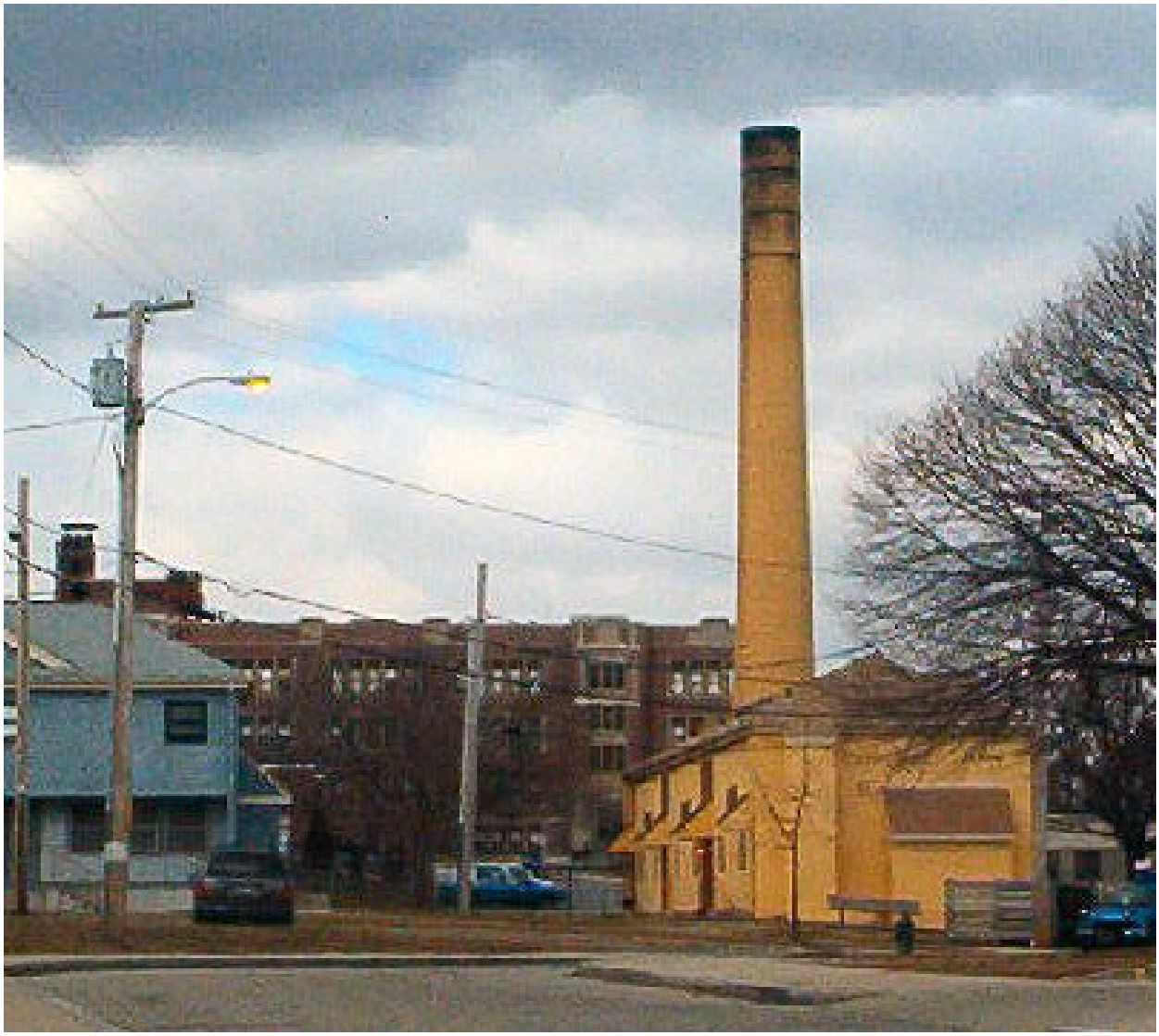
NOT IN MY SCHOOLYARD:

Avoiding Environmental Hazards at School Through Improved School Site Selection Policies



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First, RILS acknowledges the assistance of the Center for Health, Environment and Justice (CHEJ) located in Falls Church, Virginia. CHEJ has been a leader in promoting safe school site selection policies across the United States. For this report, CHEJ assembled two panels of experts who provided input on the model school siting policy proposed in this report. CHEJ staff members made significant contributions to this report. CHEJ's Executive Director, Lois Marie Gibbs, brought the issue of contaminated school sites to the nation's attention as a parent of children attending a school built on toxic land in Love Canal in Niagara Falls, New York. The model Policy on school site selection was largely written by CHEJ's Science Director, Stephen Lester. Stacey Gonzalez wrote the portion of the report discussing children's special vulnerability to environmental pollution. Sherman Ludwig compiled a power point presentation summarizing the research contained in this report that was presented in a web conference sponsored by the National Governor's Association. Finally, these four individuals spent many hours with RILS on conference calls where the model school siting policy was hashed out (pictured above—from left to right, Lester, Fischbach, Gibbs, Ludwig and Gonzalez).

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EXECUTIVE SUMMARY

Decisions on where to build new schools are based on a variety of factors. These various factors often have no relation to one another and may vary over time. Environmental and health concerns, such as the proximity of school sites to sources of pollution have only recently entered into the mix of issues school siting officials must address. Like many states, there are presently no laws in Rhode Island that specifically regulate the siting of schools in relation to sources of pollution. Rather, Rhode Island's public school site selection process is relatively unregulated, and laws regarding the clean up of contaminated sites contain no special rules for using those sites for public schools.

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 environmental pollution in all fifty states was undertaken in the Winter of 2004-05. This research grew out of a lawsuit filed by Rhode Island Legal Services in 1999 challenging the siting of an elementary and middle school on top of the former Providence City Dump. The research was funded by the United States Environmental Protection Agency under the agency's Environmental Justice Small Grants Program. 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.

There is currently a significant policy gap in Rhode Island and elsewhere with respect to siting schools on or near contaminated land or sources of pollution. Despite the health hazards that on-site and off-site environmental contaminants pose to children:

- Twenty (20) states have no policies of any kind affecting the siting of schools in relation to environmental hazards, the investigation or assessment of potential school sites for environmental hazards, the clean up 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 fourteen (14) 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; only five (5) of these fourteen (14) prohibit or severely restrict siting schools on or near hazardous or toxic waste sites.

- Twenty-one (21) 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 (15) of these states have adopted siting factors that directs school districts to either consider the proximity of sources of pollution when selecting sites or to avoid siting schools near those sources; while eight (8) of these states have a vaguely worded factor relating to environmental factors or safety of a proposed site.

- Twenty-three (24) states have no policies that require sponsors of new school projects to investigate or assess environmental hazards at potential school sites.

- Only twelve (12) states require the sponsors of school projects to solicit public input on school sites through the use of public notices, public meetings or hearings.

- Only eight (8) states either require or authorize the creation of school-siting advisory committees.

- Of the thirty (30) states that have some policy regulating the siting of schools in relation to sources of man-made or natural environmental hazards, in twenty (20) states the policy is administered solely by the state education agency; in eight (8) the policy is administered by the state education agency and another agency, usually the state environmental agency or health department; in one (1) state by the state health department and in one (1) state by local officials.

This report proposes a comprehensive model policy regarding the siting of schools on sites impacted by pollution that could be enacted in any state. This model policy was informed by the 50 state survey of school siting laws and contains many of the elements of school siting policies identified in the survey. The key provisions of the model policy are:

- The establishment of school siting advisory committees by public bodies charged with the power of selecting school sites, composed of a broad range of stakeholders including parents, teachers, school health officials, public and environmental health professionals and advocates, community and business representatives and age appropriate students.

- A ban on siting schools on top of or within 1,000 feet of a site where hazardous or garbage waste was landfilled or where disposal of construction and demolition debris occurred.

- Conducting thorough environmental evaluations of candidate school sites, including an Initial Environmental Assessment of the site's prior and current use and identifying certain environmental hazards within two miles of the site; and a Preliminary Endangerment Assessment where a site is suspected to have been impacted by sources of pollution.

- Review and approval of environmental evaluations by state environmental agencies utilizing a transparent process where members of the public have a meaningful opportunity to review and comment upon said evaluations.

- Permitting the use of contaminated school sites only as a last result, only after school siting officials have given good faith consideration to at least three potential school sites and only if specified clean up measures are taken to protect future users of the site from a risk of exposure to harmful pollutants.

The drafters of legislation in any particular state will need to check their state's laws to determine how the authority for selecting school sites has been delegated to local or state officials and to develop timetables for completing the environmental review process included in the model.

PART I
BACKGROUND INFORMATION ON SCHOOL SITING STUDY

FRAMING THE ISSUE: SITING SCHOOLS ON OR NEAR ENVIRONMENTAL HAZARDS

Decisions on where to build new schools are based on a variety of factors. These various factors often have no relation to one another and may vary over time. Environmental and health concerns have only recently entered into the mix of issues school siting officials must address. Even those concerns have many dimensions.

This report examines practices and policies relating to the siting of new public school facilities (as opposed to private schools or charter schools) on sites contaminated by hazardous substances, the sources of which may be located on or off of the school site. The report grew out of a lawsuit filed by Rhode Island Legal Services in 1999 challenging the siting of an elementary and middle school on top of the former Providence City Dump. The research was funded by the United States Environmental Protection Agency under the agency's Environmental Justice Small Grants Program.

Before environmental laws were enacted in the 1960s and 1970s, schools were often built on sites impacted by pollution. Often, the nature and extent of pollution at these sites was unknown. Today, many school districts are choosing to build schools on sites that are known to have been affected by man made sources of pollution. These sites include former municipal garbage dumps, former industrial sites where the land was polluted by the industrial activity, and sites adjacent to major sources of air and/or water pollution. This phenomenon is particularly prevalent in urban school districts that serve low income and non-white school children.

The proximity of school sites to sources of pollution is not the only environmental or public health consideration for siting schools. Others include "Smart Growth" issues such as locating schools so as to avoid sprawl and to renovate existing buildings for school use; insuring there are "safe routes to school" for students choosing to bicycle to school; and locating schools on sites in ways to encourage energy efficiency or to reduce crime. Similarly, the site selection process is not the only part of the school development process that impacts on health or the environment. A set of school building practices known as "high performing schools" or "green schools" encourages the use of non-toxic and energy efficient building materials. School environments are also affected by the application of pesticides, and many states (including Rhode Island) require school districts to use Integrated Pest Management practices (or IPM) that are less reliant on toxic pesticides for the control of insects and rodent infestations. Other environmental hazards in existing school buildings include lead paint, asbestos, mold spores, poor indoor air quality, idling school buses, and contamination of school grounds from on site or off site sources. All of these subjects are beyond the scope of this report, but any comprehensive approach to protecting children's health and safety in school environments must address all of these issues.

WHY THE AVOIDANCE OF ENVIRONMENTAL HAZARDS SHOULD BE A GOAL OF SCHOOL SITING POLICY

Children spend upwards of six hours per day in school, from ages 5 (when entering kindergarten) to 18 (when most students graduate from high school). In-school activity, thus, takes up almost one half of a child's daily routine during those ages.

That children must spend such a large portion of their time in a school building environment is not the choice of either children or parents, since society has made school attendance mandatory by enacting compulsory school attendance laws. Society, thus, bears at least a moral obligation to ensure the safety of children when they are on school grounds. Beyond moral obligation, school districts need to spend scarce school construction dollars wisely, to avoid costly site clean up, design or relocation costs caused by selecting sites contaminated by hazardous substances.

A. School Siting Policy MUST Recognize Children's Special Vulnerability to Environmental Pollution

In recent years, scientists have gained a far better understanding of children's special vulnerabilities to chemical exposures. Environmental toxins affect entire communities, but children are especially susceptible for a variety of reasons:

- Children are still developing. Through adolescence, their reproductive, endocrine, respiratory and other crucial systems mature, and the full development of the insulation of brain nerve fibers and lung air sacs becomes complete.[1]

- As structures and vital connections develop during these critical years, body systems are not suited to repair damage caused by toxins. Therefore, damage and dysfunction from chemical exposures is likely permanent and irreversible. Depending on the organ damaged, the consequences can include lowered intelligence, immune dysfunction, or reproductive impairment.[2]

- Because organ systems are still developing, children absorb, metabolize, detoxify, and excrete poisons differently from adults.[3] For example, children absorb 50 % of the lead to which they are exposed, while adults absorb 10–15 %.[4]

- Children consume more calories, drink more water, and breathe more air per pound of body weight than adults. Their natural curiosity, tendency to explore, and inclination to place their hands in their mouths opens them to health risks adults might avoid, such as increased exposure to contaminated dust and soil, pesticide and fertilizer residues and chemicals used to disinfect or clean.[5]

- Children's longer remaining life span provides more time for diseases to express themselves. Of particular concern are cancers, which can take decades to develop.[6]

- Children are exposed to more chemicals now than ever before. The results of one recent British study revealed that children as young as nine had on average more manufactured chemicals in their blood than their living grandparents, and that the concentration of some of these chemicals in children's blood was, also, higher.[7]

- Exposure to noise levels from outside school can also impair students' learning. A 1975 study at a school located near railroad tracks found that children who spent six years in classrooms closest to the tracks were an entire year behind children whose rooms were furthest from the tracks.[8]

While children are more susceptible to the harmful effects of exposures to hazardous substances, low income children are at even greater risk. Children of low-income families have limited or no access to health care due to their economic status. Moreover, children living in poverty have been exposed to environmental contaminants such as lead at greater levels than children who do not live in poverty.[9] Toxics such as lead cause

learning disabilities and reduce a student's ability to succeed in school. (cite) When you combine low-income families, cancer and other diseases and learning disabilities and you have children—families who will likely never succeed in breaking out of that circle of poverty.

B. Siting Policy MUST Prevent School District's from Selecting Sites that Pose Expensive Remediation, Repair, or Relocation Costs

New schools are being built across the country at a significant cost to taxpayers. In 2003, $11.2 billion was spent completing school construction projects involving new school buildings, with an additional $12.8 billion projected to be spent on completed new school buildings in 2004.[10] Much of this construction activity is occurring in low income and predominantly minority school districts to alleviate overcrowding and to replace antiquated facilities. School districts with more than 50% minority enrollment report significantly higher rates of severe overcrowding (i.e., where enrollments exceed capacity by more than 25%) than do school districts with minority enrollments of 21%-50% or districts with minority enrollments of 5% (15% versus 6% and 4% respectively).[11] In 1994, the largest proportion of schools reporting deficient school conditions was in central cities serving more than 50% minority students or 70% or more poor students.[12] Litigation challenging school facilities' funding systems as violating the education clauses of state constitutions has, also, accelerated construction of new school buildings for low income and minority students in poorer and largely urban school districts.[13]

While the increase in new school construction projects in low income and minority school districts is a welcome development, poor school siting choices from the standpoint of environmental hazards has proven to be costly to districts that have made those poor decisions. The "poster child" example of a costly school siting error was the Belmont Learning Center in Los Angeles. Around 1990, the Los Angeles Unified School District (LAUSD) acquired two parcels of land with the intent of building a new high school, along with a mix of residential and commercial development to be separately developed. Construction of the school began in 1997 but was halted in 2000 when concerns about the site's safety were raised. The site turned out to be on top of an abandoned oil field, and environmental tests revealed high levels of hydrogen sulfide (which can be toxic at low levels) and explosive methane gas.[14] An earthquake fault zone was also located on the property.[15] Nonetheless, in 2003, a deeply divided school board voted to proceed with using the property for school purposes at a cost of $131 million, including the cost of demolishing two newly constructed buildings that were constructed atop a seismic fault.[16] That amount is on top of the costs already spent on the project, estimated by LAUSD to be $174 million and by the California Joint Legislative Audit Committee to be $238 million.

A less costly example of a poorly sited school building is Classical High School in Lynn, Massachusetts, built on top of a former solid waste landfill. After 5 years of operation the building suffered structural damage due to settling of the $40 million building's slab on grade configuration. Damage to the building includes two crumbling walls, two-inch gaps where one part of the building has pulled away from another, cracked ceiling and floor tiles, misaligned doors and jagged floor to ceiling cracks in the walls.[17]

RESEARCH GOALS AND METHODS

This report was written to inform a stakeholder group that was to be assembled by the Rhode Island Department of Environmental Management ("DEM") on developing policy recommendations regarding the siting of

schools on or near sources of pollution. The stakeholder group proposal stemmed from litigation brought by Rhode Island Legal Services (RILS) against DEM and the City of Providence over the decision to build two public school buildings on the site of the former Providence City Dump. RILS obtained a grant from the United States Environmental Protection Agency under the Agency's Environmental Justice Small Grants Program to conduct research in support of the stakeholder group's work. While initially intended for Rhode Island readers, the results of the research conducted for this report are applicable throughout the United States.

The report contains several parts. The first part discusses the school siting issue from a Rhode Island perspective. A summary of current Rhode Island law regarding the selection of school sites and the clean up of sites contaminated by hazardous substances is followed by a description of recent controversies over building schools in Providence, Rhode Island on sites impacted by hazardous substances. These sites included the former Providence City Dump and several former industrial sites where the land was contaminated by factories that operated at those sites. The second part examines school siting policy on a national basis, presenting the findings of research on the laws and policies currently in force in all fifty states regarding the siting of schools on sites impacted by pollution or other environmental hazards. The various laws and policies identified as part of a fifty-state survey were put into seven distinct policy categories which are intended to help the stakeholder group develop a comprehensive approach to the problem of siting schools on or near sources of pollution. The third and final part of the report proposes a model school siting policy that addresses most of the policy categories set forth in the fifty state survey. The model policy includes "Last Resort Guidelines" that include school site remediation measures to be used at contaminated sites, but only when the school district genuinely has no choice but to site a school on a contaminated site. The report concludes with various appendices, including a resource page for further information, a glossary of technical terms, a bibliography, a series of GIS maps showing the location of school sites relative to various sources of pollution in Providence and the State of Rhode Island, and a detailed description of the laws and policies identified through the fifty state survey.

The first part of the report was based on legal research conducted by RILS, and on RILS's involvement with specific school sites in Providence in recent years. The fifty state survey was conducted by a RILS attorney and interns. A detailed description of how the fifty state survey was conducted is described at the beginning of the survey. The model policy was informed by the results of the fifty state survey, and through a series of exchanges with a panel of experts put together by the Reston Virginia based Center for Health, Environment and Justice ("CHEJ"). The panel assembled by CHEJ included risk assessment professionals, engineers with a background in contaminated site remediation, and public health professionals. The panel was particularly helpful in developing the Last Resort Guidelines that include specific site remediation measures for contaminated school sites. The model policy proposed in this report was developed in conjunction with CHEJ, and was included in a recent CHEJ study, "Building Safe Schools: Invisible Threats, Visible Actions" (2005).[18] The appendices to the report were also prepared by RILS, with the exception of the GIS maps of school sites in Providence and Rhode Island. Those maps were prepared by EPA Region 1. A description of the Data Sets used in the maps was also prepared by EPA Region 1, and is found in the GIS Map appendix.

PART II
SITING SCHOOLS ON CONTAMINATED SITES:
A Rhode Island Perspective

The starting point for policy discussions regarding the siting of public schools in Rhode Island on or near sources of pollution should begin with an examination of current laws affecting the siting of schools and the clean up of contaminated sites, and with Rhode Island case studies of schools built on contaminated sites. To further illustrate the dimension of the problem, GIS maps of existing school sites in relation to sources of pollution (One Statewide map and one map of the City of Providence) were prepared by the U.S. Environmental Protection Agency and are found in Appendix C.

1. RHODE ISLAND LAWS RELATING TO THE SITING OF SCHOOLS ON CONTAMINATED SITES

There are presently no laws in Rhode Island that specifically regulate the siting of schools in relation to sources of pollution. Rather, the public school site selection process is relatively unregulated, and laws regarding the clean up of contaminated sites contain no special rules for using those sites for public schools. Since the problem of siting schools on contaminated sites has occurred chiefly in Providence, a description of the school site selection process in Providence is also included in this section. The section concludes with a description of Rhode Island Laws regarding the redevelopment of contaminated sites.

A. Standards and Procedures for Selecting Public School Sites in Rhode Island

Rhode Island law does not mandate any particular rules or process for the selection of sites for public schools. Instead, the school siting process occurs as a part of the overall process for developing new school facilities. There are some laws that govern the school facility development process related to school site selection, but those laws do not establish mandatory site selection criteria or procedures for site selection. Moreover, those laws generally allocate responsibility for various tasks in the development process to particular entities as opposed to regulating the process itself.

Under Rhode Island law, the power to choose sites for public schools lies with the School Committee of the several cities or towns.[19] The School Committee's decision to select a particular site may be appealed to the Commissioner of Elementary and Secondary Education by a person "aggrieved" by the decision, such as a taxpayer or parents of children to be served by the school.[20] The Commissioner could reverse the School Committee's decision to select a particular site if "the public good or justice to individuals required it" or to "secur[e] uniformity in the administration of the law."[21]

The power of School Committees to choose sites does not include the power to acquire sites by eminent domain; that power is vested in the several cities or towns.[22] School sites may also be acquired by any municipal public building authority provided that the municipality's school committee expressly approves the selection of site to be acquired.[23]

Before proceeding with a new school project, the local school district must ask the Board of Regents for Elementary and Secondary Education to determine "the

necessity of school construction."[24] This process results in the Board of Regents approving a "certification of need" for the school construction project, which also the project eligible for local bond funding and for partial reimbursement of project costs under the state school housing aid program.[25] Annually, school districts must submit projects for approval by the Board of Regents each fall. The projects are reviewed internally by a committee, and brought to the Board of Regents for their review and approval in late winter to early spring.[26]

The Board of Regents has promulgated various policies related to construction of school facilities which are enforced through the necessity of need process.[27] Those policies are set forth in "necessity of school construction" forms and instructions which govern the school project approval process.[28] According to the Necessity of School Construction Information and Instructions issued by the Rhode Island Department of Education in 2005 ("2005 Instructions"), a site for the project need not be finalized when the project is submitted for review to the Board of Regents: rather the school district need only describe the "[a]vailability of a site for new construction."[29] Thus, the necessity of need process does not provide an effective means for the Board of Regents to regulate the selection of school sites.

The Board of Regents has developed guidelines for school site selection which are found in the 2005 Instructions. Those guidelines purport to establish "requirements" that "[a] school site should conform" to.[30] Under those guidelines the site should:

- be chosen on the basis that it will meet the educational need and minimize any possible adverse educational, environmental, social, or economic impact upon the community (e.g. need to supply new sewers, roads, or water connections; existence of soil conditions that will result in increased site developmental costs; or curtailment of the approved educational program);

- be so located as to serve efficiently and safely the school population it is intended to serve and be of sufficient size to accommodate the building and planned future additions as well as outdoor educational facilities, parking, bus turnarounds, delivery areas, required setbacks and planned aesthetics;

- be reasonably free from olfactory, auditory, visual and noxious pollution, or should be capable of being made so prior to the commencement of construction;

- not be excessively costly to the community; and

- be located whenever possible in proximity to other facilities such as libraries, museums, parks, natural resources, and/or other facilities which would enhance the proposed educational program.

These guidelines do not establish mandatory requirements for the selection of school sites since the local school district need not have finalized the site selection process when seeking Board of Regents approval of the necessity of construction.

The only other laws governing the selection of school sites[31] are found in regulations of the State Board of Education (now the Board of Regents).[32] Those regulations govern the approval and accreditation of secondary schools and provide standards for school sites that must be met before the Board permits a secondary school to legally operate in the state. These standards[33], adopted by the Board in 1963, require the following:

a) The site shall be large enough to provide ample space for the outdoor physical education and

recreation program of the school. The minimum size of the site shall be twenty-five acres unless it can be shown that adequate facilities can be provided with less or, in already established schools, land acquisition is impractical or excessively costly.

b) The site shall be attractively landscaped.

c) The site shall be readily accessible, well drained, and removed as far as possible from traffic hazards, noises, and unsanitary conditions.

d) The site shall provide off-street parking facilities sufficient to accommodate both daytime and evening needs of the school and community.

New school building projects are financed through the issuance of bonds. When the project is complete, a percent of the cost is eligible for reimbursement by the state on a sliding scale under the School Housing Aid Program.[34] The reimbursement rate is based on the total expended project cost (as opposed to the amount of the original bond issuance) over the life of the bonds issued for the project.[35] The housing aid share ratio calculation is based on a district's wealth compared to the aggregate state wealth, with a minimum share for each district set at 30%.[36] There are no site selection requirements under the School Housing Aid program.

B. The School Siting Process in Rhode Island

The school siting process was recently described by Justice Edward Clifton in his ruling in the *Hartford Park Tenants Association* litigation that challenged the construction of two public schools on top of the former Providence City Dump. The process does not reference any of the state laws mentioned above, demonstrating the ineffectiveness of those siting standards. An excerpt from the opinion describing that process follows:[37]

11. The school-siting process was triggered when the Providence school Superintendent determined that a new school was needed, contacted the Director of the Department of Public Property (DPP), and informed the latter of the need. The Acting Director of DPP gathered information from the School Department, including the number of students in the proposed area, the kind of school that is needed, and when the school is needed. The Acting Director compiled a list of properties available for the school, then investigated the size and location of the site before visiting each. When the Acting Director deemed a parcel to be a potential school site, he shared his list with the School Department.

12. The DPP Director next toured each site with School Department officials, discussing the sites and determining which site should be investigated further. The Director prepared a budget only for those sites under active consideration, and made the decision to prepare a budget for a specific site in consultation with School Department officials. The DPP also arranged for a preliminary drawing of a site plan, showing the proposed location of the school building(s) on the site.

13. After a site plan is developed, the City engages an environmental consultant to perform a Phase 1 environmental evaluation. If the results of Phase 1 environmental testing show that the site can be built on, the next step is to undertake a Phase 2 environmental evaluation.

14. In 1998 and 1999, there was no custom or practice for the DPP to notify the public that a specific site for a construction of a school was under consideration.

15. To finance construction of new schools, the Providence Public Building Authority ("PPBA") issues bonds. First, the Mayor requests the City Council to approve the bonds, and the request [*25] is referred to the Council's Finance Committee. The PSB must then also vote to approve the issuance of bonds. PSB posted its meeting notices at 797 Westminster Street and published them in the *Providence Journal* at least 48 hours in advance of a scheduled meeting. Once the City Council approves a resolution to issue bonds, the PPBA must vote to issue them. PPBA posts its meeting notices at 400 Westminster Street, 48 hours in advance of its meetings.

C. Rhode Island Laws on Redeveloping Contaminated Sites

Rhode Island's laws governing the redevelopment of contaminated sites are found in two sources: the Industrial Property Remediation and Reuse Act (or "IPRARA") and the Rhode Island Department of Environmental Management's ("DEM") Rules and Regulations for the Investigation and Remediation of Hazardous Waste Releases (As Amended February 2004) (hereafter, "Remediation Regulations").[38] These laws do not specifically address the cleanup of contaminated sites for school purposes, and apply generally to the cleanup and redevelopment of contaminated sites.

- ***Industrial Property Remediation and Reuse Act (IPRARA)***

IPRARA was enacted by the Rhode Island General Assembly in 1995, amended in 2002, and is found in the Rhode Island General Laws at R.I.G.L. §23-19.14-1, *et seq*. IPRARA is the primary law regulating the cleanup of sites contaminated by hazardous materials, and has three basic components. First, IPRARA imposes liability and responsibility upon certain "responsible parties" for damages arising from, and cleanup related to, any "site" contaminated with "hazardous materials." Second, IPRARA encourages cleanup and reuse of such sites by allowing a "responsible party" to limit its liability pursuant to agreement with DEM. Lastly, IPRARA imposes upon DEM the responsibility of overseeing any cleanup or remediation at contaminated sites and required DEM to undertake certain analyses when a site covered by IPRARA is ought to be remediated and/or reused.

IPRARA applies to any "site" that is contaminated by "hazardous materials." IPRARA defines a "site" as land that is "contaminated by the use, storage, release, or disposal of hazardous material including the extent of contamination and all suitable areas in very close proximity to the contamination where it will be necessary to implement or conduct any required investigation or remedial action".[39] Under IPRARA, "hazardous materials" include materials other than petroleum "in an amount and concentration such that when released into the environment, that material can be shown to present a significant potential to cause an acute or chronic adverse effect on human health or the environment."[40] IPRARA directed DEM to promulgate clean up objectives for the most commonly found hazardous materials "to levels which are protective of human health and the environment based on current and reasonably foreseeable future use of a property and the surrounding natural resources."[41]

IPRARA imposes certain responsibilities for the clean up of contaminated sites on a "responsible party" which include any and all of the following persons or entities: [42]

(1) The owner or operator of the site;

(2) Any person who at the time of disposal of any hazardous material owned or operated the site;

(3) Any person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment of hazardous materials owned or possessed by that person, at any site owned or operated by another party or entity and containing hazardous materials; and

(4) Any person who accepts or accepted any hazardous materials for transport to disposal or treatment facilities or sites selected by that person, from which there is a release or a threatened release of a hazardous material which causes the incurrence of response costs.

Under IPRARA, a "responsible party" is "liable for...[a]ll removal or remedial actions necessary to rectify the effects of a release of hazardous material so that it does not cause a substantial danger to present or future public health or welfare or the environment;...[a]ll costs of removal or remedial action incurred by the state; …[a]ny other necessary costs of removal or remedial action incurred by any other person; and...[d]amages for injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing the injury, destruction, or loss resulting from a release of hazardous material."[43] Thus, once a "site," has been identified by virtue of its characteristics, the "responsible party" must clean up the site (i.e., either remove or remediate the hazard), and, if it fails or refuses to do so, bear the costs of either the state or another party in accomplishing the remediation.

