Environmental Justice for Children

INSIDE:
- Protecting Children from Toxic Exposure
- Preventing School-Siting Disasters
- Screening and Treatment for Lead Poisoning
- Using the Federal Lead Hazard Disclosure Law
- Campaigning for Healthy Communities
- Partnering Lawyers with Doctors for Healthy Housing
More than twenty-five years have passed since the nation was roused by cries for help from families living near the Love Canal toxic dump site in Niagara Falls, New York. In the spring of 1978 mothers and fathers gathered at the Ninety-ninth Street elementary school on the edge of a 20,000-ton toxic-waste dump site to discuss the safety of the school. Frightened parents wanted to know why the city built an elementary school next to a toxic waste dump and the playground directly on top of the dump. “What were you thinking?” was the sentiment that echoed through the auditorium.

Parents were confused and grew distrustful of local authorities’ assurances that their children were safe at school. “Just keep the children on the sidewalks and they’ll be safe,” families were told. However, students’ everyday experiences led parents to believe otherwise. Children daily played with “hot rocks” that erupted from the surface, popping them like firecrackers against any hard surface. Playing on school property, children got a “black oily substance” on their clothing and skin and were rushed into school showers. Parents were called to school to bring clean clothing. Authorities closed the school that fall and bused its students to other public schools in the city. A short time later a second neighborhood school, the Ninety-third Street elementary school just one block northwest of the dump site, was also closed. Inspectors found that the school’s property also was contaminated by the Love Canal’s leaking chemicals.1

Since Love Canal, dozens of other communities have discovered that their school or school property was contaminated.2 Worse, local school boards, faced with expanding enrollments, declining school budgets, and rising unfunded mandates such as the federal No Child Left Behind Act, began looking to save money by purchasing cheap land for new school sites. Typically these cash-strapped school boards govern school districts whose students are predominantly low-income and nonwhite. The land often comes at a bargain price because it is contaminated by toxic chemicals or located near a major pollution source and is therefore not suitable for housing or for most types of businesses.

1A detailed description of the events at Love Canal can be found in Lois Gibbs & Murray Levine, Love Canal: The Story Continues (1998).

The recurrence of poor school-siting decisions, similar to what took place at Love Canal, is a direct result of the failure of school-siting policy to mandate the selection of school sites with few or no environmental hazards. Avoidance of environmental hazards must be a key element of school-siting policy, chiefly to protect children but also to protect taxpayers from costly cleanup and relocation costs. Here we discuss the inadequacy of current school-siting laws as they pertain to siting schools on or near sources of environmental pollution or other environmental hazards, as well as the effectiveness of litigation brought in response to siting decisions that put children at risk of harm from environmental contamination. We conclude with recommendations on how legal aid attorneys can work to promote school-siting practices that protect children’s health.

I. Avoidance of Environmental Hazards—a Must for School-Siting Policy

Children spend upward of six hours per day in school, from ages 5 (when they enter 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 purely the choice of either children or parents since society has made school attendance mandatory by enacting compulsory school attendance laws. Society 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 cleanup, design, or relocation costs caused by selecting sites contaminated by hazardous substances.

A. Children Especially Vulnerable 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.3

- As structures and vital connections develop during these critical years, body systems are not suited to repair damage caused by toxins. Damage and dysfunction from chemical exposures are likely permanent and irreversible. Depending on the organ damaged, the consequences can include lowered intelligence, immune dysfunction, or reproductive impairment.4

- Because organ systems are still developing, children absorb, metabolize, detoxify, and excrete poisons differently from adults.5 For example, children absorb 50 percent of the lead to which they are exposed, while adults absorb 10–15 percent.6

- 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 that adults might avoid, such as increased exposure to contaminated dust and soil, pesticide and fertilizer residues, and chemicals used to disinfect or clean.7

- Children’s longer remaining life span allows more time for diseases to

3 HERBERT L. NEEDLEMAN & PHILIP J. LANDRIGAN, RAISING CHILDREN TOXIC FREE (1994).
5 Id.
6 NEEDLEMAN & LANDRIGAN, supra note 3.
School Location Matters

express themselves. Of particular concern are cancers, which can take decades to develop.8

