



HJR45

House Joint Resolution 45

LEED Task Force Report

March 2011

**Moving Towards a Sustainable Future
for Illinois Schools**

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Executive Summary

Twenty percent of America goes to school every day. We spend almost 90% of our time indoors, and for one out of every five of us (more than 60 million people) much of that time is in school buildings. There are more than 130,000 schools in this country and each one can be better places to teach and learn through its natural and built environment.

Green schools save energy, water and money – hundreds of thousands of dollars each year – that can be reinvested in teachers, technology and textbooks. Improvements such as cleaner indoor air and increased access to daylight not only support the health and well-being of our kids and teachers, they raise academic performance and reduce absentee rates. The school facilities themselves can function as living laboratories to foster environmental literacy and support a generation of environmental stewards.

Illinois has some of the finest examples in the nation of high performance facilities and sustainable school programs. Some of this can be credited to the individual initiative of a teacher, administrator, board member, or student. Others have benefited from grassroots level community engagement. Most of these results can be linked to a policy.

There is still work to be done, however, with schools reporting nearly \$10 billion of capital needs for new schools, building additions, and general repair work for the next two years. It is through policy enhancement that the groundwork that has been laid for sustainability in Illinois’ schools can be shared on a much broader scale by all schools in the state. This is where members of the 97th General Assembly can find common cause and look to the following for additional policy enhancement opportunities:

Create a program to provide schools with access to sustainability resource professionals at no cost.

The Task Force recommends creating and maintaining a pool of Green Schools Fellows. Fellows are individuals with at least a basic knowledge of available resources and a strong interest in sustainability, who can work side-by-side with multiple schools and/or districts to perform the necessary research, paperwork, and legwork to establish sustainability programs. Specific tasks may include developing sustainability plans, creating school-wide green teams, instituting sustainability programs and curricula, coordinating training of district staff, and applying for project funding. By establishing a Green Schools Fellowship program the State can achieve progress on meeting its sustainability goals and objectives while overcoming the lack of human resource capacity mentioned as an obstacle by many school districts that were surveyed.

Create a “one-stop shop” for schools to access information and services related to sustainability improvements.

Establishing a single resource center and point-of-contact for sustainability programs can greatly assist Illinois schools in accessing the technical and financial resources that they need to go green. No single organization or agency provides an umbrella service – or serves in a bundling role – to connect schools to the appropriate providers. Such a one-stop shop can assess schools’ needs and then link them to potential funding sources and other resources.

Further enhance and publicize existing directories of support services and funding opportunities for schools pursuing green practices.

Include, promote and encourage the work already done by the Illinois Green Governments Coordinating Council, Illinois State Board of Education (ISBE), and Healthy Schools Campaign among others. By enhancing and publicizing existing web directories and support services, the state can cost effectively leverage existing tools and information without duplication of effort and expending scarce resources.

Support the *Environmental Literacy for Illinois 2010* strategic plan.

Environmental Literacy for Illinois is a comprehensive plan lead by several state agencies in partnership with federal entities and non-governmental organizations to comprehensively address environmental literacy among Illinois students and teachers. Support for this plan and its recommendations are crucial for improving environmental literacy in our state.

Encourage training of building engineers and operations staff related to sustainable operations.

National and local studies show that a building’s performance and sustainability is largely driven by its operations; how systems are controlled and how tenants utilize resources. Several organizations across Illinois offer training to assist school engineers and operations staff related to building operations and sustainability. It is recommended that school districts be supported in seeking relevant training for their staff to improve operational efficiency and sustainable measures.

Fully authorize capital funding grants for schools.

The State of Illinois General Assembly appropriated funding for School Construction, Energy Efficiency Maintenance Grants and Early Childhood Capital Grants. Additional bond authorization is necessary in fulfilling the appropriations. The General Assembly passed additional authorization in January 2011 to continue these grant programs. Additional authorization will be necessary to obligate the remaining appropriations passed in the FY2010 Capital Bill.

Make matching funds available for state grants.