IPRARA assigns certain functions to DEM in the site cleanup process. First, IPRARA directs DEM to develop and implement a process to ensure community involvement throughout the investigation and remediation of contaminated sites and imposes certain notification requirements upon DEM. That process must include, but is not limited to: (1) notification to abutting residents when a work plan for a site investigation is proposed, (2) adequate availability of all public records concerning investigation and clean-up, including where necessary, establishment of informational repositories in the impacted community, and (3) notification to abutters and other interested parties when the site investigation is deemed by DEM to be complete.[44] Second, when a "responsible party" proposes a clean up plan of a contaminated site, DEM is required to consider "the effects that clean-ups would have on the populations surrounding each site" **and** "issues of environmental equity for low income and racial minority populations."[45]

- ***Remediation Regulations***

DEM's Rules and Regulations for the Investigation and Remediation of Hazardous Waste Releases" (hereafter, "Remediation Regulations") [46] were first issued by DEM in 1993, and were subsequently amended in 1996 and 2004. Where IPRARA establishes legal responsibility for the clean up of contaminated sites, the Remediation Regulations "create an integrated program requiring reporting, investigation and remediation of contaminated sites in order to eliminate and/or control threats to human health and the environment in a timely and cost effective manner."[47] DEM's Division of Site Remediation within the agency's Office of Waste Management oversees the integrated program established by the Remediation Regulations.[48]

Under the Remediation Regulations, DEM involvement with a contaminated site begins when DEM is notified by a responsible party that a release of hazardous materials has taken place, or when DEM possesses other information indicating the presence of hazardous materials at the site.[49] Typically,

knowledge of such a release occurs when the responsible party obtains results from laboratory tests of soil and/or groundwater indicating the presence of hazardous materials at levels exceeding certain regulatory thresholds. The thresholds for soil, known as the Direct Exposure Criteria, are found in Table 1 of Section 8 of the Remediation Regulations, and different thresholds were established for residential sites[50] and commercial or industrial sites. The thresholds for groundwater, known as the Leachability Criteria, are found in Table 2 of Section 8 of the Remediation Regulations, and different safety levels are established for the two general classes of groundwater bodies, "GA" (suitable for drinking) and "GB" (unsuitable for drinking without treatment).[51]

Once DEM becomes involved with a contaminated site, the DEM director must make an initial determination, based on available scientific and technical information, whether to require a "performing party" [52] to undertake a full-blown "Site Investigation" The purpose of a site investigation is to "adequately assess the nature and extent of contamination [at the site], and to evaluate and design a proposed remedy" to clean the site. The scope of the Site Investigation shall be tailored to specific conditions at the site under investigation using "professional judgment."[53]

DEM must formally notify the "performing party" in writing that a Site Investigation is necessary.[54] Thereafter, the performing party **may** submit a work plan detailing the specific objectives of the Site Investigation, the data is necessary to meet those objectives, and the methods which will be used to collect that data.[55] The findings and conclusions of the site investigation are compiled by the performing party in a document called a "Site Investigation Report" ("SIR") that is submitted to DEM for review and approval.[56] DEM has prepared a checklist for performing parties that lists all of the items that a SIR should include.[57] The SIR must also contain a section where the performing party proposes at least two alternative methods for cleaning up the site (the technical term being "two remedial alternatives") other than the no action/natural attenuation alternative, and to identify the alternative that is "most preferable."[58] Factors that can affect the selection of a remedy include cost effectiveness, permanency of remedy, and the current and reasonably foreseeable use of the site.[59]

The Remediation Regulations provide for public involvement in the Site Investigation process, through notice and comment about Site Investigation activities and selection of a preferred remedy. Prior to the implementation of Site Investigation field activities, the performing party is required to notify all abutting property owners and tenants that a Site Investigation is about to occur.[60] After DEM determines that the performing party has adequately assessed the nature and extent of contamination at the site, the performing party must notify abutting property owners and tenants that the Site Investigation is complete, and provide them with the findings of the investigation and inform them of any proposed remedial alternative that includes on-site treatment and/or containment of hazardous materials as part of the remedy.[61] For any preferred remedial alternative that includes on-site treatment or containment of hazardous materials, the public has the opportunity to submit comments on the technical feasibility of that alternative.[62] The comment period must occur before DEM determines whether to accept the preferred remedial alternative proposed by the performing party. DEM has the authority to accept the performing party's proposed alternative by issuing a "Remedial Decision Letter," or may require the performing party to consider other remedial alternatives.[63] DEM's decision regarding the appropriateness of the remedy shall be based on the finalized SIR and final responses to substantive public comments on the choice of remedy.[64] If the responses to comment

are prepared by the performing party, the responses must be approved by DEM in order for the responses to be considered final."[65]

After DEM approves the preferred remedial alternative proposed by a performing party, the performing party becomes obligated to "prepare and submit to the Department for review and approval a Remedial Action Work Plan ["RAWP"] documenting how the proposed remedial action will be implemented." [66] For remedial action that include on-site treatment or containment of contaminants, the RAWP must "include the best management practices" to prevent the infiltration/migration of hazardous substances at levels harmful to human health or the environment; prevent direct contact with hazardous substances at levels harmful to human health and the environment; and minimize and manage surface runoff from the area including during the remedial action.[67] The required elements of a RAWP (such as a proposed schedule for remediation, identification of contractors or consultants, site plan, design standards and technical specifications, etc) are set out in detail in Section 9 of the Remediation Regulations. Before a performing party may initiate any activities set forth in the RAWP, the RAWP must be approved by the Director of DEM.[68]

For contaminated sites where levels of contaminants in excess of regulatory thresholds will remain on site even after remediation activities have been completed (such as where contaminants are buried underneath an engineered cap) the performing party must put in place certain institutional controls in the form of an Environmental Land Use Restriction (ELUR).[69] The ELUR will restrict the use of the contaminated site to uses approved by the Director of DEM, and must be recorded by the performing party into the Land Evidence Records. The Remediation Regulations contain a sample ELUR for use by performing parties.[70]

2. Case Studies of Rhode Island Public Schools Built on Contaminated Sites

In the last eight years or so, the City of Providence (City) has, on average, built one new school each year. Many of these schools were built on sites contaminated by hazardous substances such as lead, arsenic, beryllium and volatile organic compounds. These sites included the former Providence City Dump and two former industrial sites. In each case, the Rhode Island Department of Environmental Management (DEM) oversaw the investigation of contamination and development of clean up plans for the school sites. The actions of the City and DEM for two recent school projects are discussed below. Attention is given to the role that members of the public played (or were not able to play) in the site selection, site investigation, and site clean up processes.

A. Springfield Street Schools (Providence City Dump)[71]

Carnevale Elementary School

In 1999, the City built an elementary school (now called Carnevale Elementary School) and a middle school (now called Del Sesto Middle School) on the site of the former Providence City Dump. The site selection process for these schools began in the fall of 1998 when then Acting Superintendent Dr. Robert DeRobbio determined that there was a need for an elementary school and two middle schools

to open by September of 1999, with each serving a population of 400 students. This need was caused by an increase in the student population over the previous five years. Between the fall of 1998 and February 1999, Alan Sepe, Acting Director of Public Property, identified four possible sites. Two sites were immediately eliminated by Sepe, and Sepe abandoned a third site abutting the Woonasquatucket River due to the year-long Wetlands Permit process that would have to be followed. Sepe proceeded with the remaining site, a portion of the former City Dump bordered by Springfield Street and Hartford Avenue on the City's West Side.

Del Sesto Middle School

The Dump Site on Springfield Street was originally an unfenced wetland that was divided into 100 individual lots that were never developed. The site later became the target of illegal dumping starting in the 1950's. The area remained an unofficial dump until the City of Providence assumed operational control of the dump between the 1960's through the early 1970's. However, the City never actually owned the land and the site was never a licensed solid waste facility. The City operated the dump as a municipal dump, accepting household and municipal trash and bulldozing over the trash with layers of soil. The City ceased using the site in the 1970's in response to complaints by nearby residents of noxious odors and rats, although illegal dumping occurred as recently as 1981 and 1982. Approximately 200,000 cubic yards, or 300,000 tons of waste and fill material was dumped at this site, of which about 50% of the material was located below the water table. In 1989, DEM inspectors discovered traces of PCB's in auto fluff material that had been deposited but determined that the material was categorized as solid waste. Over time vegetation covered the site, becoming a wooded area by 1999.

The City's plans to use the former City Dump for the two schools became public after an article appeared in the Providence Journal on February 10, 1999. Thereafter, neighbors complained about the proposal to DEM immediately thereafter. Shortly thereafter, DEM contacted the Mayor's office to make it aware of DEM records indicating there was a dump where the City planned to build the schools. Additionally, between February 22 – 26, 1999, DEM received approximately two or three calls a day from neighbors who had concerns about the City's plans to build schools at the former dump. When the City proposed to develop the site as school property, City officials denied that it had ever been a waste facility in response to public outcry and inquisition. Despite opposition to using the site, City officials moved quickly to secure financing for the project and begin construction. On March 1, 1999, then Mayor Vincent Cianci requested that the Providence Public School Authority issue bonds to finance construction of the two schools. Then, March 6, 1999, the City sent bulldozers to begin razing the site of trees and vegetation without any warning to abutting and nearby residents and before the City obtained ownership of the property and needed regulatory approvals from DEM and City building officials. Nor did the City send notices to abutting property owners and tenants that a site investigation was about to occur as required by DEM regulations and state law.

On March 8, 1999, the City received preliminary test results from soil samples

taken by its environmental consultant, ATC Associates, indicating levels of lead, arsenic and total petroleum products higher than safety standards known as the Method One Residential Direct Exposure Criteria. On March 12th, the environmental consultant completed a Phase I Environmental Site Assessment, which reported that the site was contaminated with lead, arsenic, and total petroleum hydrocarbons, exceeding the applicable safety standards. These toxicants are known causes of cancer, neurological damage, immune, heart and kidney damage and skin disorders.

A community meeting about the proposed schools was held on March 16th, but none of the actual test results were released to the public. Many people at the meeting expressed opposition to using the site for the schools. Three days later, after DEM personnel observed continuing construction activity, DEM ordered the City to stop all work at the site, due to the health and safety risks construction posed to the surrounding populations and environment. Further DEM ordered the City to complete a Site Investigation Report and obtain DEM approval of a clean up plan called a Remedial Action Work Plan, before the City could resume construction.

Without giving notice to abutting property owners and tenants required under DEM regulations and state law, the City submitted to DEM a Site Investigation Report (SIR) on March 25th; and a week later, the City submitted to DEM Remedial Action Work Plan (RAWP) on April 2nd (the latter was last amended on May 9, 1999). The SIR identified the preferred remedy for cleaning up the Dump Site as covering over the dump with the two school buildings, sidewalks and parking lots, and two feet of clean fill; and installing a soil gas collection system under the elementary school building.

Soil gas well – Springfield Street Schools

The RAWP proposed nearly the same remedy, but added a soil gas collection system for the middle school, added an indicator barrier to be placed under the 2 feet of clean fill where the site was to be landscaped, mentioned that one feet of clean fill and a geotextile fabric would be put under areas that were to be paved over, and proposed a system to excavate and sift soil, that would separate out bulky waste for disposal off site.

Soil cap breach – Springfield Street Schools

When it submitted the SIR and RAWP, the City asked DEM to expedite its review of those documents. DEM complied with this request, and by April 9th, DEM determined that the site investigation was complete, and conceptually approved the preferred remedy proposed in the SIR. Contrary to DEM regulations, the public was not allowed to comment on the technical feasibility of the City's proposed remedy

before DEM gave its conceptual approval of that remedy. The only opportunity the public had to comment on the City's clean up plan for the site was a public meeting held at 5PM at City Hall in Downtown Providence on April 26th. Public opposition to the school project was again expressed. Despite that opposition, DEM did not schedule any more public meetings about the site, nor did DEM establish a public comment period about the feasibility of the City's clean up plan. The public meeting was but a mere formality, as the very next day, DEM gave permission for the City to start driving piles into the ground for the middle school building.

By April 26th, the City had already incurred costs up to $300,000 to $400,000 dollars on the school projects. Despite this expenditure of funds, the Providence School Board voted that night along racial lines against bond financing for the project (where White members voted for the project and non-White members opposed the project). A second vote on May 4th on racial lines upheld the April 26th vote. But the very next week, on May 10th, the School Board reversed its decision and supported seeking bonds for the project. Between April 27th and May 10th construction of the schools was ongoing, despite the votes blocking financing for the project.

The City's sifting of soil in early May of 1999 was met with a rush of complaints by abutting property owners who were suffering from the health impacts caused by the odors and dust emanating from the site. Even though DEM personnel smelled odors of rotting trash at the site, and despite DEM's failure to approve the RAWP, construction work continued. By the time DEM finally approved the City's RAWP on June 4th, the first floor of the elementary school had been completed, with the second floor under construction, and the foundation for the middle school had already been laid. The City did not take ownership of the site until June 15th. Building permits were not obtained for the elementary and middle school buildings until August 31st and October 14th, respectively. Students began attending the elementary school in September 1999, and the middle school opened in December 1999.

B. Robert Bailey School (former electrical parts factory)

Bailey Elementary School

In January 2000, Sepe announced the City was moving forward on its next school project, a new 400-student elementary school building to relocate Robert Bailey School, which was then housed at a former parochial school in the City's Fox Point neighborhood. At the time, most of the students attending the Bailey school did not live in or near Fox Point, a neighborhood on the City's East Side, but in neighborhoods on the City's South Side. This issue, along with the growing student population from the South and West portions of the city gave rise to the need for a new school in closer proximity to where the students lived.

Sepe picked out a new school site at the corner of Potters Avenue and Gordon Avenue in the City's Lower South Providence neighborhood, where a building housing various electrical parts manufacturing concerns burned down in an arson fire in 1996. After the fire, the city demolished the parts of the building not destroyed in the fire as well as several nearby homes that were also damaged in the fire. By January of 2000, the City had placed liens on the property totaling

more than $360,000 for unpaid taxes, interest and demolition costs, and the City planned on condemning the property.

In 1999, the City hired ATC Associates again as its environmental consultant, and ATC began testing the site in October of 1999. Initial environmental tests revealed the presence of lead, beryllium, total petroleum hydrocarbons, and certain polycyclic aromatic hydrocarbons in amounts that exceeded the Method 1 Residential Direct Exposure Criteria. Soil samples also indicated traces of arsenic and semi-volatile organic compounds. As with the Springfield Street Schools, the City failed to send notices to abutting property owners and tenants that an investigation of environmental contamination at the site was about to occur.

ATC's Site Investigation Report (SIR) was submitted to DEM on January 10, 2000, nine days before a scheduled public meeting. While the public was notified in advance of the meeting, no mention was made in the notice that the City had completed a SIR as required by law. The meeting was held an elementary school in Lower South Providence at 7PM on January 19th. At the meeting ATC distributed a fact sheet describing the site investigation work that had taken place thus far. ATC's fact sheet claimed that the presence of chemicals on the site were similar to those found in any common urban setting, and were not related to the former manufacturing activities. Specifically, ATC stated that lead traces could have easily been from flaking lead paint from houses formerly on the lot, the petroleum hydrocarbons could have been from leaking oil residue from former parking lots, and the semi-volatile organic compounds could have been from the fire or from fuel oil. ATC reported that volatile organic compounds were not detected in soil samples and in only trace amounts in the groundwater, an indicator of minimal risk posed by those contaminants similar to those found in any common urban setting, and were not related to the former manufacturing activities. Specifically, ATC stated that lead traces could have easily been from flaking lead paint from houses formerly on the lot, the petroleum hydrocarbons could have been from leaking oil residue from former parking lots, and the semi-volatile organic compounds could have been from the fire or from fuel oil. ATC reported that volatile organic compounds were not detected in soil samples and in only trace amounts in the groundwater, an indicator of minimal risk posed by those contaminants.

Of the three clean up options discussed in the January 2000 SIR, including "no action" (meaning leaving the site as it was), removal of upper two feet of soil at site and replacement of soil with clean fill, and placement of a soil cover of the site, ATC favored the last option. ATC proposed a soil cover of 6 inches of clean fill underneath the school building (which was to be built on a concrete slab), and 4 inches elsewhere, since the entire site was proposed to be paved over by asphalt.

Further soil testing at the site showed that the soil would not support a school building structure because about 40% of the material underneath the site was composed of concrete blocks and bricks. In order to strengthen the ground to better support the school building structure, ATC recommended in an amended SIR dated March 14th that the top five to eight feet of the site first be excavated and screened, of which the stockpiled soil will be compacted and returned to the excavated site. ATC also increased the thickness of the soil cap to two feet, except those areas under the school building (remaining six inches) and under the parking lot (now one foot).

On March 30th, a second public meeting about the City's clean up plan for the Site took place at the same neighborhood elementary school. Concerns about the lack of a public comment period and health hazards from blowing dust caused by the compaction operations were expressed. City officials could not answer

questions about the length of the public comment period and whether the City would prepare comments in response to concerns that were raised at the public meeting.

On April 6th, the City sent DEM a copy of a letter responding to concerns raised at the March 30th meeting. On April 11th, DEM informed the City that the SIR was complete and it gave conceptual approval to the remedy set out in the March 2000 amended SIR. The City's Remedial Action Work Plan (RAWPP about the RAWP took place at the same neighborhood elementary school at 6:30 PM on May 1st. On May 8th, ATC sent to DEM a copy of a letter responding to environmental concerns received after the March 30th meeting. The next day, on May 9th DEM approved the City's RAWP for the Gordon Avenue site.

C. Other School Projects on Contaminated Sites in Providence

In 2004 and 2005, respectively, two high schools were proposed on separate contaminated sites, both formerly used for industrial purposes. One site was abandoned by the City after an incinerator ash dump was discovered on the site and DEM required the City to perform additional environmental tests. Instead of proceeding with that site, the City renovated a nearby commercial building for what became the E Cubed Academy so it could be opened on schedule (Fall 2004).

The second school, the Adelaide Avenue High School, was proposed to be built on a portion of the now demolished Gorham silver factory, one of the nation's largest silver manufacturing facilities. The soil where the school is proposed is contaminated with unsafe levels of Trichloroethylene (TCE) and polycyclic aromatic hydrocarbons (PAHs), and high levels of arsenic and lead are found in soil on other parts of the Gorham site where no remediation is planned. The City stopped work on the Gorham site school in the spring of 2005 when DEM filed suit against the City to halt work until a clean up plan *only for the portion of the Gorham site where the school was proposed* was reviewed and approved by the agency. The Court forbade the City from undertaking even limited work on the school site until a plan for that limited work was reviewed and approved by DEM. Over the City's objection, the Court extended the public comment twice, to ensure the community and an expert retained by a neighbor of the site had sufficient time to review the many environmental studies of the site and submit comments on the technical feasibility of the proposed remedy for the school site. At the time of this writing DEM is reviewing the City's response to comments received during the public comment period.

PART III
THE EXISTING STATE OF SCHOOL SITING POLICIES:
A Fifty-State Survey

To better inform policy discussions surrounding the siting of schools, a survey of the laws, regulations and policies (referred to collectively hereafter as "policies") related to the siting of schools on or near sources of environmental pollution in all fifty states was undertaken in the Winter of 2004-05. Presented here are the results of research on state policies governing the siting of new public schools (as opposed to private or charter schools or specialized schools for the blind or deaf). This research does not examine policies adopted by local governments or school districts unless those laws were codified in state statutes or regulations. Nor does this research examine rules on locating portable classrooms, renovating existing school buildings, or locating other facilities in relation to existing school buildings. Moreover, the survey only examined policies that specifically related to siting schools; policies that relate generally to the clean up of sites contaminated by hazardous substances were not included in the survey.[72]

RESEARCH METHODOLOGY FOR FIFTY STATE SURVEY

The bulk of the research for the fifty-state survey was conducted using Internet based resources during the Winter of 2004-05. For each state, the web sites containing state laws and state agency regulations were searched using either the site's search engine or by scrolling through laws and regulations relating to education, environment and public health. Next, the web sites of each state education, environmental and public health agency were searched, either using the site's search engine or by scrolling through the site. Finally, a LEXIS® search of each state's laws and agency regulations (with the exception of California)[73] was undertaken, using both the search engine and the "Table of Contents" feature. Telephone interviews were also conducted with state environmental officials in California and New Jersey, the two states with the most developed policies regarding the siting of schools on or near sources of environmental pollution.

The policies obtained through the research were compiled into a Summary Document (Appendix A), where the policies were grouped into eight (8) subheadings, and a summary of each state's policies for that particular category was produced. A separate subheading on the availability of forms used in the school siting process was also created. These eight (8) subheadings were developed after an initial review of the results of the research, and were further refined into broader (thus, less numerous) categories. The Summary Document contains a list of each state's policies, including links to web sites where the actual policies and forms can be located. The eight (8) policy subheadings are as follows:

Prohibited Sites

Policies that forbid sites a school district can use for school projects due to health or safety concerns with regard to transportation routes, transmission routes (e.g. pipelines, power lines), point sources of pollution, prior land uses, natural hazards, and other general environmental conditions.

Siting Factors

Policies that dictate how potential school sites are to be evaluated in relation to the site's proximity to transportation routes, transmission routes, point sources, prior uses, natural hazards, and other general environmental conditions. This category is distinguishable from the "prohibited site" category in that the policies listed here do not categorically exclude a site from consideration, thus giving school districts greater discretion as to where to site schools.

Environmental Evaluation for Site

Policies that require sponsors of school projects to evaluate environmental conditions at proposed school sites and environmental impacts of school projects. Only those states having requirements that specifically address school sites or school projects are included in this section. Attention is given to states that specifically require school districts to conduct American Society for Testing and Materials (ASTM) Phase 1 and/or Phase 2 studies or their equivalent, and Environmental Assessments and/or Environmental Impact Statements under state environmental review laws. All other environmental evaluation methods are categorized either as "other contamination assessment"(where the assessment relates to identifying environmental contamination on the site) or "general site assessment"(where the purpose of the assessment is to identify conditions at the site which may or may not include environmental contamination).

Remediation

Policies that provide for site remediation measures or standards developed specifically for the clean up of contaminated school sites. This section does not address cleanup standards for specific hazardous substances other than those levels established specifically for school sites; rather it surveys general remediation measures.

Funding Provisions

Policies that provide funding to reimburse school districts for construction costs incurred specifically for environmental evaluation and/or remediation of site, as opposed to funding generally for site acquisition or preparation. Also includes policies that provide funding to cover staff positions to oversee remediation of contaminated school sites.

Public Participation

Policies that require public hearings and/or public comment periods regarding potential school sites; the formation of school siting committees or other committees charged with selecting school sites composed of members of the public; other policies whereby the public becomes involved in the site selection process. Excluded were requirements to place school construction projects before voters for approval.

Information Available

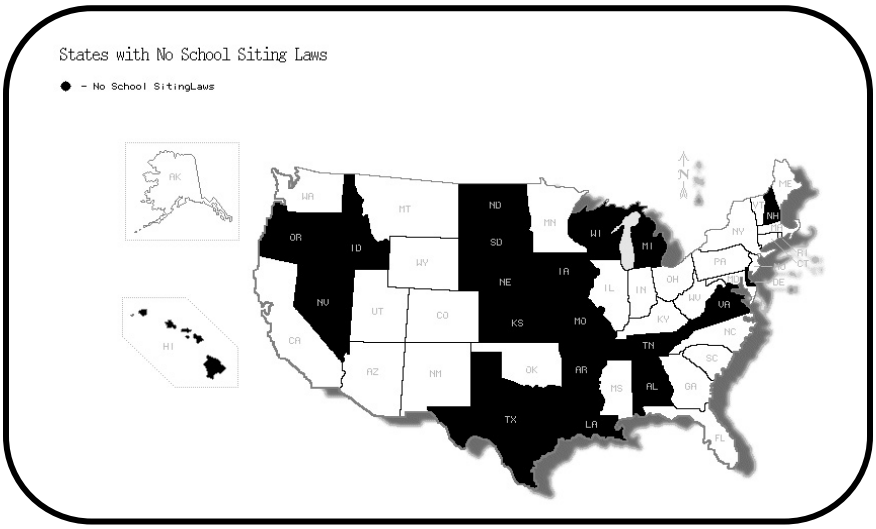
Policies that require information about potential school sites to be made available to the public during the school site selection process regarding environmental investigations and conditions at potential school sites.

Forms Available for Site Evaluation and Remediation

Includes Internet links to forms that are used to evaluate environmental conditions and develop clean up plans at potential school sites. Those links are found in Part I of Appendix A.

Twenty (20) states have no policies of any kind that fall within these eight categories.[74] A map showing these 20 states is found in Figure 1.

FIGURE 1

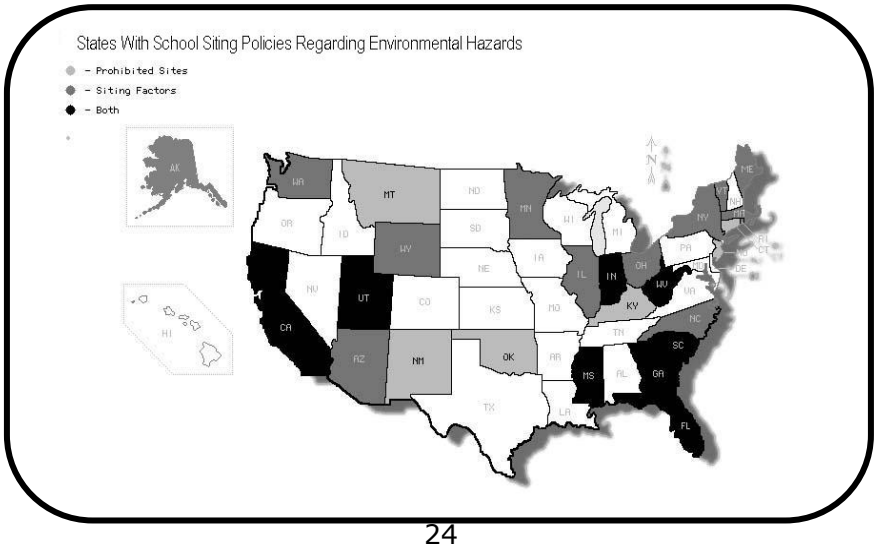


1. POLICIES RESTRICTING SCHOOL SITING ON OR NEAR ENVIRONMENTAL HAZARDS

Of all fifty states, only twenty-six have restrictions on siting schools on or near sources of environmental hazards. These restrictions include outright prohibitions on using sites with certain characteristics or criteria that planners must take into account when selecting a school site.

Figure 2 (States With School Siting Policies Regarding Environmental Hazards) shows the twenty-six states that have restrictions on siting schools on or near sources of environmental hazards, broken down by those states with policies prohibiting the use of certain sites, states with policies establishing siting factors to be considered by school siting officials or states with both prohibitions and siting factors.

FIGURE 2



A. Prohibited Sites

Only 14 states outright prohibit siting schools in locations that pose health and safety risks due to the presence of man-made or natural environmental hazards. [75] These prohibitions extend to sites impacted by: air, motor vehicle and rail traffic; electric power lines; pipelines; air or noise pollution or odors; hazardous or solid waste; prior land use; earthquake faults; flooding; or radon. A list of selected hazards and states with policies that prohibit siting schools near those hazards is found in Table 1.

Transmission routes such as pipelines carrying hazardous substances, power lines, high voltage transmission lines, high-pressure gas lines and transformer stations represent another category of dangers. Three states have enacted policies against locating schools on or near such transmission routes.[79] California prescribes minimum distances of school sites from electric power lines depending on the voltage of the line.[80]

Sources of pollution have been recognized as a hazard where schools cannot be sited

TABLE 1: STATES WITH POLICIES BANNING SITING OF SCHOOLS ACCORDING TO SELECTED HAZARDS

Highway or Vehicle Traffic	Railroad	Airport	Pipelines or Power Lines	Hazardous/Toxic Waste Site
California	California	Florida	California	California
Florida	Florida	Kentucky	South Carolina	Florida
New Mexico	Indiana	West Virginia	West Virginia	Kentucky
West Virginia	West Virginia			Mississippi
				Utah

Noise/Odor or Air Pollution	Stream or Flood Plain	Other Natural Hazard	General Hazard
California	California	California	California
Florida	Georgia	Connecticut	Indiana
Indiana	Indiana	Utah	Kentucky
Kentucky	Kentucky		Montana
Mississippi	Mississippi		Oklahoma
West Virginia	Utah		
	West Virginia		

Locating schools near transportation routes such as highways, railroads and airports has been prohibited by six states.[76] Among these states, West Virginia provides the most encompassing definition of a transportation route to include airports, railroads, arterial highways, heavily traveled streets, and areas with generally heavy traffic and congestion.[77] California, Indiana and New Mexico define the minimum distance (between 400-500 feet) at which a transportation route may be located from a school.[78]

near in seven states.[81] These sources include sites where hazardous or solid waste was disposed, and sites affected by sources of smoke or air pollution, noise or odors such as factories, stables, mills and stockyards. Indiana is the only state to define the minimum distance (500 feet) of the school site from the source of pollution.[82] In some states sites affected by pollution may still be used if certain clean up measures are taken. In California, a solid waste disposal site may be used for a school only if all of the disposed solid waste has been removed

from the site.[83] In Florida, a site contaminated by hazardous substances may be used if "steps have been taken to ensure that children attending the school or playing on school property will not be exposed to contaminants in the air, water or soil at levels that present a threat to human health or the environment." [84]
Eight states prohibit school construction near sources of natural hazards.[85] Such natural hazards are often identified according to the particular ecological and geological circumstances of each state. For example, California[86] and Utah[87] prohibit construction on or near geological faults where earthquakes could occur; Connecticut prohibits school construction in areas of moderate or high radon potential unless radon mitigation techniques are incorporated into the school's design;[88] and Indiana prohibits construction within 500 feet of a stream.[89]

Five of these fourteen states generally prohibit the siting schools on sites that pose health risks or are near health hazards, but do not define the types of conditions that could pose dangers to children's health and safety.[90] For example, under Montana law "[t]he school site must be free of objects or obstacles which create unnecessary dangers to health or safety;" [91] and in Oklahoma, a school site "shall be as free as possible from hazards."[92] These provisions, while intended to protect children's health and safety, provide little guidance to school officials on how to safely site schools.
Policies providing categorical exclusions of school sites located on or near environmental hazards often are subject to site specific waivers. Three states allow such waivers when the sponsor of a new school project can demonstrate that the proposed site poses no risk to children's health and safety.[93]

B. Siting Factors

More common are policies that establish siting factors that school siting officials must consider when selecting school sites. Twenty-one states have such factors.[94] This policy category is distinguishable from the "prohibited sites" category in that the former does not categorically exclude a site from consideration, thus, giving school districts greater discretion as to where to site schools. Typically, these policies direct or suggest that school siting officials "avoid" siting schools on or near specified hazards, or direct the school district to "consider" those hazards when selecting school sites. The types of hazards found in these siting factors are nearly identical to those found in the "prohibited sites" category and include proximity to transportation routes, transmission routes, point sources of pollution, prior uses, and natural hazards. A list of selected hazards and states that include those hazards in school siting criteria policies is found in Table 2.

