barrier will separate clean soil and fill from any residual contamination left in place. This colored fabric serves as a "marker layer" to warn anyone who might dig into the soil that below this marker is contaminated soil. The crushed stone layer provides a "capillary break" that limits the upward

and downward movement of water or leachate. This layer will also prevent burrowing animals and worms from transporting contaminated soil into the clean fill and potentially to the surface.

- **If volatile gases are present in the soil, this can result in soil vapor intrusion**. Vapor intrusion occurs when volatile organic compounds (VOCs) evaporate from contaminated groundwater through soil and into buildings. These gases can be intercepted by the crushed stone layer of the multi-layer barrier and will then need to be captured and vented to ensure that they do not reach buildings on or near the school property. A "chimney" system to capture and vent volatile gases before they enter the school building will be needed if VOCs are detected in the soil or groundwater in excess of the NYS Brownfield Program soil cleanup standards or any guidance values provided in the NYS Department of Health Guidance for Evaluating Soil Vapor Intrusion (See http://www.health.state.ny.us/environmental/investigations/soil_gas/svi_guidance/index.htm).

  In much the same way that venting systems are used to intercept radon gas before it enters a home, a similar venting system with a crushed stone layer and perforated pipes under and around a school building could be installed to intercept any VOCs that Might be present in residual contaminated soil. Solid pipes would then transport the gases up and out of the school building. A filter may well have to be installed to capture these toxic gases rather than release them directly into the ambient air. This system may not always be necessary and could be considered in addition to a multi-layer barrier, based on sampling results. Similarly, if methane gases are present in the soil, these gases will need to be vented and captured, and a methane gas extraction technology may need to be installed to ensure that these gases do not reach buildings on or near the school property.
- **Construct a two-foot concrete slab built on top of a polyethylene vapor barrier if a new foundation is needed for a school building built on contaminated soil**. The plastic vapor barrier will provide another means to reduce vapor infiltration from soil under the building.

Institutional Controls and Monitoring
Institutional controls should be implemented to provide notice and information for future users of the school, or in the event future users of the site ever tear down the building. They should include notice of where the residual contamination is located, what contaminants are present, and how to monitor the integrity of barriers or other steps taken to prevent exposures at a site. These procedures are needed because contaminated soil remains at the site below the engineered multi-layered barrier.

- Install a metal or stone plaque in the school lobby or other prominent place that includes a warning in English and any other language appropriate for the school community that describes the contamination beneath the school and/or school property and directs the readers to

the "Due Care Plan." Ideally, the lettering should be raised or cut into the metal.

- Prepare a "Due Care Plan" that includes a history of the uses at the site, a summary of the environmental evaluation, a summary of the remedial work done at the site, and a list of the steps needed to maintain monitoring of the site in perpetuity. This Plan would also list activities that are prohibited at the site in order to maintain the integrity of the remedial work completed at the site. The Due Care Pan is to be permanently kept at the school in a location that is accessible to parents.
- Create a position within the school facilities department for a technically knowledgeable worker who will be trained and responsible for environmental oversight of the school and the grounds. This person should provide a report at least annually to the school staff, the School Board, parent groups, central district, and other applicable parties that summarizes the Due Care Plan and includes the results of any environmental monitoring completed in the past year.
- Require training of school personnel responsible for managing the school building and grounds. Such training will cover techniques for monitoring cracks in the foundation and breaches of the topsoil, procedures on how to handle equipment malfunctions or other problems with remedial systems that might occur, and how to serve as a contact for complaints or suggestions about environmental conditions at the school.
- Provide funding for monitoring cracks in the foundation and breaches of the topsoil, repairing and maintaining equipment and remedial system integrity.
- Each year, the school facilities department will hire an environmental professional to conduct tests to assess the presence of contaminants in the soil, soil gas, indoor air, and groundwater on the school grounds. Surface soil will only need to be tested if it were disrupted. The results of the testing must be included in a report prepared by an environmental professional that describes the purpose of the testing, the sample location and collection procedures, and the analytical methods used. This report should be made available to school staff, the School Board, parent groups, the central district, and other interested parties. A brief summary of the report must be translated into foreign languages as appropriate. This information should also be posted online by the regulating agency and the website of the school or Public Body.
- Each year, health complaints among the students and teachers/staff should be monitored. Illnesses such as head aches, lethargy, recurring upper respiratory illness, and asthma should be routinely monitored and if the rate that these illnesses are reported exceeds seasonal averages by 25%, then a more thorough investigation of these illnesses should be conducted.
- If VOCs were identified in the soil or groundwater, install soil gas and groundwater monitoring wells around the proposed school building and develop a long term monitoring plan designed to detect VOCs or other gases that move through the soil and sub surface. The gas wells should be installed under the building or as close to the building as is feasible if the structure already exists. Samples should be taken from the wells and analyzed

for a full range of VOCs every 6 months following completion of the remedial work and construction of the school building. Testing could continue annually if no VOCs are found in the first year following construction. If VOCs are detected in the soil or groundwater in excess of the NYS soil standards or any guidance values provided in the NYS Department of Health Guidance for Evaluating Soil Vapor Intrusion (See http://www.health.state.ny.us/environmental/investigations/soil_gas/svi_guidance/index.htm), a vapor extraction technology will need to be installed as noted above.

- Consider using radon as a natural tracer as part of the soil gas monitoring plan to evaluate the integrity of a foundation or a cap/barrier installed between clean fill and contaminated soil. Radon gas is found naturally in soil in many areas and can be used as a surrogate for VOCs in evaluating whether VOCs are entering the school building. Radon concentrations would be measured simultaneously in the building and in the soil gas. The ratio of the soil gas concentration to the indoor air concentration repre sents an attenuation factor between soil gas and indoor air that directly measures the rate at which soil gas enters the building. To determine if VOCs are entering the building, the soil gas concentrations of VOCs measured in the soil monitoring wells are divided by the attenuation factor. Soil gas monitoring wells need to be installed under the school or as close to the building as is feasible. Radon detectors should be installed in the soil gas wells and monitored at least every 6 months following completion of the remedial work and construction of the school building. Testing could continue annually if no VOCs are found in the first year following construction.
- No plants or trees that have extensive root systems should be planted on top of the multi-layered barrier. Shrubs whose root systems that don't extend more than a couple of feet down are acceptable, but tap rooted varieties of plants that penetrate deep into the soil are not. Frequent mowing of school grounds will reduce the likelihood that burrowing animals will penetrate the top layer of the engineered barrier.
- If cement is used in the crushed stone layer of the multi-layered barrier, lime the soil above the geotextile layer as often as possible to maintain neutral to basic conditions in the topsoil. This will help to neutralize acid rain before it reaches the crushed stone layer of the multi-layered barrier. Acid rain will hasten the degradation and dissolution of the cement in this layer. This is not necessary if hard quarry rock is used.
- If it is absolutely necessary to dig through an installed multi-layered barrier, such as to install utility lines or connections or to construct footers to support a new building, then the appropriate Occupational Safety and Health Administration (OSHA) safety requirements must be used and any soil removed must be taken off site for proper disposal and be replaced with clean fill. Upon completion of the work, the

multi-layered barrier must be put back in place. Footers should be installed so that they do not penetrate the barrier.