■ Children are exposed to more chemicals now than ever before. One recent British study revealed that children as young as 9 years 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.9

■ Exposure to noise can impair students’ learning. A 1975 study at a school 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 farthest from the tracks.10

Low-income children are at even greater risk. Due to their economic status, children of low-income families have limited or no access to health care. Moreover, children living in poverty are exposed to environmental contaminants such as lead at greater levels than children who do not live in poverty.11 Toxics such as lead cause reduced I.Q. (intelligence quotient) and reading disabilities and impair a student’s ability to succeed in school.12 Beset by low income, cancer and other diseases, and learning disabilities, children and families likely never will succeed in breaking out of the circle of poverty.

B. Expensive Remediation, Repair, or Relocation Costs

New schools are being built across the country at a significant cost to taxpayers. In 2004 completing school construction projects involving new school buildings cost $12.2 billion, and completing new school buildings in 2005 is projected to cost $12.4 billion.13 Much of this construction is occurring in low-income and predominantly minority school districts to alleviate overcrowding and to replace antiquated facilities. School districts with more than 50 percent minority enrollment report significantly higher rates of severe overcrowding (where enrollments exceed capacity by more than 25 percent) than school districts with minority enrollments of 5 percent to 50 percent.14 In 1994 the largest proportion of schools reporting deficient school conditions was in central cities serving more than 50 percent minority students or 75 percent or more poor students.15 Litigation challenging school facilities’ funding systems as violating the education clauses of state constitutions has accelerated further the construction of new school buildings for low-income and minority students in poorer and largely urban school districts.16

While the increase in new school construction projects in low-income and minority school districts is a welcome development, poor school-siting choices

8Landrigan et al., supra note 4.
15Id. at 2.
from the standpoint of environmental hazards have proven costly to districts. The “poster child” example of a costly school-siting error is the Belmont Learning Center in Los Angeles. Around 1990 the Los Angeles Unified School District acquired two parcels of land with the intent to build 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 atop an abandoned oil field, and environmental tests revealed high levels of hydrogen sulfide (which can be toxic at low levels) and explosive methane gas. The property also lay in an earthquake fault zone. 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 new buildings constructed atop a seismic fault. That amount is in addition to what the district already spent on the project, estimated by the district 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 on top of a former solid waste landfill in Lynn, Massachusetts. After five years of operation the building suffered structural damage due to settling of the $40 million building. Damage to the building included two crumbling walls, two-inch gaps where one part of the building pulled away, cracked ceiling and floor tiles, misaligned doors, and jagged floor-to-ceiling cracks.

II. Current School-Siting Laws

State legislatures, state education agencies, and state environmental or public health agencies have established rules governing the siting of new public schools. Despite the health hazards that on-site and off-site environmental contaminants pose to children, twenty states have no laws that restrict the siting of schools on or near sources of man-made or natural environmental hazards. Half of all states do not require school districts to investigate potential school sites for environmental hazards or to assess the environmental impact associated with potential school sites. Only a handful of states require school districts to involve the public in site selection even at minimal levels of participation such as public hearings. The lack of school-siting regulation invites more school-siting disasters such as Love Canal.

A. Rules that Restrict School Siting Around Environmental Hazards

Of fifty states, only twenty-six have restrictions on siting schools on or near sources of environmental hazards. Some prohibit outright using sites with certain characteristics. Others impose criteria that planners must take into account when selecting a school site. And some have both types of restrictions.
Only fourteen states prohibit outright siting where health and safety are at risk due to the presence of man-made or natural environmental hazards. Prohibited sites are those affected 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. Four states generally prohibit siting schools in locations that pose health risks or are near health hazards. Three states allow waiver of the prohibition.

More common are rules establishing siting criteria that governmental entities selecting school sites must consider. Twenty-one states have such criteria. This category of rules is distinguishable from the “prohibited sites” rules in that the former does not categorically exclude a site from consideration, thus giving school districts greater discretion on where to locate schools. Nearly identical to those found in the “prohibited sites” category, these siting criteria are proximity to transportation routes, transmission routes, point sources of pollution, prior uses, and natural hazards. Eight states have a vaguely worded siting criterion that directs school districts to weigh environmental factors or the safety of a proposed site when selecting sites for new schools. This ambiguous criterion gives school districts little direction and is largely ineffective in ensuring the selection of sites that protect users of school buildings from environmental hazards.