TABLE 2: STATES WITH SCHOOL SITING FACTOR POLICIES: SELECTED HAZARDS

Highway or Vehicle Traffic	Railroad	Airport	Pipelines or Power Lines	Hazardous/Toxic Waste Site
California	California	Arizona	California	Alaska
Florida	Georgia	California	Florida	California
Georgia	Minnesota	Georgia	Georgia	Florida
Minnesota	Utah	North Carolina	Illinois	Georgia
Mississippi		Utah	Minnesota	Washington
North Carolina		Wyoming	North Carolina	
Rhode Island			Wyoming	
Utah				
Vermont				
Wyoming				

Noise/Odor or Air Pollution	Stream or Flood Plain	Other Natural Hazard	General Hazard
Alaska	Florida	Alaska	California
California	Georgia	Arizona	Maine
Florida	Illinois	California	Massachusetts
Georgia	Minnesota	West Virginia	New York
Illinois	North Carolina	Wyoming	North Carolina
Indiana	South Carolina		Ohio
Massachusetts	Vermont		Rhode Island
Minnesota			South Carolina
North Carolina			Washington
Rhode Island			West Virginia
Utah			
Vermont			
Washington			
West Virginia			
Wyoming			

Of the various hazards studied, the siting factor adopted by the largest number of states relates to sites located on or near sources of pollution. Fifteen 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.[95] These polices cover a variety of pollution sources such as air pollution, noise pollution, odors, toxic substances in soil, use or storage of hazardous materials (e.g. explosives), nearby industrial or agricultural uses, and miscellaneous sources. Most states' siting policies include more than one of these sources. A list of pollution sources and states that include those sources in school siting policies is found in Table 3.

TABLE 3: STATES WITH SCHOOL SITING POLICIES BY SOURCE OF POLLUTION

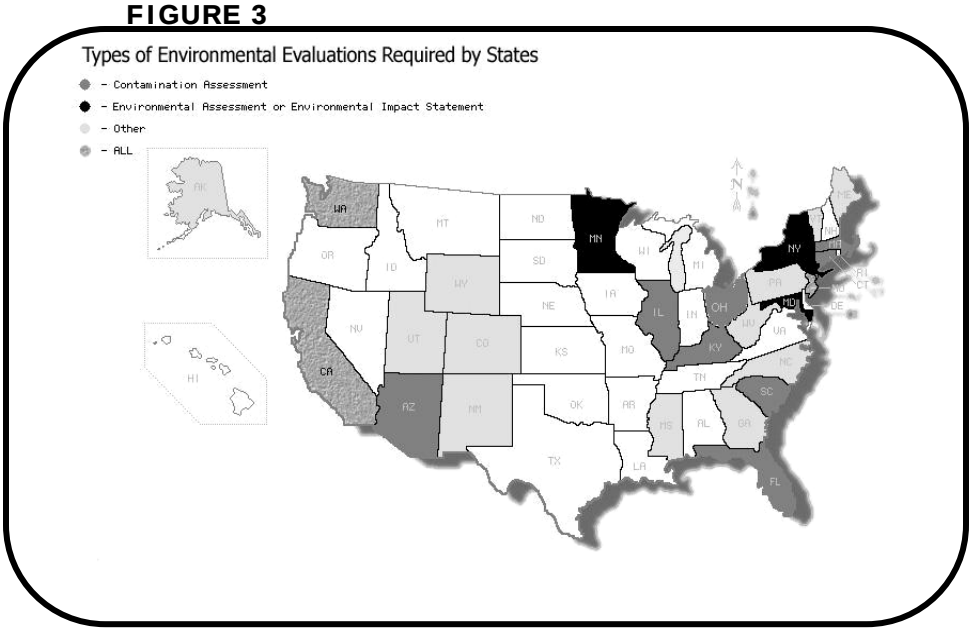
Air Pollution	Noise Pollution	Odors	Soil Toxics	Hazardous Materials	Industrial or Agricultural Use	Other
California	Illinois	Illinois	Alaska	Alaska	Georgia	Georgia
Georgia	Indiana	Massachusetts	California	Florida	Minnesota	Illinois
Illinois	Massachusetts	Utah	Florida	Georgia	North Carolina	Massachusetts
Indiana	North Carolina		Illinois		Utah	Rhode Island
North Carolina	Rhode Island		Washington		Vermont	
Washington	Utah					
Wyoming	Vermont					
	West Virginia					
	Wyoming					

Eight states have a vaguely worded siting factor that directs school districts to weigh environmental factors or the safety of a proposed site when selecting sites for new schools, or to avoid siting schools where environmental hazards are present.[96] In Maine, the state's Board of Education must consider "the environmental issues related to the [potential school] site."[97] School sites for state funded school projects in Massachusetts must be "based on the cost and environmental factors, including awareness of soil conditions and their probable effect on foundation and site development costs."[98] Sites for school projects in Rhode Island for which state reimbursement is sought should be chosen to minimize the environmental and economic impact on the local community, and should be "reasonably free from olfactory, auditory and visual or noxious pollution, or should be capable of being made so prior to commencement of construction."[99] The ambiguity of these policies provide school officials with little direction in selecting sites and, thus, are largely ineffective from the standpoint of ensuring the selections of sites that protect users of school buildings from environmental hazards.

2. Policies Requiring Investigation or Assessment of Environmental Hazards on Potential School Sites

Twenty-six states have rules that require sponsors of new public school construction projects to investigate or assess the presence of environmental hazards at potential school sites. These rules require documentation of the presence or absence of contamination on potential sites and characterization of the nature and extent of any contamination; preparation of formal environmental assessments or environmental impact statements to determine the impacts of school construction projects on the environment; or evaluation of environmental conditions on potential school sites in some fashion other than the first two methods. Figure 3 (Types of Environmental Evaluations Required by States) shows the twenty-six states that adopted one or more of these environmental investigation, assessment, and evaluation rules.

FIGURE 3



Rules that mandate documentation of the presence of contaminants and the extent of contamination at potential school sites take several forms. Eight states require school construction project sponsors to conduct "Phase I" environmental site assessments of potential school sites.[100] The purpose of a Phase I environmental site assessment is to identify the presence or the likely presence of any hazardous substances or petroleum products on a property based on historical or current site use.[101] A typical Phase I assessment involves no collection or testing of samples and is limited to information already available through public sources, interviews or first-hand observation. While environmental professionals use many protocols in conducting Phase I assessments, the method most commonly used is that developed by the American Society for Testing and Materials.[102] A more extensive set of protocols, "All Appropriate Inquiries," was issued by the United States Environmental Protection Agency as part of the agency's implementation of the Small Business Liability Relief and Revitalization Act of 2002 (Brownfields Act), and is likely to become the new standard for Phase I site assessments.[103]

If the results of a Phase I environmental site assessment indicate the presence or likely presence of hazardous substances on a potential school site, the sponsor of a school construction project should conduct a Phase II assessment. The purpose of a Phase II assessment is to estimate the nature and extent of contamination and to provide the basis for a preliminary assessment of the cost for corrective or protective action.[104] However, only five of the eight states that require a Phase I assessments require a Phase II assessment when the results of the Phase I assessment indicate the presence or likely presence of hazardous substances.[105] Unlike a Phase I assessment, a Phase II environmental site assessment involves the collection and testing of soil and groundwater samples at potential school sites. The Phase II assessment either (a) indicates no reasonable basis to suspect the presence of hazardous substances or petroleum products at the property, or (b) confirms the presence of hazardous substances or petroleum products at the property under conditions that indicate disposal or release,[106] whereby such hazardous substances or products have contaminated the surrounding environment. Where a site is found to be

contaminated by hazardous substances at levels exceeding regulatory safety standards[107], the site may become jurisdictional under state hazardous waste laws, and may require development of a clean-up plan before the site may be used for a school.[108] Alternatively, state law may forbid the use of some contaminated sites for schools.[109]

At least six states require sponsors of new school construction projects to assess the environmental impact of the project as part of a state environmental review process. [110] Such requirements are modeled on the National Environmental Policy Act, which requires the preparation of an environmental impact statement for major federal actions significantly affecting the quality of the human environment.[111] Under these state rules (often referred to as "Little NEPAs"), the sponsor of the school project usually must complete an environmental assessment form, which will determine whether a full environmental impact statement must be prepared.[112] Where an environmental impact statement is required, the statement discusses at length the environmental impacts of the school project and alternatives to proceeding with the project.[113] However, these "little NEPAs" do not require sponsors of school construction projects to pick the alternative with the least environmental impact, nor do they require sponsors to adopt measures to mitigate environmental impacts.

Twenty states require general environmental evaluations of potential school sites using formats other than the Phase I/Phase II environmental site assessment or environmental assessment/environmental impact statement.[114] Eight of these twenty states require sponsors of school construction projects to prepare a written site assessment report that identifies man-made and natural environmental hazards;[115] six states require sponsors to evaluate sites (and, sometimes, alternative sites) according to a list of environmental factors;[116] while the remaining six states merely require school project sponsors to report on soil, wetlands and geologic conditions to insure that proposed sites can physically support a school building.[117]

3. Clean up of Contamination on Sites for New Schools

A mere handful of states have policies governing the clean up of contamination on sites for new schools. Such policies include site remediation provisions and standards developed specifically for school sites and state funding of clean ups at contaminated sites where new schools are being built.

A. Site Remediation Policies

Only five (5) states have policies that specifically require sponsors of new school projects to undertake remediation or clean up measures at contaminated school sites.[118] In the other forty-five (45) states, contaminated school sites may well be subject to clean up 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.

Three states explicitly require sponsors of new school projects to undertake remedial action measures at sites where hazardous substances are found at unsafe levels. In California, state funded school construction projects cannot be occupied by local school officials until the state Department of Toxic Substances Control (DTSC) certifies that all remedial actions ordered to be taken at a contaminated site for a new school are completed.[119] Further those response actions must "be protective of children's health with an ample margin of safety."[120] In 2004, the California Office of Environmental Health Hazard Assessment issued a guidance document to enable DTSC and other state and local environmental and public health agencies to assess exposures and health

risks at existing and proposed school sites.[121] In Florida, where a Phase 2 environmental assessment reveals the presence of contamination, the local school board "shall conduct appropriate rehabilitation . . . before initiating construction."[122] Site rehabilitation measures may be based upon risk-based corrective action cleanup criteria established by the state's Department of Environmental Protection.[123] Similarly, in Illinois (Cook County only), where a Phase 2 indicates that a new school site is contaminated, the site must be enrolled in the state's Site Remediation Program. [124] Any new school site that is enrolled in the Site Remediation Program cannot be occupied until all work under the agency approved Remedial Action Plan is completed, and the site must be inspected every five years to insure that any engineered barriers and institutional controls remain effective.[125]

Two states have established specific standards or remedial actions at contaminated school sites. Massachusetts applies its strictest risk characterization standards at contaminated disposal sites if the site will be used for a school and children attend school on top of the disposal site.[126] New Jersey has specified action levels for abatement of radon and lead at school sites, and requires either the removal of lead contaminated soil or paving over the soil in school playing areas where lead levels exceed 400 micrograms of lead per gram of soil.[127]

B. State Funding of Clean Ups at Contaminated School Sites

Policies that provide for state funding of clean up of contaminated sites were found only in states that provide funding to local school districts for school construction projects. Only those policies that specifically provided for total or partial reimbursement of expenses incurred by school construction project sponsors to conduct environmental evaluations of school sites and/or the remediation of contaminated school sites (as opposed to reimbursement of site acquisition or development costs or a percentage of total project costs) were included in the research.

Seven states expressly provide for partial or total funding to local school districts to cover costs of investigating environmental conditions at school sites, such as Phase I and II environmental site assessments.[128] The states of California[129], New Jersey[130] and Ohio[131] provide partial reimbursement of site investigation costs, depending on the wealth of the school district sponsoring the project. The state of Washington expressly provides no financial assistance to undertake geotechnical studies and site surveys.[132] In addition to providing total or partial reimbursement of environmental site investigation reports, the State of New Jersey's School Construction Corporation, a quasi-public corporation charged with constructing schools in the 30 poorest districts in the state, pays for eight staff positions at the state's Department of Environmental Protection "DEP"). Those staff positions are dedicated to DEPs review of required environmental site reports prepared by the School Construction Corporation and making recommendations on whether the Corporation should purchase sites for schools.[133]

Costs incurred by local school districts to clean up contamination at new school sites are reimbursed by the states of California and New Jersey. In California, local districts participating in state funded school projects can seek reimbursement of site investigation and remediation costs up to 1.5 times the post clean-up appraised value of the land; and districts eligible for "financial hardship assistance" can seek reimbursement of up to 100% of those costs.[134]

In New Jersey, for the state's 30 poorest school districts the state pays 100% of "final eligible costs," of school projects which include site investigation and remediation costs approved by the state

Commissioner of Education; and in all other districts at least 40% of final eligible costs in all other districts.[135]

4. Public Participation Requirements in School Siting Decisions

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. Yet, almost two thirds of states have no such formal mechanisms in place. The public participation measures put in place by the remaining third of states include public notice and comment policies; limited notice and comment afforded particular agencies or constituencies; school siting advisory committees; and vaguely worded directives that encourage public participation. A list of public participation policies and states that adopted such policies is found in Table 4.

the project, and solicit comments from the public at the meeting or hearing or during a comment period. Eleven states utilize some form of public notice and comment in school-siting decisions.[136] Public notice-and-comment participation does not afford the public a meaningful role in the school-siting process. Usually, the sponsor of the school project has already spent considerable time and money on the project before the public meeting or hearing and ends up defending its plan instead of formulating a plan based on citizens' concerns. Moreover, at a public meeting or hearing the school-project sponsor and the public can not develop any sort of meaningful discourse through which consensus on a particular project could be built.[137]

A variation on notice-and-comment participation, limited notice and comment, requires the sponsor of a school project to give notice to a specific government agency with time for the agency—usually a local planning agency—to comment on the project. Four states have adopted such policies.[138] This variation offers no greater opportunity for public participation since participation is limited to the agency that receives the notice and opportunity to comment.

TABLE 4: STATES WITH PUBLIC PARTICIPATION POLICIES REGARDING SCHOOL SITE SELECTION

Public Notice & Comment	Limited Notice and Comment	Advisory Committees	Participation Encouraged
Illinois	California	California	Georgia
Indiana	South Carolina	Georgia	Maine
Maine	Utah	Massachusetts	Utah
Maryland		Minnesota	
Massachusetts		North Carolina	
Minnesota		South Carolina	
New Jersey		Vermont	
New York		Wyoming	
North Carolina			
Pennsylvania			

The most common mechanism for public input in school-siting decisions is public notice-and-comment public participation. This mechanism requires the sponsor of a school project to publish a public notice, conduct public meetings or hearings about

Some states have issued vaguely worded

instructions to sponsors of school construction projects to encourage public participation.[139] In Georgia, "The location of the school site should be acceptable to the school patronage community from the standpoint of general environmental surroundings and vehicular accessibility."[140] When reviewing a request for site approval, the Maine Board of Education must consider "community involvement in the site selection process." [141] Sponsors of state funded school projects in New Jersey are "strongly encouraged to provide opportunity for the community at large to have meaningful participation in the site selection process for school facilities projects . . . ."[142] Those instructions do not contain specific guidelines as to how public participation is to be accomplished and would be difficult to enforce against local school districts.

A better public participation technique for siting schools involves the formation of a school-siting advisory committee, where school projects are developed with the input of a broad range of stakeholders. These stakeholders should include parents, teachers, school administrators, school facility professionals, architects and engineers, business and community leaders, and government officials. Eight states either require or authorize the creation of school-siting advisory committees.[143] While advisory committees are not vested with final decision-making power they do give the public a greater ability to influence the outcome of the school-siting process than through notice-and-comment participation. Through such committees citizens have the opportunity to learn about issues relating to environmental hazards and methods proposed to control or eliminate those hazards before they comment on the project.[144] Concerns about environmental hazards can be aired more thoroughly (and, one hopes, resolved) in a committee setting than in a public hearing setting.

5. Making School Siting Information Available to the Public

Related to public participation policies are policies requiring sponsors of new school projects to make information available to the public during the school siting process. Only eight (8) states explicitly require that information about proposed school sites be made available to the public during the siting process.[145] These policies vary considerably between states and defy broad categorization.

California and Massachusetts require that environmental site assessments be made available for public review.[146] Pennsylvania requires comparative site evaluations of school sites that address sites' proximity to sources of pollution be made available at the required public meeting.[147] In Illinois, when a potential school site becomes enrolled in the state's Site Remediation Program that fact must be communicated to "interested and affected persons," along with information about the site remediation process such as information on where to review documents and a person to contact for more information on the site.[148] In Washington, site evaluation and climate data is encouraged to be made available to local health departments.[149] Local school districts in Indiana must make available to the public a document that discusses any material differences between a new school project's plans and specifications and state guidelines on site selection established by the State Board of Education.[150] In Minnesota, when state education officials issue a review of any school projects funded by local bond referendum, the review's findings must be published in the local newspaper.[151] In New Jersey, the state Department of Environmental Protection makes available to the public in the 30 poorest school districts a list of sites impacted by air and water pollution, hazardous waste storage or disposal, and other environmentally

hazards such as pipelines and other regulated facilities.[152]

6. Summary of Findings

There is currently a significant policy gap with respect to siting schools on or near contaminated land or sources of pollution. Despite the health hazards that on-site and off-site environmental contaminants pose to children:

- Twenty (20) states have no policies of any kind affecting the siting of schools in relation to environmental hazards, the investigation or assessment of potential school sites for environmental hazards, the clean up 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 fourteen (14) 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; only five (5) of these fourteen (14) prohibit or severely restrict siting schools on or near hazardous or toxic waste sites.

- Twenty-one (21) 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 (15) of these states have adopted siting factors that directs school districts to either consider the proximity of sources of pollution when selecting sites or to avoid siting schools near those sources; while eight (8) of these states have a vaguely worded factor relating to environmental factors or safety of a proposed site.

- Twenty-three (24) states have no policies that require sponsors of new school projects to investigate or assess environmental hazards at potential school sites.

- Only twelve (12) states require the sponsors of school projects to solicit public input on school sites through the use of public notices, public meetings or hearings.

- Only eight (8) states either require or authorize the creation of school-siting advisory committees.

- Of the thirty (30) states that have some policy regulating the siting of schools in relation to sources of man-made or natural environmental hazards, in twenty (20) states the policy is administered solely by the state education agency; in eight (8) the policy is administered by the state education agency and another agency, usually the state environmental agency or health department; in one (1) state by the state health department and in one (1) state by local officials.

- Only one state, California, has enacted school siting policies in each of the seven policy areas identified by this study. Those policies have resulted in cleaner sites being selected and the development of site clean up plans.[153] Much of the Model School Siting Policy described in Part 3 of this Report is based on California's policies. However, even California's policies have certain shortcomings which the Model Policy set out in Part IV of this report attempts to address.[154]

PART IV
MODEL POLICY FOR SCHOOL SITE SELECTION

The siting of schools on clean, uncontaminated property is critical to providing a safe learning environment for children and a safe working environment for teachers and employees. However, no federal and very few state guidelines or criteria exist for where to locate schools or how to avoid environmental health risks to children and staff. School boards, local government agencies, parents, and school staff all need policies that provide guidance to determine how close a contaminated source can be to a school without being a serious health threat.

Laws related to the siting of schools differ from state to state. In some states, local school districts have no limits on their power to select school sites. In other states, local districts must obtain approval from state education officials before proceeding with construction. A handful of states have created special school construction corporations that have the power to select school sites. Similarly, laws governing the environmental assessment and cleanup of sites where hazardous and/or solid waste was disposed varies considerably between states. These differences make it difficult to draft a single school siting policy that could be adopted in every state. For information on any particular state's laws regarding school siting, consult Part III of Appendix A.

This model policy proposes a comprehensive approach to school siting that could be enacted in any state. This model policy was informed by the 50 state survey of school siting laws (see Part III, *supra*) and contains many of the elements of school siting policies identified in the survey (e.g. public participation, categorical exclusions of sites, environmental evaluation of sites, required remediation of sites, and making information available to the public). One policy element not included in this model is a mechanism to pay for the environmental, evaluations and remediation of school sites. This element was excluded due to the differences between states in the way school projects are financed. The drafters of legislation in any particular state will need to check their state's laws to determine how the authority for selecting school sites has been delegated to local or state officials and to develop timetables for completing the environmental review process included in the model.

1. Insuring Meaningful 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 feeder 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 potential school sites is posted, including notices environmental evaluations required under this model legislation, public and agency comments received on

those evaluations, and key correspondence of the public body about potential school sites. Many states already require school districts to form school facility planning committees, which could also serve as the School Siting Committee. Only public bodies who 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 timely notify parents, school staff, members of the local community, and "feeder" school parents of the new school's students of plans to build, or 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 newspapers or local magazines and on the web site of the School Siting Committee. A 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.

Public participation is also 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 contaminated by sources of pollution.

WHY LANDFILLS ARE INAPPROPRIATE FOR SCHOOL SITES

Sites used for the disposal of solid waste such as garbage dumps, solid waste landfills, sanitary landfills and the like pose unique hazards that render them unsuitable for school sites. This report uses the term "landfill" to include all of these kinds of disposal sites.

Older landfills pose an increase risk because there were no restrictions on the types of wastes accepted, resulting in the possible disposal of hazardous materials, hazardous waste, liquid wastes and industrial wastes into many of these landfills. Coupled with a lack of requirements for liners and run-on / run-off controls, groundwater and surface water resources may be compromised. In addition, elevated levels of landfill gas and contaminated soils and sediments may pose a threat to human health and the environment. Lastly, physical hazards are typically observed at many of these landfills.[156]

Exposure to hazardous materials disposed in landfills can occur even when the waste is covered over by soil, because the ground settles over time as trash decomposes. For example, the Rhode Island Department of Environmental Management closed a recreational field built on top of a former landfill, when tests of the landfill's soil cover revealed the field was contaminated.[157] Tests of the former landfill's soil cover, which ranged in thickness (a limited portion of the cover was thicker than 2 feet) revealed contamination levels exceeding the State's residential exposure standards for Polycyclic Aromatic Hydrocarbons (PAH's) and metals.[158] Similarly, at the former Hugh Cole School Road Landfill in Warren, Rhode Island, the landfill was capped with two feet of soil when the landfill was closed in 1970, and a park with tennis courts and recreational fields was constructed over the landfill. By the early 1980's settlement of the landfill rendered the tennis courts unusable and left the field with numerous dips and depressions, causing a safety trip hazard.[159] By the late 1990s the entire site was subject to a clean up plan that called for the stripping of topsoil and subsoil layers and building soccer fields on top of a cap consisting of 12 inches of sand/subsoil and 6 inches of loam.[160]

A second hazard unique to landfills is caused by the production of landfill gases. Methane and carbon dioxide are the primary ingredients of landfill gas, and are produced by microorganisms within the landfill under anaerobic conditions. At the early stages of a landfill's life the primary gas produced is carbon dioxide. In later years methane production occurs and increases while the amount of carbon dioxide decreases. Eventually, the levels of methane and carbon dioxide level off and become steady.[161] The hazard caused by methane gas is not an exposure hazard but a fire hazard, since methane gas at certain concentrations is explosive. On the other hand, exposure to very high levels of carbon dioxide, 30,000 parts per million (ppm) and above, can cause asphyxiation as it replaces oxygen in our blood. Other health effects at high levels (greater than 30,000 ppm) include: headache, loss of judgment, dizziness, drowsiness, and rapid breathing. Persons may experience health effects at much lower concentrations of carbon dioxide in indoor air.[162]

2. Categorical Exclusion for Candidate School Sites

State law must prohibit the siting of new school facilities (whether by new construction or leasing) on sites that pose unacceptable risks to future users of the school. Under no circumstances should a school be built on top of or within 1,000 feet of a site where hazardous or garbage waste was landfilled, or where disposal of construction and demolition materials occurred.

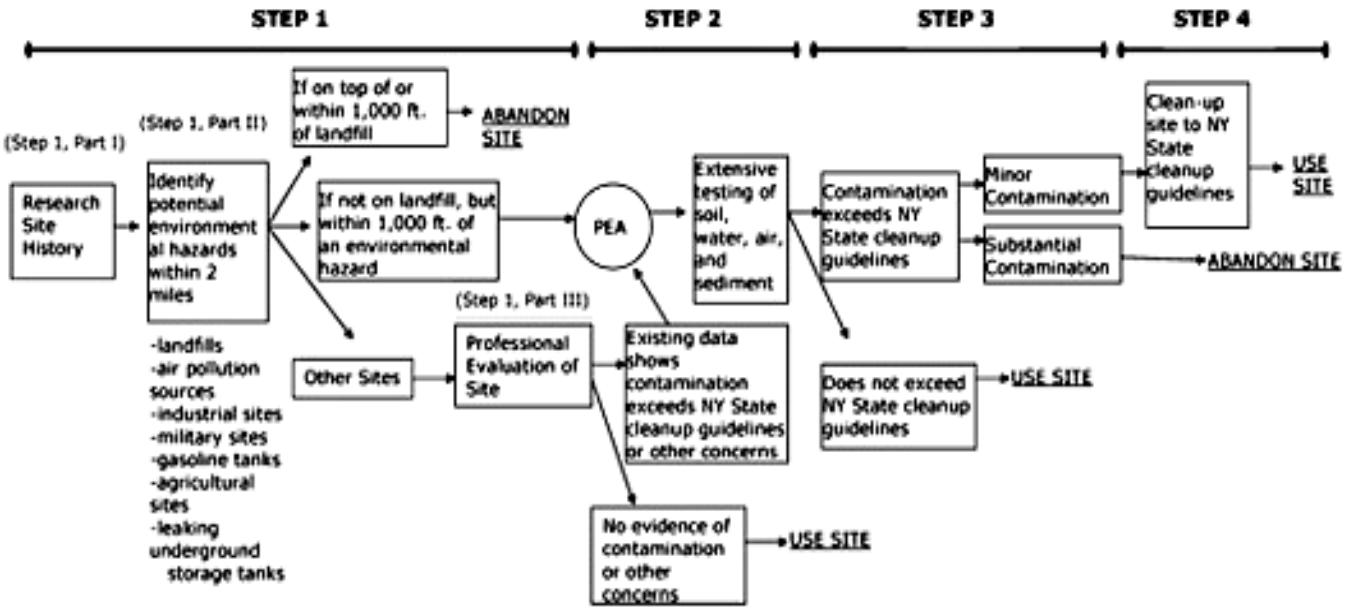
To determine whether a candidate school site has been used for these purposes, an Initial Environmental Assessment should be undertaken, and, if necessary, a more extensive Preliminary Endangerment Assessment shall be done. If either evaluation reveals that the site has been used for these purposes, or if the site is within 1,000 feet of any property used for these purposes, the site must be abandoned. If the Preliminary Endangerment Assessment concludes that a potential school site has a "substantial contamination"[163] problem, the site cannot be used unless the school district follows the "Last Resort Guidelines" discussed below in section 3(E).

3. Environmental Evaluation Process and Remediation of Candidate School Sites

To ensure that the public body selects school sites that do not present dangers to the health of students, teachers and school workers, this model legislation proposes a process that requires potential school sites to be thoroughly investigated, evaluated and where, necessary, cleaned up. The public body shall not proceed to acquire a site, by purchase or leasing, or prepare a site for construction of a school, including the expansion of an existing school, 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, as shown in the flow chart in Figure 1.

The first step is an Initial Environmental Assessment (IEA), often referred to as a "Phase I Assessment." Based on the

FIGURE 1 – OVERVIEW OF PROCESS FOR EVALUATING AND REMEDIATING CANDIDATE SCHOOL SITES



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 IEAs and PEAs contained in this model legislation 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's making a decision whether 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 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 reveal that the site contains substantial amounts of contaminants such that the site should be abandoned by the public body. Alternatively, the PEA may indicate that the contaminants on the site can be cleaned up so the site is safe for a school.

If the public body decides to proceed with constructing a school on a contaminated site, the fourth step requires that a Site Remediation Plan be developed by the public body with input from the public and approved by state environmental officials. In any event, no school shall be built on any portion of a larger contaminated site unless the whole site is safely remediated or access to the unremediated portion can be effectively prevented.

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. Last Resort Site scenarios are discussed in detail near the end of this chapter. This situation might occur in an urban setting where the number of undeveloped sites is 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.

A. 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 conducting 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 landfill sites 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 or PEA.

Part I: Research and Review the Site's History

Review public and private records of current and past land uses, historical aerial photographs, environmental databases, and federal, state and local regulatory agencies' files; conduct a site visit and interviews with people familiar with the site's history, including past and present owners.

Part II: Identify Potential Environmental Hazards

Identify potential environmental hazards within two miles of the candidate site including all of the following potential sources of contamination:

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- 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, sites where there have been chemical spills or other significant contamination
- USEPA 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
- Waste water treatment plants

If the IEA finds that 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 must be abandoned as described in Section 2 above.

If the IEA finds that 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.

If the site was previously sampled for the presence of contaminants or if samples were taken as part of the IEA, the levels found should be compared to a list of cleanup guidelines developed by the New York State Department of Environmental Conservation (see Table 3 and discussion in Section 4C below). 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 found to be contaminated, then the entire site must undergo a PEA.

Part III: Render Professional Judgment About Whether to Conduct a PEA

If preparation of a PEA is not otherwise required (see above), the licensed environmental professional will use professional judgment to decide if a PEA is warranted for a candidate site. For example, a candidate site that is located more than 1,000 feet downwind from stationary or mobile sources of air pollution might, in the exercise of professional judgment, require a PEA. Data and information identified and collected during Parts I and II and other existing information will be considered by the licensed environmental professional in exercising professional judgment. Such existing information might include: test results of samples previously collected from soil, soil gases, surface water, groundwater, sediment, and ambient air; the direction of surface or groundwater flow; wind direction and patterns, and known contaminant transport processes that could affect the site.

The state environmental regulatory agency must review the final draft of the IEA. 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 is complete and has received preliminary approval by the state environmental regulatory agency, the public body shall post the final draft IEA on the School Siting Committee's web site, and also, 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 on the School Siting Committee's web site that includes the following information:

- A statement that an IEA 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), and
- 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 received on the IEA. 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 IEA.