Appendix

New York State Department of Environmental Conservation (NYSDEC)
Brownfield Remedial Program Soil Cleanup Objectives (SCOs) for Unrestricted Use.

Lists contaminant and unrestricted use in parts per million (ppm).

1,1,1-Trichloroethane[f]	0.68	Benzene	0.06
1,1-Dichloroethane[f]	0.27	Benzo(a)pyrene	1[c]
1,1-Dichloroethene[f]	0.33	Benzo(b)fluoranthene[f]	1[c]
1,2,4-Trimethylbenzene[f]	3.6	Benzo(g,h,i)perylene[f]	100
1,2-Dichlorobenzene[f]	1.1	Benzo(k)fluoranthene[f]	0.8[c]
1,2-Dichloroethane	0.02[c]	Beryllium	7.2
1,3,5-Trimethylbenzene[f]	8.4	beta-BHC	0.036
1,3-Dichlorobenzene[f]	2.4	Cadmium	2.5[c]
1,4-Dichlorobenzene	1.8	Carbon tetrachloride[f]	0.76
1,4-Dioxane	0.1[b]	Chlordane (alpha)	0.094
2,4,5-TP Acid (Silvex)[f]	3.8	Chlorobenzene	1.1
4,4'-DDD	0.0033[b]	Chloroform	0.37
4,4'-DDE	0.0033[b]	Chromium, hexavalent[e]	1[b]
4,4'-DDT	0.0033[b]	Chromium, trivalent[e]	30[c]
Acenaphthene	20	Chrysene[f]	1[c]
Acenapthylene[f]	100[a]	cis –1,2-Dichloroethene[f]	0.25
Acetone	0.05	Copper	50
Aldrin	0.005[c]	delta-BHC[g]	0.04
Alpha-BHC	0.02	Dibenz(a,h)anthracene[f]	0.33[b]
Anthracene[f]	100[a]	Dibenzofuran[f]	7
Arsenic	13[c]	Dieldrin	0.005[c]
Barium	350[c]	Endosulfan I[d, f]	2.4
Benz(a)anthracene[f]	1[c]	Endosulfan II[d, f]	2.4

Endosulfan sulfate[d, f]	2.4	p-Cresol[f]	0.33[b]
Endrin	0.014	Pentachlorophenol	0.8[b]
Ethylbenzene[f]	1	Phenanthrene[f]	100
Fluoranthene[f]	100[a]	Phenol	0.33[b]
Fluorene	30	Polychlorinated biphenyls	0.1
Heptachlor	0.042	Pyrene[f]	100
Hexachlorobenzene[f]	0.33[b]	sec-Butylbenzene[f]	11
Indeno(1,2,3-cd)pyrene[f]	0.5[c]	Selenium	3.9[c]
Lead	63[c]	Silver	2
Lindane	0.1	tert-Butylbenzene[f]	5.9
Manganese	1600[c]	Tetrachloroethene	1.3
m-Cresol[f]	0.33[b]	Toluene	0.7
Methyl ethyl ketone	0.12	Total Cyanide[e, f]	27
Methyl tert-butyl ether[f]	0.93	Total Mercury	0.18[c]
Methylene chloride	0.05	Trans-1,2-Dichloroethene[f]	0.19
Naphthalene[f]	12	Trichloroethene	0.47
n-Butylbenzene[f]	12	Vinyl chloride[f]	0.02
Nickel	30	Xylene (mixed)	0.26
n-Propylbenzene[f]	3.9	Zinc	109[c]
o-Cresol[f]	0.33[b]		

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[a] *The SCOs for unrestricted use were capped at a maximum value of 100 ppm. See Technical Support Document (TSD), section 9.3.*

[b] *For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.*

[c] *For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.*

[d] *SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.*

[e] *The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.*

[f] *Protection of ecological resources SCOs were not developed for contaminants identified in Table 375-6.8(b) with "NS". Where such contaminants appear in Table 375-6.8(a), the applicant may be required by the Department to calculate a protection of ecological resources SCO according to the TSD.*

From State Regulations 6 NYCRR Subpart 375.6.3 in Table 375-6.8(a). NYSDEC, Division of Environmental Remediation, December 14, 2006. http://www.dec.ny.gov/regs/15507.html#15513.

Chapter 4
Principles for Safe School Siting

The problem of unsafe school siting was first discovered in 1979 when the Niagara Falls's 99th Street School was found next to the Love Canal toxic dump site containing 20,000 tons of toxic waste.

We call on local, state, and national leaders to adopt safe siting policies in order to prevent children and school staff from the harmful health impacts of exposure to sources of pollution.

The problem of unsafe school siting was first discovered in 1979 when the Niagara Falls's 99th Street School was found next to the Love Canal toxic dump site containing 20,000 tons of toxic waste. The Love Canal crisis served as a warning that government should ensure that our children are attending safe schools and childcare centers. With the average age of our nation's schools reaching 49 years, there is a critical need for both state and national policies on the issue of school siting. The safe siting of schools benefit our children's development while helping to strengthen our local communities.

We, the undersigned, believe action on safer siting of schools is needed for the following reasons.

- **Preventing toxic exposures where schools are located protects entire communities.** Safe siting policies will prevent toxic exposures to children and school staff through reducing their daily exposures to chemicals that can cause cancer, immune system impairments, birth defects, learning disabilities, asthma, and other health problems.
- **Children's developing systems make them more vulnerable to chemical exposure.** During prenatal development, infancy, and adolescence, children are growing and adding new tissue more rapidly than at any other period of life, which makes children are susceptible to environmental chemical influences.
- **Children's bodies are more sensitive than adults.** Children are less able to handle toxic chemical exposures. Children breathe more air and eat more per pound than adults. For example, children absorb about 50% of the lead to which they are exposed, while adults absorb only 10-15%.
- **Natural activities of children leave them more susceptible to chemical exposure.**

A father shows his concern for his children's health in Richmond, Kentucky against the building of a chemical weapons incinerator in his community. credit: The Chemical Weapons Working Group, 2003

Normal school activities heighten children's exposure to the impacts of pollution. After school sports, recess, classes in which children explore the school's site ecosystem, children's natural curiosity, tendency to explore, and inclination to put their hands in their mouths all opens them to high levels of exposure.