B. Rules that Require Investigation or Assessment of Environmental Hazards on Potential School Sites

Half of the fifty states have rules requiring sponsors of new public school construction projects to investigate or assess the presence of environmental hazards at potential school sites. Sponsors must document the presence or absence of contamination on potential sites and characterize the nature and extent of any contamination; or prepare formal environmental assessments or environmental impact statements to determine the effects of school construction projects on the environment; or evaluate environmental conditions on potential school sites in some other way.

Rules that mandate documentation of the presence of contaminants and the extent of contamination at potential school sites have different requirements. Nine states require school construction project sponsors to conduct Phase I environmental assessments of potential school sites. A Phase I assessment identifies the presence or the likely presence of any hazardous substances or petroleum products on a property based on historical or current site use. A typical Phase I assessment involves no collection or testing of samples and is limited to information already available through public sources, interviews, or firsthand observation. While environmental professionals use many protocols in conducting Phase I assessments, the method most commonly used is the one developed by
the American Society for Testing and Materials.30

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. A Phase II assessment estimates the nature and extent of contamination and forms the basis for a preliminary assessment of the cost of corrective or protective action.31 However, only five of the eight states that require a Phase I assessment require a Phase II assessment when the results of the Phase I assessment indicate the presence or likely presence of hazardous substances.32 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 (1) indicates no reasonable basis to suspect the presence of hazardous substances or petroleum products at the property or (2) confirms the presence of hazardous substances or petroleum products at the property under conditions that indicate disposal or release (i.e., the hazardous substances or products have contaminated the surrounding environment).33 Where a site is found to be contaminated by hazardous substances at levels exceeding regulatory safety standards, the site may become jurisdictional under state hazardous waste laws and may require the development of a cleanup plan before the site may be used for a school.34 Or state law may forbid the use of some contaminated sites for schools.35

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.36 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.37 Under these state rules (often referred to as “little NEPAs”), the sponsor of the school project usually


32California (called a “Preliminary Endangerment Assessment”), Florida, Illinois (Cook County only), Massachusetts, and New Jersey.


34Most states have promulgated standards by which a site is considered contaminated. Those standards contain thresholds for various hazardous substances, with different thresholds for soil, soil gas, and groundwater. Moreover, states have promulgated different standards based on the likely end use of the site. For example, if the likely end use is a school, stricter (i.e., lower) standards for determining whether the site is contaminated should apply. The requirements of state hazardous-waste laws are beyond the scope of this article. A starting point for research on those laws is a fifty-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

35California forbids the 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).

36California, 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.

must complete an environmental assessment form, which will determine whether a full environmental impact statement must be prepared. Where an environmental impact statement is required, the statement discusses at length the environmental impact of the school project and alternatives to proceeding with the project. 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 any environmental impact.

Fifteen states require the environmental evaluation of potential school sites by using a format other than the Phase I and Phase II environmental site assessment or environmental assessment and environmental impact statement. Some of these states require sponsors of school construction projects to prepare a written site assessment report that identifies man-made and natural environmental hazards; others require sponsors to evaluate sites (and alternative sites) by using a matrix form with listed environmental factors; still others merely require sponsors to report on soil, wetlands, and geologic conditions to ensure that proposed sites can physically support a school building.

C. Public Participation Requirements in School-Siting Decisions

Formal mechanisms to ensure public input in school-siting decision making adds a layer of accountability for those bodies vested with siting authority to consider environmental hazards. Yet almost two-thirds of states have no such formal mechanisms in place.

The most common mechanism is notice-and-comment public participation. The sponsor of a school project must publish a notice, conduct public meetings or hearings about the project, and solicit comments from the public at the meeting or hearing or during a comment period. Twelve states use some form of notice and comment in school-siting decisions. 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 cannot develop any meaningful discourse for a consensus on a particular project.

