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Senate Committee on Environment and Public Works
Testimony Presented by Lois Marie Gibbs
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Thank you for this opportunity to speak with you on an issue that has concerned me for over 20 years. You may be familiar with my involvement in Love Canal, which led to my being termed the "mother of Superfund," the federal Superfund law. What you may not know is that the struggle to relocate the residents of Love Canal began with my concern over the health hazards faced by children at the 99th street elementary school. The school was built on the perimeter of a toxic waste site and the students, which included my son, were in danger.

Children are powerless against many dangers in school and out, and they look to adults for protection. However, decisions that adults make frequently endanger our nation's children. New schools are being built on or near chemically-contaminated land or near industrial facilities that release toxic emissions that contaminate the air children breathe, the water they drink and play in and the soil they play in.

There is growing evidence that these chemical exposures—these invisible threats—diminish our children's health and intellectual abilities. Research has revealed increasing numbers of children afflicted with asthma, cancers, lower IQs, and learning disabilities, which impede their ability to develop to their full potential. From birth, children are exposed to toxic chemicals in many ways. Public schools when built on or near contaminated land are a potential source of chemical exposure.

While laws compel children to attend school, there are—astoundingly—no guidelines or laws in place that compel school districts to locate school buildings on property that will protect the school population from environmental health and safety risks. California is the only state that has some regulations and an assessment process for the building of new schools. Consequently, parents are forced to send their children to some schools that pose a threat to their children's health and ability to learn.

CHEJ has received numerous inquiries from parents who either:

- were concerned about an existing school where there was a higher than expected number of students with cancer or other diseases;
- found toxic chemicals in the soil of a school campus;
- or were concerned about the construction of a new school on contaminated lands.

In response to these requests, CHEJ decided to bring these parents together to explore the depth of the problem (See attached list of community school contamination situations.). Additionally, we began to undertake research to identify laws that govern such situations. We were stunned to find that there were no laws governing the siting of a school with the exception of California. In fact, we found that there were strict laws and regulations around the construction of homes and commercial buildings but not schools. This raised two fundamental questions for leadership.

1. How many schools are located on or near chemical waste sites or other contaminated sites today?

2. Is there a need for national or statewide legislation that would prohibit building a school on contaminated property or set cleanup guidelines when there is no alternative but to use contaminated property?

To answer these questions, we looked at the location of public schools in five states and overlaid the location of known federal and state identified contaminated sites. In January we released the results in the Child Proofing Our Communities Campaign's School Siting Committee report *Creating Safe Learning Zones*. In this report, the campaign revealed that 1,195 schools are located within one half mile of a known toxic site in these five states affecting an estimated population of over 620,000 students.

State	Number of Schools	Number of Counties	Estimated Number of Students	Lists Used to Identify Toxic Sites
California	43	11	32,865	Superfund only
Massachusetts	818	13	407,229	Superfund & State
Michigan	64	27	20,999	Superfund & State
New Jersey	36	11	18,200	Superfund only
New York	235	39	142,738	Superfund & State
Total	**1,196**	**100**	**622,031**	

Table 1: Number of Public Schools and Students Attending Classes Within a Half-Mile of a Superfund or State-Identified Contaminated Site

Based on the report's findings, we believe there is a critical need for national laws ensuring that the locations for new schools are safe and that, if contaminated property is considered, it is properly cleaned up. The campaign has developed model school siting legislation to promote laws and policies (covering both public and private primary and secondary schools) that protect children's health. Additionally, with the proposal of building over 2,400 new schools in 2003-2005 there is an immediate need to define criteria and appropriate funds to ensure that new schools are designed and built to protect children's health.

The following are model school siting guidelines that the Child Proofing Our Communities campaign recommends be considered as part of legislation written to ensure the safety of the school population. This model draws upon existing California legislation (AB 387 and SB 162, 1999) that mandates the California Department of Toxic Substances Control (CDTSC) to perform Preliminary Endangerment Assessment's (PEA's) on proposed school sites.