- **Exercising precaution in the siting of schools will prevent future Love Canals.** Exercising precaution in the siting of educational facilities will prevent future financial losses in terms of decreased student IQ's, increases in injuries and illnesses among children and employees, and increased potential for lawsuits costing facilities much needed education dollars.

Chapter 5
Sample School Siting Resolution

In April of 2009, University of Iowa released a study that shows children who attend school within 10 -20 miles of known superfund site are almost twice as likely to have autism.

This School Siting Resolution can be passed by a local School District, Parent Teacher Association, Teacher's Union, or any other local or state organization that is interested in taking a stand against the building of schools on or near sources of pollution.

WHEREAS, The problem of unsafe school siting was first discovered in 1979 when the Niagara Falls's 99th Street School was found next to the Love Canal toxic dump site containing 20,000 tons of toxic waste, and this served as a warning that government should ensure that our children are attending safe schools and childcare centers.

WHEREAS, the average American school building is 49 years old. Schools are community anchors. They house and nurture our growing children 6 to 8 hours each weekday. They are meeting places for families, sporting events and extracurricular activities. They employ public workers and are funded by our tax dollars.

WHEREAS, Children are particularly susceptible to chemical exposures and even one-time exposures affect the development of the reproductive, endocrine and respiratory systems; and a child's neurological development and IQ can be stunted from exposures to environmental contamination, threatening the ability of the state and nation to remain competitive in future generations of leaders.

WHEREAS, Children's immature systems are less able to handle toxic chemical exposures. For example, children absorb about 50 % of the lead to which they are exposed, while adults absorb only 10-15%.

WHEREAS, A wide spectra of environmentally linked diseases in children are on the rise, including cancer, learning disabilities, autism, asthma and hyperactive behavior; and asthma, for instance, affects over 23 million people in the United States, and is the primary cause of school absenteeism which contributes to a national financial burden of $16.1 billion dollars per year in direct asthma-related costs.

WHEREAS, Normal school activities heighten children's exposure to site contamination. After school sports, recess, classes in which children explore the school's site ecosystem, children's

natural curiosity, tendency to explore, and inclination to put their hands in their mouths all opens them to high levels of exposure.

WHEREAS, The siting of educational and day care facilities on or near contaminated land imposes long-term costs on the state in terms of decreased student IQ's, increases in injuries and illnesses among children and employees, and increased potential for lawsuits costing facilities much needed education dollars.

WHEREAS, In the 2005 report "Creating Safe Learning Zones: Invisible Threats, Visible Actions " the Center for Health, Environment & Justice found only five states ban the building of schools on a contaminated site and 20 states do not have any regulations on the siting of schools on or near contaminated sites.

WHEREAS, There is growing national concern that schools are increasingly being built on or near contaminated areas, and a December 2008 *USA Today* series used federal data to rank 127,800 schools by level of air pollution, and found "in thousands of cases, the air appeared to be better in the neighborhoods where children lived than at the schools they attended [and] at about 16,500 schools, the air outside the school was at least twice as toxic as the air at a typical location in the school district. At 3,000 of those schools, air outside the buildings was at least 10 times as toxic."

Therefore, be it RESOLVED that the _____ (group name) urge _____ (decision maker or group) to advocate for the a doption of strong and comprehensive school siting guidelines to provide the safest and healthiest places for our children to attend school.

RESOLVED, That the _____ (group name) advocates for federal legislation and regulations to ban the siting of schools on or near contaminated areas.

RESOLVED, That the _____ (group name) will work with state and local school districts to adopt strong and comprehensive school siting guidelines that do not site schools on or near contaminated areas.

RESOLVED, That the _____ (group name) will work with concerned organizations to advocate for the adoption of strong and comprehensive school siting guidelines that prevent the building of schools on or near contaminated areas.

RESOLVED, That the _____(group name) will work with concerned organizations to participate in the public process of choosing safe and healthy sites for new schools in their communities.

Chapter 6
How to Pass a School Siting Policy

In poor communities, often of color, children already suffer disproportionately from asthma, lead poisoning, and developmental disabilities. Constructing schools on contaminated land exacerbates the disproportionate injustices these communities face.

Conduct a Strategic Analysis

If you are conducting a campaign to pass a Safe School Siting Policy on the School District, city, county or statewide level, it is helpful to first conduct a strategic analysis of the political climate and possible allies. Which officials are likely to sponsor the policy and be strong champions? Which officials have the power to make the decision? Does the policy have to go through a committee before it is voted on by the full political body?

To achieve your goals, you must convince the majority of the political body that the policy should be approved. Always keep in mind that your primary targets are those in power who make the decisions.

You can do a "power map" of the School District, City or County governing body, or state legislature, to determine how to pass the policy. The power mapping tool helps you and your group determine how to influence decision-makers and entails these five basic steps.

- **Find out what has the power to make decisions.** Find out the process for adopting the policy. Which committees, if any, does it have to be go through and who is the Committee Chair and which Committee members are in the majority party? Who are the political leaders of the governing body that decide which policies are voted on and approved?
- **Determine the best political targets**. Examine the politics of the governing body on similar issues, such as environmental and health issues to determine who is likely to support the reform, oppose it, or remain undecided.

  Who are the most likely champions to sponsor the policy and advocate for its passage? Who consistently votes in favor of environmental initiatives? Elected officials are also called representatives, or depending on the governing body, legislators, council members or board members. You will need to carefully choose the elected official who will champion your policy and be certain that you have organized support before you approach him or her. Representatives

of environmental advocacy groups and teacher unions are often good sources of information.

- **Determine which individuals or institutions are likely to influence your targets**. Policymakers are influenced by a variety of forces. As elected or appointed officials, they must respond to their constituents and supporters to retain their position. The following are possible sources of influence: other policymakers; opinion leaders in the community; leaders of parent, student, school, environmental, labor and health groups; and the media.

  Research the opposition within the governing body and also from possible groups. Who may oppose the proposal based on their past poor environmental record? Are there any groups that may oppose the proposal? Try to anticipate what their arguments might be and address them in fact sheets and educational materials on the policy.

  For example, if you're looking at similar policies passed, such as the city council passed an ordinance requiring schools to test for lead paint on walls and remediate any problems that would be a good starting place for clues on how to draft the policy but also on what went down in the political fight for that ordinance.

- **Determine whom among those who influence the targeted policymakers, you and your group can influence and communicate with to build support**. Perhaps you have great access to the local or state PTA or environmental groups but limited access to the teachers union. However, maybe a personal friend knows the staff at the teachers union or the local legislator and can help set up a meeting.

Network and Learn from Allies

You can learn how other groups conducted successful campaigns by contacting them and use their "lessons learned" to effectively map out your campaign strategy plan.