After the state environmental agency has approved the IEA, 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 potential environmental hazards at the site with a Preliminary Endangerment Assessment or PEA. If no environmental hazards were identified on the site, 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 is deemed 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 site originally investigated.

B. STEP 2 — PRELIMINARY ENDANGERMENT ASSESSMENT

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 (CEPA, 1999). 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 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 (in Section 3A, 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 on-line document repositories (such as using the web site of the School Siting Committee) are all appropriate ways to notify the public about the proposed PEA investigation activities (such as taking soil, groundwater or air samples, public meetings and comment periods) and 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 use 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; and
- 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 post the draft PEA on the web site of the School Siting Committee and 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 on the web site of the School Siting Committee that 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 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); and
- An announcement of a sixty-day public comment period, including an address where public comments should be sent.

As described for the Initial Environmental Assessment, 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.

C. STEP 3 — THE PUBLIC BODY DECIDES WHETHER TO PROCEED 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 to use the contaminated site and clean it up. Alternative sites and options for creating additional instructional space 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 the public body decide whether to abandon a site or proceed with construction on a contaminated site, the public body should carefully study 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). Our research found that no health-based child-sensitive standards exist at the federal, state, or local level for determining "safe" levels of contamination in soil that will protect children. Lacking such standards, parents, school districts, regulating agencies, and others will find it difficult to evaluate contamination at new or existing sites.

Until such standards are developed, this report recommends the use of the New York State Recommended Soil Cleanup Objectives ("NYDEC standards") (NYDEC 1994) or any other existing standard that is more protective than the NYDEC standards. These values were developed to provide a "basis and procedure to determine soil cleanup levels" at state and federal Superfund and other contaminated sites in the state. Thirty-five representative values of New York's soil cleanup guidelines are shown in Table 3. A complete listing of all 126 values can be found on the Internet at www.dec.state.ny.us/website/der/tagms/prtg4046.html.

The recommendation to use the NYDEC standards comes from a Children's Environmental Health Symposium sponsored in 2002 by the Reston Virginia based Center for Health, Environment and Justice. The symposium was attended by scientists from a variety of disciplines. This group reviewed the cleanup standards or guidelines for several states and found the New York state values to be generally lower than others considered. This group concluded that the NYDEC list is a good, reasonably sound, and conservative list to provide school boards/districts with information to evaluate sites early on in the site selection process. Selected contamination levels contained in the NYDEC standards are found in Table 1.

TABLE 1 - NEW YORK STATE RECOMMMENDED SOIL CLEANUP OBJECTIVES FOR CHEMICALS COMMONLY FOUND AT CONTAMINATED SITES

Solvents		Pesticides/other		Metals	
Acetone	0.2	Aldrin/Dieldrin	0.04	Arsenic	7.5
Benzene	0.06	Chlordane	0.54	Barium	30
2-Butanone	0.3	DDT/DDE	2.1	Beryllium	0.16
Carbon Tetrachloride	0.6	Lindane	0.06	Cadmium	1
Chloroform	0.3	Benzo(a)pyrene	0.06	Chromium	10
1,1-Dichlororethane	0.2	Butylbenzylphthalate	50	Cobalt	30
1,2-Dichloroethane	0.1	Chrysene	0.4	Copper	25
Methylene Chloride	0.1	Hexachlorobenzene	0.41	Iron	2000
Tetrachlorethene	1.4	Naphthalene	13	Mercury	0.1
Trichloroethene	0.7	Pentachlorophenol	1	Nickel	13
Toluene	1.5	PCBs	1	Selenium	2
Vinyl Chloride	0.2				
Xylene	1.2	*Note: All values are in parts per million (ppm)*			

The results of soil samples collected as part of the PEA should be specifically compared to the NYDEC standards. If these or other results from the PEA sampling effort indicate that some contamination of the candidate site exists, and that some cleanup will be needed, then the PEA shall provide recommendations on cleanup levels that are at least as stringent as the cleanup guidelines developed by the NYDEC and shown in Table 1. When a state has a standard for an individual substance that is more protective than the NYDEC standards, the more protective standard shall be used. A Site Remediation Plan (see Step 4 below) will need to be developed that will reduce contaminant levels to the applicable safety standard for each contaminant before the site can be used.

If the PEA indicates that the site has a substantial hazardous contamination problem, the public body must abandon the site and consider other alternative sites. The determination of whether a site has a substantial contamination problem must be made on a site by site basis. To make that determination, this report recommends that the following information be considered to determine whether the degree of contamination at a given site is substantial enough to warrant abandoning the site:

- The number and types of contaminants that were discovered on the site and known to exist on any adjoining parcels;
- The levels of contamination for specific substances compared with the NYDEC standards for each of those substances and the degree of any exceedences of those standards;
- The locations on the site or adjacent to the site where contaminants were found, viewed both from the standpoints of surface area and depth;
- The health effects of the contaminants identified;
- The age range of students that will use the site;
- Any local public health problems in the student population that could be exacerbated by exposure to contaminants found to exist on the site;
- Public concerns about the safety of using the site for school purposes expressed during the public comment period; and
- The cost of cleaning up the site to NYDEC standards

The public body should usually defer to the recommendation of the School Siting Committee whether to abandon a site or proceed with building on a contaminated site. In the event the public body chooses to proceed with using a site where contamination has been found in excess of NYDEC standards, the public body must make a finding that either:

The proposed site is not substantially contaminated, and may safely be used for school purposes after the site is remediated according to a Site Remediation Plan; or the proposed site is substantially contaminated.

Where the public body makes a finding that a proposed site is substantially contaminated, the public body shall not proceed with using the site unless the public body has considered at least two other potential school sites, identifies the location of those alternative sites and explains why each of those sites was rejected. In addition, the public body must agree to adopt the Last Resort remediation measures outlined in Section E below. 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.

D. STEP 4 — Developing a Site Remediation Plan for a Contaminated Site

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

- Identify methods for cleaning up the site to contaminant levels that meet the applicable safety 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 or on any adjoining contaminated parcels; and
- Evaluate the suitability of the site in light of available alternative sites and alternative cleanup plans.

For any site where the PEA requires remediation, cleanup levels will be at least as stringent as the NYDEC standards shown in Table 3. If a school is proposed for only a portion of a known contaminated site, the Site Remediation Plan must include clean up of the entire contaminated site or provide for ongoing security measures that insure that future users of the school cannot gain access to the unremediated portion of the contaminated site. Since contamination problems may differ between sites this report recommends that the School Siting Committee and public body look at the Required Remediation Steps under the Last Resort Guidelines for guidance in developing a Site Remediation Plan.

The Site Remediation Plan shall also provide recommendations for the final site sampling to be done after the cleanup has been completed to ensure that all residual contamination is less than the cleanup goals defined for the site. Such sampling recommendations shall be designed to discover the highest possible concentrations of contamination on the candidate site.

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. Once the Site 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 shall include posting the Plan on the School Siting Committee web site and 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 on the School Siting Committee web site 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); and
- 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 significant 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 a this notice on their website (and require the public body to post the same notice on the web site of the School Siting Committee) 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 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 and be posted on the Committee's web site. 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. Again, alternative sites and options for creating additional instructional space 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 non-school building portion of the remediation plan must be completed, such that the cleanup goals have been achieved. The realization of clean-up goals shall be verified by a final sampling effort in accordance with the guidelines established in the PEA or Site Remediation Plan. Documentation regarding the implementation of the plan and all final sampling results will be subject to review by the state environmental agency, which 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 determined that the non-school building portion of remediation is complete may any school building construction begin.

E. THE LAST RESORT — BUILDING ON A SUBSTANTIALLY CONTAMINATED SITE

There are times when the public body may be forced to reconsider a site that was abandoned after the Preliminary Environmental Assessment (PEA) process was completed 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 a school board/district 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 will 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 minimum 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.

In this section, we propose steps that must be taken to identify potential exposure pathways and to eliminate to the maximum extent possible exposure of any users of the site to toxic chemicals. These steps will be taken at a site that was abandoned during the PEA site evaluation and was not categorically excluded from consideration, such 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 (see Section 3). If a school is proposed for only a portion of a substantially contaminated site, the Last Resort measures must include clean up of the entire contaminated site or provide for security measures that insure that future users of the school cannot gain access to the unremediated portion of the contaminated site. Further, the sponsor of the school project must post a performance bond or other financial guarantee that assures that the remediation work and ongoing maintenance and monitoring of the site takes place.

Remediation Goals and Objectives

- The primary goal of the Last Resort guidelines is to 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. If there's no exposure, there's no risk of injury.

- A secondary goal is to prevent mixing of clean and contaminated soil. A multi-layered engineered barrier must be part of any effort to achieve this goal (see Required Remediation Steps below, bullet #2).

- Build as much redundancy as possible into the remedial work plan for the site 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. Moreover, this approach will direct the selection of the safest remedial options, which will build public confidence in the safety of the 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 PEA will be appropriate (see Section 4B).

- **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 New York State Recommended Soil Cleanup guidelines.** The testing done at the site should identify all contaminants present in soil and other media. Soil with contaminant levels that exceed the New York State soil cleanup guidelines, as described in Table 1 in Section 4C, must be completely removed to a depth below which there is no anticipated excavation so as to reduce overall risk.

- **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 will 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 New York State Recommended Soil Cleanup guidelines up to the "excavation depth."** Soil containing levels of contaminants in 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 construction of footers to support a building. This is referred to as the "excavation depth" and might reasonably range from 8 to 15 feet, depending on local site geology. This approach rejects the use of so called "utility corridors" through contaminated soil due to the possibility that future excavation activity will disturb the contaminated soil and create an exposure risk.

- **Install a multi-layered barrier over any contaminated soil left in place at the site.** This multi-layered barrier will separate clean topsoil from any residual contamination left in place. Starting at the surface and moving downward, this barrier shall consist of the following layers. First, a minimum of 2 feet of certifiably clean topsoil; then, clean fill to replace contaminated soil removed to the excavation depth (this depth will vary depending on how much contaminated soil was removed); next will be 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 4). 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, most of the gas will preferentially move through the crushed stone and be transported laterally. These gases will need to be vented and captured. Care must be taken to ensure that these gases do not reach buildings on or near the school property.

Why a crushed stone layer?

The purpose of capping a contaminated site with soil is to prevent a contamination risk caused by direct contact with contaminated soil. The design of soil caps over contaminated sites for schools must insure that contaminated soil never reaches the surface. A commonly overlooked means by which contaminated soil could be brought to the surface is the activity of burrowing animals and earthworms. Studies of Department of Energy Waste sites have documented that animal burrowing activity through soil caps has not only brought contaminated material to the surface, but that animals themselves can become contaminated and spread contamination through defecation and decomposition upon death.[164] The depths to which burrows were found included 2 meters for earthworms, 1.4 meters for ground squirrels, 1 meter for chipmunks, and 1.5 meters for Woodchucks.[165] Animals do not generally burrow through broken rock because they cannot keep their burrow open.[166] Geotextile layers commonly installed between the soil cap and contaminated soil are not, by themselves, sufficient to prevent animals from burrowing into the contaminated soil.[167]

- **Install a "chimney" system** to capture and vent volatile gases before they enter the school building if VOCs are detected in the soil or groundwater in excess of the New York State guidelines. In much the same way that venting systems are used to intercept radon gas before it enters a home, a similar venting system installed under and around a school building could be installed to intercept any VOCs that might be present in residual contaminated soil. This system will use perforated pipes placed under or around a building that will intercept VOCs off-gassing from the soil. Solid pipes will then transport the gases up and out of the school building. A filter may have to be installed as well to capture these 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.

- **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 Options

Institutional controls should be used 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. Institutional controls are legal or administrative mechanisms for managing risks. 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 Spanish (or 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 shall 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 Plan is to be permanently kept at the school in a location that is accessible to parents, and shall be posted on the web site of the school or public body.

- 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 should 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.

- 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 the soil cap was breached or disrupted for some reason (e.g. construction activity or erosion). 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 Spanish or other foreign language as appropriate. This information should also be posed online by the state regulating agency and on the web site of the school or public body.

- Each year, health complaints among the students and teachers/staff should be monitored. Illnesses such as headaches, 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 subsurface. 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 will continue annually unless no VOCs are found in the first year following construction.

- 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 will be measured simultaneously in the building and in the soil gas. The ratio of the soil gas concentration to the indoor air concentration represents 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 that don't go more than a couple of feet down are acceptable so long as they aren't taproot type plants that penetrate deep into the soil. 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.

ENDNOTES

Note: Links last visited on November 6, 2006

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

[2] Landrigan, P.J., Carlson, J.E., Bearer, C.F., Cranmer, J.S., Bullard, R.D., Etzel, R.A., Groopman, J., McLachlan, J.A., Perera, F.P., Reigart, J.R., Lobixon, L., Schell, L., and Suk, W.A. (1998) "Children's health and the environment: A new agenda for preventive research." *Environmental Health Perspectives* 106 (Supplement 3): 787-794, June.

[3] *Id.*

[4] Needleman, supra, note 2.

[5] U. S. Envtl. Prot. Agency, Child Specific Exposure Factors Handbook (Interim Report), No. EPA/600/P-00-002B (2002), at 1-1 available at http://cfpub.epa.gov/ncea.

[6] Landrigen, *supra*, note 3.

[7] WWF-UK Chemicals and Health Campaign and The Co-operative Bank, *Contamination: the next generation*, *Results of the family chemical contamination survey*, (October 2004).

[8] Julie Wakefield, LEARNING THE HARD WAY: THE POOR ENVIRONMENT OF AMERICA'S SCHOOLS, 110 Envt'l Health Perspectives A-298, A-302 (June 2002).

[9] U. S. Envtl. Prot. Agency, AMERICA'S CHILDREN & THE ENVIRONMENT, EPA 240-R-03-001 (Feb. 2003) at 55, available at http://www.epa.gov/envirohealth/children/

[10] School Planning & Management, 9th Annual Construction Report 2004 (Feb. 2004) at 3, available at http://www.asumag.com/mag/405asu21.pdf

[11] National Center for Education Statistics, Condition of America's Public School Facilities: 1999 (June 2000) at 48, available at http://nces.ed.gov/surveys/frss/publications/2000032/index.asp

[12] *Id.*, at 2.

[13] *See, e.g.*, *Abbott v. Burke*, 710 A.2d. 450 (NJ 1998); *The State of Ohio v. DeRalph*, 677 N.E. 733 (Ohio 1997); *Roosevelt Elementary School No. 66 v. Bishop*, 877 P.2d 806 (Ariz. 1994).

[14] Department of Toxic Substances Control, Central Los Angeles High School #11 (Formerly Belmont Learning Center), Fact Sheet (January 2005) available at http://www.laschools.org/fs-general/download/clahs_11/CLAHS_spc_11_spc_School_spc_RAP_spc_Fact_spc_Sheet_English-Final_8.5x11.pdf

[15] Remedial Action Plan Subsurface Gas Mitigation System, Central High School #11 at 2-3 (Rev. Jan. 3, 2005) available at http://www.laschools.org/vista-hermosa/documents/rap/01%20Report%20Text.pdf

[16] LAUSD Approves "HS #11" Option to Complete Belmont Learning Center, available at http://www.laschools.org/vista-hermosa/

[17] Lynn mulls loan for Classical High repair, The Daily Item (February 26, 2005).

[18] A copy of this report is available on the web site of the Childproofing Our Communities Campaign, an organizing project of CHEJ: http://www.childproofing.org/buildingsafeschools.pdf

[19] Rhode Island General Laws Sections 16-2-9(8) and 16-2-15(a) (2005).

[20] *Appeal of Cottrell*, 10 R.I. 615, 617 (1874); *See, also*, Rhode Island General Laws Section 16-39-2 (2005).

[21] *Appeal of Cottrell*, 10 R.I. at 618.

[22] Rhode Island General Laws Section 16-9-5 (2005). Moreover, in the cities of Providence and Cranston, the city council must appropriate funds to acquire land and construct school buildings. Rhode Island General Laws Section 16-2-25 (2005).

[23] Rhode Island General Laws Section 45-50-10(a) (2005).

[24] Rhode Island General Laws Section 16-60-4(9)(iv) (2005).

[25] R.I. Department of Education, *School Construction in Rhode Island* (Jan. 2004) at 3.

[26] *Id.*

[27] *Id.*,at 4..

[28] *Id.*

[29] Rhode Island Department of Education, *Necessity of School Construction Information and Instructions* (2005) at 9 (no longer available on the Internet). Current version (2006) available at http://www.ridoe.net/funding/construction/Documents/Necessity%20of%20Construction%20Revised%20August%2006.pdf

[30] *Id.*, at 15

[31] Regulations governing School Health Programs issued jointly by the Board of Regents and the Rhode Island Department of Health provide standards for school buildings and require those buildings to comply with various laws such as state and local building and fire codes. However those regulations contain no requirements regarding the selection of school sites. *See*, Rhode Island Code of Regulations 08-000-005 and 14-000-011 (2005) Sections 21.0 – 22.0 (2005) (Standards for School Building(s) and Approval, New Construction, Renovation or Conversion of Existing Buildings to Schools General Requirements).

[32] The board of regents was made successor to all powers, rights, duties, and privileges pertaining to elementary and secondary education. Rhode Island General Laws Section 16-60-1 (2005).

[33] Rhode Island Code of Regulations Section 08-060-002 (2005).
[34] Laws governing the School Housing Aid program are codified at Rhode Island General Laws Sections 16-7-35 through 16-7-47 (2005).
[35] Rhode Island Education Aid, 2005 ed. at 53 available at http://www.rilin.state.ri.us/gen_assembly/HouseFinance/educationaid.pdf
[36] *Id.*
[37] *Hartford Park Tenant Ass'n et al. v. R.I. Dep't of Envir. Mgmt et al.*, 2005 R.I. Super. LEXIS 148 at 6 (Oct. 3, 2005).
[38] There are other laws that regulate sites contaminated by hazardous substances such as the Hazardous Waste Management Act, R.I.G.L. §23-19.1, *et seq*. This act establishes a permitting system for facilities involving the generation, collection, storage, transport, treatment, and disposal of hazardous wastes within Rhode Island, but does not govern the clean up of contaminated sites for redevelopment.
[39] R.I.G.L. §23-19.14-3(n).
[40] IPRARA specifically excludes petroleum from the definition of "hazardous materials". R.I.G.L., §23-19.14-3(c).
[41] R.I.G.L. §23-19.14-4. Those clean up objectives are found in Tables 1 and 2 of Section 8 of DEM's Remediation Regulations.
[42] R.I.G.L. §§23-19.14-3(m); 23-19.14-6(a). Any "responsible party" is jointly and severally liable for the actual or threatened release of any hazardous material at a site under IPRARA. R.I.G.L. §23-19.14-6.
[43] R.I.G.L. §§23-19.4-6(b)(1), (2), (3) & (4).
[44] R.I.G.L.§23-19.14-5(a)(1-3).
[45] R.I.G.L. §23-19.14-5(a).
[46] The Remediation Regulations are posted on the Internet at http://www.dem.ri.gov/pubs/regs/regs/waste/remreg04.pdf
[47] Remediation Regulations, §1.02.
[48] Remediation Regulations, §2.02.
[49] Remediation Regulations, §5.01. DEM was recently faulted for not taking jurisdiction over a contaminated site as soon as the agency knew of redevelopment plans for the site, where the agency had recorded history of PCB contamination and received complaints from the public who perceived the site was contaminated. *Hartford Park Tenants Ass'n v. R.I. Dep't of Envir. Mgmt.* Slip Op. at 50 (R.I. Super Ct. October 3, 2005).
[50] Residential sites includes sites where any residential activity exists or is proposed. Residential activity includes use of the site for residences, schools, hospitals, day care centers, playgrounds or unrestricted outdoor recreational areas. Remediation Regulations, §3.58.
[51] A description of the different classes of groundwater can be found in DEM's Groundwater Regulations, Section 9.1, available on the Internet at http://www.dem.ri.gov/pubs/regs/regs/water/gwqual56.pdf
[52] The term "performing party" has a more expansive meaning than "responsible party", and also includes any bona fide purchaser, voluntary party, or any other party conducting an investigation of and/or remediation at a contaminated site. Remediation Regulations, §3.49.
[53] Remediation Regulations, §7.01. The Remediation Regulations do not specify any minimal qualifications of persons who undertake a site investigation and submit a site investigation report. However, the Site Investigation Report must contain a certification by the authorized person who prepared the report stating the information in the report is complete and accurate. Remediation Regulations, §7.05(A).
[54] Remediation Regulations, §7.02.
[55] *Id.*
[56] Remediation Regulations, §7.08. A list of items that a SIR must address, as appropriate, are found at §7.03 of the Remediation Regulations.
[57] The checklist is available on the Internet at http://www.dem.ri.gov/programs/benviron/waste/pdf/sircheck.pdf
[58] Remediation Regulations, §7.04.
[59] *Id.*
[60] Remediation Regulations, §7.07(A).
[61] Remediation Regulations, §7.07(B). This notice must also be sent to community well suppliers associated with any well head protection areas which encircle the contaminated site. *Id.*
[62] Remediation Regulations, §7.09.
[63] *Id.*
[64] *Id.*
[65] Remediation Regulations, §7.09(B).
[66] Remediation Regulations, §9.01.
[67] Remediation Regulations, §9.03.
[68] Remediation Regulations, §10.01.
[69] Remediation Regulations, §8.09.
[70] Remediation Regulations, Appendix G.
[71] A more detailed version of the history of the siting of the Springfield Street Schools and the roles played by DEM and City officials can be found in the Superior Court's ruling in *Hartford Park Tenant Association v. R.I.*

Dep't. of Environmental Management (October 3, 2005) available on the Internet at http://www.courts.state.ri.us/superior/pdf/99-3748.pdf

[72] An analysis of state site clean up programs was conducted by the Environmental Law Institute, updated most recently in 2001. *See* Environmental Law Institute, *An Analysis of State Superfund Programs: 50-State Study, 2001 Update* (2002), available on the Internet at http://www.elistore.org/reports_detail.asp?ID=10746

[73] California's school siting policies were readily available on the websites of the states' education and toxic substance control agencies. Regulations promulgated to implement some of those policies go into details that go beyond the scope of this research and were not included in the Summary Document.

[74] The twenty states are Alabama, Arkansas, Delaware, Hawaii, Idaho, Iowa, Kansas, Louisiana, Michigan, Missouri, Nebraska, Nevada, New Hampshire, North Dakota, Oregon, South Dakota, Tennessee, Texas, Virginia and Wisconsin.

[75] California, Connecticut, Florida, Georgia, Indiana, Kentucky, Mississippi, Montana, New Jersey, New Mexico, Oklahoma, South Carolina, Utah and West Virginia.

[76] California, Florida, Indiana, Kentucky, New Mexico, and West Virginia.

[77] West Virginia Code of State Rules, Title 126 Legislative Rule, West Virginia Board of Education, Series 172 Handbook on Planning School Facilities (Education Policy 6200) (2002)

[78] California Education Code Sections 17072.12, 17072.13, 17072.18, 17210-17215.5, 17251 and 17268 (2001); Indiana Code Section 16-41-21-6, Prohibited Sites; waiver (1993); Annotated Statutes of New Mexico, Chapter 22, Public Schools, Article 20 school Construction (2001)

[79] California, West Virginia, and South Carolina

[80] 5 Code California Regulations Section 14010(h) (2000).

[81] California, Florida, Indiana, Kentucky, Mississippi, Utah and West Virginia

[82] Indiana Code Section 16-41-21-6, Prohibited Sites; waiver (1993)

[83] California Education Code Section 17213(a) (2001).

[84] Florida Statutes, K-20 Education Code, Educational Facilities, Section 1013.36-1013.365 (2002).

[85] California, Indiana, Kentucky, West Virginia, Mississippi, Utah, Connecticut, and Georgia

[86] California Education Code Section 17212.5 (2001).

[87] Utah Administrative Code, Section R392-200-2, Site Selection (2002).

[88] Connecticut General Statutes Section 10-291 as amended by Section 6 of Public Act No. 03-220 (July 9, 2003).

[89] Indiana Code, Section 16-41-21-6 (1993).

[90] California, Indiana, Kentucky Montana and Oklahoma.

[91] Administrative Rules of Montana, Title 37 Department of Health and Human Services, Chapter 111 Public Accommodations, Subchapter 8 Schools, Section 37.111.812 Safety Requirements (2001)

[92] Oklahoma Administrative Code, Title 210 State Department of Education, Chapter 35 Standards for Accreditation of Elementary, Middle Level, Secondary and Career and Technology Schools, Part 19, Standard X: School Facilities, Section 210-35-3-186 (1998).

[93] California, Indiana, and Mississippi

[94] Alaska, Arizona, California, Florida, Georgia, Illinois, Indiana, Maine, Massachusetts, Minnesota, Mississippi, New York, North Carolina, Ohio, Rhode Island, South Carolina, Utah, Vermont, Washington, West Virginia and Wyoming.

[95] Alaska, California, Florida, Georgia, Illinois, Indiana, Massachusetts, Minnesota, North Carolina, Rhode Island, Utah, Vermont, Washington, West Virginia and Wyoming.

[96] Maine, Massachusetts, New York, Ohio, Rhode Island, South Carolina, Washington and West Virginia.

[97] Code of Maine Regulations, Title 05-71, Chapter 61: Rules for Major Capital School Construction (2003).

[98] Massachusetts General Laws, Chapter 70B School Building Assistance Program, Section 9 (2004).

[99] Rhode Island Department of Education, Necessity of School Construction, Information and Forms, Table 3 Guidelines for Site Selection (2004).

[100] Arizona, California, Connecticut, Florida, Georgia, Illinois (Cook County only), Massachusetts and New Jersey. The states of Ohio, Utah and Washington recommend but do not require Phase I environmental site assessments for new school projects. Often the Phase I environmental site assessment requirement is limited to projects funded with state school construction aid. Of the eight states that require Phase I environmental site assessments, only Florida, Georgia and Illinois (Cook County only) apply the requirement to all school construction projects.

[101] California Department of Toxic Substance Control, Phase I Environmental Site Assessment Advisory: School Property Evaluations 3 (revised Sept. 5, 2001), available at http://www.dtsc.ca.gov/Schools/upload/SMP_REP_Schools_Phase1Advisory.pdf

[102] *Id.* American Society for Testing and Materials, Pub. No. E-1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment (last revised June 2000) is available for purchase at www.astm.org/cgi-bin/SoftCart.exe/DATABASE.CART/REDLINE_PAGES/E1527.htm?L+mystore+qrhy9869+1110419475 A checklist of items in a Phase I environmental site assessment prepared by the Enterprise Foundation is available at www.enterprisefoundation.org/resources/dss/singlefam/sf&24&in&nc&ss&lg&rin&rnc&ucpscm18.htm.

[103] The "all appropriate inquiries" requirement was inserted into section 101(35)(B) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), codified at 42 U.S.C. §9601(35)(B) (2002).

On November 1, 2005 EPA published a final rule to implement this requirement, available on EPA's web site at http://www.epa.gov/brownfields/aai/aai_final_rule.pdf

[104] Texas Department of Transportation, ASTM Standard Practices (undated) (overview of hazardous materials assessments), available at www.dot.state.tx.us/env/pdf/resources/ASTMstandardPractices(X-C-CH-4-ASTM).pdf.

[105] California (called a "Preliminary Endangerment Assessment"), Florida, Illinois (Cook County only), Massachusetts and New Jersey.

[106] See, American Society for Testing and Materials, Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process, Pub. No. E-1903-97 (2002), available for purchase at: http://www.astm.org/cgi-bin/SoftCart.exe/DATABASE.CART/REDLINE_PAGES/E1903.htm?L+mystore+qrhy9869+1162841423

[107] Most states have promulgated standards by which a site is considered to be contaminated. Those standards contain thresholds for a list of hazardous substances, with different thresholds established for soil, soil gas and groundwater. Moreover, different standards have been promulgated based on the likely end use of the site. For example, if the likely end use of a site is for a school, stricter (i.e., lower) standards for determining whether the site is contaminated should apply. See, *supra*, at footnote 50.

[108] The requirements of state hazardous-waste laws are beyond the scope of this article. A starting point for research on those laws is a 50 state survey of state Superfund programs prepared by the Environmental Law Institute. See, ENVIRONMENTAL LAW INSTITUTE, AN ANALYSIS OF STATE SUPERFUND PROGRAMS: 50 STATE STUDY 2001 UPDATE (2002), available at www.elistore.org/reports_detail.asp?ID=10746

[109] California forbids construction of schools on "[t]he site of a current or former hazardous waste disposal site or solid waste disposal site, unless if the site was a former solid waste disposal site, the governing board of the school district concludes that the wastes have been removed." CAL. EDUC. CODE § 17213(a)(1) (2005). Similarly, in Utah, "[a] school site shall not be located in an area . . . that was a repository for hazardous substances." UTAH ADMIN. CODE § R392-200-2(A)(2) (2005).

[110] California, Maryland, Minnesota, New Jersey, New York and Washington. Other states that have environmental review laws include Connecticut, Georgia, Hawaii, Indiana, Montana, North Carolina, South Dakota, Virginia and Wisconsin. Discussion, *The Historical Development of SEQRA*, 65 ALBANY LAW REVIEW 323, 356, n. 49 (2001) We found as part of this research no information about how those environmental review laws specifically apply to school projects.

[111] National Environmental Policy Act, 42 U.S.C.S. 4321 – 4347 (2005).

[112] See, e.g., Minnesota Department of Children, Families and Learning, Division of Program Finance, Guide for Planning School Construction Projects in Minnesota 29 (2003), available at http://education.state.mn.us/mde/static/003979.pdf

[113] State of New Jersey, Exec. Order No. 215, Environmental Assessment (1989), available at www.state.nj.us/dep/dsr/gcc/ExecOrder-215.pdf.

[114] Alaska, California, Colorado, Georgia, Kentucky, Maine, Massachusetts, Minnesota, Mississippi, New Jersey, New Mexico, New York, North Carolina, Pennsylvania, South Carolina, Utah, Vermont, Washington, West Virginia and Wyoming.

[115] Georgia, Kentucky, Massachusetts, Minnesota, New Jersey, New Mexico (in some instances), South Carolina and Washington.

[116] Alaska, California, Mississippi, New York, Pennsylvania and Vermont.

[117] Colorado, Maine, North Carolina, Utah, West Virginia and Wyoming.

[118] California, Florida, Illinois, Massachusetts and New Jersey.