1. The Establishment of a School Siting Committee

The public body responsible for siting new schools is usually the local school board or a school district committee. This group should establish a school siting committee whose job is to recommend to the public body sites for building new schools and/or expanding existing schools. The committee should include representatives of the public body as well as representatives from the following stakeholders: parents, teachers, school health nurse or director, local health department officials, community members, local public health professionals, environmental health advocacy groups, and age-appropriate students. Only public bodies who have appointed school siting committees representing such stakeholders should be eligible to receive federal money for the assessment and cleanup of school sites or the construction of new schools.

2. Public Involvement

The public body (the school board or school district committee) should notify parents, school staff, members of the local community, and "feeder" school parents of the new school's students of plans to build a new school and solicit their participation in writing and at public meetings. This outreach effort should include prominent placement of public notices and feature articles about the proposed plan in commonly read newspapers or local magazines. A notice shall be posted in a conspicuous place in every school within the public body's jurisdiction (in multiple languages if there's 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. This effort can also be used to recruit participants for candidates for the school siting committee.

3. Categorical Exclusions for School Sites

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 the proposed school site has been used for these purposes, an initial Environmental Assessment should be undertaken, and, if necessary, a more extensive Preliminary Endangerment Assessment. 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.

4. Process for Evaluating Sites

The public body shall not proceed to acquire a site or prepare a site for construction of any school, including the expansion of an existing school, until the public body completes the

required environmental evaluations and the state environmental regulatory agency approves the initial Environmental Assessment. Based on the results of this initial assessment, a more extensive investigation, a Preliminary Endangerment Assessment, may be required. Based on the results of the PEA, a Site Remediation Plan may also be necessary.

A. Initial Environmental Assessment

Once a site is proposed, the school board/district committee must hire a licensed environmental assessor to conduct a three-part environmental assessment that is designed to collect information on current and past site uses and to conduct initial environmental sampling at the site. This assessment shall include:

Part I: **A site history** by reviewing public and private records of current and past land uses; historical aerial photographs; environmental databases; federal, state and local regulatory agencies' files; a site visit; and interviews with persons familiar with the site's history.

Part II: **A small-scale grid sampling and analysis** of soil, soil gases (if any) and groundwater. Air should be sampled if stationary or mobile sources of air pollution are near the proposed site, potentially exposing children to higher levels of pollution than found in their own communities. Any surface water should also be sampled.

Part III: **Identifying any environmental hazards within two miles of the site**, including industrial sites, chemical storage facilities, facilities found in EPA's Toxic Release Inventory (TRI), waste treatment plants, landfills, military sites, research facilities, and Department of Energy sites.

If the Initial Environmental Assessment concludes that the 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.

If some contamination is discovered, the levels found should be compared to a list of cleanup guidelines developed by the New York State Department of Environmental Conservation (see table 2 and discussion below). If contaminant levels exceed any of these values, a more extensive site assessment – a Preliminary Endangerment Assessment (PEA) - is necessary.

A Preliminary Endangerment Assessment would also be necessary if the Initial Environmental Assessment found that the proposed school site lies within 1,000 feet of one of the following potential sources of contamination:

- A suspected hazardous, industrial, or municipal waste disposal site
- Refineries, mines, scrap yards, factories, dry cleaning, chemical spills, and other contaminants
- Agricultural land
- Dust generators such as fertilizer, cement plants, or saw mills
- Leaked gasoline or other products from underground storage tanks

- Concentrated electrical magnetic fields from high intensity power lines and communication towers
- Areas of high concentrations of vehicular traffic such as freeways, highways
- Industrial plants and facilities
- An USEPA or state designated Brownfield site
- A railroad bed
- An industry listed in EPA Toxic Release Inventory (TRI)

If no environmental hazards were identified at the property then the property would be considered suitable for school site development.

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

When the final draft of the Initial Environmental Assessment is complete and has received preliminary approval by the state environmental regulatory agency, the public body shall publish a notice in newspapers of general circulation (including foreign language newspapers if the school district has a sizable number of non-English speaking parents) that includes the following information:

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

A copy of this notice shall also be posted in a conspicuous place in every school within the public body's jurisdiction (in multiple languages if there is 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 Initial Environmental Assessment. This agency will then accept or reject the conclusion of the assessment, determine whether the site can be used without further remediation or study, whether the site is categorically excluded for use as a school, or whether further study or remediation of the site (i.e., a Preliminary Endangerment Assessment) is required. The state environmental agency shall explain in detail the reasons for accepting or rejecting the assessment.