While this Tool Kit provides sample policies, resources and tips, one of the best ways to find out how to pass a policy is to talk with groups that have done it successfully. CHEJ is working with groups around the country, and California, Rhode Island, Texas and other states have organized effective campaigns. You can get group contacts from the CHEJ Childproofing Our Communities Coordinator at 703-237-2249.

You can email a group leader and set up a phone interview to find out how their policy was developed and passed. You can also ask them for sample fact sheets, alerts and news releases. Networking with experienced groups will provide valuable information as you develop your campaign strategy to pass a policy.

You can also join CHEJ's national network of groups working at the local, state and federal level at the Environmental Protection Agency (EPA). The network includes national groups, such as Natural Resource Defense Council and PTA, state groups such as Rhode Island Legal Services and local groups such as Clean Schools Initiative in Texas. CHEJ can organize meetings and conference calls to enable groups to exchange information and learn from each other. Contact CHEJ's Childproofing Our Communities Coordinator at 703-237-2249.

Don't Reinvent the Wheel: Review Policies

Reviewing model policies is an important first step when drafting your proposal. Depending on the type of governing body, the policy may be a School District, City or County Resolution or Local Ordinance, or a City Council or State Legislature bill or legislation.

Review policies to find out the various ways you can structure the policy, including definitions, goals, and how the policy will be implemented. Using the sample policies in this Kit, you can cut and paste together the sections that best meet your group's policy goal. If you are unsure about which approach to take, you can contact the agency or group and ask them specific questions on how effective it has been during implementation. Find out if there is any existing state or local regulations on school siting and fully understand the regulatory gaps.

Remember that the proposed policy will most likely undergo changes before it is passed and compromises may have to be made as the policymakers review it and try to deal with any opposition. **So, craft a policy that is very strong and can withstand some changes or amendments**. Ask for more than you want in the policy and have some elements in mind that you and your group are ready to part with or could live without. You'll never get the policy that you dream of as compromises are inevitable in the political process, so be prepared. But don't give up things too soon, or the end product will be disappointing. Big compromises (e.g. a 5,000 foot buffer instead of 8,000 feet) should come at the end of the process when there's more certainty in getting it passed without more major cuts.

Using existing policies, you can write a proposed Safe School Siting Policy to bring to a representative for sponsorship. Alternatively, you can gather the best one or two policies and ask the representative and his or her staff to draft the policy based on these documents.

It is helpful to write an explanatory *Summary Memo* or *Fact Sheet* that provides an outline of the policy, explains how it will protect children, addresses any economic impact concerns, describes similar policies that have been successfully implemented, and lists supporting groups.

One great resource for the Summary Memo is the national set of principles. CHEJ and partner groups have *Principles for Safe School Siting* which provides a comprehensive justification for this important policy. (See Principles in Tool Kit)

Reach Out to Groups and Build Support

Early in the campaign, you want to reach out to likely allies and ask for their support. Your goal is to have groups endorse (support) the proposed policy and take action. Groups can show their support by sending legislators an organizational Memo of Support, speaking at a public hearing, attending meetings with representatives, participating in a news conferences, and activating their members to call representatives as needed.

Eventually, you and your group want to form a *coalition* of key, committed activists and organizational leaders that would contribute to the development of the policy and organize the campaign to pass the policy. This coalition can be coordinated by a core group of leaders who will develop and implement the campaign strategy. You need to work with other groups because if you are on your own, you are likely to be overwhelmed by the effort, and it takes people power to achieve change on the district, county or state level.

It is useful to provide groups with a one page *Fact Sheet* that describes the policy proposal

and explains why it is beneficial. When you contact groups, ask what the process is for their group to consider endorsing the proposal. They may request that you come to their monthly meeting or to a committee meeting. Groups also may want to have input on the proposal, and this level of involvement is important and beneficial. If there is interest, you could have a meeting with group representatives to discuss any needed changes on the proposal. Be on the look-out for events and other opportunities with groups who may support your policy. Attend meetings, distribute the Fact Sheet and ask groups to do a Memo of Support. Sit down with as many people as possible and listen to their opinions on who to approach in the governing body, especially groups that have done advocacy with the policy-making body in the past.

Your goal is to organize substantial support among organizations in the region. When you visit legislators, try to have a "team" of group leaders to show diversity and strong support. Provide the legislators with the group Memos of Support and a Memo listing all the supporting groups, politicians and community leaders.

Engage any groups that might oppose or have concerns about a siting policy to understand their position and get feedback well in advance of the legislative session. This could include the staff of school districts and school board associations.

First, it is a good idea to identify key supporters that will benefit your campaign efforts. The broader coalition of groups you have, the more political strength your group will have in the campaign. It is worth the time on the front end of a campaign to visit key group leaders and find out if they can support the campaign. They have powerful voices, connections and sway with constituents that your group may not have. Plus, once you find a legislative champion for your policy, they will greatly appreciate having that broad network of supporters which will help get their colleagues on board.

The following is a list of possible supporters you could contact.

- **School Groups**: Contact the local and/or state PTA, PTO, other school-based parent groups, such as special needs parent groups, and student groups.
- **School District Staff**: Contact school district staff responsible for district policies if you are considering a district-wide policy proposal, and ask to meet with them. It is important that they feel they are part of the policy design process. Attend the meeting as a group that represents the community with all those impacted if possible, including teachers, parents and students. Describe the problem and provide a draft policy for their comment. Ask them to work with your coalition to develop and pass a protective policy.
- **Constituents**: Elected representatives respond to the concerns of their constituents. Early in the campaign, reach out to constituents—the people who live in the potential sponsor's district. It is always helpful to invite active and articulate constituents to meetings to show legislators there is strong, local support. Also, once the policy is introduced, ask people to contact their elected official through alerts and outreach calls. You also may need to target calls and letters to the sponsoring representative or a Committee Chair where the policy is pending.

- **Health and Environmental Health Groups**: Seek out and get on the agenda of health and environmental health advocacy groups in your area. Local, regional and statewide environmental groups are obvious potential allies. Some others include women's, children's health, asthma and breast cancer groups, as well as American Lung Association Chapters, School Nurses or Nursing Associations. Also, you could contact any school nurses or doctors in the area. For the organizations, start by identifying state or local chapters of national groups that support siting policies. Focus on influential advocacy groups.
- **Teacher Unions**: Teacher unions, and their health and safety committees, may be interested in supporting the policy. Contact the local teachers union, and if appropriate, state teachers union for support. Find out if there is a regional Labor Council in your area which may have a teacher's union representative, and ask for their support. Find out if there is a *Council on Occupational Safety & Health* (COSHs) in your state and contact them for support. COSHs are regional or statewide coalitions of local unions concerned about worker safety and health issues and they often have teacher unions as members. Seek out and get on their agenda and present some examples of how a safe siting policy will benefit all school employees.
- **Community Groups**: Community groups working on local environmental issues may be interested in joining your campaign because they understand the need to protect people from toxic exposures.
- **Religious Groups**: Faith-based leaders of churches and religious groups may be supportive, especially if they have committees working on community health or environmental stewardship issues.