[119] California Education Code §17213.2(d)(2) (2001).

[120] California Education Code §17210.1(1)(4) (2001).

[121] Office of Environmental Health Hazard Assessment, California Environmental Protection Agency, *Guidance for School Site Risk Assessment Pursuant to Health & Safety Code Section 901(f)*, (February 2004) available at http://www.oehha.ca.gov/public_info/public/kids/pdf/SchoolscreenFinal.pdf

[122] Florida Statutes, K-20 Education Code, Educational Facilities, Section 1013.365 (2002).

[123] *Id.*

[124] Illinois Compiled Statutes Annotated, Chapter 415, Section 5/58.16 (2001).

[125] Illinois Administrative Code, Title 35 Environmental Protection, Part 740 Site Remediation Program, Sections 740.805 and 740.810 (2002).

[126] Code of Massachusetts Regulations, Title 310 (Department of Environmental Protection), Chapter 40.00 Massachusetts Contingency Plan, Subpart I: Risk Characterization, Section 40.0933 (Identification of Applicable Groundwater Categories (2004).

[127] New Jersey Statutes Annotated, Title 52, State Government Department and Officers, Chapter 27D, Department of Community Affairs, Section 52:27D-123a, Adoption of Radon Hazard Code (1989); New Jersey Administrative Code, Title 5, Department of Community Affairs, Chapter 17, Lead Hazard Evaluation and Abatement Code, Subchapter 7, Soil, Section 5:17-7.1 Soil Interim Controls or Abatement (2001).

[128] California, Connecticut (cost of Phase I assessment only), Kentucky, New Jersey, Ohio, Vermont (pays 30% of required preliminary land test) and West Virginia.

[129] California Education Code Section 17072.13 paragraphs (a)-(b) (2001).

[130] New Jersey Statutes Annotated, Title 18A, Education, Chapter 7G, Educational Facilities Construction and Financing Act, Sections 18A:7G-3 Definitions, 18A:7G-5(k) Financing and Construction of Certain School Districts by Authority, and 18A:7G-15 Election of School District to Receive One Time Grant for State Share (2000).

[131] Ohio School Facilities Commission, Policy and Procedure Memorandum, Site Development Cost Policy (April, 2005), available at ftp://www.osfc.state.oh.us/CMFiles/Policy_and_Procedure_Memorandum/

[132] Superintendent of Public Instruction, *Washington School Facilities Manual, Revised 4th Edition*, Chapter 5, p. 7(2000)

[133] Memorandum of Agreement Between the New Jersey Schools Construction Corporation d the New Jersey Department of Environmental Protection, September 2, 2003 (on file with the Author.)

[134] California Education Code Section 17072.13 paragraphs (a)-(b) (2001).

[135] New Jersey Statutes Annotated, Title 18A, Education, Chapter 7G, Educational Facilities Construction and Financing Act, Sections 18A:7G-3 Definitions, 18A:7G-5(k) Financing and Construction of Certain School Districts by Authority, and 18A:7G-15 Election of School District to Receive One Time Grant for State Share (2000).

[136] California, Illinois (Chicago only), Indiana, Maine, Maryland, Massachusetts, Minnesota, New Jersey, New York, North Carolina and Pennsylvania.

[137] Sara Pirk, *Expanding Public Participation in Environmental Justice: Methods, Legislation, Litigation and Beyond*, 17 ENVIRONMENTAL. LAW & LITIGATION 207, 213-14 (2002).

[138] California, Colorado, South Carolina and Utah.

[139] Georgia, Maine and Utah have issued such instructions.

[140] Georgia Department of Education, Facilities Services Unit, *A Guide to School Site Selection* at 4 (2003)

[141] Code of Maine Regulations, Title 05-71 Chapter 60: New School Siting Approval, paragraph (3)(A) (2001).

[142] State of New Jersey, Executive Order No. 24, 21st Century School Facilities (2002) available at http://www.state.nj.us/infobank/circular/eom24.htm

[143] California, Georgia, Massachusetts, Minnesota, North Carolina, South Carolina, Vermont and Wyoming.

[144] Pirk, *supra*, note 65 at 215.

[145] California, Illinois, Indiana, Massachusetts, Minnesota, New Jersey, Pennsylvania and Washington.

[146] California Education Code Section 17213.1(a)(6) (2001); Code of Massachusetts Regulations Title 603 (Department of Education) Chapter 38.00 (School Construction) Section 38.04 (2003).

[147] Pennsylvania Department of Education, PlanCon Forms And Instructions, Part C-Site Acquisition at p. 5 (July 2002), available at http://www.pde.state.pa.us/constr_facil/cwp/view.asp?a=11&Q=54974&constr_facilNav=%7C3424%7C

[148] Illinois Administrative Code, Title 35: Environmental Protection, Part 740 Site Remediation Program, Subpart H, Requirements Related to Schools, Section 740.825 (2002).

[149] School Indoor Air Quality Best Management Practices Manual at p. 29 (2003) available at http://www.doh.wa.gov/ehp/ts/IAQ/schooliaqbmp.pdf

[150] Indiana Code Section 20-1-1-6.5, Guidelines on selection of sites and construction, alteration, and repair of buildings (1995).

[151] Minnesota Statutes, Chapter 123B, School District Powers and Duties, School Buildings and Other Facilities; Construction; Land and Sites. Section 123B.71, Subdivision 12 (2003).

[152] New Jersey Department of Environmental Protection, Inventory of Regulated Facilities in 30 "Abbott" School Districts (2004), available at http://www.nj.gov/dep/opppc/school.htm

[153] According to Hamid Saebfar, Chief of the California Department of Toxic Substances Control's Division of School Property Evaluation and Cleanup, between January 1, 2000 and June 30, 2005, a total of 1,613 school projects were reviewed by the agency. Of that number, 734 sites had to undergo the more thorough Preliminary Endangerment Assessment, with 578 sites (78%) requiring no further action and 156 sites (22%) requiring further action. A total of 116 school sites have DTSC approved clean up plans in place, suggesting that upwards of 40 sites were abandoned due to the presence of contamination or other reasons. Email from Hamid Saebfar to Steven Fischbach (November 18, 2005).

[154] For example, current policy does not authorize the applicable state environmental agency (Department of Toxic Substances Control) to look for contamination at properties adjacent to the school site, nor does the public have the opportunity to review or comment upon a Phase I environmental site assessment. Robert Hersh, *Building Schools on Brownfields: Lessons Learned from California*, BNA Environmental Due Dilligence Guide §231.1581 (March 2005), available at http://cpeo.org/pubs/BFschools.pdf

[155] Guidance for determining whether a site has a "substantial contamination" problem is discussed in Section 3(C) of this Part.

[156] Rhode Island Department of Environmental Management, *Landfill Closure Program: Frequently Asked Questions* (March 2001), available at http://www.dem.ri.gov/programs/benviron/waste/pdf/landclos.pdf

[157] Contamination Forced Football League Out of Park, Providence Journal (July 12, 2005).

[158] Fuss & O'Neill, *Site Investigation Report, Former Landfill at Jamiel's Park*, (October 2004) 17.

[159] Pare Engineering Corporation, Hugh Cole School Road Landfill, Warren, Rhode Island, Remedial Investigation/Conceptual Design Report, (August, 1996) 6-7.

[160] Siegmund & Associates, Inc., Remedial Action Plan for Hugh Cole School Road Landfill,(December 1997) 3.

[161] U.S. Environmental Protection Agency, Office of Air and Radiation, *Emission Factor Documentation for AP-42 Section 2.4, Municipal Solid Waste Landfills*, (Rev. August 1997) 2-4 – 2-6.

[162] Minnesota Department of Health, *Carbon Dioxide: Environmental Health in Minnesota*, (Sept. 2005) available at http://www.health.state.mn.us/divs/eh/indoorair/co2/

[163] Guidance for determining whether a site has a "substantial contamination" problem is discussed in Section 3(C) of this Part.

[164] Ellen D. Smith, Robert J. Luxmoore, et al., *Natural Physical and Biological Processes Compromise the Long Term Performance of Compacted Soil Caps*, in BARRIER TECHNOLOGIES FOR ENVIRONMENTAL MANAGEMENT D-66 (National Research Council ed. 1997).

[165] *Id.*, at D-67.

[166] Disposal Safety Incorporated, Monitoring Plan, Direct Contact With Soil Pathway, New Beard School, Detroit, Michigan, 16 (March, 2002).

[167] *Id. See, also*, Ronalk K. Grobel, *Geomembranes in Surface Barriers*, in BARRIER TECHNOLOGIES FOR ENVIRONMENTAL MANAGEMENT D-76 (National Research Council ed. 1997).

APPENDIX A
SUMMARY DOCUMENT: FIFTY STATE SURVEY OF SCHOOL SITING POLICIES

What follows is a summary of state laws, regulations and policy guidance documents (hereafter collectively referred to as "policies") regarding the siting of schools on sites contaminated by toxic substances. The summary has three parts: Part I is a narrative description of all state policies, grouped into eight policy categories: Prohibited Sites, Siting Factors, Environmental Evaluation of Sites, Remediation of Sites, Funding Provisions, Public Participation, Public Information Available and Forms Available for Site Evaluation and Remediation. The numbers that appear next to each policy correspond to numbers assigned to specific policies for each of the fifty states in Part II of the summary, Sources of Authority.

Part III is a spreadsheet entitled "Table of Authority, 50 State Survey," which serves an index of both the policies listed in the first part and the authorities listed in the second part. Reading across the top of the spreadsheet from left to right, the first column "Agency" indicates whether the agency charged with implementing the policy is a state education agency (ED), state environmental agency (ENV), state health department (H) state geologic authority (GEO) or an agency of local government (Local). The next three columns, Statutes, Regulations and Other Legal authority, have numbers corresponding to the number assigned to each policy in each state in Part II--Sources of Authority, and the year the policy was enacted. The final eight columns correspond to the eight policy categories in the first part of the Summary. The letters correspond to the lettered subheadings within each policy category in Part I, and the numbers correspond to the numbers assigned to each policy in a particular state in Part II.

PART I — NARRATIVE DESCRIPTION OF STATE POLICIES

1. PROHIBITED SITES

This section details policies that forbid sites a school district can use for school projects due to health or safety concerns with regard to transportation routes, transmission routes (e.g. pipelines, power lines), point sources of pollution, prior land uses, natural hazards, and other general environmental conditions.

A. Transportation Routes

California:
(1) no site within 500 ft. of the edge of the closest traffic lane of a freeway or busy traffic corridor; district must identify sources of air pollution within ¼ mile of the site that might emit hazardous air emissions or handle hazardous materials or waste, such as industrial facilities, freeways or other busy traffic corridors, large agricultural operations, and rail yards; and cannot build a school on that site UNLESS: a.) there are no actual or potential health risks; or b.) those health risks are addressed by corrective measures ordered by a government agency having jurisdiction over those pollution sources; or c.) school district cannot find alternative suitable sites. Cal. Educ. Code §§17213(b)-(c)
(5) No site on major arterial streets with heavy traffic patterns unless plan in place for safe arrival of students and mitigation of traffic hazards. 5 C.C.R. §14010(l).

Florida:
(1) Insofar as it is practicable, site must not adjoin a right-of-way of any railroad or through highway or be located within any path of flight approach to any airport.
(2) No school may be built contiguous to airport defined by incompatible outer noise contour; nor may school be built within a runway path, defined as straight line extending in length 5 miles along center line of runway and in width measuring one-half the length of the runway, unless local zoning body makes specific findings on public policy reasons that outweigh health and safety concerns for prohibiting such a location.

Indiana:
(1) No school can be built within 500 feet of railroad.

Kentucky:
(1) No airport landing/take-off corridors if deemed a hazard by state agencies

New Mexico:
(1) No school may be constructed within 400 feet of "main artery of travel" without obtaining permission of state board. "Main artery of travel" defined as "any designated state or federal-aid highway . . . through a municipality and any type of public highway . . . through a rural community or area."

West Virginia:
(2) School site shall be located away from hazards and undesirable environments such as airports, railroads, arterial highways, heavily traveled streets, traffic and congestion.

B. Transmission Routes (e.g. pipelines, power lines)

California:
(1) Site with one or more pipelines, situated underground or above ground, that carries hazardous substances, acutely hazardous materials, or hazardous wastes, unless the pipeline is a natural gas line used for supply by neighborhood or school. Cal. Educ. Code §17213(a)(3).
(5) Site must be further than the following distances from electric power line easements: 100 ft. from edge of easement for 50-133 kV line, 150 ft. from 220-230 kVm line and 350 ft, from 500-550 kV line. 5 C.C.R. §14010(c); Site cannot be near an above-ground water or fuel storage tank. 5 C.C.R. §14010(h).

South Carolina:
(2) Electric Transmission Power Lines will not cross any portion of school site unless approved by Office of School Facilities.

West Virginia:
(2) School site shall be located away from hazards and undesirable environments such as high voltage transmission lines, booster or reduction stations, high pressure gas lines and transformer stations.

C. Sources of Pollution (e.g. Point and Mobile Sources)

California:
(1) No school construction on any hazardous substance release site listed by state Department of Toxic Substances Control (DTSC) for removal or remedial action. Cal. Educ. Code 17213(a)(2).

Florida:
(1) Must not be adjacent to any factory or other property from which noise, odors, or other disturbances/conditions that might interfere with educational programs.

Indiana:
(1) No school can be built within 500 feet of any stable, barn for horses, mules, cattle or used for breeding, or any noisemaking industry.

Kentucky:
(1) No airborne particulates, hazardous waste site affecting runoff and aquifer, manufacturing concerns, sewage treatment/water purification, no chlorine presence deemed hazardous by state agencies having jurisdiction.

Mississippi:
(2) Site environment must be free of odors, dust, dirt, noise and smoke that are usually associated with factories, stockyards, railroads, mills, agricultural chemical aerial spraying, etc. The site is free of hazardous waste.

West Virginia:
(2) School site shall be located away from hazards and undesirable environments such as noise and odoriferous plants or industries; bulk storage plants for flammable liquid, and property zoned as industrial.

D. Prior Land Use

California:
(1) No school construction on a current/former hazardous waste disposal site or solid waste disposal site unless site was a former solid waste site and all wastes have been removed. Cal. Educ. Code §17213(a)(1).
(6) (Recommended as Best Practice) Land which prior to acquisition for the project was pubic parkland, unless land of equal or greater value as parkland is accepted in trade by the public landowner.

Florida:
(1) "No K-12 school shall be built on or adjacent to a known contaminated site unless steps have been taken to ensure that children attending the school or playing on school property will not be exposed to contaminants in the air, water, or soil at levels that present a threat to human health or the environment."

Utah:
(3) A school site shall not be located in an area that was a repository for hazardous substances.

E. Natural Hazards

California:
(1) No Construction of school on the trace of a geological fault along with surface rupture can reasonably be expected to occur within life of school building. Cal. Educ. Code §17212.5.
(5) School site cannot be within an area of flood or dam flood inundation unless the cost of mitigating the flood or inundation impact is reasonable; nor can site be subject to moderate to high liquefaction or landslides. 5 C.C.R. §14010(g, i).

Connecticut:
(1) No site in area of moderate or high radon potential as indicated on state environmental agency's radon potential map unless project plan incorporates radon mitigation techniques.

Georgia:
(1) Must get a letter of assurance from the Floodplain Management Coordinator of the Georgia Department of Natural Resources that the site is not in a floodplain or the Coastal High Hazard Area.

Indiana:
(1) No school can be built within 500 feet of a stream.

Kentucky:
(1) Subsurface faults, unstable high-wall conditions of surrounding grounds deemed hazardous by state agencies having jurisdiction. Site must be also above the 100-year flood plain, however site may still be considered if site filled to level where building floor level above 100 year elevation.

Mississippi:
(2) Site grounds are at sufficient elevation to prevent flooding or standing water; subsoil conditions are such that foundations, footings, athletic fields and lagoons can be built.

Utah:
(3) School site shall not be located in an area with a history or high possibility of flooding, high ground water, snow or earth slides or earthquake fault.

West Virginia:
(2) School site shall be located away from hazards and undesirable environments such as natural barriers limiting accessibility and expandability such as rivers, lakes, swamps and protruding ridges. Building sites must be located above 100 year flood plain as determined by U.S. Corps of Engineers.

F. General Prohibitions

California:
(5) Existing or proposed zoning of surrounding properties must be compatible with school use in that "it would not pose a potential or safety risk to students or staff. " 5 C.C.R. §14010(m).
(6) (Recommended as "Best Practice") Do not build schools on greenfields (land that has not been previously developed or has been resotred to agricultural, forestry or park use), important farmland (as defined by the U.S. Department of Agriculture), or within 100 ft of any wetland.

Indiana:
(1 & 3) School site must be "free of nuisances or hazards"; School site must be built 500 ft. from any "unhealthful condition;" nor shall any "unhealthful condition" (or any railroad, stable, horse, mule, or cattle barn used for breeding or any noisemaking industry) be located or erected within 500 feet of any school.

Kentucky:
(1) Within vicinity of a selected site, there shall not be any hazards to health or environment which are deemed so by state agencies having jurisdiction; Local Board of Education must provide a letter from architect/engineer relating to any potential environmental or safety hazards in the vicinity (1 mile radius) of the proposed site

Montana:
(2) "The school site must be free of objects or conditions which create unreasonable or unnecessary dangers to health or safety."

New Jersey:
(4) Before State Department of Education can approve acquisition of land for school project, local school district that uses state School Construction Corporation must submit to Department of Education "evidence that the district has not indemnified the seller of the land for the costs arising from environmental remediation required for the property to be used for school purposes; acquired the land in its "as is" condition; or acquired the land under terms and conditions that would invalidate the statutory immunity from liability for remediation costs associated with pre-existing contamination, whether discovered pre-closing or post acquisition, under the N.J. Spill Compensation and Control Act, N.J.S.A. 58:10-23.11g.d(4)." N.J.A.C. 6A:26-7.1(b)(1)(vii).

Oklahoma:
(1) "The site and building(s) shall insure that the health and safety of those served are properly safeguarded. . . . The site shall be as free as possible from hazards . . . ."

G. Waiver of Prohibited Site Provisions

California:
(5) School district may request waiver from State Department of Education for any school siting standard if the "district can demonstrate that mitigation of specific circumstances overrides a standard without compromising a safe and supportive school environment." 5 C.C.R. §14014(u).

Indiana:
(1) Provisions prohibiting construction of schools on certain sites may be waived by written authorization of either the state health commissioner or state superintendent of public instruction.

Mississippi:
(2) Mississippi Board of Education may approve exceptions to minimum siting requirements.

2. SITING FACTORS

This section details how sites are evaluated with attention to proximity concerns around the following: transportation routes, transmission routes, point sources, prior uses, natural hazards, and other general environmental conditions. This category is distinguishable from the "prohibited site" categories in that the policies listed here do not categorically exclude a site from consideration, thus, giving school districts greater discretion as to where to site schools.

A. Transportation Routes

Alaska:
(1) Noise from air and motor vehicle traffic should not exceed sound decibel level of 65db sustained and 75db peak.

Arizona:
(2) State school facilities board to give notice to military airport in territory in the vicinity of any proposed new school facility construction and consider comments of operator of military airport regarding compatibility of proposed school facility with the high noise or accident potential generated by military airport operations.

California:
(1) If site within 2 miles of airport runway, district must notify state Department of Education, which, in turn, asks state Department of Transportation to conduct safety analysis. If analysis recommends against using site for school district may not acquire site. If analysis recommends acquiring site district must conduct public hearing on using site for school before acquiring site. Cal. Educ. Code §17215.
(4) Major roadways (recommends setback of 2,500 ft for roads where explosive loads carried and 1,500 ft. for roads where gasoline, diesel, propane, chlorine, oxygen, pesticides, and other combustible or poisonous gases are transported).

(5) Site within 1,500 feet of railroad track easement requires a safety study. 5 C.C.R. §14010(d).

Florida:
(3) Site should not pose health threats due to heavy traffic.

Georgia:
(1) "The routes to and from school site should not expose children to hazardous environmental materials or safety hazards." Risk/ Hazard Analysis required if site within 3 mile radius of railroads, major highways; airport approach or departure paths. Proposed site should be far away enough from airport and flight patterns to provide "reasonable" protection from risk of falling aircraft and aircraft noise.

Minnesota:
(2) Site should avoid nearby, high-density freeway, commercial, or commuter traffic flow; noisy, congested, or environmentally hazardous areas (i.e. near major highways or busy intersections, railroads)

Mississippi:
(2) Site should be planned to avoid traffic hazards.

North Carolina:
(2, 3) Site should be far enough from air traffic and high speed vehicular traffic (especially trucks and buses).

Rhode Island:
(1) Site for secondary schools shall be removed as far as possible from traffic hazards.

Utah:
(2) School district shall coordinate siting of new schools with municipality or county (if site not within a municipality) to avoid or mitigate existing and potential traffic hazards.
(3) School site shall be located to eliminate the negative influence of railroads, freeways, highways, heavy traffic roads, airports, and aircraft flight patterns.

Vermont:
(4) Sites for state funded school projects should be safe from traffic.

Wyoming:
(1) When selecting or evaluating school site, airports and traffic to be taken into consideration.

B. Transmission Routes

California:
(5) If proposed site within 1500 ft. of the easement of an above ground or underground pipeline a risk assessment must be performed to determine whether there is a safety hazard and if such hazard determined to exist, proposed site must be abandoned. 5 C.C.R. §14010(h).

Florida:
(4) Preferable to avoid sites adjacent to or near high voltage power transmission lines; if unavoidable, school building and play areas not to be within power line right of way.

Georgia:
(1) Risk/ Hazard Analysis required if within 3 mile radius of: electrical transmission lines rated at 115KV or higher; oil or petroleum products transmission lines and storage facilities; hazardous chemical pipelines; natural gas transmission and distribution lines larger than ten inches in diameter with a pressure of 200 psi or more; or propane storage facilities.

Illinois:
(3) Proposed site of state funded school project should not be subject to electrical discharges.

Minnesota:
(2) Site should avoid power and gas lines.

North Carolina:
(2) Avoid locating facilities near electric power transmission lines.
(3,4) Recommended distances for school site from electric power line easements:
100 feet from edge of easement for 100-110 kv line
150 feet from edge of easement for 220-230 kv line
250 feet from edge of easement for 345 kv line

Wyoming:
(1) Where possible, avoid locating school facilities near electric power transmission lines.

C. Sources of Pollution

Alaska:
(1) Site should be free of unregulated storage of items containing hazardous materials or known disposals of hazards.

California:
(1) Will consider air pollution in site selection, must consult with appropriate air quality management agencies if hazardous air emissions within ¼ mile of site. Cal. Educ. Code §17213(b). Before acquiring any proposed site presently zoned for agricultural production, school district must make written finding that the district "will attempt to minimize any public health and safety issues resulting from neighboring agricultural uses that may affect the publics and employees at the schoolsite." Cal. Educ. Code §17215.5(a)(3).
(5) If proposed site within 2,000 ft. of significant disposal of hazardous waste site school district shall contact state Department of Toxic Substances Control for determination of regulatory status. 5 C.C.R.§14040(t).

Florida:
(3) Site should not pose health threats from hazardous materials, air and noise pollution, or industry.
(4) Site should be determined to be clear of hazardous materials and underground contamination.

Georgia:
(1) School location should be insulated from business and industrial development. "Selection of school site in an area zoned for commercial or industrial development should be avoided." Risk/ Hazard Analysis required if proposed site within 3 mile radius of industrial/manufacturing facilities that: (a) use or store hazardous substances as defined under Title 40 CFR 262; (b) emit hazardous air pollutants as defined under the "Clean Air Act" and/or (c) are covered by 1990 "Clean Air Amendment"--Risk Management Plan Sec.

112(r); Risk/Hazard Analysis also required if proposed site is within 3 mile radius of nuclear waste storage facilities or facilities involving munitions or explosives storage or manufacturing.

Illinois:
(3) Proposed site of state funded school project should not be subject to air pollutants, soil pollutants, dust, smoke, noise, odors, vibrations or explosions.

Indiana:
(4) New school facilities should be designed in a matter that reduces air and noise pollution to minimum levels (non-binding guideline).

Massachusetts:
(2) Site should be "reasonably free from olfactory, auditory, visual and noxious pollution, or should be capable of being made so prior to commencement of construction."

Minnesota:
(2) Site should avoid nearby environmentally hazardous areas such as heavy industry, sewage or chemical plants, or feedlots

North Carolina:
(2) Noise and air pollution a factor for evaluating potential school sites
(3) Site should be located away from commercial enterprises, industrial and manufacturing plants to avoid bad air quality problems such as odor, dust, noise, etc.
(4) To reduce potential from industrial accidents, avoid locating schools near industries that utilize hazardous materials or processes that generate hazardous by-products or discharges.

Rhode Island:
(1) Site for secondary schools shall be removed as far as possible from noises and unsanitary conditions.

Utah:
(3) School site shall be located to eliminate the negative influences of industrial areas or other areas where auditory problems, malodorous conditions, or safety and health hazards exist.

Vermont:
(4) Sites for state funded school projects should be well away from areas with industrial or agricultural operations that might present environmental hazards. Noise levels in the surrounding area a consideration in selecting a school site.

Washington:
(4) Site review with local health officials encouraged. Review to consider presence of environmental contaminants such as radon, toxic substances and air pollution.

West Virginia:
(2) Every effort should be made to acquire a site that has a relatively low ambient noise level.

Wyoming:
(1) When selecting or evaluating school site, noise and air pollution (e.g., from airports, traffic, industrial facilities) to be taken into consideration.

D. Prior Land Use

Alaska:
(1) Site should be free of evidence of past use by "industrial functions."

West Virginia:
(2) Conditions that public school officials must determine in advance prior to acquisition of school sites: the presence of quicksand, deep mines, unsatisfactory fill, pyrites or other undesirable soil condition which require special footings or pilings to support the building; the need for filling or capping old wells, clay holes, pits or mines.

E. Natural Hazards

Alaska:
(1) Site should not be susceptible to damage from natural disasters, including earthquakes, avalanches/landslides, volcanic activity, flooding; avoid sites that present health and safety hazards such as bluffs/steep cliffs, bodies of water and sewage/garbage disposal areas.

Arizona:
(1) For state funded school project where site is not entirely fenced or walled, state school facilities board to consider presence of hazardous or natural barriers and the amount of animal nuisance near the school site.

California:
(4) Site evaluation should give special consideration to naturally occurring hazardous materials such as oil, gas, asbestos.

Florida:
(4) Identify whether site is in floodplain and feasibility of constructing within such floodplain; determine whether soil borings indicate site is suitable for construction; environmental management issues must be addressed, as appropriate, with state and local agencies.

Georgia:
(1) Risk/ Hazard Analysis required if proposed site is within 3 mile radius of: lakes, rivers, dams, reservoirs, or other bodies of water; area of "[p]otential flooding because the property is located within the 100 year flood plain or damn breach zone."

Illinois:
(3) Proposed site of state funded school project should not be subject to excessive, floods, or groundwater incursions.

Minnesota:
(2) Avoid sites located in lowlands and in or adjacent to extensive wetlands.

North Carolina:
(3) School district should check all sites for wetlands and/or flood plains before purchasing.

South Carolina:
(2) Potential school site must be checked through Flood Mitigation Office of state Department of Natural Resources to determine if site is in a flood zone and, if so, the affect on insurance rates and "related considerations."

Vermont:
(4) Site for state funded school project should be well away from rivers and streams that might flood or threaten student safety.

Wyoming:
(1) When selecting or evaluating school site, seismic potential (fault line location, probability factors) to be taken into consideration.

F. General

California:
(5) District shall consider environmental factors of light, wind, noise, aesthetics in site selection process. 5 C.C.R. §14010(q).
(5) Site preparation costs (including cleanup) are a factor in site selection process and those costs must not be "unreasonable" nor result in undue delays. 5 C.C.R. §14010(s)(2).

Maine:
(1) State Board of Education must consider "the environmental issues related to the site."

Massachusetts:
(1) For state funded school projects site selection must be "based on the cost and environmental factors, including an awareness of soil conditions and their probable effect on foundation and site development costs."

New York:
(1) Commissioner of Education shall not approve plans for the erection or purchase of any school building unless the site has been selected with reasonable consideration of the following factors: its environment and soil conditions.
(4) Sites for the erection or enlargement of school facilities shall be approved by the Commissioner of Education provided they have been selected with reasonable consideration of the following factors: "(3) sites shall be developed to conserve natural resources and avoid environmental problems within the limits of the educational program. Care shall be taken to insure that the site and facilities thereon are consistence with and contribute to the school and community environment and provide for the health and safety of occupants."
(5) According to state Board of Regents "guiding principles:" "Every student has a right to an environmentally safe and healthy learning environment which is clean and in good repair. . . . School officials and appropriate public agencies should be held accountable for environmental [sic] safe and healthy school facilities."

North Carolina:
(3) Cost of planning, developing and operating a site should be a factor in site section, including costs of soil analysis and treatment.

Ohio:
(1) For school projects funded in part by Ohio School Facilities Commission, the Commission "shall consider student safety and health when reviewing design plans for classroom facility projects . . . ." After consulting with state education health and law enforcement personnel, the Commission may require changes in the design plans as a condition of project approval that the Commission "believes will advance or improve student and staff safety and health . . . ."

Rhode Island:
(2) Sites for all state reimbursed school projects should be chosen to minimize

environmental and economic impact on the local community (e.g., avoid sites where existence of soil conditions will result in increased site development costs). Sites for all schools should be "reasonably free from olfactory, auditory, visual and noxious pollution, or should be capable of being made so prior to commencement of construction."

South Carolina:
(2) The site selection process shall take into consideration all natural and/or man-made features. Any potential environmental hazard such as air, water or soil contamination shall be considered.

Washington:
(1) For state funded school projects school district must consider whether the proposed site "is free of all encumbrances that would detrimentally interfere with the construction, operation and useful life of the facility."
(2) Board of Education to obtain approval from local health officer "that the proposed development site presents no health problems." Noise standard set at 55bBA (hourly average) and 75dBA (hourly maximum).
(4) Site review with local health officials encouraged. Review to consider acceptable noise levels. Sites where noise level standards are exceeded are not acceptable school sites unless an appropriate plan for sound control approved by health officer.

West Virginia:
(2) Factors to be considered in selecting site for school include "provision for a safe and healthful environment . . . ."