A variation on notice-and-comment participation 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. This variation offers no greater opportunity for public participation since participation is limited to the agency that receives the notice and opportunity to comment.

38 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/content/003023.pdf.


41 California, Colorado, Illinois, Indiana, Maine, Maryland, Massachusetts, Minnesota, New Jersey, New York, North Carolina, and Pennsylvania.

42 Sara Pirk, Expanding Public Participation in Environmental Justice: Methods, Legislation, Litigation and Beyond, 17 ENVIRONMENTAL LAW AND LITIGATION 207, 213–14 (2002).

43 California, South Carolina, and Utah have such requirements.
Some states have issued vaguely worded instructions to sponsors of school construction projects to encourage public participation.44 Those instructions do not contain specific recommendations as to how public participation is to be accomplished and are symbolic at best.

A better public participation technique for siting schools involves the formation of a school-siting advisory committee, which develops school projects with the input of a broad range of stakeholders. Among the stakeholders should be 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.45 Though not vested with final decision-making power, advisory committees do give the public more influence on determining where to locate schools 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 a project.46 Concerns about environmental hazards can be aired more thoroughly (and, one hopes, resolved) in a committee than in a public hearing.

III. Legal Challenges to Schools Sited on or Near Sources of Contamination

Parents and advocates for children’s health have been filing court challenges to state and local officials’ decisions to build schools on sites contaminated by hazardous substances. As two recent cases show, litigation may not succeed in blocking the opening of the schools, but it can ensure that school officials maintain safety controls built into the schools and monitor environmental hazards for the long term. Both cases involved schools built in urban areas serving predominantly low-income and nonwhite students.47 The plaintiffs asserted racial discrimination claims under Title VI of the Civil Rights Act of 1964 and the U.S. Constitution’s equal protection clause and claims of denial of due process under the Constitution’s due process clause.48

In Detroit parents sued to block the opening of a new school that was under construction on a site used for almost fifty years for industrial manufacturing, storage, and maintenance.49 The new school was to replace two aging school buildings located in the same neighborhood. The student bodies of the two aging schools were 61 per-

44Georgia, Maine, and Utah have issued such instructions.

45California, Georgia, Massachusetts, Minnesota, North Carolina, South Carolina, Vermont, and Wyoming.

46Pirk, supra note 42, at 215.

47The siting of schools on or near sources of contamination is also a problem in rural school districts, where agricultural land has been contaminated by pesticide use. See, e.g., CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL, INTERIM GUIDANCE FOR SAMPLING AGRICULTURAL FIELDS FOR SCHOOL SITES (2002), available at www.dtsc.ca.gov/PublicationsForms/interim-ag-soils-guidance.pdf.

48The legal theories advanced in these cases are worthy of a separate article and are not discussed here. We describe the factual underpinning of the two cases and the results that the litigants obtained.

cent and 21 percent Hispanic, and 13 percent and 58 percent black, respectively. The Detroit Public Schools acquired the site for the new school in the mid-1960s and used it as a maintenance facility and vocational school. Environmental tests before construction revealed that levels of PCBs (polychlorinated biphenyls), lead, arsenic, carbon tetrachloride, and polynuclear aromatic hydrocarbons exceeded groundwater safety levels established for residential property.

The Detroit Public Schools planned to deal with the contamination at the site by excavating and removing some of the contaminated soil and placing an engineered barrier over the contaminated soil. The engineered barrier would combine a permeable plastic fabric (under the green space only), crushed concrete, sand, and clean soil ranging in thickness from twelve to eighteen inches, with a four-inch layer of sand under the building’s foundation. Detroit Public Schools was to inspect the barrier monthly for any exposure of the crushed concrete. However, the plan required no periodic soil sampling to determine whether contaminants were moving toward the building.

Authorities decided to build on the site at a meeting in May 2000. The first community meeting about the project was not held until the following September. Authorities then assembled a project advisory committee, but the committee did not meet until October 2000. Construction of the new school proceeded while parents continued to raise questions about the site’s safety. When Detroit Public Schools did not adequately address the parents’ safety concerns, the parents sued in August 2001, a month before the school was to open.