After the state environmental agency has approved the Initial Environmental Assessment, the local School Siting Committee must also review the assessment and public comments received. The purpose of this review is for the School Siting Committee to make a recommendation to either abandon the site or continue evaluating the environmental hazards at the site with a Preliminary Endangerment Assessment or PEA.

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 should be considered at this point. Then, the public body must vote whether to abandon the site or proceed with a PEA.

B. Preliminary Endangerment Assessment

A Preliminary Endangerment Assessment (PEA) is an in depth assessment of the environmental contamination present at a site. A licensed environmental assessor must do this assessment. 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 PEA must meet the California Department of Toxic Substances Control Preliminary Environmental Assessment Guidance Manual requirements (CEPA, 1994). The PEA must also be approved by the state environmental regulatory agency.

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 use of the site as a school. Activities such as public meetings, workshops or fact-sheets may be appropriate ways to notify the public about the proposed PEA investigation activities (such as the taking of soil, groundwater and air samples) and schedules. The state environmental regulatory agency must approve the public participation plan before the public body can commence other 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. As part of the PEA, full-scale grid sampling and analysis of soil, soil gases (if any) and groundwater shall be undertaken to accurately quantify the type and extent of hazardous material contamination present on the site. The PEA will also contain an evaluation of the risks of actual or potential contamination posed to children's health, public health, or the environment based on the contamination found. The evaluation of risks shall include:

- A description of health consequences of long-term exposure to any hazardous substances found on site;
- A description of all possible pathways of exposure to those substances by children attending school on site; and
- The identification of which pathways would more likely result in children being exposed to those substances.

The PEA shall conclude that 1) there are no environmental hazards at the site which must be abated through a cleanup plan; or 2) the site was previously used for hazardous or garbage waste

disposal, for the disposal of construction and demolition materials, or is within 1,000 feet of any property used for these purposes (the categorical exclusion); or 3) the site must be cleaned up if it is to be used for a school. If the site was previously used for hazardous or garbage waste disposal, for the disposal of construction and demolition materials, or is within 1,000 feet of any property used for these purposes, the site must be abandoned. If the site must be cleaned up, the PEA shall identify alternatives for cleaning the site to meet the applicable safety standards.

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

When the final draft of the PEA is completed and has received preliminary approval by the state environmental regulatory agency, the public body shall publish a notice in newspapers of general circulation (including foreign language newspapers if the school district has a sizable number of non-English speaking parents) 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, 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 thirty-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 also be posted in a conspicuous place in every school within the public body's jurisdiction (in multiple languages if there is 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 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.

After the state environmental agency has approved the PEA, the local School Siting Committee must also review the assessment and public comments received. The purpose of this review is for the School Siting Committee to make a recommendation to either abandon the site or consider remediation. Alternatives should be considered at this point. Then, the public body

must vote whether to abandon the site, proceed with a remediation plan, or consider an alternative site or option.

If the PEA indicates that the site has a significant hazardous contamination problem, the public body must either abandon the site or fund a cleanup plan that would reduce contaminant levels to the applicable safety standard for each contaminant. The public body must abandon the site if the PEA uncovers 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.

C. Child Protective Health Based Standards

The Child Proofing Our Communities campaign found that no health-based child-sensitive standards exist at the federal, state, local, or any level for determining "safe" levels of contamination in soil that will protect children. Lacking such standards, parents, school districts, regulating agencies, and others are lost as to how to evaluate contamination at new or existing sites. Until such standards are developed, the campaign recommends the use of the New York State (NYS) Recommended Soil Cleanup Objectives. 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.

The Child Proofing Our Communities campaign, in conjunction with environmental engineers we convened at a Children's Environmental Health Symposium earlier this year, reviewed the cleanup standards or guidelines for several states and found the NYS values to be generally lower than all others considered. A subcommittee of professional engineers and health scientists who participated in the Symposium concluded that the NYSDEC list is a good, reasonably sound, and conservative list to use as an initial screen to provide school boards/districts with a way to evaluate sites early on in the site selection process.