Find a Legislative Sponsor

Early in the campaign, it is a good idea to visit the School Board, City or County governing body or State Legislature and become friendly with the key leaders and their staff. Introduce yourself, your group and your issue. Ask questions about procedures and processes to pass a policy, including committees and public hearings.

Then, once you've gathered organizational support, developed a policy and supporting materials, and selected your first choice for a sponsor, schedule a meeting with your potential sponsor. It is important that you have a "team" of people come to the meeting who will show strong local support, such as up to four health, environmental, community or labor leaders and at least one or two constituents. Make sure you have copies of the policy, Summary Memo and Memos of Support for the representative and his or her staff.

Plan the meeting agenda and select someone to facilitate the meeting. Make sure you develop "talking points" so you and others are prepared to take turns raising all the key points on why this policy is important and beneficial, and describe how it has strong local support. At the end of the meeting, ask the representative to officially sponsor the proposal. The representative may want to review it and respond at a later date. If they say no, thank them and move on to the next potential sponsor.

Keep in mind that you want to approach potential sponsors who will be committed and have the political power to organize for its passage. This is important to your success in getting a policy passed. If you find someone who is eager to work on the issue, yet is new and has little experience, or is

isolated and possibly held in low regard by their colleagues, the chances for passage are slim. Relationships matter a lot, so the reputation of your champion is important. If you have a chance to have a senior policymaker champion your policy, such as the Mayor's office, Majority Leader, Committee Chair, Board President, etc. contact them first. It may be a little more work, but well worth the effort to have the political clout to pass the policy and have seasoned staff to work with who know how to move things through tough committees and work with any opposition.

Develop and Implement Your Campaign Strategy

Plan a campaign strategy and timeline so your group and the core team coordinating the coalition can figure out work assignments, keep momentum going and effectively follow through on activities.

Once you have found a sponsor, it is important to develop a campaign plan with the sponsor on activities that will help to pass the policy. You will need to raise awareness and educate policymakers about school siting issues and provide case examples of problems in their region or around the state.

Here are some activities that could be included in your campaign strategy plan.

- **Conduct a Study or Survey**: Your group or the sponsor could conduct a survey of your school district, county or state to highlight problems where polluting facilities or toxic sites are near schools or day care centers. For a statewide study, you could utilize GIS mapping to map all the Superfund or brownfield toxic sites and show their proximity to schools. A media event to release the study would be a great way to kick-off your campaign and graphically show the problem. A statewide study will take time and resources. Perhaps you can find an interested teacher with students or volunteers that are experienced in using GIS mapping software. You can often obtain the mapping information on where schools and toxic sites are located from the state education and environmental agencies. If you have trouble getting the information, contact your local or state legislator to see if they can help you obtain it.
- **Meet with the School District**: If it is a local policy, ask to meet with the key staff in the School District to begin the education process on why a Safe School Siting Policy is important. Be prepared to respond to any technical or implementation concerns they may have. If you don't have an answer to a question, let them know you will research it and get back to them with a response.

  It is key to meet with school officials (school board and school district) both top and bottom. You should meet with the lead decision-makers, but you also need to pay attention to staff at lower levels and attempt to address their concerns. There could be one staffperson who just hates your policy and is aggressively advocating against it until you address their concerns.
- **Distribute Legislative Information Packet**: Develop a legislative packet of basic information which describes why a Safe School Siting policy is needed. It could include a one page Fact Sheet on the problem and a one page Fact Sheet

on the proposed policy, CHEJ's Principles, organizational letters of support from groups, doctors, teachers, students and others, newspaper articles and expert testimony, if a hearing was held on the issue.

- **Hold a News Conference**: The sponsor and your coalition can hold a news conference to announce the introduction of the Safe School Siting Policy, its passage through a committee, and its final approval.
- **Hold a Public Hearing**: The sponsor could hold a public hearing to educate people about the issue, and get input from constituents, groups and schools. You can recruit people to speak in support of the policy. Identify key groups and individuals to provide expert testimony and personal stories. Two weeks before the hearing, contact your speakers and make sure they know the time, location, and date of the hearing. Talk with each speaker about what they are going to discuss and provide them with fact sheets on the issue. Make sure every speaker asks for the same Safe School Siting goals outlined in your policy proposal.
- **Meet with Policymakers**: On the state or county level, the policy may have to go through a Committee, such as an Environmental Committee or a Governmental Operations Committee. As soon as you know which committee, start to schedule meetings with the appropriate Committee members to ask for their support before it comes up for a vote. Meeting with members early in the process is extremely helpful as you can address any concerns they may have, and inform them of the benefits and strong public support.

  The most important meetings you will have are with the opposition and your coalition representatives need to be at those meetings unless your champion has some very special relationship with them (e.g. roomed together in college). If you don't try to find compromises with the opposition, they can squash your policy – get it stuck in a terrible committee, pulled from the calendar, convince policymakers to oppose it, etc. Think creatively about ways to address concerns from opposition. Sometimes it takes a few meetings to get to the heart of their concerns and get them to come up with alternatives rather than "we can't live with your bill in any form".
- **Working with the Sponsor**: Work very closely with your sponsor's staff. When legislative staff say that they're taking care of things, remember that they are taking care of a hundred other unrelated things too. You need to build a relationship where you're in communication a lot and can check in on their tasks and let them off load some to you if appropriate. You need to find a way to keep them on top of your Safe School Siting policy as a priority without being too annoying. The more in-person time with staff, the better–dropping by can be a good thing, especially when you can "walk & talk" with them as they go to their next meeting or go on coffee run with them.

  Be ready for the hurry-up/slow-down cycle of the legislature. When staffers email or call with "urgent" questions about your policy that you may think are random, inconsequential or just not urgent, you need to respect their request and respond ASAP. Sometimes policies get hung up on what may seem like a bizarre question that you've never heard posed in public. It could have been raised privately between the mayor and your sponsor in a hallway chat. You need to

treat it as a prioirity and be available to research a good answer (or have another coalition member do it).

Be prepared to brief and write testimony for your champion. They may be very supportive but are so busy that they completely forget important details of your policy, even after you've been through them many times. Don't assume that your champion's staffers are taking care of this. Short question/answer documents help. Similarly, when amendments have been agreed to, it is best to capture them in a memo right away with bullet form summaries (not the tedious pages of line item edits).

- **Tally up the Votes**: You will need to work with the sponsor to tally up the votes before the policy comes up in Committee for a vote, and when it comes to the floor for a vote by the full Board, Council or Legislature. Check in with Committee members and other representatives (especially in the majority party) to see where they stand and keep an ongoing tally of how many votes you need to win. Be responsive to questions and con cerns and bring them the information or experts who can provide the answers.