G. Waiver of Prohibited Site Provisions

California:
(5) School district may request waiver from State Department of Education for any school siting standard if the "district can demonstrate that mitigation of specific circumstances overrides a standard without compromising a safe and supportive school environment." 5 C.C.R. §14014(u).

3. ENVIRONMENTAL EVALUATION FOR SITE

This section describes policies that require sponsors of new school to evaluate environmental conditions at proposed school sites and environmental impacts of school projects. Only those states having requirements that specifically address school sites or school projects are included in this section. Attention is given to states that specifically require school districts to conduct American Society for Testing and Materials (ASTM) Phase 1 and/or Phase 2 site assessment studies, and Environmental Assessments and/or Environmental Impact Statements under state environmental review laws. All other environmental evaluation methods are categorized either as "other contamination assessment" (where the assessment relates to identifying environmental contamination on the site) or "general site assessment"(where the purpose of the assessment is to identify conditions at the site which may or may not include environmental contamination).

A. Phase 1

Arizona:
(2) Final step of the 3-step approval process for state funding of land acquisition for a school construction project (due diligence) requires that a Phase 1 assessment is done,

including the following factors (if not included): hazardous materials, noise, soil conditions, adjacent land owners and/or uses. However, these requirements only apply to land purchased by the state through the School Facilities Board and does not apply when districts purchase their own land for school projects.

California:
(1, 5) As a condition of receiving state funding for a school project, prior to acquiring a school site, the school district shall contract with an environmental assessor to prepare a Phase 1 environmental assessment of the proposed school site, in accordance with ASTM Practice E 1527-97. The Phase 1 assessment may include sampling for lead and PCB contamination. The Phase 1 assessment shall contain one of the following recommendations: (1) that further investigation of the site is not required or (2) that an in depth Preliminary Endangerment Assessment ("PEA") is needed. Within 30 days DTSC must review and concur with the results of the Phase 1 assessment, reject the assessment, determine the assessment is incomplete, or order the district to prepare a PEA. Cal. Educ. Code §§17210(g), 17213.1(a)(1-3); 5 Code Cal. Reg. §69104. Phase I assessment not required for projects funded without state dollars. 5 Code Cal. Reg. §14012.

Connecticut:
(1) For school projects built with state financial assistance, prior to submitting plans to state education commissioner for approval the local board of education must conduct a Phase 1 assessment in accordance with ASTM or similar standards.

Florida:
(1) Before taking title to property or initiating action to construct school on property already owned, school district "shall conduct appropriate due diligence including all appropriate inquiry into the previous ownership and use of the property consistent with good commercial or customary practice in an effort to determine the existence of any potential air, water or soil contamination that may exist on or adjacent to the proposed K-12 school site." District encouraged to contact state environmental agency for any information about contamination on or adjacent to proposed site.

Georgia:
(1) Phase 1 shall follow methodology of the ASTM Practice E 1527-97 and must be attached to each completed "Preliminary School Site Evaluation and School Site Approval Form" submitted to the Dept. of Education.

Illinois:
(1) For any proposed school in a county with population larger than 3 million people (currently only Cook County), no person may commence construction of a school until "Phase 1 environmental audit" (defined at 415 ILCS §5/22.2(j)(6)(E)(v) as conforming to ASTM standards, including Practice E 1527-97 entitled "Standard Procedures for Environmental Site Assessment: Phase 1 Environmental Site Assessment Process" until EPA promulgates standards pursuant to 42 U.S.C. §9601(35)(B)(ii)) "is obtained." Environmental audit must be performed by an "environmental professional" (defined at 415 ILCS §5/22.2(j)(6)(E)(iii)).

Massachusetts:
(2) Local school district applying for state school construction funds must conduct Phase 1 environmental assessment that conforms to ASTM Phase 1 standards.

New Jersey:
(5, 6, 11) For all school projects undertaken by state School Construction Corporation

(SCC), an "Environmental preliminary assessment" must be performed by the School Construction Corporation (unless site analysis activities are delegated by the Corporation to local "Abbott" school district, in which case the district performs the assessment and provides the Corporation with the preliminary assessment report. N.J.A.C. 19:34-3.4). This assessment entails an "historical records search and review and a non-invasive analysis of a site to identify all potentially contaminated areas of concern at the site and to determine an appropriate environmental site investigation scope of work to characterize the soil and groundwater conditions." N.J.A.C. 19:34-1.2. A guidance document developed by the School Construction Corporation (11) states that Preliminary Assessment to be done for "all potential School Facilities Project sites" in accordance with ASTM E-1527-00 and New Jersey Administrative Code 7:26E.

Ohio:
(3) For school projects funded in part by Ohio School Facilities Commission, **"**[p]rior to the purchase of any site, a Phase I Environmental Assessment should be completed to evaluate the potential for environmental liabilities associated with current and past property use and to assess regulatory compliance."
(3) For school projects funded in part by Ohio School Facilities Commission, school district must "[p]erform a site investigation and records search of hazardous materials used, stored or disposed of on the property; proximity to landfills; adjoining property uses; proximity to properties listed on [CERCLIS]; and Ohio [EPA] 'Master Sites List.'"

Utah:
(4) School districts "encouraged to invest" in a Level One Environmental Impact Statement prepared by the district's consulting civil or soils engineer. This report outlines the prior uses of the school site and surrounding areas, and identifies what chemicals, gases or slag deposits may be present as a result of prior uses. The report also looks forward at potential impacts on the land and surrounding area if a school facility is constructed.

Washington:
(3) State Department of Health recommends that school districts conduct Phase 1 Environmental Site Assessment that conforms to ASTM standards.
(4) State Superintendent of Public Instruction recommends that local school districts conduct "an appropriate investigation into the history of activities and business practices with respect to the property before purchasing or leasing it."

B. Phase II

California: Preliminary Endangerment Assessment (PEA)
(1) If a Phase 1 or DTSC determines that a PEA be conducted, the school district can either drop the school site from further consideration or contract a qualified environmental assessor to conduct a PEA. The primary objective of a PEA is to determine if there has been a potential release of a hazardous material, which could pose a health threat. The PEA must also evaluate the presence of naturally occurring hazardous materials. Environmental sampling is conducted on site and a risk evaluation is used to estimate the potential threat to children's health, public health, or the environment. PEA must contain one of the following conclusions: a.) that further investigation of the site is not required or b.) that a release of hazardous substances or a threat of such release exists, or naturally occurring hazardous material is present, or any combination of the above. Cal. Educ. Code §§17210(h); 17213.1(a)(4).

Florida:
(1) Any evidence of a discharge of pollutants or hazardous substances on or adjacent to a

proposed K-12 school site shall prompt further investigation using at least a Phase II Environmental Audit in accordance with ASTM standards for air, water, and soil sampling.

Illinois:
(1) For school sites where Phase 1 Environmental Audit required (Cook County only), no person may commence construction of school if Phase 1 Environmental Audit discloses the presence or likely presence of a hazardous substance or a pesticide or a release or a substantial threat of a release of a hazardous substance or pesticide without obtaining a Phase 2 Environmental Audit. Phase 2 Environmental Audit includes testing by environmental professional of soil, groundwater, or other potentially impacted media. Testing to determine whether there is a presence or likely presence of a hazardous substance or pesticide, and whether there is or has been a release or a substantial threat of a release of a hazardous substance or pesticide at, on, to, or from the real property. 415 ILCS §5/22.2(j)(6)(E)(vi).

Massachusetts:
(2) Local school district applying for state school construction funds must conduct a Phase 2 assessment "based on the results of Phase 1 assessment."

New Jersey:
(5, 6, 11) For all school projects undertaken by state School Construction Corporation, where results of the "Environmental preliminary assessment" indicate that a potential school site is "potentially contaminated and, thus, further investigation of the site is required" (N.J.A.C. 7:26E 3.2), an "environmental Site Investigation must be performed by the School Construction Corporation (unless site analysis activities are delegated by the Corporation to local "Abbott" school district, in which case the district performs the investigation after the Corporation reviews and approves the draft environmental site investigation plan. N.J.A.C. 19:34-3.4). An "environmental site investigation" means "an invasive analysis of the site, involving soil and/or groundwater sampling as well as laboratory analysis, to determine if any contaminants are present at the site above the unrestricted use remediation criteria or if any remediation or any further remediation is required . . . ." N.J.A.C. 19:34-1.2. Sampling to be done in accordance with NJ Department of Environmental Protection's Field Sampling Procedures Manual, available at
http://njedl.rutgers.edu/ftp/html/2453/index.html

Ohio:
(3) For school projects funded in part by Ohio School Facilities Commission, **"**[a] Phase II Environmental Assessment may be required for areas of the site which indicate the potential for asbestos and other contaminants."

C. Environmental Assessment (EA) or Environmental Impact Statement (EIS)

This section notes those states that have provisions aimed at identifying environmental impacts of school sites under state environmental review laws modeled upon the National Environmental Policy Act.

California: (1, 2 & 5)
All school projects, whether funded by the state or local district, are subject to the California Environmental Quality Act, California Pub. Res. Code §21000 *et seq.* The local district is the "lead agency" responsible for completing the environmental review process. Before approving the acquisition of a school site the district must conduct an Initial Study to identify environmental impacts of the school project and determine whether the impacts are

"significant." When a school project poses no significant impacts the district issues a "negative declaration;" and when the project poses significant impacts the district prepares an Environmental Impact Report ("EIR"). Purpose of the Initial Study is to determine whether site falls within one of the prohibited school siting categories and to identify the presence of specified environmental hazards near the site. If the Initial Study identifies any of the specified environmental hazards, the school district must find either that the health risks posed by those hazards "will not constitute an actual or potential endangerment of public health" to future students or school employees or make additional findings about those health risks. Those additional findings include: a.) that an existing order of another governmental entity requires mitigation measures that result in "the mitigation of all chronic or accidental hazardous air emissions to levels that do not constitute an actual or potential endangerment of public health" to future students and school employees and that the emissions have been so mitigated prior to occupancy; and b.) that air pollution from major highways within 500 feet of the school "is such that neither short-term or long term exposures poses significant health risks to pupils." If the school district cannot make the additional findings, the district must pursue another site or make a written finding that the district is unable to locate an alternative site due to a shortage of sites that do not fall within one of the prohibited school siting categories. Cal. Educ. Code §17213; 5 C.C.R. §14011(h); Cal. Pub. Res. Code §21151.8.
(4) School districts applying for state funds must propose three acceptable sites in EIR. Districts not applying for state funds only required to review alternative sites (implying that at least two sites must be proposed). Guide at 16.

Maryland:
(2) State funded school construction projects must complete Environmental Assessment Form to comply with Maryland Environmental Policy Act. Assessment Form does not specifically address on and/or off site sources of environmental contamination but asks project sponsor to "[d]escribe any Federal, state or local restrictions which would impact on the development of th[e] project."

Minnesota:
(2) School projects likely subject to state environmental review process. Depending on size of school building and population of the unit of local government where school is built, either an Environmental Assessment Worksheet (EAW) or Environmental Impact Statement (EIS) must be filed with the Minnesota Environmental Quality Board. The EAW or EIS cannot be prepared by the local school district; it must be completed by the local unit of government that has planning and zoning jurisdiction at the project site (city, county or township).

New Jersey:
(6, 8) School construction projects in excess of $1 million (Level 1 Construction Projects) require an Environmental Assessment (EA) and School construction projects in excess of $5 million and land disturbance greater than 5 acres (Level 2 Construction Projects) require an Environmental Impact Statement (EIS). EA or EIS prepared either by School Construction Corporation or local district if School Construction Program not involved. EA or EIS reviewed and approved by New Jersey Department of Environmental Protection.

New York:
(6) All public school capital construction projects subject to State Environmental Quality Review Act (SEQR), which requires the preparation of a draft and final environmental impact statement for any school project which **may** have a potentially significant adverse impact on the environment. The determination of whether a school project may have a significant adverse environmental impact is made by the "lead agency," usually the local board of

education (or in New York City, the City's School Construction Authority). Lead agencies encouraged to use state Department of Environmental Conservation's long form Environmental Assessment to help make this determination. A "lead agency" need not complete an Environmental Assessment if the agency otherwise determines that preparation of draft environmental impact statement is necessary to comply with SEQR. SEQR process must be completed prior to school project being authorized by voters (where voter approval is required). Draft environmental impact statement must include a complete discussion of all alternatives considered, as well as discussion as to why those alternatives were not selected over the proposed project (including alternative of "no action."

Washington:
(4) Washington State Environmental Protection Act (SEPA), WAC 197-11-904 requires environmental impact statement for major actions significantly affecting quality of environment. District must determine whether school project is exempt from SEPA. Non-exempt projects require completion of checklist to determine whether action will have a significant effect on the environment.

D. Other Contamination Assessment

This section includes environmental site evaluations using techniques to assess contamination at the site other than ATSM Phase 1 and Phase 2 studies and Environmental Assessments and/or Environmental Impact Statements.

Kentucky:
(1) Site survey shall calculate site development and acquisition costs, including mass site excavation, geotechnical survey, and costs for hazardous condition cleanup. If questions exist, chief state school officer shall require the district to hire an architectural/engineering firm to study possible hazardous conditions and costs are borne by school district and then payable upon receipt and approval by chief state school officer.

Minnesota:
(2) If the site has or is presently heavily used, an environmental assessment of the site to check for contamination may be necessary.

South Carolina:
(2) If an environmental hazard such as air, water or soil contamination is suspected on a school site, the site shall be researched or tested by state Department of Health and Environmental Control or "other qualified verified engineers or laboratories."

Washington:
(3) School districts encouraged to analyze local and site specific climate conditions at potential schools sites. Analysis to include study of wind patterns, temperature and humidity for purpose of identifying and responding to upwind contamination sources, locating outdoor air intakes and determining other building features.
(3) School districts encouraged to evaluate ambient air quality at potential school sites for presence of airborne pollutants, both manmade and natural (radon). List of potential nearby site activities that may produce odors and other air contaminants of concern provided by State Health Department. Districts encouraged to prepare a map of the areas surrounding the site to show existing and potential contaminant sources.
(3) School districts encouraged to analyze potential school sites for other environmental factors such as noise which might limit use of windows, and glare from nearby buildings which might affect size, placement and glazing of windows.
(4) Purchasers of school sites "are advised to conduct an appropriate investigation into the

history of activities and business practices" at the property before purchasing it to avoid responsibility and liability for clean up for hazardous waste contamination.

West Virginia:
(1) On state funded school construction projects, State School Building Authority may require local county board of education to conduct a preconstruction test of a proposed school site for radon "[i]f the school building authority determines that it is feasible to test for radon prior to the construction of a school building."

E. General Site Assessment

This section includes environmental site evaluation techniques not listed under the previous four subheadings. These techniques typically involved generalized assessment of site conditions not specifically relating to the presence of toxic substances on or near a proposed school site.

Alaska:
(1) Site assessment to detect presence of hazardous materials may be required. Site is evaluated using matrix of specific factors including: Social and Land Use Factors, Construction Cost Factors, Operations and Maintenance Cost Factors.

California:
(1) Prior to acquiring site for school, school district must investigate site "to ensure that final site selection is determined by an evaluation of all factors affecting the public interest and is not limited to selection on the basis of raw land cost only." Evaluation to "include location of site with respect to population, transportation, water supply, waste disposal facilities, utilities, traffic hazards, surface drainage conditions and other factors affecting the operating costs, as well as the initial costs of the total project." Cal. Educ. Code §17212.
(4) Sites for state funded school projects must undergo a comprehensive examination of using a series of forms prepared by the California Department of Education. Proposed sites are ranked using criteria listed in general order of importance: safety, location, environment, soils topography, size and shape, accessibility, public services, utilities, cost, availability, public acceptance. Approval of site from California Department of Education required. Local school districts that finance school projects using local (as opposed to state funds) encouraged to seek Department's approval of site.
(5) California Department of Education must approve any site for any state funded project for school use prior to the local district acquiring the site. Departmental approval follows the district's preparation of site engineering, environmental impact and other studies (e.g., population trends, transportation, water supply, waste disposal facilities, utilities, traffic hazards, surface draining conditions and other factors affecting initial and operating costs). District must also prepare maps showing present and proposed school sites, major roads, unsanitary or hazardous installations (e.g. airports, industrial facilities) and pupil attendance zone. 5 C.C.R. §14011. Local school districts that finance school projects out of local (as opposed to state) funds must, prior to acquiring a site for a school, "evaluate the property" using the siting standards applicable to state funded schools. Said districts must also prepare site engineering, environmental impact and other studies required of state funded school projects. If any state school siting standard is not to be followed, the district must document the mitigation of specific circumstances that justify overriding those standards. 5 CCR §14012.

Colorado:
(1) Local school board must consult with Colorado Geological Survey regarding potential swelling soil, mine subsidence and other geologic hazards and to determine the geologic

suitability of the site for its proposed use for a school.

Georgia:
(1) Local school board must conduct Risk/Hazard Analysis if one or more of 13 enumerated hazards is located on or near (up to a 3 mile radius) a proposed school site in addition to Phase 1 assessment. Risk/Hazard Analysis must be performed by registered and state licensed engineer and must include identification and evaluation of each hazard; options for mitigating hazard; statement from engineer regarding suitability of site. State Department of Education may require additional information before making decision on appropriateness of site. Where one of 13 hazards present, school board should give consideration to alternative sites where potential hazards do not exist and the costs of implementing risk reduction measures at site where hazard(s) present.

Maine:
(1) Applicant for state funded school project must conduct subsurface analysis of soils and ledge and survey site for wetlands.

Massachusetts:
(2) Local school district applying for state school construction funds must assess environmental conditions in immediate vicinity which could impact the health and safety of students and school staff.

Mississippi:
(3) Local school district must complete Evaluation of Proposed New School Site Form and submit same to Mississippi Board of Education for their approval.

New Jersey:
(4) To obtain approval from state Department of Education to acquire land for a school project, district must submit to state Department of Education an "environmental site assessment to determine whether there is potential contamination on the land on a form provided by the Department." N.J.A.C. 6A:26-7.1(b)(3)(iii)(9). No such form has yet been prepared by the Department (as of 1/05), per interview with Larry Schmidt of NJ School Construction Corporation.
(4) School projects sponsored by either local District or state School Construction Corporation must submit an environmental site report to the New Jersey Department of Environmental Protection (NJDEP). In addition to addressing any contamination on the land, environmental site report must address wetlands and stream encroachment issues, existence of sewer and potable water supply, "Green Acres" land (public parkland), endangered animal and plant species, and historical or archeological resources. Within 45 days of receipt of the environmental site report NJDEP must make written recommendations that there are no substantial reasons why land acquisition should not proceed. If more than 45 days elapse from the submission of the environmental site report, NJDEP is deemed to recommend acquisition of land for the school project. N.J.A.C. 6A:26-7.1(b)(3)(iii). Recommendation of NJDEP is prerequisite to obtaining approval from state Department of Education to acquire land for a school project.

New Mexico:
(2) "Environmental assessments . . . are often necessary for approval of agencies when federal land is considered [for use as school site].

New York:
(7) Included with application for approval of a school site submitted to State Commissioner of Education is a "site analysis." The site analysis is a narrative description of the site

usually prepared by an architect or engineer. The site analysis must address soil conditions as shown by subsoil investigations, relating to bearing and drainage, and whether the proposed school construction project "conserves natural resources and avoids environmental problems . . . ."
(8) As part of preliminary information submitted to State Education Department, applicant must indicate location of nearest floodplain. If floodplain is located on school property the site plan must show location of floodplain, and applicant must submit copies of correspondence with local authority for a floodplain permit.

North Carolina:
(3) School district should perform topographic survey that includes description of existing land use of site and adjoining properties, location and sizes of wetlands and indication of flood plains. Soil boring tests recommended to avoid costly surprises later.

Pennsylvania:
(2) Substrata investigation required of any proposed school site located in an area certified by state Department of Environmental Resources to be subject to mine subsidence before beginning design work; State Public School Building Authority may request state Department of Mines and Mineral Industries to examine any site over and adjacent to any land where mining activities have or may have taken place and advise whether a school could be safely constructed thereupon.
(4) School district must submit to State Department of Education comparative site evaluations for each site (preferred site and any alternative sites) that must address proximity to air or water pollution, noise, odors, high pressure or gas pipelines, high voltage electric lines and air traffic.

Utah:
(4) Test pits should be dug to determine the general characteristics of the soil table and drainage before site is purchased by the school district. Utah Geological Survey performs preliminary site screening evaluation preferably before site selection to identify existence of any significant geological hazards that should be considered in deciding if a site is suitable for a school (such as potential for ground shaking, liquefaction, slope failure, flooding potential and radon gas). Thereafter, school district must perform a site specific geologic hazards study prior to project programming that addresses all hazards. Hazards study reviewed by Utah Geological Survey and results of review transmitted to State Office of Education.

Vermont:
(2) For school projects where state school construction aid is sought, local school board required to evaluate air quality issues and environmental hazards when selecting site for a school so as to avoid or minimize the potential for contaminants and submit the analysis with the application for state school construction aid.

(4) New school projects (regardless of funding source) on sites larger than 10 acres require a land use permit under Vermont Act 250. To obtain an Act 250 permit, the applicant must demonstrate that school project meets 10 criteria whose purpose is to mitigate environmental impacts of new construction projects.

Washington:
(1) For state funded school projects school district must conduct limited subsurface investigation by geotechnical engineer regarding foundation and subgrade performance.
(2) Local school district may request heath officer to make a survey and submit a written health appraisal of any proposed school site.

(4) Site survey of physical site characteristics required before design studies for site utilization are undertaken.

West Virginia:
(2) County board of education may not purchase a school site until subsoil conditions have been determined acceptable for the entire area of the building by adequate test borings or core drilling made under the direction of a registered professional engineer. Underground investigation shall also include the ownership and presence of mineral rights, mines and wells, and the effect they have on site development.
(3) Local education agency must conduct a geo-technical survey of any potential school site where a school will be constructed using state funds. Survey to "include a complete soil and substrata report to determine suitability of the site for the [sic] construction."

Wyoming:
(1) School sites to be evaluated for soil conditions (foundations), noise and air pollution, and seismic potential (fault line location, probability factors)

4. REMEDIATION

This section discusses remediation policies and standards developed specifically for school sites. This section does not address cleanup standards for specific hazardous substances other than those levels established specifically for school sites; rather it surveys general remediation measures for school sites.

California:
(1) For state funded school projects, the local school cannot occupy a school building until California Department of Toxic Substances Control ("DTSC") certifies that all remedial actions (other than maintenance and operation actions) in the approved removal action or remedial action plan have been completed. DTSC may stop construction of state funded school project if unidentified contaminant or area is discovered during construction. School district not required to address contaminated groundwater from off-site source as long as school doesn't contribute to contamination and school district does not interfere with response activities directed to the groundwater contamination. Cal. Educ. Code §17213.2 Response actions developed for state funded school projects must, at minimum, be protective of children's health with an ample margin of safety. Cal. Educ. Code §17210.1 (a)(4).
(7) State Office of Environmental Health Hazard Assessment issued guidance document for use by DTSC and other state and local environmental and public health agencies to assess exposures and health risks at existing and proposed school sites. Guidance document addresses: (a) appropriate child-specific routes of exposure unique to the school environment (in addition to those in existing exposure assessment models); (b) appropriate available child-specific numerical health effects guidance values and plans for the development of additional child-specific numerical health effects guidance values; and (c) the identification of uncertainties in the risk assessment guidance and those actions that should be taken to address those uncertainties.

Florida:
(1) If results of Phase 2 environmental assessment reveal contamination or concentrations of pollution, district school board "shall conduct appropriate rehabilitation… before initiating construction." State environmental agency to use risk-based corrective action clean-up criteria in reviewing and approving site remediation actions conducted by local school

boards.

Illinois:

(1) For school projects (in Cook County only) where Phase 2 Environmental Assessment required and Phase 2 reveals presence or likely presence of a release of hazardous substance or pesticide at the proposed site, site must be enrolled in Site Remediation Program and Remedial Action Plan, if required, must be approved by state Environmental Agency before construction of school may be commenced by any person. School building, once constructed, cannot be occupied until all work required by Remedial Action Plan is completed.

(4) Schools enrolled in Site Remediation Program must complete work pursuant to Remedial Action Plan before opening school to children and public. Remediation must be completed and given written approval by agency; A Licensed Professional Engineer (LPE) will conduct inspections of remediated site every 5 years to determine whether the effectiveness of all engineered barriers and institutional controls required by Remedial Action Plan and the No Further Remediation (NFR) Letter have been maintained.

Massachusetts:
(3) For purposes of characterizing risk at contaminated disposal sites, soil at site classified as S-1 (highest risk of exposure) if children attend school at the disposal site.

New Jersey:
(2) Establishes action level for radon in school buildings at four picocuries per liter or such other action level standard as the state Department of Environmental Protection may establish subsequent to the effective day of this act (1989).

(3) Requires removal or paving over soil in school playing areas where lead levels exceed 400 micrograms of lead per gram of soil, provided that areas with lead levels between 400 and 5,000 micrograms of lead per gram of soil may be subject to interim controls such as planting thorny bushes or other ground cover, installing fencing or barriers to prevent use of contaminated areas, or covering area with six inches of clean soil with lead levels less than 200 micrograms of lead per gram of soil.

5. FUNDING PROVISIONS

This section lists those states that have specified funding programs to reimburse school districts for construction costs incurred specifically for environmental evaluation and/or remediation of site, as opposed to funding generally for site acquisition or preparation. Also includes states that provide funding for staff positions to oversee remediation of contaminated sites.

California:
(1) For state funded school projects, the state will fund up to 50% of the total cost to evaluate and remediate contamination on a school site. Total state share of site acquisition costs (including site evaluation and remediation) shall not exceed 1.5 times the appraised value of the uncontaminated site, except for school projects "that demonstrate circumstances of extreme need." Funding up to 100% of site evaluation and remediation costs available to districts eligible for financial hardship assistance, only if state Department of Education certifies the site is the best available site compared to other sites from standpoint of total project costs, desirability of site, and time required to complete project based on need for additional school facilities. Cal. Educ. Code §17072.13 (a)-(b). Financial

analysis of clean up costs must be prepared before school district acquires site and after results of Preliminary Endangerment Assessment have been approved by state DTSC. Cal. Educ. Code §17213.1(a)(10)(B). Local school district must reimburse state Department of Toxic Substances Control for all of the department's response costs, but these costs are allowable costs for state reimbursement. Cal. Educ. Code §17213.1(a)(11),(b).

Connecticut:
(1) Cost of Phase 1 environmental assessment an eligible cost of state funded school construction projects.

Kentucky:
(1) Site survey shall calculate site development and acquisition costs, including mass site excavation, geotechnical survey, and costs for hazardous condition cleanup. If questions exist, chief state school officer shall require the district to hire architectural/engineering firm to study possible hazardous conditions and costs are borne by school district and then payable upon receipt and approval by chief state school officer.

New Jersey:
(1) For school projects developed by State School Construction Corporation, state pays 100% of "final eligible costs" (which include site investigation and remediation costs approved by the state Commissioner of Education) of school facilities project for school projects in so called "Abbott" districts (30 poorest school districts), and at least 40% of final eligible costs in all other districts (provided certain districts experiencing financial difficulty raising local share of cost of school project may petition the commissioner of education to ask the state Legislature to finance up to 100% of the "final eligible costs.") For school projects developed by local districts, district may receive a one time grant equal to the larger of 40% of "final eligible costs" or the product of 115% of percentage of school district budget funded by state times "final eligible costs."
(12) Pursuant to written memorandum between State Department of Environmental Protection (DEP) and State School Construction Corporation, the Corporation pays for eight staff positions at DEP dedicated to providing specialized services to evaluate proposed school sites that will be developed by the Corporation. Specialized services include reviewing Environmental Site Reports developed by the Corporation, making recommendations whether the Corporation should purchase sites based on environmental conditions, reviewing environmental assessments and investigations of proposed sites, and development of a coordinated and expedited review process for permits and remedial action work plans.

Ohio:
(2) Land survey, soil borings and Phase 1 recognized as non-construction costs that are included in the total "basic project cost." A percentage of the "basic project cost" is reimbursable from the Ohio School Facilities Commission according to a formula based on the wealth of local school districts.
(4) Site investigation services, including, but not limited to Phase I and II environmental assessments, traffic impact studies, soil borings and land surveys are eligible for "co-funding" from the Ohio School Facilities Commission; but costs of remediation or abatement of hazardous materials, soils or other contaminants are not eligible for co-funding.

Vermont:
(1) Eligible costs for state school construction aid include 30% of preliminary land test required under chapter 151 of Title 10 (could not locate any requirement for a land test in that portion of VT law).

Washington:
(4) No state financial assistance available for site acquisition costs such as geotechnical reports and site surveys.

West Virginia:
(3) State school construction funds may be used to pay for geotechnical studies and radon testing. State funds cannot be used to cover unusual site preparation costs.

6. PUBLIC PARTICIPATION

This section details policies for public hearings and/or public comment periods, school siting committees composed of members of the public;, and other public participation requirements. Excluded from consideration were requirements to place school construction projects before voters for approval.

A. Public hearings and/or Comment Periods

California:
(1) All school districts must conduct public hearing to evaluate site using state approved site selection standards prior to acquiring any site for school use. Cal. Educ. Code §17211.
(1) For all school projects the school district must conduct a public hearing on the draft Environmental Impact Report or negative declaration issued under California Environmental Quality Act. This public hearing may take place at the same time as the hearing on the Preliminary Endangerment Assessment. Cal. Educ. Code §17213.1(a)(6)(B).
(1, 3) Preliminary Endangerment Assessment subject to public review and comment, including a public hearing conducted by the school district. All comments received by the school district to be sent to state Department of Toxic Substances Control. Cal. Educ. Code §17213.1(a)(6) If the Preliminary Endangerment Assessment concludes that further response actions are required and the school district decides to proceed with acquiring the site, the district must also comply with public participation requirements applicable to the development of response actions at any contaminated site. Cal. Educ. Code §17213.1(a)(7) (referencing Cal. Health & Safety Code §§25358.7 – 25358.7.1). These requirements include development of public participation plan based on a baseline survey of the affected community; developing fact-sheets outlining the investigation and response activities (in languages other than English, if appropriate); adequate notice of public meetings and an opportunity to participate in those meetings; and establishment of a community advisory committee when 50 members of the affected community petitions the agency to establish one. The response actions developed in a Removal Action Work plan may also be subject to an additional EIR /Negative Declaration review under CEQA according to DTSC Fact Sheet #4, Further Action / Response Actions at School Sites, (rev. June 2003) posted on DTSC website at: http://www.dtsc.ca.gov/Schools/upload/SMBR_FS_SSI_RAW.pdf

Colorado:
(1) Local board of education must submit school site development plan to planning commission (or local governing body if no planning commission exists) for review and comment prior to construction of any building. Planning commission or local governing body may request hearing before local school board regarding the proposed site location. Local school board has ultimate authority to determine location of public schools.