The state grant programs for schools require a match ranging from 25% to 65% for School Construction; 50% for Energy Efficiency Grants and Maintenance Grants; and 10% for Early Childhood Capital Grants. School districts in the most impoverished areas of the state are challenged to meet the matching requirements. The DCEO EEPs grant program provides a match for electrical energy efficiency projects that meet program criteria. A statutory change for the most impoverished districts would assist in providing access to state capital grant programs for all areas of the state. Additionally, private foundations in Illinois are recommended to provide this match to schools that may require support to meet the match but that are not included in the statutory changes referenced above.

Make funds available for sustainability consulting.

Priority needs to be given to helping schools fund the professional services of greening existing buildings including outside services to help design and implement green policies, procedures, capitol projects, and funding plans. Especially during early stages of sustainability program development and implementation, professional consulting services and expertise can cost effectively chart a course and guide schools on a streamlined path to sustainability.

Enhance the Illinois Finance Authority’s (IFA) energy efficiency bond program so that it enables schools to implement retrofit projects.

While the IFA is currently authorized to issue bonds on behalf of Illinois school districts for energy efficiency retrofits, the current program structure is not advantageous to schools. Establishing a debt service reserve to secure the bonds could lower interest rates to an attractive level for schools. Providing bridge loans could

Green schools save energy, water and money – hundreds of thousands of dollars each year – that can be reinvested in teachers, technology and textbooks.

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help schools cover initial retrofit project design costs. Both program enhancements would be funded through a new appropriation to IFA for these purposes.

Implement a sustainable school survey on a regular basis.

Many of the ideas presented here are far from original. The best solutions are those already in use because they have been proven to be implementable. To identify existing solutions, a survey similar to the one used for this report can be administered regularly to track ongoing sustainability initiatives of Illinois schools and made accessible online.

Create a report card on school sustainability.

It is also recommended that a report card of school sustainability be issued on a regular basis to assess trends in Illinois and gauge performance impacts. The report card would be based on the survey results referenced previously. The report card methodology is well understood and accepted by school districts. One manages only by what is measured and a report card can provide a snapshot summation of successes and areas of deficiencies in a set number of sustainability categories.

Establish benchmarks or standards for existing school sustainability measures.

Standardization is important in implementing and gauging the impact of sustainability initiatives. It is recommended that one or more standards for measuring sustainability improvements be implemented from programs already in place and widely recognized. Using benchmarks and standards are effective tools in establishing baseline performance criteria as well as elevated performance goals.

Reward and recognize leadership.

Use the Illinois Sustainable Schools Compact, the survey results, and benchmarks as a basis to recognize schools that have achieved measurable results. Celebrating success and recognizing achievement spurs further engagement and fosters further innovation and creativity in pursuit of attaining ever high sustainability goals and performance.

In conclusion, we believe it is vitally important that every citizen in Illinois is provided the opportunity to experience the value of efficient and healthy schools. This endeavor began with a legislative mandate to scan the landscape and provide counsel on how to retrofit three schools to make them more sustainable. These findings have broad implications on all existing schools in the State of Illinois. Sustainability is not a partisan concept. Everyone benefits, whether it's saving money, reducing our dependence on foreign oil, improving student achievement, or conserving scarce resources. This should be doubly important when it comes to a healthier place for our children to learn. Illinois already has many schools that are healthier and more comfortable for students and teachers and are energy efficient at the same time. Let's work together to make all of Illinois' schools the best and most efficient learning environments possible for all Illinois students.

Introduction

The case for green schools is evidenced in current research on student achievement and health, bottom-line returns from sustainable operations, and in federal and statewide policy (The Brookings Institution Center on Urban and Metropolitan Policy 2004; GSA Public Building Service 2008; Hamilton 2009; The Intergovernmental Panel on Climate Change 2007; Kats 2003; Singh, Syal, Grad, Korkmaz 2010; U.S. Green Building Council 2010). For example, students miss approximately 14 million school days per year because of asthma (Kats 2006), while controlling exposure to indoor environmental factors such as carbon monoxide, dust and pollen could prevent more than 65 percent of asthma cases among elementary school-age children (American Journal of Respiratory and Critical Care Medicine). In addition, green schools use 33% less energy and 32% less water than conventionally constructed schools, significantly reducing utility costs over the average 42-year lifecycle of a school (Kats 2006).