A table of 27 common contaminants from the NYS list of Recommended Soil Cleanup Objectives is included below. The entire list provides guidelines for 126 contaminants.

New York State Recommended Soil Cleanup Objectives For Chemicals Commonly Found at Contaminated Sites

Solvents		Pesticides/other		Metals	
acetone	0.2	aldrin/dieldrin	0.041	arsenic	7.5
benzene	0.06	chlordane	0.54	barium	300
2-butanone	0.3	chrysene	0.4	cadmium	1
carbon tetrachloride	0.6	DDT/DDE	2.1	chromium	10

chloroform	0.3	naphthalene	13.0	lead	400
1,1-dichlororethane	0.2	pentachlorophenol	1.0	mercury	0.1
1,2-dichloroethane	0.1	PCBs	1.0	nickel	13
methylene chloride	0.1				
tetrachlorethene	1.4				
trichloroethene	0.7				
toluene	1.5				
vinyl chloride	0.2	Note: All values are in parts per million (ppm)			
xylene	1.2				

D. Site Remediation Plan

If the school board/district decides to proceed with cleanup of the proposed site, a Site Remediation Plan must be developed. This plan must:

- Identify alternative methods for cleaning the site to contamination levels that meet the applicable safety standards;
- Contain a financial analysis that estimates and compares soil cleanup costs for the identified alternative 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 alternative will prevent children from being exposed to the hazardous substances found at the site; and
- Evaluate the suitability of the site in light of recommended alternative sites and alternative cleanup plans.

The public body shall submit the Site Remediation Plan to the state environmental regulatory agency for approval. Before submitting the plan for approval, a draft remediation plan shall be given to the School Siting Committee for review and comment. Once the remediation plan is submitted to the state agency for approval the public body shall proceed with a public notification and outreach plan similar to that conducted for the Initial Environmental Assessment and the Preliminary Endangerment Assessment. This would include publishing a notice in newspapers of general circulation (including foreign language newspapers if the school district has a sizable number of non-English speaking parents) that includes the following information:

- A statement that a site remediation plans 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 thirty-day public comment period and the address of the state environmental agency where public comments should be sent.

A copy of this notice shall also be posted in a conspicuous place in every school within the public body's jurisdiction (in multiple languages if there is 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 proposed 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) stating the date, time and location of the hearing. The state environmental regulatory agency shall provide translators at the public hearing if the school district has a sizable number of non-English speaking parents.

After the public hearing and after reviewing any comments received during the public comment period the state environmental regulatory agency shall either approve the Site Remediation Plan, disapprove the Site Remediation Plan, or request additional information from the public body. If the state agency requires additional information, a copy of the letter requesting additional information shall be sent to the School Siting Committee. Any additional information submitted by the public body to the state environmental regulatory agency shall also be given to the School Siting Committee. After reviewing any additional information, the state environmental regulatory agency must approve or reject the Site Remediation Plan. The state environmental agency shall explain in detail the reasons for accepting or rejecting the Site Remediation Plan.

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

4. Guidelines Appropriate to Children's Health

The Child Proofing Our Communities campaign believes that the USEPA is best suited to issue such guidelines related to assessment and cleanup of these sites. We feel strongly that Congress should require the EPA to determine proper cleanup guidelines to reduce the risk of exposure for children. It has also been the campaign's experience that the levels of cleanup vary widely from site to site—the determining factor often being the economic status of the particular community. The campaign strongly urges the EPW committee to mandate EPA to establish a minimum standard that all cleanup plans must adhere to. Towards that end we have begun a process of convening a panel of children's environmental health professionals to identify cutting edge health information such as neurodevelopmental and reproductive effects in children that have been associated with exposure to toxic chemicals and to identify how to incorporate this information into the process of setting health based exposure standards for children. The campaign would be pleased to share the results of our investigation with the EPA to inform future efforts in arriving at children's environmental health guidelines.

5. New School Construction

It makes little sense to build an environmentally dangerous school on a newly cleaned site. We recommend the availability of funds to build healthy "green" schools.