A similar dispute over the siting of an elementary and middle school arose two years earlier in Providence, Rhode Island. In the middle of February 1999, the Providence School Department announced plans to construct two schools on top of the former city dump. Outraged parents and neighbors immediately objected to using the site for the schools. As in Detroit, the student body that the schools were to serve was predominantly non-white and low-income. During the 1998–99 school year 77 percent of the student body citywide was nonwhite (23 percent black, 11 percent Asian, 43 percent Latino, and 1 percent Native American), and 75 percent of students citywide were eligible for subsidized lunch.

Environmental tests revealed levels of lead, arsenic, and total petroleum hydrocarbons in excess of residential soil safety levels across the site. High levels of carbon dioxide (a landfill gas) were also found in soil gas samples. To clean up the site the Providence School Department proposed covering the contaminated soil with an orange snow-fence indicator barrier and two feet of clean soil. The two school buildings would be equipped with methane monitors and a “state of the art” soil gas removal system. The system would consist of plastic tubing underneath the school buildings and connected to a vacuum pump, so that any gases coming off the dump and accumulating under the school buildings would be sucked out.

Before the state’s Department of Environmental Management approved the school department’s cleanup plan, and before the Providence School Board approved building on the site, construction started. By the time the school board approved the project in early May 1999, part of the foundation for the elementary school had been poured and piles to support the middle-school building had been driven into the ground. By the time the Department of Environmental Management approved the cleanup plan in early June 1999, the first floor of the elementary school building had already been erected and work on the second floor and foundation work on the middle-school building had begun.

Parents and other concerned citizens had few opportunities to express their opposition to building schools on top of the former dump. Citizens expressed opposition at school board meetings during March, April, and May 1999 and on April 26 at a public meeting about the city’s remediation plan. The opportunity to voice opposition was meaningless because construction began in April 1999. Parents, neighbors, and the tenant association of the nearby
public housing development sued in August 1999 to block the scheduled opening of the elementary school the following month.\footnote{Hartford Park Tenants Association v. Rhode Island Environmental Management, No. 99-3748 (R.I. Super. Ct. filed Aug. 1999) (Clearinghouse No. 52,717). The middle school was still under construction and was not due to open for several more months.}

In both the Detroit and Providence cases, the court refused to take a precautionary approach and block the opening of the schools; the court found that the plaintiffs failed to prove “immediate, irreparable harm” to warrant a preliminary injunction. In the Detroit case the court found that “[p]laintiffs have failed to show irreparable harm where remediation has occurred and the engineered cap is in place…. Where the nonmovant has taken remedial action the balance of harms is readjusted because the potential for harm to the movant has been eliminated.”\footnote{Lucero, 160 F. Supp. 2d. at 802.}

Although unsuccessful in blocking the opening of the schools, in both the Detroit and Providence cases the plaintiffs won additional oversight of environmental monitoring of the school sites. After defeating a motion to dismiss, the Detroit plaintiffs negotiated with Detroit Public Schools a settlement that requires Detroit Public Schools to (1) repair immediately any breach of the engineered cap; (2) convene a safety committee consisting of Detroit Public Schools staff, parents, and community representatives to receive monthly environmental monitoring reports; (3) notify all parents or guardians of students about contaminants on the site and the use of the engineered barrier; (4) allow parents or guardians to request a transfer to another school based on any health concerns; and (5) maintain records in English and Spanish about environmental conditions and testing at the school site.\footnote{The unreported decision on the motion to dismiss, rendered in September 2003, is available at www.sugarlaw.org/info/BeardSchoolOpinionSept03.pdf. A copy of the Lucero settlement is available at www.sugarlaw.org/info/LucerovDPS_Settlement.pdf.}

In the Providence case, the court entered a preliminary injunction requiring the Providence School Department to notify plaintiffs of any environmental tests at the site and to allow plaintiffs’ experts to observe the tests until further order of the court.\footnote{For the preliminary injunction order and amended order, see Clearinghouse No. 52717D (amended order) and No. 52717E (agreed-upon modification to amended order).}

While observing environmental tests, plaintiffs discovered on two occasions that the soil gas removal system was not operating. After multiple complaints, the state Department of Environmental Management threatened the Providence School Department with fines, and the school department repaired and restarted the removal system.\footnote{See Gregory Smith, School Complex’s Gas-Alert System Up and Running, PROVIDENCE JOURNAL, April 9, 2002, available at www.proteun.org/news/archives/arcl3-2002.html}

The plaintiffs in the Providence case were unable to negotiate a settlement and are awaiting a decision from the judge, who presided over a twenty-five-day trial.