Illinois:
(2) In any municipality with population greater than 1 million (presently only Chicago) municipality must give notice by certified mail of any proposed construction of school

building to all property owners within 250 feet of the lot line of site on which school is proposed to be constructed. The notice must specify date, time and place of public hearing on proposed school project. Board of education shall conduct the public hearing at which interested persons may ask questions and offer written and verbal comments on the proposed school project. Any property owner entitled to receive notice may enforce this requirement by commencing civil action in the circuit court.

Indiana:
(2) Local school corporation (district) must hold a public hearing to receive public comments concerning school corporation's plans and specifications for school projects before submitting plans and specifications to state building commissioner for approval. Plans and specifications may be revised by school corporation without conducting a second public hearing.

Maine:
(2) "Prior to Site Approval the school administrative unit shall hold the first of two required public hearing to present the site to the public and to take and record a straw vote."

Maryland:
(1) If county board of education gives preliminary approval of a site, board will hold a public hearing if: "(i) it considers it desirable, (ii) 100 or more adult residents of the county petition in writing for a hearing or (iii) the county [land use planning] commissioners or county council asks for a hearing." Notice of hearing must be given 10 days prior and published in general newspaper. Minutes of the hearing shall be taken. To obtain final site approval of State Superintendent of Education, county board must wait 15 days after recommending site or until after the public hearing if one is held, whichever occurs last. State Superintendent shall consider minutes of hearing and county board recommendations when making decision on approval of site.

Massachusetts:
(2) Local school district applying for state school construction funds must make public the results from Phase 1 and Phase 2 assessments and provide "a reasonable opportunity for public comment thereupon." Comments must be submitted by the district to the Department of Education prior to Commissioner's preliminary determination on the adequacy of the proposed site.

Minnesota:
(1) School construction projects in excess of $500,000 subject to review and comment by Commissioner of the Minnesota Department of Children, Families and Learning. When Commissioner issues a proposed negative review of the project, public meeting must be scheduled to discuss the negative review and comment on the school facility.

New Jersey:
(4) Wealthier school districts (receiving less than 55% of their budget from the state) must submit school projects to local planning board to allow board to make recommendations against project. Planning board deemed to have approved project if no recommendation received within either 45 days or 55 days, depending on whether state School Construction Corporation is involved with project. N.J.A.C. 6A:26-3.2(c).

New York:
(2) For school districts in cities with less than 125,000 inhabitants, local board of education must obtain positive recommendation from local planning commission before designating a site for a school; and where planning board makes negative recommendation school board

must conduct public hearing and pass resolution by a two thirds vote before designating a site.
(3) In New York City only, the affected community school board (a local not city-wide body) must conduct public hearing on school site plan proposed by City's School Construction Authority. Within 45 days of public hearing the affected community school board shall prepare and submit written comments on the site plan to the Authority. General public may also submit written comments within 45 days of the public hearing. The Authority must consider the comments and may affirm, modify or withdraw the site plan. The Authority may, also, conduct public hearings on the site plan. Following any public hearing but before starting construction the Authority shall submit the site plan to the Mayor and City Council, whose review is limited to the site selected for the project. Site could be rejected by the Mayor or by two-thirds vote of the City Council. If site is rejected, the Authority may revise and resubmit the site plan or abandon the site by eliminating the site plan from the required 5 year educational facilities capital plan.
(6) Where a Draft Environmental Impact Statement (DEIS) must be produced to comply with State Environmental Quality Review Act (SEQR), the public has 30 days to submit written comments on the DEIS. School districts are encouraged to publish notices in local newspapers that contain details of the public comment period (times, dates, addresses, etc). School districts are also encouraged to conduct public hearings as part of an optional "scoping process" in which issues to be addressed by the DEIS are identified, and also, on the DEIS itself. If public hearings on the DEIS are scheduled, notice of the hearing must be published in local newspaper at least 14 days prior to the hearing. All significant public comment must be addressed during the preparation of a Final Environmental Impact Statement.

North Carolina:
(1) Local school district cannot invest any money in any new school building until it has: 1.) developed plans based upon a consideration of state board of education's facilities guidelines; 2.) submitted those plans to the state board for review and comments and 3.) reviews the plans based upon a consideration of the comments it receives from the state board.

Pennsylvania
(1) Local school board must conduct a public hearing on any new school construction project at least 30 days prior to submitting to state Department of Education initial school building construction costs (excluding cost of site acquisition and development). Public notice of public hearing must be at least 20 days prior to hearing.
(3) Prior to submitting required site reports to State Department of Education, district must hold pubic meeting with an opportunity to take public comments; written comments received by district to be submitted to State Department of Education.
(4) Public hearing must be held prior to district acquiring school site; minutes of public hearing and any comments must be submitted to State Department of Education.

B. Committees with Public Members

California:
(1) Each school district must appoint an advisory committee to develop policies on use of district owned buildings or space no longer needed for school use. Committee to be representative of "ethnic, age group and socioeconomic composition of district," and shall include teacher, parent, administrator, business and neighborhood association representatives. School district may direct this advisory committee to evaluate potential school sites using state approved siting criteria and report findings at the required public hearing. Cal. Educ. Code §§17211; 17387-90.

(4) State Department of Education recommends that school districts establish a school site selection team including teachers, administrators, public officials, the project architect, and community members with and without children in the district

Georgia:
(1) All sites reviewed by Site Approval Committee established by State Department of Education. Composition of committee not clear, but at least includes representatives from state health department, a consultant state education department's Facilities Services Unit and the Director of the Facilities Services Unit.

Massachusetts:
(1) State School Building Advisory Board created to assist State School Building Authority develop general policy regarding school building construction. Board composed of state officials and 15 members from various non-governmental organizations representing municipalities, school officials, builders, architects, smart growth advocates, teachers, etc.

Minnesota:
(1) School construction projects in excess of $500,000 subject to review and comment by Commissioner of the Minnesota Department of Children, Families and Learning. When Commissioner issues a proposed negative review of the project, the local school board must appoint an advisory task force of up to five members to advise the school board and the Commissioner on the advantages, disadvantages and alternatives to the proposed facility. One member of the advisory task force must also be a member of the county facilities group.
(2) Minnesota Department of Children and Families (MDCF) recommends the establishment of a school site selection team composed of school and district staff, parents, students, citizens, school-community partners and local officials (e.g., city and county planners, park board). MDCF also recommends that local school districts establish an ongoing school facilities planning committee with strong representation from parents/citizens, community users/partners, and school district staff as part of an ongoing program to assess school facility needs.

North Carolina:
(3) Local school district should set up a committee of school board members and administrative personnel that will be responsible for selecting potential school sites.

South Carolina:
(1) State School Facilities Planning and Construction Guide, which contains mandatory site selection requirements, reviewed annually by a committee appointed by State Department of Education. Committee members include two architects and one engineer, all of whom are registered with the state and are experienced in K-12 school design; one K-12 school administrator; one representative of the K-12 construction industry, the State Fire Marshall, representative of the Traffic Engineering Division of the State Transportation Department; two representatives of the State Department of Education; and Chairpersons (or their designees) of the South Carolina House Committee on Education and Public Works and Senate Education Committee.

Vermont:
(4) State Department of Education recommends that school boards assemble one or more committees that include community representatives to assist with planning and completion of school construction projects (such as a Building Committee to assist in selecting an architect and choosing the final design of a project).

Wyoming:
(1) Local School Board shall organize a District Building Advisory Committee to assist in project planning. Committee membership may include, but is not limited to, administrators, teachers, students, parents, architects, curriculum specialists, school facilities planners, patrons, and other persons, as necessary, to promote public participation.

C. Other

California:
(2) School district must notify planning commission in writing 30 days prior to site acquisition. Planning commission to investigate site and report findings of investigation to district within 30 days. If report does not favor acquisition of property for school use district must not acquire property for 30 days from receipt of report. Cal. Pub. Res. Code §21151.2

Georgia:
(1) "The location of the school site should be acceptable to the school patronage community from the standpoint of general environmental surroundings and vehicular accessibility."

Maine:
(1) **"**When reviewing a request for site approval, the State Board of Education must consider the following: Community involvement in selection process."
(2) Prior to requesting State Board Design and Funding Approval, each school construction project must gain a favorable vote in a Local Referendum.

New Jersey:
(9) For all school facilities funded projects in whole or in part by the state, the project sponsor (e.g. state School Construction Corporation or local school district) is "strongly encouraged to provide opportunity for the community at large to have meaningful participation in the site selection process for school facilities projects . . . ."

South Carolina:
(2) District must consult with the local planning commission as to the compatibility of the proposed site with the comprehensive plan of community. If local planning commission finds propose site conflicts with comprehensive plan, school district can proceed with the project as long as the district states its intention and reasons to proceed.

Utah:
(1) School district must notify municipality or county (if site not within a municipality) of district's intent to purchase a school site or to construct a school prior to any purchase or construction. Representatives of school district and municipality/county to meet as soon as possible after purchase of school site to discuss concerns that each might have, including community impacts.
(4) State Office of Education makes following observation about school site selection process:

> School site selection is a process that should involve parents, public planning agencies . . . and many other individuals and groups. The general public should be kept continuously informed of the growing needs of the school district for new school sites which are adequately sized. Careful evaluation procedures should be followed which will clearly and fully document the reasons for selecting or rejecting a proposed school site acquisition. Finally, if possible, the site needs of the school district should be planned several years in advance of actual school construction.

7. INFORMATION AVAILABLE

This section lists policies that require information about potential school sites to be made available to the public during the school siting process regarding environmental investigations and conditions at potential school sites.

California:
(1) School district must make available for public review and comment the Preliminary Endangerment Assessment (and correspondence with the state DTSC about the PEA), and the draft Environmental Impact Report or negative declaration on the school project. Cal. Educ. Code §17213.1(a)(6).

Illinois:
(4) No later than 10 days after receipt of Agency's notice of acceptance into the Site Remediation Action Plan, the Remediation Applicant (RA) must mail written notice to interested and affected persons, public officials and organization of the site's enrollment into the program. This notice shall include the name and address of the RA, the location and boundary lines of the remediation site, a description of the intended use of the site, a description of the surrounding land uses, a description of the site history (including past uses, the nature and extent of the recognized environmental conditions and related contaminants of concern at the remediation site, a statement that the site has been enrolled in the Site Remediation Program, will be undergoing environmental site investigations, and may require environmental remediation prior to use as a school site, the name of a contact person and telephone number where that person may be reached, and the location and hours of the document repository where all documents prepared by the RA for the agency and by the Agency for the RA may be viewed and/or coped made. A Fact Sheet shall also be made which reiterates the information provided by the notification detailed above.

Indiana:
(2) Local school corporation (district) must make available a public document that describes any material differences between plans and specifications prepared by the school corporation for a school project and the guidelines on site selection established by state board of education. This document may be revised after the required public hearing on the school project based on any changes in the project's plans and specifications.

Massachusetts:
(2) Local school district applying for state school construction funds must make results from Phase 1 and Phase 2 environmental assessments available for public review.

Minnesota:
(1) For school projects funded by local bond referendum, the school board must publish in the legal newspaper in the district the state Commissioner of Children, Families and Learning's positive or unfavorable review of the school project and make any supplementary information available to the public.

New Jersey:
(10,12) Pursuant to written memorandum between State Department of Environmental Protection (DEP) and State School Construction Corporation, DEP has made available an inventory of facilities and sites located in so-called "Abbott" districts involved with hazardous and toxic substances. These include sites listed on a known contaminated sites list, facilities that report under the Toxic Release Inventory, facilities with air pollution permits, hazardous waste treatment, storage or disposal facilities, pipelines transmitting

hazardous substances, and other facilities regulated under pollution control laws.

Pennsylvania
(4) At required public meeting school district must make available comparative site evaluations which must address proximity to air or water pollution, noise, odors, high pressure or gas pipelines, high voltage electric lines and air traffic.

Washington:
(3) School districts encouraged to document all climate and site evaluation data. The data should be provided to the design team to assist in placing the building on the selected site. Additionally, districts encouraged to maintain documentation at the school district, and make those documents available to local heath departments.

8. FORMS AVAILABLE FOR SITE EVALUATION AND REMEDIATION

This section describes forms that are provided by states to sponsors of new school projects for school site evaluation and remediation.

Alaska:
(1) Directions for reporting results of site evaluation include maps and graphics of site and its relation to other potential sites, evaluation matrix and narratives which condenses the information to allow comparison across a specific category. Items in a matrix might include social and land use factors, construction, maintenance and operating cost factors, and a site evaluation summary table.

California:
The following items are available on the websites of various California government agencies:

- Removal Action Workplan (RAW) is a remedy selection document followed when carrying out effective removal action; Supplemental Site Investigation (SSI), RAW and Completion Report on DTSC's website. http://www.dtsc.ca.gov/Schools/index.cfm
- Department of Education Consultant will complete the following forms: Initial School Site Evaluation, School Site Report, School Site Certification; Site Selection Committee will complete the following: Site Selection Criteria, Site Selection Evaluation, Comparative Evaluation of Candidate Sites. All available on California Department of Education, School Facilities website: http://www.cde.ca.gov/ls/fa/sf/forms.asp
- Model Resolution for School District Governing Board Determinations and One Quarter Mile/500 Foot Findings for School Site Acquisition (*Education Code* Section 17213 and *Public Resources Code* Section 21151.8) Available on California Department of Education, School Facilities website: http://www.cde.ca.gov/ls/fa/sf/resolution17213.asp
- Department of Toxic Substances Control flow chart of site approval process for state funded schools. http://www.cde.ca.gov/ls/fa/sf/documents/siteapp.pdf

Connecticut:
(2) Site Analysis Form for state funded school projects assigns point values to various site characteristics including character of soil, cleanliness and quietness, freedom from hazards and attractiveness.

Georgia:
(1) The Preliminary School Site Evaluation and School Site Approval Form is intended for

use by local school systems when requesting approval of a proposed school site from state education department. Form reviewed by state education department's Site Approval Committee. Form asks for location of proposed site, miscellaneous site information, and document attachments including a copy of the Phase 1 Environmental Site Assessment and Risk/Hazard Analysis (if any).

Maine:
(3) Maine requires all applicants for state funded school projects to complete Site Application Form which asks applicants to describe the site selection process and to answer questions relating to the environmental analysis performed at the site.

Minnesota:
(3) An Environmental Assessment Worksheet (EAW) is a six-page questionnaire issued by the state Environmental Quality Board. The EAW's purpose is to disclose sufficient information about the project, its setting, and its potential environmental effects to determine whether the local responsible government unit must prepare an Environmental Impact Statement (EIS).

Mississippi:
(2) Evaluation of Proposed New School Site Form must be submitted to Mississippi Board of Education for their approval.

New Mexico:
(3) Request for Approval of School Construction Form must be filled out by local school district to obtain required approval of Director of Public School Facilities Authority prior to letting of contracts for construction. Applicant must disclose whether site is within 400 feet of main artery of travel and if so, whether applicant has resolved pertinent safety issues.

New York:
(7) Application for Examination and Approval of School Site requires applicants to complete a site analysis that addresses soil conditions and avoidance of environmental problems.
(9) Scope of Proposed Project form requires applicants to identify habitats that might be affected by school construction project (such as agricultural area, coastal zone, critical environmental areas, floodplains, wetlands); environmental permits that might be required (such as air, sewage, floodplain, wetlands); and information on the applicant's compliance with the State Environmental Quality Review Act.
(10) State Education Department recommends that lead agencies for all school projects complete the State Environmental Quality Review Act Full Environmental Assessment form. Form designed to elicit environmental qualities of a proposed school site, the possible impacts that construction on the site might cause (such as on the ambient air, water, plants and animals), the degree of those impact (small to moderate, large) and whether impacts can be mitigated by any changes to the proposed project.

North Carolina:
(3) Worksheet for Prioritizing Sites that includes, but is not limited to, location of site, topography and drainage, security and safety, noise levels, soil conditions and costs.

Ohio:
(4) For school projects funded in part by Ohio School Facilities Commission, Site Evaluation Submittal must be submitted by Districts to the Commission to demonstrate compliance with OSFC's due diligence requirements. Form asks whether Phase I or II environmental assessments have been done, whether hazardous materials are present, what plans for remediation are, and whether any Geo-Tech testing has been done.

Pennsylvania:
(4) Comparative Site Evaluation Form requires evaluation of proximity of site to sources of air or water pollution, objectionable noise and odors, high pressure or gas pipelines, high voltage electric lines and air traffic. Form PLANCON-CO7 (Rev. 7/1/2002).

Utah:
(5) Utah State Office of Education developed a Review Checklist for Geologic-Hazards Reports for New Utah Public School Buildings.

Vermont:
(4) Vermont Department of Education developed a Site Inspection Check List which requests information on distance of proposed school site from various transportation related hazards (railroads, airports, heavy traffic areas), hazardous chemical plants, unsafe structures, and sources of objectionable noises, odors and nuisances.

Washington:
(3) Contains table that identifies potential sources of "Ambient Air Contamination" according to source category and facility type. These factors might indicate that a site is inappropriate or might require certain pollution control measures.
(4) Site Review Study form in Appendix A.
(5) Environmental Checklist Form available to assist school districts determine whether an environmental impact statement must be prepared under the State Environmental Protection Act.

PART II — SOURCES OF AUTHORITY

NOTE: A state has no policies if none are listed.

Alabama

Alaska

(1) Site Selection Criteria and Evaluation Handbook (1997) http://www.eed.state.ak.us/facilities/publications/SiteSelection.pdf (has force of law by virtue of state regulation (4 Alaska Administrative Code §31.020.)

Arizona

(1) Arizona Administrative Code, Title 7 Education, Chapter 6 School Facilities Board, Article 2 Minimum School Facilities Guidelines, Section R7-6-205 School Site (2001)

(2) Arizona Administrative Code, Title 7. Education, Chapter 6 School Facilities Board, Article 5 New School and Land Funding, Sections R7-6-502(B) Funding for New Schools and R7-6-503 Funding for Land (1999).

Arkansas

California

(1) California Education Code Sections 17072.12, 17072.13, 17072.18, 17210-17215.5, 17251 and 17268 (2001), posted on website of California Department of Education: http://www.cde.ca.gov/ls/fa/sf/edcoderef.asp

(2) California Public Resource Code Sections 21151.2 – 21151.8 (1991), posted on website of California Department of Education: http://www.cde.ca.gov/ls/fa/sf/prccoderef.asp

(3) California Health and Safety Code Sections 25358.7 – 25358.7.1 (2000).

(4) School Site Selection and Approval Guide, last modified October 13, 2004, posted on website of California Department of Education at http://www.cde.ca.gov/ls/fa/sf/schoolsiteguide.asp

(5) California Code of Regulations, Title 5 Education, Chapter 13 School Facilities and Equipment, Subchapter 1 School Housing Sections 14001 – 14012 (2000), posted on website of California Department of Education at http://www.cde.ca.gov/ls/fa/sf/title5regs.asp

(6) Collaborative for High Performance Schools Best Practices Manual Volume III (2001) posted on the web at http://www.chps.net/manual/documents/2002_updates/CHPSvIII.pdf

(7) Office of Environmental Health Hazard Assessment, California Environmental Protection Agency, Guidance for School Site Risk Assessment Pursuant to Health & Safety Code Section 901(f), (February 2004) available at http://www.oehha.ca.gov/public_info/public/kids/pdf/SchoolscreenFinal.pdf

Colorado

(1) Colorado Revised Statutes Section 22-32-124 (2004) (School District Boards, Powers and Duties, Building Codes – Zoning – Planning)

Connecticut

(1) Connecticut General Statutes Section 10-291, as amended by Section 6 of Public Act No. 03-220 (July 9, 2003)

(2) Department of Education, School Facilities Unit, Site Analysis Form (Rev. 5/04) http://www.state.ct.us/sde/dgm/sfu/forms/form053.pdf

(3) Section 9, Public Act No. 03-220 (July 9, 2003)

Delaware

Florida

(1) Florida Statutes, K-20 Education Code, Educational Facilities, Sections 1013.36-1013.365 (2002)

(2) Florida Statutes, Aviation, Airport Zoning, Section 333.03 (2002)

(3) Florida Administrative Code 64E-13.004 (2004)

(4) State Requirements for Educational Facilities, Volume 1, Florida Department of Education, Section 1.4 (1999) available at http://www.firn.edu/doe/edfacil/pdf/srefvol1.pdf

Georgia

(1) Georgia Department of Education, Facilities Services Unit, A Guide to School Site Selection (2003) (has force of law by virtue of Georgia Compilation of Rules and Regulations, Department of Education, School Facilities and Capital Outlay Management, Section 160-6-5-.16 (2001)). http://www.doe.k12.ga.us/_documents/schools/facilities/site2_a.pdf

Hawaii

Illinois

(1) Illinois Compiled Statutes Annotated, Chapter 415, Section 5/58.16 (2001) (Note: contains references to Illinois Compiled Statutes Annotated, Section 5/22.2 (2003) Hazardous Waste; fees: liability.)
(2) Illinois Compiled Statutes Annotated, Chapter 105, Sections 35/1 – 35/15 (1987)
(3) Illinois Administrative Code, Title 71, Part 40 Standards for Award of Grants: School Construction Program, Section 40.130(c) (2002)
(4) Illinois Administrative Code, Title 35: Environmental Protection, Part 740 Site Remediation Program, Subpart H, Requirements Related to Schools, Sections 740.800 - 740.825 (2002)

Indiana

(1) Indiana Code Section 16-41-21-6, Prohibited Sites; waiver (1993)
(2) Indiana Code Section 20-1-1-6.5, Guidelines on selection of sites and construction, alteration, and repair of buildings (1995)
(3) Indiana State Department of Health; 410 Indiana Administrative Code Section 6-5.1-4, Site (2003)
(4) Indiana State Board of Education, School Facility Guidelines (January 10, 2002) available at: http://www.doe.state.in.us/stateboard/constguide.html

Idaho

Iowa

Kansas

Kentucky

(1) Kentucky Administrative Regulations, Title 702 Section 4:050. Building sites; inspection, approval (1996)
(2) Kentucky Department of Education: Guidelines of Best Practices for School Building Projects (1995) available at: http://www.education.ky.gov/KDE/Administrative+Resources/Facilities/Guidelines+of+Best+Practices.htm

Louisiana

Maine

(1) Code of Maine Regulations, Title 05-71 Chapter 60: New School Siting Approval (2001)
(2) Code of Maine Regulations, Title 05-71 Chapter 61: Rules for Major Capital School Construction (2003)
(3) State of Maine, Department of Education, School Facilities Services: Site Application, Major Capital Improvement Program (Sept. 2005), available at: http://mainegov-images.informe.org/education/const/pw021.pdf

Maryland

(1) Maryland Education Code Annotated, Title 4 Local School Administration, Section 4-116 Selection of school sites; public hearing (1997).
(2) Environmental Assessment Form (IAC/PSCP Form 104.2, available at: http://www.pscp.state.md.us/Forms/Forms/FORM1042.doc
(3) Maryland Public School Construction Program, Public School Construction Program Administrative Procedures Guide (September 1994) (available from the agency)

Massachusetts

(1) Massachusetts General Laws, Chapter 70B School building Assistance Program, Sections 3A (School Building Advisory Board), and 9 (Standards and Procedures) (2004)
(2) Code of Massachusetts Regulations, Title 603 (Department of Education) Chapter 38.00 (School Construction) Section 38.04 (2003)
(3) Code of Massachusetts Regulations, Title 310 (Department of Environmental Protection), Chapter 40.00 Massachusetts Contingency Plan, Subpart I: Risk Characterization, Section 40.0933 (Identification of Applicable Groundwater Categories (2004)

Michigan

Minnesota

(1) Minnesota Statutes, Chapter 123B, School District Powers and Duties, School Buildings and Other Facilities; Construction; Land and Sites. Sections 123B.70 – 123B.71(2003)
(2) Guide for Planning School Construction Projects in Minnesota (2003), available at http://education.state.mn.us/mde/static/003979.pdf
(3) Minnesota Environmental Quality Board, Environmental Assessment Worksheet, available at http://www.mnplan.state.mn.us/pdf/1999/eqb/eaw.pdf

Mississippi

(1) Mississippi Board of Education, Rules and Regulations of the State Public School Building Fund, (Revised Dec. 18, 1998), authorizing Mississippi Board of Education to establish school siting criteria, available at http://www.mde.k12.ms.us/lead/osos/RULEREGPSBF.doc
(2) Mississippi Department of Education, Division of School Building, Evaluation of Proposed School Sites (2004), available at http://www.mde.k12.ms.us/lead/osos/schoolsites_2004.doc
(3) Mississippi Department of Education, Division of School Building, New School Site Memorandum (undated), available at http://www.mde.k12.ms.us/lead/osos/newsitememo.doc

Missouri

Montana

(1) Montana Code Annotated, Title 20 Education, Chapter 6 School Districts, Part 6 School Property, Section 20-6-621 Selection of Sites (2001), (requiring school districts to comply with site requirements of department of public health and human services.
(2) Administrative Rules of Montana, Title 37 Department of Health and Human Services, Chapter 111 Public Accommodations, Subchapter 8 Schools, Section 37.111.812 Safety Requirements (2001)

Nebraska

Nevada

New Hampshire

New Jersey

(1) New Jersey Statutes Annotated, Title 18A, Education, Chapter 7G, Educational Facilities Construction and Financing Act, Sections 18A:7G-3 Definitions, 18A:7G-5(k) Financing and Construction of Certain School Districts by Authority, and 18A:7G-15 Election of School District to Receive One Time Grant for State Share (2000).
(2) New Jersey Statutes Annotated, Title 52, State Government Department and Officers, Chapter 27D, Department of Community Affairs, Section 52:27D-123a, Adoption of Radon Hazard Code (1989).
(3) New Jersey Administrative Code, Title 5, Department of Community Affairs, Chapter 17, Lead Hazard Evaluation and Abatement Code, Subchapter 7, Soil, Section 5:17-7.1 Soil Interim Controls or Abatement (2001).
(4) New Jersey Administrative Code, Title 6A, Department of Education, Chapter 26, Educational Facilities, Sections 6A:26-1.2 Definitions; 6A:26-3.2 School Facilities Projects, 6A:26-3.4 Calculation of Preliminary Eligible Costs for School Construction Projects; 6A:26-7.1 Approval of the Acquisition of Land. (2004).

(5) New Jersey Administrative Code, Title 7, Department of Environmental Protection, Chapter 26E, Technical Requirements for Site Remediation, Subchapter 3, Preliminary Assessment and Site Investigation, Sections 7:26E-3.1- 7:26E-3.13 (2003).
(6) New Jersey Administrative Code, Title 19, Other Agencies, Chapter 34, Predevelopment Activities (2003) available at http://www.njscc.com/pdfs/PredevelopmentRegulations.pdf
(7) New Jersey Administrative Code, Title 19, Other Agencies, Chapter 37, Procedures for Undertaking Under 55 Percent Districts' School Facilities Projects, Sections 19:37-1.2 Definitions; 19:37-2.3, Site Feasibility Work on Project Site; 19:37-3.2, Pre-application Activities; 3.5 Undertaking of Other Consultant Services (2004).
(8) State of New Jersey, Executive Order No. 215, Environmental Assessment (1989) available at http://www.state.nj.us/dep/dsr/gcc/ExecOrder-215.pdf
(9) State of New Jersey, Executive Order No. 24, 21st Century School Facilities (2002) available at http://www.state.nj.us/infobank/circular/eom24.htm
(10) New Jersey Department of Environmental Protection, Inventory of Regulated Facilities in 30 "Abbott" School Districts (2004), available at http://www.nj.gov/dep/opppc/school.htm
(11) New Jersey School Construction Corporation, "ESR, EO-215, Phase – Preliminary Assessment and Phase 2 Site Investigation Guidance," (April 20, 2004), available from New Jersey School Construction Corporation.
(12) Memorandum of Agreement Between the New Jersey Schools Construction Corporation d the New Jersey Department of Environmental Protection, September 2, 2003 (on file with the author)

New Mexico

(1) Annotated Statutes of New Mexico, Chapter 22, Public Schools, Article 20 School Construction (2001)
(2) New Mexico Public School Facilities Adequacy Standards Planning Reference Guide, July 11, 2006, available at http://www.nmschoolbuildings.org/pdf/planning/PSFA%20Planning%20Ref%20Guide%2007-11-06.pdf
(3) Request for Approval of School Construction Form, available at http://www.ped.state.nm.us/div/fin/capital/dl/rasc.hardcopy.project.approval.pdf

New York

(1) New York Consolidated Law Services, Education Law, Title 1 General Provisions, Article 9 School Buildings and Sites, Section 408 Plans and Specifications of School Buildings Must be Approved by Commissioner of Education, Subparagraph 3 (1994)
(2) New York Consolidated Law Services, Education Law, Title II School District Organization, Article 51 City School Districts With Less than 125,000 Inhabitants, Section 2512 Building and Sites (2001).
(3) New York Consolidated Law Services, Public Authorities Law, Article 8 Miscellaneous Authorities, Title 6 The New York City School Construction Authority Act, Sections 1731 Community Participation and 1732 City Approval of Sites (1990)
(4) New York Codes, Rules and Regulations, Title 8 Education Department, Part 155 Educational Facilities, Section 155.1 Educational Facilities, Subparagraph (c)(3) (2003) available at http://www.emsc.nysed.gov/facplan/policy/8nycrr155regs.html
(5) Guiding Principles for Improving Environmental Quality of Schools (1995) available at http://www.emsc.nysed.gov/facplan/policy/environmental_quality_schools.html
(6) New York State Education Department, Guidelines for School District Implementation of the SEQR and Associated Changes in the SED Building Permit Process (August 2001) available at http://emsc33.nysed.gov/facplan/SEQRA/SEQRA_NewGuidelines_081601.PDF

(7) Schools Site Reference Guide, School Site Variance (document) and Approval of a School Site (EFP-S) September 21, 2001, available at http://emsc33.nysed.gov/facplan/forms/SchoolSitePkg.PDF
(8) Office of Facilities Planning, Newsletter #34, Building in Floodplains (December 2002) available at http://www.emsc.nysed.gov/facplan/Newsletter/Newsletter_34.html
(9) SEQR Scope of Proposed Project Form, FP SP 2001 http://emsc33.nysed.gov/facplan/SEQRA/Scope_031403.pdf
(10) SEQR Environmental Assessment Form (long form) available at http://www.dec.state.ny.us/website/dcs/seqr/forms/longeaf.pdf

North Carolina

(1) General Statutes of North Carolina, Chapter 115C Elementary and Secondary Education, Article 37 School Sites and Property, Section 115C-521 Erection of School Buildings (1997)
(2) State Board of Education, Department of Public Instruction, North Carolina Public Schools Facilities Guidelines (September 2003) available at http://www.schoolclearinghouse.org/pubs/FacilityGuidelines2003.pdf
(3) State Board of Education, Department of Public Instruction, The School Site Planner: Land for Learning (June 1998) available at http://www.schoolclearinghouse.org/pubs/schsite.pdf
(4) State Board of Education, Department of Public Instruction, Safe Schools Facilities Planner (February, 1998) available at http://www.schoolclearinghouse.org/pubs/safesch.pdf

North Dakota

Ohio

(1) Ohio Revised Code, Title 33 Education-Libraries, Chapter 3318 School Facilities Bond Issues and Tax Levies, Section 3318.031 Consideration of Student and Staff Safety and Health; Other Considerations (2003).
(2) Ohio Administrative Code, Ohio School Facilities Commission, Section 3318-4-01 Procedure for Determining Basic Project Cost (2004).
(3) Ohio School Facilities Commission, School Facilities Design Manual, Chapter 3, School Site, Part A, Testing (November, 1997), available for purchase ($100) by calling the Commission at (614)-466-6290.
(4) Ohio School Facilities Commission, Policy and Procedure Memorandum and Site Evaluation Checklist, April, 2005, available at ftp://www.osfc.state.oh.us/CMFiles/Policy_and_Procedure_Memorandum/

Oklahoma

(1) Oklahoma Administrative Code, Title 210 State Department of Education, Chapter 35 Standards for Accreditation of Elementary, Middle Level, Secondary and Career and Technology Schools, Part 19, Standard X: School Facilities, Code Section 210-35-3-186 (1998).