There are no federal laws governing the environmental health conditions in schools. The EPA has been the most responsive agency, producing tools that individual schools can use to diagnose and correct indoor air quality problems. Much more needs to be done, however, to eliminate the many avoidable environmental health impacts present in the school environment. A promising federal bill—the Healthy High Performance Schools Act (2001)—and health and safety grants for emergency school renovations (2000) have had support or funding withdrawn. Thus we are left with the odd result that the federal government tolerates unhealthy construction practices and materials usage in schools even as it spends funds to diagnose and correct the resulting problems after the fact.

We advocate the availability of funding for both the aforementioned programs in order to promote "green building" practices in school construction and renovation. Presently there are no national standards that use green building materials and techniques. Some federal agencies such as the Department of Transportation and the Department of Interior are attempting to utilize the LEED (Leadership in Energy & Environmental Design) program developed by the U.S. Green Building Council. Unfortunately LEED does not effectively address children's environmental health concerns. As a first step, we recommend that a study of applicable green building standards and policies be undertaken to identify those best serving the goal of protecting children's health.

6. Federal Funding

There is only one state (California), which has a law that provides some siting guidelines. However, there is little funding available to put the legislated guidelines into practice. Therefore, we are advocating for federal funding of the appropriate agencies to support schools that apply for the assessment, remediation, and construction of 'healthy' schools on otherwise untenable sites.

Without adequate resources the local school authorities cannot adequately assess the property nor clean the property to a standard that is protective of children.

FINDINGS

- Hundreds of schools nationwide have been built on or near contaminated land
- Taxpayers provide billions of dollars for cleanup, construction of replacement schools, and medical treatment of disease in exposed children

The Child Proofing Our Communities campaign has provided these examples of schools disastrously impacted by their proximity to toxic waste sites:

1. Love Canal, Niagara Falls, NY—Toxic Waste Dump

Most know of the Love Canal dumpsite disaster in Niagara Falls. Twenty thousand tons of chemicals were buried in the neighborhood's center and eventually leaked out into the surrounding community. The 99th Street Elementary School was on the dump's perimeter, and the 93rd Street School was just two blocks away. Both closed in 1978 after extensive testing revealed high levels of chemical contamination on and around them. Love Canal was the first community to close schools due to potential health risks to children.

2. Los Angeles, CA—Former Oilfield and Industrial Site

The Belmont Learning Complex was proposed in 1985 by the Los Angeles Unified School District as a middle school to alleviate overcrowding in a mostly poor, Latino neighborhood. The project ballooned into a proposed 35-acre, state-of-the-art, high school campus, with classrooms and innovative "academies" for 5,000 students. More than fifteen years later, the half-built brick building stands abandoned. Parents learned what the school district already knew—explosive methane gas, poisonous hydrogen sulfide, volatile organic compounds such as acetone, the carcinogen benzene, and residual crude oil existed on the location, a former oilfield and industrial site.

The project, halted in 2000, is now underway again, with over $174 million already spent. After extensive debate about children's health issues, community support for completing the school remains strong. In this instance especially, the contentious process would have been prevented if effective school siting legislation had been in place that emphasized health concerns first and foremost and required assessment and remediation to occur before the expensive construction actually began.

2. Marion, Oh—Military Dump

The River Valley Middle and High schools sit on the former site of the U.S. Army's Marion Engineer Depot, and was used as the facility's dumping ground from 1942-1961. In 1997, community members formed a group, Concerned River Valley Families, in response to alarming rates of leukemia and other rare cancers among former students. The group's efforts led to an investigation that revealed widespread contamination from toxic materials dumped for nearly

two decades. Students were and continue to be exposed to potentially harmful concentrations of solvents, such as trichloroethylene (TCE) and benzo(A)pyrene, polynuclear aromatic hydrocarbons (PAHs), and heavy metals in the soil surrounding the schools. Many of the solvents are known carcinogens and some have been linked to leukemia.

In November of 2000, River Valley school district voters passed a bond and Congress passed precedent-setting legislation that together would provide enough money to build new schools away from the military dumping grounds. To date, there has been an emergency arsenic removal, and access has been restricted to the polluted athletic fields and the middle school back doors, but air pathways still have not been fully or adequately characterized.
The schools remain open although reservists are not allowed on the adjacent Army Reserve training grounds. The new schools approved by residents and Congress will not be open until at least August 2003, but the school board refuses to temporarily move their students to an environmentally safe facility.