IV. How Legal Aid Attorneys Can Advance Better School-Siting Practices

Siting schools on environmentally questionable sites is a problem that particularly affects low-income and minority school-children in both rural and urban school districts. Cash-starved school districts seek out less expensive sites for schools. Often those sites are less expensive because they are environmentally contaminated or are located near major pollution sources. Because low-income and minority school-children often suffer from the effects of lead poisoning and have higher rates of asthma, mitigating environmental hazards at school sites serving them becomes more urgent.

Because poor communities lack the funds to hire attorneys to fight poor school-siting decisions, making legal aid attorneys avail-
able in these disputes is all the more critical. After-the-fact challenges to siting decisions will not succeed in overturning poor siting decisions, although they can result in increased monitoring and remediation of contaminated sites. Attorneys must assume legal representation at the earliest possible stage. In states with laws requiring some level of public participation, legal aid attorneys can represent clients at public hearings and in school-siting committee meetings. Legal aid attorneys should press for the adoption of school-siting policies that ban or restrict the siting of schools on or near sources of environmental hazards and require a thorough investigation of any potential school site. And attorneys should raise school-siting issues in litigation challenging school construction funding mechanisms.

Additional Resources on the Internet

Childproofing Our Communities. Links to two in-depth reports on school siting and other information on making school environments safe for children: www.childproofing.org.

National Clearinghouse for Educational Facilities. List of links, books, and journal articles on school siting, including examples of state selection criteria and resources on environmental issues related to acquisition and use of school sites: www.edfacilities.org/rl/site_selection.cfm.

U.S. Environmental Protection Agency, Healthy School Environments, Siting. Links to information on school-siting practices and policies: http://cfpub.epa.gov/schools/top_sub.cfm?f_id=45&s_id=64.
Beyond School Siting: Environmental Health at School

Children spend upward of six hours a day in school. Twenty percent of the U.S. population—nearly 55 million people—spend their days in school buildings. Yet the U.S. Government Accountability Office (formerly the General Accounting Office) declared in a 1995 report, “While laws compel children to attend school, some school buildings may be unsafe or even harmful to children’s health.”¹ Several school environmental health issues warrant advocacy to protect children’s health in school buildings and on school grounds.

**Pesticides.** In most schools, highly toxic chemical pesticides are sprayed on a monthly schedule to control pests that may or may not be a problem. Very few districts monitor for pest problems or address the root cause of any infestation. Research proves that pesticides cause reproductive, endocrine, respiratory, skin, and other diseases as well as cancer. Pesticides persist if surfaces are not thoroughly cleaned, a common problem given schools’ budget constraints. Integrated Pest Management (IPM) is an alternative system to the use of pesticides and is proven to be more effective in controlling pests. Several states have adopted laws that require schools to develop IPM policies and practices. Legal aid attorneys can help enforce those laws by ensuring that school districts adopt and implement IPM policies.

**Cleaning Products.** One out of every three janitorial cleaning products contains harmful ingredients that can cause skin and eye irritation, cancer, or reproductive disorders.² Purchasing departments can order commercially available nontoxic, effective, and equally priced cleaning materials. Legal aid attorneys can inform parents of their rights under “right to know laws,” publicize the harmful effects of cleaning products on children’s health, and encourage school districts to form a committee to study the replacement of toxic cleaning chemicals with safer alternatives.