  If you have a key representative who is hostile or neutral, be proactive and have constituents and groups contact them. Prepare rebuttals to any opposition arguments and find out who has been visiting the representative from the opposing side. If a Committee Chair or key representative is organizing against the policy, you may need to focus on alerting his or her constituents. You could organize a letter-writing campaign in their district.

- **Media Strategy**: Think about a pre-vote media strategy to help generate public support and alert policymakers. Does an upcoming event or a new environmental or health report provide an opportunity for a press event? Will this awaken opposition or will it have the positive effect of pressuring representatives to vote in your favor? Can you get a meeting with a sympathetic editorial board of your local paper and ask them to do an Editorial in support of the policy? Can supporters write Letters to the Editor urging the public to support the policy? Are there any siting situations or problem schools with ongoing toxic exposures which can be linked to the policy?

  You will also want to work with the sponsor on a News Release and media event plan if the policy passes. After the vote, groups need to congratulate the elected officials who showed leadership by taking action to protect children "green" new schools in the city, county or state with the new Safe School Siting Policy.

  Frame the issue as a win/win for everyone. Safe School Siting is in the best interests of our children and teachers. It saves the school district from burdensome expenses testing or cleaning up contamination. It prevents children from being exposed to polluted soil, air or water. It ensures children and school employees are in a safe school environment where health is a priority.

  Don't ever let your campaign get personal or nasty. You have got the upper hand with public opinion when it comes to children's health and that should always be at the forefront. No matter

how obnoxious the opposition gets, don't engage in negative or personal attacks as it can tarnish your groups' image and ultimately backfire. It's one thing to sharply criticize an entity (e.g. The Happytrails School District doesn't seem to mind corralling their students in toxic schools just to save a buck … But healthy schools vs. funds for new books is a false choice) And quite another to personally attack a school or elected official and call them names (this is an important point for interns and volunteers to understand.).

Sample Campaign Timeline

Here is a suggested timeline to follow for a School Board, City or County Safe School Siting policy. The campaign will probably be longer for a state policy .

Month 1

- **Step 1**: Do a strategic analysis.
- **Step 2**: Research policies, your governing body and possible opposition. Network with groups that have passed policies.
- **Step 3**: Contact groups and request their support. Develop a coalition of groups and a core team.
- **Step 4**: Develop a Campaign Strategy Plan and Timeline.
- **Step 5**: Visit the governing body (School Board, City Council or State Legislature) and become friendly with the staff.

Month 2

- **Step 1**: Meet with the targeted official and ask them to sponsor the policy.
- **Step 2**: Develop a campaign plan with the sponsor.
- **Step 3**: Meet with staff in the School District or key policymakers.
- **Step 4**: Keep meeting with groups and request their support.
- **Step 5**: Educate the public and policymakers with a news conference or public hearing.

Month 3

- **Step 1**: Meet with Committee members and other key policymakers.
- **Step 2**: Educate the public and policymakers with a news conference, public meeting, fact sheets, letters to the editor or editorial.
- **Step 3**: Develop a pre-vote strategy to address any opposition.
- **Step 4**: Tally up the votes before the policy comes up for a vote.
- **Step 5**: Right before the vote, again contact any targeted policymakers.
- **Step 6**: Celebrate the passage of your Safe School Siting Policy! Hold a news conference or issue a news release.

By Anne Rabe, CHEJ BE SAFE Campaign. September 2009. This memo was based on information gathered from local and state legislative campaigns, and the recommendations of Christine Ackerson of Clean Schools Initiative in Texas and Diane Bailey of Natural Resource Defense Council in California.

Chapter 7
Sample Community Presentation

Conservative calculations suggest each IQ point is worth about $8,300 in additional lifetime income. With about 4 million babies born annually, the elimination of lead in gasoline has had an economic value of over $100 billion per year for the lifetime of those children.

Reducing Children's Environmental Health Risks Through Safe School Siting

By:
Created for:
Date:

Our Healthy Community

- A place where children live, learn, and play
- Protects children from hazardous chemical exposure through taking precautionary steps
- Allows children to become vital contributors of society by protecting their health and the environment

Children Are A Vulnerable Population

- Not small adults
- Eat more food, drink more water, breath more air, and explore the environment more than adults
- Move through several stages of rapid growth and development that have lifelong impacts to themselves, their family, and their community
- Chemical regulations are based upon the average healthy adult's age, weight, consumption, and activities. Regulatory levels, we have come to realize are too high for developing children

Children's Health Impacts to a Healthy Community Are Significant

- Continued rises in rates of learning disabilities, lower IQ scores, hyperactive behaviors, and more could imperil our nation & future economic base
- Current research shows a 10-point drop in blood lead level means an average 2.8 point IQ gain

Children's Health Impacts to a Healthy Community Are Significant

- Conservative calculations suggest each IQ point is worth about $8,300 in additional lifetime income
- With 4 million babies born annually, the elimination of lead from gasoline and paint has had an economic value of over $100 billion per year for the life time of those children
- A national financial burden of $16.1 billion dollars per year due to

asthma-related direct costs

Children's Health Impacts from Toxic Chemical Exposure Are Significant

- Children absorb chemicals more quickly - about 50% of the lead to which they are exposed, while adults absorb only 10 - 15%
- Children who attend school within 10 -20 miles of known superfund site are almost twice as likely to have autism
- Attention deficit hyperactivity disorder has been estimated at an all time rate of 17%
- The number of children in special education programs increased 191% from 1977 to 1994
- Asthma affects over 2 million people. Asthma can be triggered by poor indoor air quality

A Safe School Siting Policy Must

- Include meaningful public participation
- Include a plan to prevent exposure by potential sources of pollution by completing a comprehensive investigation of any candidate site
- Guide our school district in choosing the healthiest land available
- Prove our community as a national leader in protecting children's health and learning

A Safe School Siting Policy Will

- Prevent toxic exposures to children and school staff through reducing their daily exposures to chemicals
- Provide guidance for a healthier and safer community and school district
- Create dedication to healthier schools among our students, parents, school faculty, and community leaders
- Help to protect our children from escalating asthma, behavorial disorders, and attention deficient hyperactivity disorder
- Allow our schools to concentrate on teaching instead of mitigating environmental hazards

Thank You

- Contact Information

Community members from around North Carolina gather to discuss taking precautionary measures in their community for the Southeast Conference on Precaution hosted by CHEJ in 2007.