4. Providence, RI—Two New Schools On a Dump, with More Planned

Parents were shocked when bulldozers showed up without warning to begin construction of Springfield Elementary School on the grounds of what had been a city landfill for at least 25 years. The Hartford Park Tenants Association and other community parents have filed a lawsuit against the school board, City of Providence, and State Department of Environmental Management. They argue that building a school for minority students on a landfill is a violation of the children's civil rights. These students already have high rates of asthma and lead poisoning. The groups also contend that they were not given enough notice about the building of the new school to allow them to play a role in the site selection and remediation process.
The groups have concerns about the state-approved soil gas removal process that has placed an elaborate system of monitors and underground pipes beneath the school to prevent the accumulation of explosive methane gas. Their primary concern is the potential for explosion, but they are also worried the about the odors coming from the stack that releases soil gases on school property. They want the school shut down.

During the construction of a middle school next to the elementary school, parents won a temporary order halting work while children were outside the elementary school in order to prevent their exposure to contaminated dust. Now that Springfield Middle School has opened, a court has ordered the city to notify the plaintiffs in the lawsuit when environmental testing is done so that plaintiffs' experts can observe the testing. The city must also share the results of the environmental tests with the plaintiffs.

5. Tucson, AZ—Industrial Plants

Sunnyside Elementary and Junior High Schools serve primarily Mexican-Americans in Tucson's Southside. Many who attended during and after the 1950s later developed cancers and leukemia. By 1981, area wells used by these schools and many nearby homes were shut down due to industrial contamination from a groundwater plume of trichloroethylene (TCE) and other toxins migrating from military-related industries. Residents formed Tucsonians for a Clean Environment and won local support for environmental health projects, including a health clinic for persons poisoned by TCE.

Today Tucson's Southside faces a new toxic threat from a military contractor. In 1983, Brush Wellman built a facility near Sunnyside High School, Sierra Middle School, Los Ranchitos, and Los Amigos Elementary Schools. This facility processes beryllium, a lightweight metal the military uses that causes a fatal and incurable lung disease. Twenty-five employees at the plant already have the disease. Beryllium traces have been found on Los Amigos and Los Ranchitos grounds, putting young schoolchildren at risk. The community is asking that Brush Wellman install air monitors on school grounds and around the neighborhood, but they have had no progress thus far.

6. New Orleans, LA—Garbage Dump

Residents of Gordon Plaza—1,000 low- and middle-income African Americans—discovered only after they moved in that they were living on the former Agriculture Street Landfill—the city's municipal waste dump for more than 50 years. The landfill was never properly capped, and residents began almost immediately to dig up trash and building debris in their back yards.

Construction of Moton Elementary School—intended to serve 850 students from Gordon Plaza and a nearby housing project—was completed in 1987 despite residents' concerns about high levels of lead and other toxins at the school site. During the three years the school was open, children and staff were sick with rashes, vomiting, respiratory problems, and headaches, and plumbing problems made it impossible to use the school cafeteria and toilets. In 1990, the superintendent overruled the school board and shut the school down.

The U.S. EPA added Agriculture Street to Superfund in 1994 and began a $20 million cleanup of the site in 1998, replacing two feet of soil while residents remained in their homes, exposed to contaminated dust throughout months of cleanup work.

Moton Elementary School reopened in September of 2001. In some areas on the school grounds, only six inches of soil were replaced. Despite its history, 900 students currently attend the school.

7. Corry, PA—Industrial Plant Emissions

The school board in Corry decided to consolidate four of five small elementary schools into one large school housing over 1,000 students. The chosen site sits next to Foamex, a polyurethane foam manufacturing plant that ranks second statewide for hazardous air emissions, annually dispersing approximately two million pounds of hazardous chemicals into the year. Additionally, toluene diisocyanate (TDI) and methylene chloride are used in the manufacturing process and are stored in large quantities on the site. Both are known carcinogens. Suspected TDI health effects include respiratory, immunological, and neurological disorders. Methylene chloride is suspected of harming the reproductive, neurological and respiratory systems.