**Dilapidated School Buildings.** The average public school in America is 42 years old, and one-third of all schools need extensive repair or replacement. Poor building design and maintenance cause health hazards such as lack of fresh air from inoperable windows, classrooms without adequate ventilation from the heating, ventilating, and air conditioning system, and dampness from leaking roofs, flooded basements, or leaking pipes. Dampness can lead to mold growth, which can cause severe lifelong allergies, skin diseases, asthma, and chemical sensitivities in children and adults. Mold infestation in schools has become such a serious problem that some call it the “new asbestos.” Legal aid attorneys can help client groups develop long-term facility maintenance plans and press local school districts to adopt them. School facility conditions should be a component of any litigation challenging school funding mechanisms.

**New Building Design.** Planners should choose new construction materials (such as alternatives to carpeting) based on their nontoxicity. School carpets can trap dust and debris, and the backing material in carpets releases toxic volatile organic compounds into the air. Legal aid attorneys can disseminate health information on the toxicity of various building materials and encourage the adoption of health-friendly “high performance school” construction practices in long-term facility plans.

**Indoor Air Quality.** All the issues above have an impact on indoor air quality in schools. Studies show that one-half of the nation’s 115,000 schools have problems linked to indoor air quality. The health and comfort of students and teachers are among the many factors that contribute to learning and productivity in the classroom; learning and productivity in turn affect performance and achievement. Many states have laws that require school districts to adopt specific practices to

improve indoor air quality or to build new school buildings to specific standards. Besides ensuring that those laws are followed, legal aid attorneys can advocate that school districts establish school-based health and safety committees to hear and resolve complaints regarding indoor air quality.

Outdoor School Environment. Schools should make sure that their playground equipment is not made of chromated copper arsenate wood. Chromated copper arsenate has been widely used for residential purposes in the United States since the 1970s to prevent lumber from rotting. Arsenic from this wood can seep into the ground, contaminating the soil, and expose children through their contact with the wood also. A second outdoor health hazard to children comes from idling buses, cars, and trucks near a school’s ventilation intakes, drawing exhaust fumes into the building. Legal advocacy can address both hazards by encouraging school districts to identify and replace chromated copper arsenate wood playground equipment and create “No Idling Zones” near school buildings.

Prevention. Due largely to crude hazard assessment strategies and a lack of knowledge about chemicals in use, current scientific research cannot fully determine whether children’s health problems result from environmental toxins. And almost no scientific research addresses the cumulative health effects from low-dose exposure to chemicals over many years. This lack of knowledge combined with a “business as usual” approach creates a dangerous mix, one that will lead to a generation of children living with environmental toxin–induced diseases. Considering that a U.S. Environmental Protection Agency review found no toxicity information available for 43 percent of the 2,863 most commonly used chemicals and complete toxicity data for only 7 percent, exercising prevention and precaution in our day-to-day activities makes sense. Advocacy efforts should encourage schools to reduce their students’ exposure to toxic chemicals and building products.

Internet Resources

Pesticides

Beyond Pesticides—information on alternatives to pesticide use (such as nontoxic pest-control products) and fact sheets on dangers associated with specific pesticides: www.beyondpesticides.org.


Cleaning Products

The New American Dream—information on the importance of using safe cleaning products and a list of safe cleaning products: www.newdream.org/clean.

Dilapidated School Buildings

National Clearinghouse for Education Facilities—resources on school facility assessment, including a list of links, books, and journal articles on various methods of assessing school buildings and building elements for planning and management purposes. Assessment results are shown: www.edfacilities.org/rl/facility_assessment.cfm.

New Building Design


Indoor Air Quality

U.S. Environmental Protection Agency (EPA), Healthy School Environments, Indoor Air Quality—links to resources on improving indoor air quality, including the EPA’s Tools for Schools Program, which is widely used by school districts to improve indoor air quality: http://cfpub.epa.gov/schools/top_sub.cfm?t_id=45&s_id=4.

Outdoor School Environments

EPA, Pesticide Registration, Chromated Copper Arsenate—information on the dangers of pressure-treated wood in school playgrounds and safe alternatives to chromated copper arsenate: www.epa.gov/oppad001/reregistration/cca.

Minnesota Office of Environmental Assistance—information on Minnesota’s No Idling Law, a sample no-bus-idling policy and links to information about the hazards of school bus diesel emissions to children: www.moea.state.mn.us/ee/noidle.cfm.