For Microsoft PowerPoint version of the sample community presentation, visit
http://www.chej.org/documents/SchoolSitingPresentation.ppt

Chapter 8
Getting Successful Media Coverage

Writing a News Advisory & Release

News Advisory

The news advisory is a notice to give media outlets a heads-up about an up-coming news event or story. If the advisory is a notice about an event, it is typically sent out 2 to 3 days before the event, followed by calls to reporters to ensure they received it. They are very short and don't need to include all of the background details. You want to offer just enough information to convince reporters to cover the story and attend your press conference or other news-worthy event. It is more of a Who/What/Where/When of the event that is sent out a few days in advance. You will provide more details on the day of the event or breaking news in the News Release.

News Release

The news release is your main communication to reporters and media outlets to offer a concise summary of the information being released at the news event, background details, and quotes with speaker's titles and affiliations which reporters can use to build a story around. The release is handed out at the news event and distributed to other media that did not attend the event. All of your talking points should be written into the news release, offering sources for your facts and phrasing opinion statements as quotes from your group's spokesmen. Think of the news release as a pseudo-news story. It is written in the third-person and should sound like a newspaper article. Some media outlets will reprint the release itself as a story; but the vast majority will use it as the basis for writing their own story.

Format

- Start by printing advisories and releases on your organization's letterhead, or put your logo and name at the very top of the page. If you are co-releasing with other organizations, put all logos at the top of the page, (if it fits), and at least list the names of all organizations in alphabetical order (centered) with a symbol (a small dot or square) between names.
- Below this, include NEWS RELEASE or NEWS ADVISORY (centered).

- Next comes the date and contact information. This is usually done with the words For Immediate Release or Embargoed Until 07/04/09 if the information in your release is not yet public. Put the date immediately below. Next include Contact: with the name of your group's designated spokesman and a phone number and email.
- Now comes the Headline and Subhead. The headline is in boldface and should grab the reporter's attention. It should be very short, ideally no more than eight words. The subhead is directly below, in italics, and gives you an opportunity to flesh out the headline and offer another teaser to get the journalist to read your release. Sometimes you will see two subheads used, if there are multiple angles, but it is best to limit yourself to just one.
- Next comes the dateline and the body. News outlets want to know if your story is local, or national news. Put your town and state in boldface and parenthesis to tell reporters where you are writing from. Now you can write the main body of your release.
- For news advisories, include a What/When/Where/Why above the body. It should look like a memo, with 'What' followed by a sentence about your event and its purpose. The When is followed by time, day of the week and date. The Where gives a full address or the phone number if you are publicizing a conference call. The Who lists who will speak at the event, especially if it is public figures, politicians or experts, with their titles and affiliations.
- Lastly, include your boilerplate, a couple of lines about your organization, so that reporters know who you are. The boilerplate should be the same for every release. Include your group's website here.
- Publicists used to use -30- to indicate the end of the news release or advisory when fax was the primary method of transmission. As most releases are now emailed to reporters and published on a group's website, ### is printed at the bottom of the page to indicate the end of the release.

Additional Tips

- Send advisories and releases by email. Do not send attachments, as reporters don't like to open them. Copy your release directly into the body of the email. (Use notepad to clear your text of any weird symbols that occur when you "cut and paste" the text from a word file to email. Reporters will appreciate getting clean text.)
- A few media outlets still prefer fax. When you do follow-up calls, you can ask them if they prefer a fax.
- Use your attention-grabbing headline as the subject-line of your email. You can preface it with "News Release:" or "News Advisory:"
- If you are sending the release to multiple reporters, use the Bcc field rather than the 'To' field, or email each reporter individually. This avoids your message going directly to junk mail and allows reporters to see the information immediately instead of seeing a lengthy paragraph of email addresses.
- The first sentence of the body should hook the reader, so start with a dynamic sentence that tells the reporter why they should cover this story. The next 1-2 sentences will provide context. The reporter should have a basic idea of what the story is about and why it is interesting after reading the first 2-3 sentences. Details can come in the second paragraph.

- Back up your facts! Offer citations or sources for any facts so that reporters can quickly verify them. It is easiest if you link directly to the source. In Microsoft Word or Outlook, just highlight the fact and use Insert-> Hyperlink from the Toolbar. You can also use this to link to background documents on your website, since it can be impossible to offer the full history of the problem in the release. NEVER use the words "Click here" as this will ensure your release is delivered to the reporter's junk mail box.
- Keep it short. The advisory should never take up more than a page, with plenty of white space. The body of an advisory is only one paragraph. A release is longer, but should be kept between one and one and a half pages. If your release is too long, it won't be read. You can provide additional information and history as links. Use short sentences and short paragraphs to make it easy to read.

How to Hold a Media Event

Define Your Goals

Know your goals before you begin planning a press conference. Some possibilities include:

- Getting more people involved in your movement
- Gaining publicity and media coverage of your problem
- Sending a message to decision-makers
- Showing the strength of your group

Know your objective, and tailor your message and the format of your event to it. Having a press conference with only experts speaking and inviting trade journals won't send a strong message to politicians; but including community voices and turning out a large crowd of supporters and the 6 o'clock news will have a strong impact.

Types of Media Events

- Press Conferences
- Protests
- Street Theater
- Actions (Banner-hangings or civil disobedience)
- Public Hearings

Image Is Everything

Choose a compelling venue for the backdrop of your event. Photos of your speakers standing in a conference room won't push your story to the front page, so think about more dramatic backdrops.

Perhaps the steps of the state capitol or a closed-down manufacturing plant. If you will be holding your press conference indoors, bring signs, graphs or enlarged photos to help tell your story. Be sure that there is no visual clutter directly behind the speakers.

Choosing Speakers

Choose just a few speakers, and coordinate your message and talking points so that each speaker can offer something unique. A few things to think about:

- **There isn't time for everyone to speak**. Just choose 2-4 representatives.
- **Try to include different perspectives.** Balance an 'expert' speaker to present the facts with a voice from the community who can tell the story.
- **Keep it short**. Each speaker should only have 6-8 minutes so that there is plenty of time for questions.
- **Coordinate your message**. Decide on a central message ahead of time and decide

what parts of the story each speaker will tell. Don't let your speakers repeat each other's points!

- **Keep it simple.** Reserve the detailed information for fact sheets in your press kit. Stick to a simple, easily quotable message to ensure that the story is told in your words and not paraphrased by the reporter. A short, pithy statement is more likely to make it in.
- **Choose a moderator**. Choose someone to facilitate the event and keep questions on-topic.
- **Practice**. You will be taken more seriously if the event runs smoothly and all speakers are ready to answer questions succinctly. Brainstorm possible questions ahead of time, and practice your answers. Practice moderating and the transitions between speakers. The fewer surprises, the more confident you will be.
- **Be available**. Let media know if speakers will be available after the press conference for one-on-one interviews.