The community is unified against the consolidation and has collected 2,000 signatures in support of finding another site. Meanwhile, the consolidation did not occur and the construction of a new school now seems doubtful.

8. Jacksonville, FL—Incinerator-Ash Dump

This predominantly African-American community suffers from a long history of industrial contamination. From 1943 to 1969, four sites served as incinerator-ash dumping grounds. The ash contained high levels of lead, dioxins, and PCBs. While environmental agencies knew about the situation as early as 1985, parents and other residents were only informed in 1999.

As the 1999-2000 school year began, many parents, including the president of the PTA, withdrew their children from Mary McLeod Bethune Elementary School, which was built on one site where testing revealed high levels of dioxin. The school was closed in 2001 as part of an EPA-ordered cleanup. Community activists are now pressing for closure and cleanup of a park built on another ash site.

9. Houston, TX—Industrial/Chemical Complex

To relieve overcrowding, the city council created a special taxing district to help cover the $76 million cost of constructing a new school in a predominantly Latino area. The re-proposed school was opened in 2001 and named for Cesar Chavez. The modern, fully-equipped facility with enough computers, laboratories, sport fields, and classrooms for 3,000 students is located in an industrial zone on a site previously occupied by an auto salvage yard, a dry cleaner and a chemical toilet company. The school is a quarter mile from Texas Petrochemicals, Exxon-Mobil, and Goodyear Tire and Rubber, and 1.2 miles from a Lyondell Citgo Refining facility. These plants release nearly five million pounds of hazardous chemicals into the air annually. A major accident at any one of these chemical plants would endanger students at the school. The underground pipelines from the plants that cross the school's property pose an additional threat.

10. Quincy, MA – Shipyard Toxics

Residents from Quincy formed Quincy Citizens for Safe Schools and helped defeat city plans to build a high school on a four-acre site that was contaminated with wastes from a neighboring shipyard. The city knew the site was contaminated with asbestos, lead, PCB's and other chemicals but believed it could be cleaned. When parents and other residents became aware of the plan, they vehemently opposed it and circulated a petition to stop it. Eventually, the mayor and some city council members who had promoted the project were defeated in elections by candidates who opposed the plan.

11. Detroit, Michigan – Former Industrial Site

In July 2000, the Detroit Public Schools (DPS) broke ground on the first new elementary school to be built in the city in decades. Unfortunately, the New Beard School, which would serve the largest concentration of Hispanic students in the city, was sited on a former industrial property contaminated with unsafe levels of lead, arsenic, PCBs, carbon tetrachloride, cyanide, and other toxic materials. Rather than removing these contaminants from the site, DPS chose to install a crushed concrete and soil exposure barrier intended simply to prevent children from touching the contaminated soils.

When initial efforts to convince DPS to listen to their concerns failed, parents filed a civil rights/environmental justice lawsuit to prevent the school from opening until the site's safety could demonstrated. After a four-day evidentiary hearing, a federal judge allowed the school to open, but required DPS to take additional precautions, which included conducting additional soil and soil gas sampling, hiring an independent environmental consultant (IEC) to make recommendations regarding the need for additional testing and/or monitoring at the site, and establishing a citizens' advisory committee to oversee the IEC's work. DPS has implemented several but not all measures recommended by the IEC, but the Beard administration continues to balk at some precautionary steps, such as installing a permanent plaque at the school warning that about the contamination that lies beneath the exposure barrier.

Conclusion

We are truly at a critical juncture. Public elementary and secondary enrollment is rapidly growing and is expected to reach an all-time high of 44.4 million by the year 2006. At least 2,400 more schools are needed in the next few years to accommodate this increase. If action isn't taken immediately, these new schools will continue to be built without guidelines to protect children against chemical exposures. Failure to act could place tens of thousands of children at risk of being exposed to toxic chemicals at their place of learning. Society can no longer allow innocent children to be placed in harm's way due to inexcusably bad decisions by local school district decision makers.

Thank you very much for considering our views in the formation of legislation to improve children's environmental health through intelligent and comprehensive school siting.

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