Oregon

Pennsylvania

(1) Pennsylvania Statutes, Title 24 Education, Article VII Grounds and Buildings, Section 7-701.1 Referendum or Public Hearing Required Prior to Construction or Lease (1973).
(2) Pennsylvania Statutes, Title 24 Education, Article VII Grounds and Buildings, Section 7-741 Substrata Evaluation and Title 24 Education, Section 791.16 Department of Mines and Mineral Industries; Examination of Sites; Reimbursements (2004).
(3) Pennsylvania Administrative Code, Title 22 Education, Chapter 21 School Buildings, Sections 21.41 Department Review of Site Reports - 21.42 Site Analysis (1988).
(4) Pennsylvania Department of Education, PlanCon Forms And Instructions, Part C-Site Acquisition, July 2002, available at http://www.pde.state.pa.us/constr_facil/cwp/view.asp?a=11&Q=54974&constr_facilNav=%7C3424%7C

Rhode Island

(1) Weil's Code of Rhode Island Rules, Department of Education, State Board of Education, Section 08-060-002 Standards for Approval and Accreditation of Secondary Schools (1963)

(2) Rhode Island Department of Education, Necessity of School Construction, Information and Instructions, Part 3 Guidelines for Site Selection (2006) available at http://www.ridoe.net/funding/construction/Documents/Necessity%20of%20Construction%20Revised%20August%2006.pdf

South Carolina

(1) South Carolina Code of Laws, Title 59 Education, Chapter 23 School Buildings and Other School Property, Section 59-23-210 Construction, Improvement and Renovation of Public Schools (2003).

(2) South Carolina Department of Education, School Facilities Planning & Construction Guide (2005), (has force of law by virtue of S.C.Code Ann. §59-23-210) available at http://ed.sc.gov/agency/offices/sf/2005_Planning_and_Construction_Guide.pdf

South Dakota

Tennessee

Texas

Utah

(1) Utah Code Annotated, Title 53A State System of Public Education, Chapter 20 School Construction, Section 53A-20-108 Notification to Local Government of Intent to Purchase School Site or Construction of Building (1990).

(2) Utah Code Annotated, Title 10 Utah Municipal Code, Chapter 9 Municipal Land Use Development and Management, Section 10-9-106 Property Owned By Other Governmental Units (1999); and Title 17 Counties, Chapter 27 County Land Use Development and Management Act, Section 17-27-105 Property Owned by Other Governmental Units (1999).

(3) Utah Administrative Code, Health, R392-200 Design, Construction, Operation, Sanitation and Safety of Schools, Section R392-200-2 Site Selection (2002).

(4) Utah State Office of Education, School Building Construction and Inspection Resource Manual, Chapter 3 School Facility Site Selection (September 2004), (has force of law by virtue of Utah Code Ann. §53A-20-104.5) available at http://www.usoe.k12.ut.us/FINANCE/facilities/manual/siteselection.htm

(5) Utah State Office of Education - Guidelines and Review Checklist for Geologic-Hazards Reports for New Utah Public School Buildings (undated) no longer available on line.

Vermont

(1) Vermont Statutes Annotated, Title 16 Education, Section 3448 Approval and Funding of School Construction Projects (2003).

(2) Code of Vermont Rules, Department of Education, Chapter 14 School Buildings and Sites, Section 6114.2 Site Requirements (2000) available on the internet at http://www.state.vt.us/educ/new/pdfdoc/board/rules/6000.pdf

(3) Vermont Department of Education, Vermont School Construction Planning Guide (2005) available at http://education.vermont.gov/new/pdfdoc/pgm_construction/guide_06_0707.pdf

(4) Vermont Department of Education, Site Inspection Check List (2004) available at http://www.state.vt.us/educ/new/pdfdoc/pgm_construction/guide/guide_04_10_app_G.pdf

Virginia

Washington

(1) Washington Administrative Code Section 180-26-020, Site Review and Evaluation, in Chapter 180-26 of Washington Administrative Code, State Assistance in Providing School Plant Facilities—Educational Specifications and Site Selection (1998)

(2) Washington Administrative Code Section 246-366-030, Site Approval, in Chapter 246-366 of Washington Administrative Code, Primary and Secondary Schools (1991)
(3) School Indoor Air Quality Best Management Practices Manual (2003) available at http://www.doh.wa.gov/ehp/ts/IAQ/schooliaqbmp.pdf
(4) Superintendent of Public Instruction, School Facilities Manual, Revised 4th Edition, Chapter 5 Site Selection (March 2000) available at http://www.k12.wa.us/SchFacilities/pubdocs/SFMANUAL/intro.pdf
(5) Washington Department of Ecology, Environmental Checklist Form (June 1984), codified at Wash. Admin. Code §197-11-960, available at http://www.ecy.wa.gov/pubs/ecy05045.pdf

West Virginia:

(1) West Virginia Code Annotated, Chapter 18 Education, Article 9E Air Quality in New Schools Act, Section 18-9E-3 (2002).
(2) West Virginia Code of State Rules, Title 126 Legislative Rule, West Virginia Board of Education, Series 172 Handbook on Planning School Facilities (Education Policy 6200) (2002) available in part at http://wvde.state.wv.us/policies/p6200.pdf
(3) Guidelines and Procedures of the West Virginia School Building Authority (August 2002) available at http://www.wvs.state.wv.us/wvsba/Handbook/handbook.PDF

Wisconsin

Wyoming

(1) Weil's Code of Wyoming Rules, Department of Education, Chapter 017, Rules for Site Selection and School Construction for Wyoming Public School Buildings (2001) (incorporates Wyoming Public School Facilities Guidelines).

PART III
TABLE OF AUTHORITY—FIFTY STATE SURVEY

State	Agency	Statutes	Regulations	Other Legal Authority	Prohibited Sites	Siting Factors	Environmental Evaluation	Remediation	Funding Provisions	Public Participation	Information Available	Form Available
Alabama												
Alaska	ED		(1) 1997			A,C,D,E	E					X
Arizona	ED		(1) 2001 (2) 2001			A,E (1,2)	A (2)					
Arkansas												
California	ED/ENV (DTSC)	(1) 2001 (2) 1991 (3) 2000	(5) (2000)	(4) (?) (6) 2001 (7) (2004)	A,B,C,D,E, F,G (1,5,6)	A,B,C,E ,F,G (1,4,5)	A,B,C,E (1,2,4,5)	X (1,7)	X (1)	A,B,C (1,2,3,4)	X (1)	X
Colorado	LOCAL	(1) 2004					E			A		
Connecticut	ED	(1,3) 2003			E(1)		A(1)		X(1)			X
Delaware												
Florida	ED /ENV	(1) 2002 (2) 2002	(3) (2004)	(4) (1999)	A,C,D (1,2)	A,B,C,E (3,4)	A,B (1,2)	X (1)				
Georgia	ED		(1) 2003		E	A,B,C,E	A,E			B,C		X
Hawaii												
Idaho												
Illinois	(1, 4) ENV (2) LOCAL (3) ED	(1) 2001 (2) 1987	(3) 2002 (4) 2002			B,C,E (3)	A,B (1)	X (1,4)		A(2)	X (4)	
Indiana	H or ED (waiver of laws)	(1) 1993 (2) 1996	(3) 2002	(4) 2002	A,C,E,F,G (1,3)	C(4)				A(2)	X (2)	
Iowa												
Kansas												
Kentucky	ED		(1) 1996	(2) 1995	A,C,E,F (1)		D (1)		X (1)			

State	Agency	Statutes	Regulations	Other Legal Authority	Prohibited Sites	Siting Factors	Environmental Evaluation	Remediation	Funding Provisions	Public Participation	Information Available	Form Available
Louisiana												
Maine	ED		(1) 2001 (2) 2003			F (1)	E (1)			A,C (1,2)		X
Maryland	ED	(1) 1997		3 (1994)			C (2)			A (1)		X
Massachusetts	ED	(1) 2004	(2) 2003 (3) 2004			C,F (1,2)	A,B,E (2)	X (3)		A,B (1,2)	X (2)	
Michigan												
Minnesota	ED	(1) 2003		(2) 2003		A,B,C,E (2)	C,D (2)			A,B (1,2)	X (1)	X
Mississippi	ED		(1) 1998	(2,3) 2004	C,E,G (2)	A (2)	E (3)					X
Missouri												
Montana	H	(1) 2001	(2) 2001		F (2)							
Nebraska												
Nevada												
New Hampshire												
New Jersey	ED/ENV	(1) 2000 (2) 1989	(3) 2001 (4) 2004 (5) 2003 (6) 2003 (7) 2004	(8) (1989) (9) (2002) (11) (2004) (12) (2003)	F (4)		A,B,C,E (4,5,6,8, 11)	X (2,3)	X (1)	A,C (4,9)	X (10,12)	
New Mexico	ED	(1) 2001		(2) 2004	A (1)		E (2)					X
New York	ED/ENV	(1) 1994 (2) 2001 (3) 1990	(4) 2003	(5) 1995 (6) 2001 (7) 2001 (8) 2002 (9) 2001		F (1,4,5)	C,E (6,7,8)			A (2,3,6)		X
North Carolina	ED	(1) 1997		(2) 1998 (3) 1998 (4) 1998		A,B,C,E ,F (2,3,4)	E (3)			A,B (1,3)		X
North Dakota												

State	Agency	Statutes	Regulations	Other Legal Authority	Prohibited Sites	Siting Factors	Environmental Evaluation	Remediation	Funding Provisions	Public Participation	Information Available	Form Available
Ohio	ED	(1) 2003	(2) 2004	(3) 1997 (4) 2005		F (1)	A,B (3)		X (2,4)			X
Oklahoma	ED		(1) 1998		F							
Oregon												
Pennsylvania	ED	(1) 1973 (2) 2004	(3) 1988				E (2,4)			A (1,3,4)	X (4)	X
Rhode Island	ED		(1) 1963	2 (2004)		A,C,F (1,2)						
South Carolina	ED	(1) 2003		2 (2004)	B (2)	E,F (2)	D (2)			B,C (1,2)		
South Dakota												
Tennessee												
Texas												
Utah	H / ED/GEO	(1) 1990 (2) 1999	(3) 2002	(4) 2004	D,E (3)	A,C (2,3)	A,E (4)			C (1)		X
Vermont	ED	(1) 2003	(2) 2000	(3) 2004		A.C,E (4)	E (2,4)		X (1)	B (4)		X
Virginia												
Washington	ED/H		(1) 1998 (2) 1990	(3) 2003 (4) 2000		C,F (1,2,4)	A,C,D,E (1,2,3,4)		NO (4)		X (3)	X
West Virginia	ED	(1) 2002	(2) 2002	(3) 2002	A,B,C,E (2)	C,D,F (2)	D,E(1,2,3)		X(3)			
Wisconsin												
Wyoming	ED		(1) 2001			A,B,C,E	E			B		

APPENDIX B
GENERAL RESOURCES ON SCHOOL SITING AND SCHOOL CONSTRUCTION PROJECTS

Site Selection and Site Contamination:

California Department of Toxic Substances Control Sensitive Use Site Memo (2002)
http://www.dtsc.ca.gov/LawsRegsPolicies/Policies/SiteCleanup/upload/SMBR_POL_SENSITIVEUSES-MM_E-02-002.pdf

California Department of Toxic Substances Control, List of School Sites in School Site Evaluation Program http://www.dtsc.ca.gov/Schools/Schools_Sites_Index.cfm

California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, , Guidance for School Site Risk Assessment Pursuant to Health & Safety Code Section 901(f), (February 2004)
http://www.oehha.ca.gov/public_info/public/kids/pdf/SchoolscreenFinal.pdf
(Note that there have been supplements to this document regarding exposures to specific substances, and an updated spreadsheet found in the original report. These documents are available at: http://www.oehha.ca.gov/public_info/public/kids/index.html)

Center for Health, Environment and Justice School Siting Reports:
Poisoned Schools: Invisible Threats, Visible Actions (2001)
http://www.childproofing.org/PoisonSchoolsfinalForWeb2-27-01.pdf
Creating Safe Learning Zones: Invisible Threats, Visible Actions (2002)
http://www.childproofing.org/cslzindex.html
Building Safe Schools: Invisible Threats, Visible Actions (2005)
http://www.childproofing.org/buildingsafeschools.pdf

National Clearinghouse for Educational Facilities, Links to Resources on School Site Selection
http://www.edfacilities.org/rl/site_selection.cfm

U.S. Environmental Protection Agency, Radon Prevention in the Design and Construction of Schools and Other Large Buildings (January 1993)
http://www.epa.gov/ordntrnt/ORD/NRMRL/Pubs/1993/air/625r92016front.pdf

U.S. Environmental Protection Agency, Links to School Siting Resources
http://cfpub.epa.gov/schools/top_sub.cfm?t_id=45&s_id=64

General School Construction and Design Information:

Council of Education Facility Planners Int'l., Scottsdale, AZ , Creating Connections: The CEFPI Guide for Educational Facility Planning (2004) (sample forms about site evaluation and public participation on web site)
http://www.cefpi.org/creatingconnections/

Florida Center for Community Design and Research, Florida Safe Schools Design Guidelines, 1993 http://www.fccdr.usf.edu/upload/Projects/safeschool/safeschools.pdf

Knowledge Works Foundation, 10 Principles of Authentic Community Engagement (2005) http://www.kwfdn.org/resource_library/_resources/10principles.pdf

Maryland Department of Legislative Services, Office of Policy Analysis, Review of Public School Facility Standards in Other States (September 18, 2002) http://mlis.state.md.us/other/education/public_school_facilities/Review_Other_States_091802.pdf

National Clearinghouse on Educational Facilities, Schools as Centers of Communities: A Citizens Guide for Planning and Design (2003) http://www.edfacilities.org/pubs/scc_publication.pdf

National Trust for Historic Preservation, State Policies and School Facilities, (May 2003) http://www.nationaltrust.org/issues/downloads/schools_state_policies.pdf

21st Century Fund, Citizen Oversight of Public School Construction Process (2003) http://www.21csf.org/csf-home/Documents/CitizenOversight.pdf

APPENDIX C
GIS MAPS OF SCHOOLS AND CONTAMINATED SITES

Staff at Region 1 of the United States Environmental Protection Agency produced two Geographic Information Systems (GIS) maps to illustrate the location of existing public schools in relation to sources of pollution. The first map shows the locations of public schools and pollution sources in Rhode Island, and the second map shows schools and pollution sources in the City of Providence. Both maps also reveal locations of environmental justice communities: where 15% of a given census block's population is either low income, minority or both. Low income is defined as income under 200% of federal poverty income guidelines. The data sets used by USEPA are described below.

DATA DESCRIPTIONS for SCHOOL SITING MAPS

TRI Sites: The Toxics Release Inventory (TRI), established by EPCRA Section 313 is a database that contains information on quantities of certain chemicals released into the environment and management of wastes at a wide variety of sources, including manufacturing operations, certain service businesses, and federal facilities.

RCRA Large Quantity Generators: Businesses regulated under the Resource Conservation and Recovery Act that generate more than 2,200 lbs (21,000 kg) of hazardous waste or more than 2.2 lbs (1 kg) of acute hazardous waste per calendar month (defined by EPA).

Air Emitter Site: Sources included in EPA's AirData Net Facilities Emissions Report, which contains information on the quantity of pollutants released into the air during a year, i.e. Carbon monoxide (CO), Nitrogen dioxide (NO2), Ozone (O3), Sulfur dioxide (SO2), Particulate matter (PM10 and PM2.5) and Lead (Pb).

Leaking UST: About 680,000 underground storage tank systems (USTs) nationwide store petroleum or hazardous substances. However, DEM says the L-UST database hasn't been updated since 2002 and is probably missing ~200 sites.

NPL (National Priority List) Sites - CERCLA Landfills - Other CERCLA Sites:
(Description provided by Nancy Smith)
All of these are included in the CERCLIS Database. The Superfund inventory of known and suspected hazardous waste disposal sites (the Comprehensive Environmental Response, Compensation and Liability Information System, or CERCLIS) is a compilation of all sites brought to the attention of the federal Superfund program as potential hazardous waste disposal sites. In the first half of the Superfund program, very little screening took place before a suspected waste site was entered into the database, and an investigation was initiated. And frankly, that's how the system was designed. Once a site was entered into CERCLIS, a Preliminary Assessment was performed (by EPA contractors or the state) to determine whether the information received was credible and the site warranted continued investigation by the Superfund program - ie, whether there is a reason to believe that there may have been, or may be in the near future, a release of hazardous substances to the environment. If the answer is "yes" then the Superfund program will perform further investigation to better characterize the hazard and determine whether a response action is needed (and coordinate with other parties on who should perform the cleanup).

Any sort of hazardous waste disposal situation might be brought to EPA's attention for investigation by the Superfund program. Examples include old landfills or dump areas, junkyards, industrial properties where there is reason to suspect that waste management practices have been lax and may result in a release to the environment, or a release has occurred of hazardous waste to the environment through leaking underground storage tanks or disposal of waste to the ground, areas discovered to have contaminated groundwater where the source of the contamination isn't known, areas where "midnight dumping" is suspected, areas where waste fuels were used for fire-training practice (usually by the DoD or by municipal fire fighters) and resulted in releases to the environment, private businesses that disposed of their wastes onsite (in a landfill or lagoon or dry well, etc.), or to surface water bodies that have become contaminated and possibly impacted wetlands or fisheries. Really, almost any scenario you can imagine where hazardous substances might be released to the environment.

Three notable exceptions are:

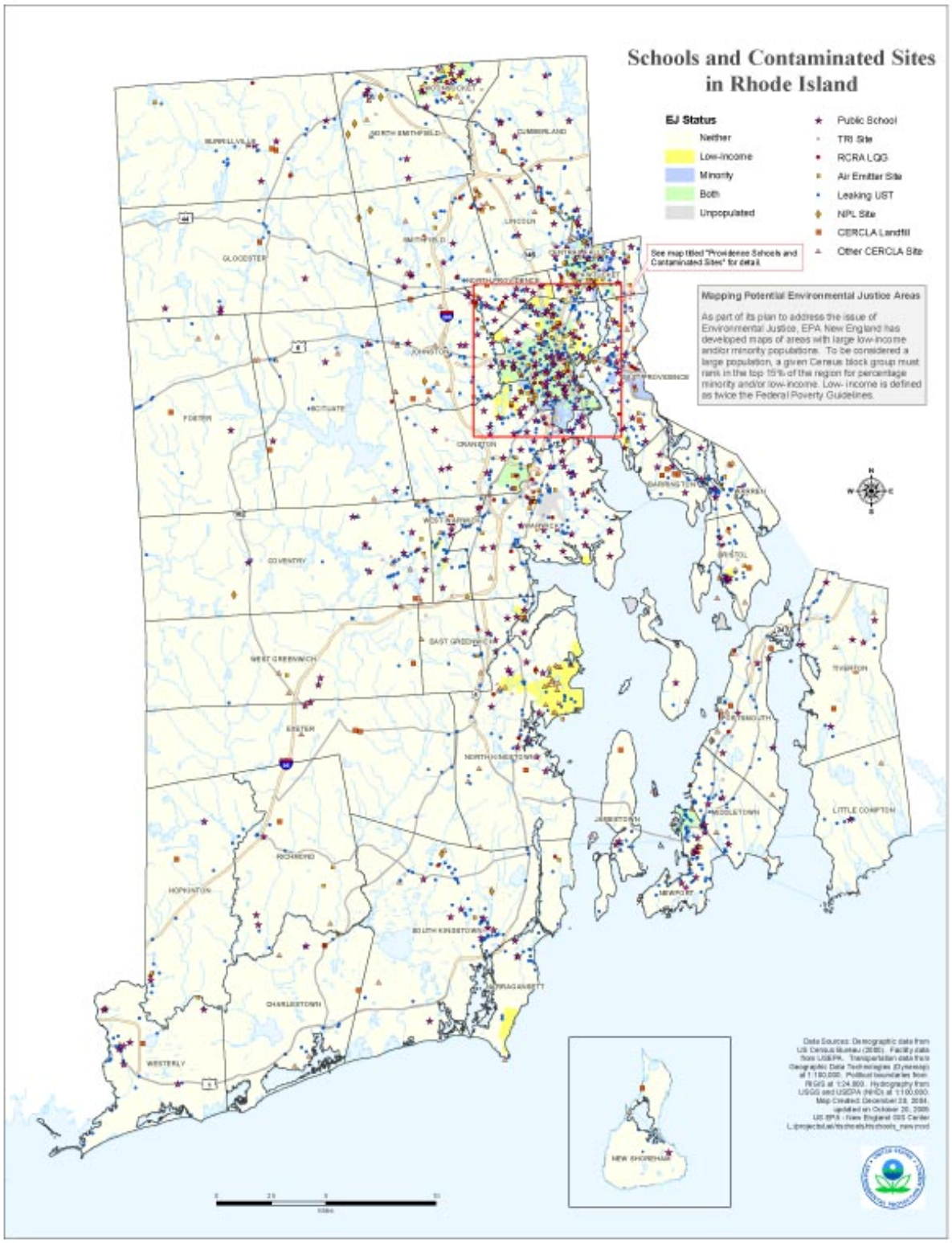
1). sites where the principal contaminant is petroleum product (gasoline or oil). These are exempt from Superfund and are generally addressed by the states. But if the petroleum is a waste (not virgin product) mixed with other hazardous substances (metals, VOCs, etc.) it may be eligible for Superfund program investigation. Could be in the state's list.

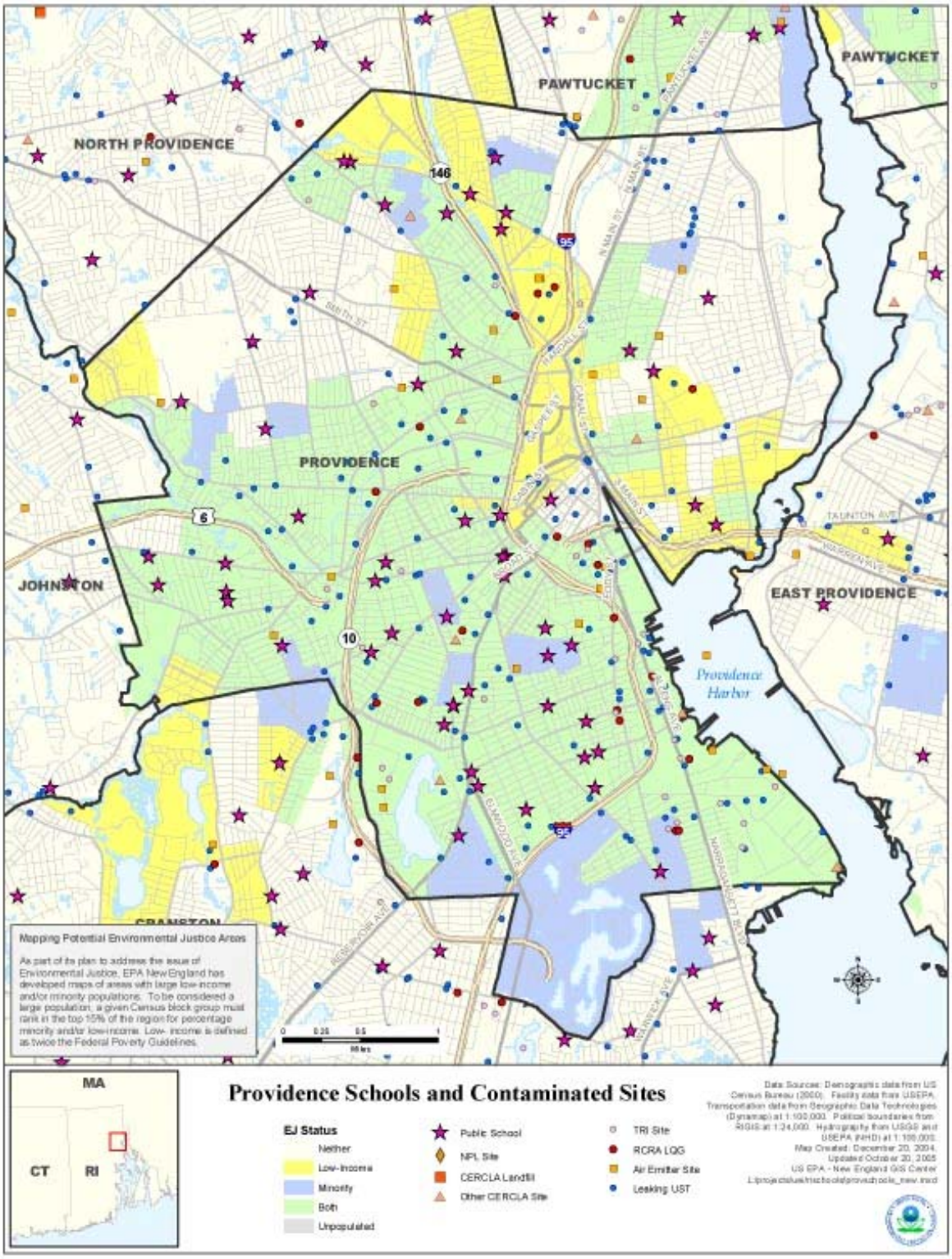
2). sites where the principal contaminant is residual pesticides that were applied legally and as intended - for instance in farming situations, orchards, etc. These are not eligible for Superfund program investigation, and may be addressed by the state (each state must determine whether their program can address these sites). But if there is evidence that the residual pesticides are the result of gross negligence, bulk dumping, etc., then the Superfund program can intervene.

3). municipal landfills are no longer appropriate sites for investigation by the federal Superfund program. Most states have developed programs to address municipal landfills.

Not included in our maps, but for potential future mapping:

State HWM sites: Generally includes state contaminated sites not listed in CERCLIS, although some may be listed in both databases. These sites represent any location where a state investigation of hazardous materials has taken place or is ongoing. Some of these are as minor as a small home heating oil spill while others represent major contamination of the surrounding environment. Nothing in the data makes any distinction regarding severity or outcomes. The state's data is about 18 months out of date. Because of this, they're only willing to share the information for mapping for internal use. Thus, not included in our stakeholder maps.


Schools and Contaminated Sites in Rhode Island
EJ Status
Neither
Low-income
Minority
Both
Unpopulated
Public School
TRI Site
RCRA LQG
Air Emitter Site
Leaking UST
NPL Site
CERCLA Landfill
Other CERCLA Site
See map titled "Providence Schools and Contaminated Sites" for detail.
Mapping Potential Environmental Justice Areas
As part of its plan to address the issue of Environmental Justice, EPA New England has developed maps of areas with large low-income and/or minority populations. To be considered a large population, a given Census block group must rank in the top 15% of the region for percentage minority and/or low-income. Low- income is defined as twice the Federal Poverty Guidelines.
GLOCESTER
FOSTER
SCITUATE
COVENTRY
WEST GREENWICH
EXETER
RICHMOND
HOPKINTON
CHARLESTOWN
WESTERLY
SOUTH KINGSTOWN
NARRAGANSETT
NORTH KINGSTOWN
EAST GREENWICH
CRANSTON
JOHNSTON
LINCOLN
CUMBERLAND
NORTH SMITHFIELD
BRISTOL
TIVERTON
PORTSMOUTH
MIDDLETOWN
NEWPORT
JAMESTOWN
LITTLE COMPTON
NEW SHOREHAM


PAWTUCKET
PAWTUCKET
NORTH PROVIDENCE
PROVIDENCE
JOHNSTON
EAST PROVIDENCE
Providence Harbor
Mapping Potential Environmental Justice Areas
As part of its plan to address the issue of Environmental Justice, EPA New England has developed maps of areas with large low-income and/or minority populations. To be considered a large population, a given Census block group must rank in the top 15% of the region for percentage minority and/or low-income. Low- income is defined as twice the Federal Poverty Guidelines.
MA
CT
RI
Providence Schools and Contaminated Sites
EJ Status
Neither
Low-Income
Minority
Both
Unpopulated
Public School
NPL Site
CERCLA Landfill
Other CERCLA Site
TRI Site
RCRA LQG
Air Emitter Site
Leaking UST