Preparing the Press Kit

Prepare a press kit with background materials that reporters can take with them. Include:

- Agenda with the names and titles of all speakers
- Biographies of all speakers
- Press release about the event
- Relevant background information such as press clips, reports with summaries, available photographs, etc

Inviting Media

- **Create a media list** two weeks before the conference. Think about journalists who have written articles on similar topics. Get the phone number and email for the assignment or news editors of your local papers.
- **Send out a Media Advisory** a week before the press conference. This is a What, Where, When, Who memo to let the media know about the event. Most journalists prefer email correspondence but will not open attachments, so be sure to paste your Advisory in the body of your email.
- **Begin calling reporters the day before your conference**. Offer to resend the advisory, and make sure that it has been placed in the 'Daybook' of your local papers and the local Associated Press Bureau.
  - Send materials first! Don't call a journalist if you have not sent them your media advisory.
  - Keep your pitch short (under 30 seconds)
  - Make it sexy and exciting. Tell the reporter why your story is timely. Why should they run the story this week and not next month?
  - Call in the morning, around 9 or 10am, when they are not working on deadline.
  - Always offer to resend the Media Advisory. Have your email open when you call and be ready to resend the Advisory immediately.
  - Write down your talking points ahead of time.
  - Build relationships. Offer news leads, or praise for other articles even if you are not pitching a story.
  - Always assume that you are 'on the record'
- **Follow up** with interested reporters the morning of the press conference.

Running a Press Conference

- Choose a time that is media-friendly. Try to hold events in the late morning

so that reporters can get the story out that afternoon. Don't try to compete with other major events. Hold your event mid-week to get the most coverage.

- Arrive early to greet media. You should be completely set up and ready to welcome journalists at least 15 minutes before the start time. Camera crews need extra time to set up.
- Have a media sign-in sheet so that you can capture contact information of any press.
- Start on-time. Reporters may have another assignment to get to, so don't keep them waiting on stragglers. You can always offer a quick one-on-one interview after the conference for reporters who arrived late.
- Think about the picture. Seat speakers close together so that they can all fit in a single photograph and seat the audience near the speakers so that they are seen in photos as well.
- Display your group's sign behind the podium, or posters with your issues if you are hosting the conference indoors.
- Think about props. Perhaps a jar of murky contaminated water, or gas masks if you are talking about air pollution. Be creative!
- Plan an action that will bring out supporters (and signs!) to dramatize your message.
- Remember that you will need plenty of time for questions. Assume that questions will take more time than your speaker's statements.
- Follow up with reporters that afternoon. Send out an email and let them know if you have photographs of the event a vailable. Offer written statements from the speakers if available. Some media that may not attend the conference will still write a story if a press release, photographs and text from the speakers is made available.

Media Event Tactics

Here is a list of some advocacy tactics for media events. A tactic is an action taken to advance a campaign toward an end goal. A tactic's appropriateness depends largely on the context of campaign plan. Good tactics are focused on the decision-maker and build momentum for your campaign. Below this list are some other Messaging and Visibility Activities.

- **Accountability Session**: Hold accountability meeting with a decision-maker. Invite them (and the media) to a meeting where your group makes a presentation and asks them to take action on your issue.
- **Anniversaries**: Celebrate or commemorate an anniversary
- **Bird-dogging**: "Bird-dog" a decision-maker at a series of public forums and events by consistently asking questions on when they will take action on your issue.
- **Boycott**: Call for boycott of polluting company's products.
- **Call-in Day**: Ask readers/listeners to call or fax a specific decision-maker with a specific message.
- **Call-in Results**: If significant, announce results of call-in/fax-in day.
- **Canvassing**: Announce an educational door-to-door canvassing or petition drive.
- **Choir/Caroling**: Hold holiday Choir or Caroling with songs on your issue.

- **Create New Group**: Announce new organization or coalition being formed.
- **Delivery**: Deliver waste or unwanted items to decision-maker symbolizing your issue.
- **E-mail Action**: Ask readers/listeners to email a specific message to a specific decisionmaker.
- **Email Results**: If significant, announce results of email campaign.
- **Endorsements**: Release endorsement by celebrity, policymakers, or coalition of groups
- **Event at Decision-maker Office**: Hold media event at decision-maker's office or home calling for action or delivering petition.
- **Films**: Hold film forum with movies on your issue.
- **Gas Masks/Moon Suits**: Hold event at facility or site with gas masks or cleanup moon suits to highlight toxic pollution.
- **Guerrilla Stickers**: Announce campaign to put stickers on polluting company's products at stores educating consumers about their irresponsible actions.
- **Hands/Ribbons Around Facility**: Hold hands, ribbon or string with letters or photos of victims, around government building or facility calling for action.
- **Health survey**: Announce start of a health survey or release the results.
- **Honor Polluter with "Award:"** Honor polluter or decision-maker with "award."
- **Large Scale Props**: Feature large scale props (inflatables, paper maché figures, etc.) such as CHEJ's Betty the Be Safe Ducky (www.chej.org)
- **Lawsuit**: Announce filing of lawsuit.
- **Letters**: Deliver stack of letters to decision-maker urging action on issue.
- **Lobbying**: Hold event during Lobby Day to discuss a policy you are supporting.
- **Petitions**: Deliver petitions to decision-maker.
- **People's Public Hearing**: Hold public hearing with a "judge" or panel of community leaders, and request that decision-makers testify and answer questions.
- **Poll**: Announce results of resident door-to-door or phone poll on issue
- **Postcards**: Announce campaign or delivery of bag of postcards to decision-maker.
- **Protest**: Hold protest with signs, marching and chants at facility or government bldg.
- **Rally/March:** Hold rally and march at facility or government building with speakers.
- **Report**: Release report on issue.
- **Resolution**: Announce introduction or passage of town, county or state resolution.
- **Speaker**: Hold public forum with speaker or panel of speakers
- **Street Theater**: Hold creative street theater skit highlighting issue.
- **Survey**: Announce results of questionnaire survey of political candidates.
- **Testing**: Release air, soil or water test results and call for action.
- **Toxic Tour**: Hold tour of toxic sites with caravan of cars or bus for reporters and decision-makers.
- **Vigil**: Hold vigil with signs or candles and call for action.

Student protests the building of a new school in between two landfills in Gwinnett County, Georgia

Other Messaging and Visibility Activities

- Banners
- Billboards
- Bumper stickers
- Buttons
- Email newsletters or E-bulletins
- Editorial cartoon
- Flyers and Posters
- Lawn signs
- Leaflets
- Merchandising
- Newsletters
- Newsletter articles submitted to other group's publications
- Report release
- Sky writing
- Wanted poster
- Website
- Web "buttons" on other group websites linking to your website

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The information in this chapter is from CHEJ Media & Media Toolkit *and can be viewed at* http://chej.org/media-tool-kit.html?content_KEY=5910

Media Events Tactics is based on Fact Sheet *by Massachusetts Toxic Action Center.*