A study of Chicago and Washington, DC schools found that better school facilities can add 3 - 4 percentage points to a school's standardized test scores, even after controlling for demographic factors (Kats, 2006). In Illinois, construction of new green schools is required by state statute for any school receiving Illinois State Board of Education/Illinois Capital Development Board school construction grant funding, while green cleaning and other sustainable strategies are required by statute for Illinois schools. Illinois also enjoys a variety of funding measures to assist schools with green construction and implementation of sustainable initiatives (school gardens, rain gardens, recycling, etc.) from both state and private sources (e.g., the Illinois Department of Commerce and Economic Opportunity and the Illinois Clean Energy Community Foundation). While these measures are significant, they are piecemeal and leave gaps in holistically supporting school sustainability, especially related to existing school buildings.

House Joint Resolution 45 (HJR 45) was authored by Illinois State Representative Karen May (58th District) and adopted by both the Illinois House and Senate on May 28, 2009 and October 29, 2009, respectively. The resolution created the HJR 45 LEED Task Force (Task Force) comprised of a member (or designee) from both parties of both houses of the Illinois General Assembly, representatives from several state agencies (DCEO, ISBE, Capital Development Board (CDB), and the Governor's office), and led by the U.S. Green Building Council – Illinois Chapter (USGBC – Illinois). Since the passage of the resolution representatives from other groups including the American Institute of Architects (AIA)-Illinois and Healthy Schools Campaign have also been added. (See Appendix 2 for a list of Task Force members).

The bill charged the Task Force with advising USGBC – Illinois on a pilot program currently being undertaken to assist three underserved Illinois schools in achieving Leadership in Energy and Environmental Design (LEED®) for Existing Buildings Operations and Maintenance (EB:O&M) certification (a comprehensive program for greening an existing building's operations). The Task Force is tasked with staying abreast of the project to understand how such a program can potentially be used as a framework for assisting other existing Illinois schools in achieving sustainable operational practices. The Task Force was also charged with authoring a report to recommend programmatic, financial, and other resources that can foster sustainability initiatives on a larger scale in Illinois schools.

The following report contains an overview of the current state of sustainability in Illinois schools related to programs and programmatic resources, funding available related to sustainability, and the current amount of data available on school sustainability. The report also makes a series of recommendations on the programmatic resources, funding, and data needed to foster the increased adoption of sustainable retrofits and programs in Illinois' existing schools on a larger scale. A series of appendices follows this report and include supporting material and additional data related to this report and the work of the Task Force.

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State of Sustainability in Illinois Schools

Both newly constructed and existing Illinois schools are embracing sustainable operational, procedural, and curricular practices. However, the level of adoption is diverse from district to district and school to school. To better understand the types of sustainability practices being adopted in Illinois schools, the Task Force surveyed schools on a variety of sustainable strategies to identify best practices currently being implemented. An overview of the survey results, other related metrics, and corresponding best practices are summarized below. The LEED® for Existing Buildings: O&M school pilot, currently being conducted by USGBC – Illinois is also summarized as well as existing resources provided by the State of Illinois and other organizations for greening existing schools.

A. Data Characterizing the State of Sustainability in Illinois Schools

To better understand the types of sustainability initiatives currently being undertaken in Illinois schools, the Task Force conducted the Illinois School Sustainability Survey to explore the sustainable initiatives underway in Illinois Public Schools. In addition to the sustainability survey, two other sets of data – the Capital Needs Assessment Survey and the Illinois Sustainable Schools Compact – provide a more comprehensive look at school sustainability and related capital needs. Data from these three sources are described below.

Illinois School Sustainability Survey

Highlights from the October 2010 sustainability survey of 259 Illinois school districts include:

- 99.5% of the school districts surveyed have employed recycling as a waste reduction strategy.
- 94.8% of the school districts surveyed offer healthy food options and 21.7% offer locally sourced menu items as part of a sustainable food initiative.
- 65.7% of the school districts surveyed integrate environmental topics into the curriculum.
- 60.9% of the school districts surveyed have a no idling vehicle policy and 55.8% have a safe walking route to school program to reduce environmental impacts on the schools.
- 92% of the school districts surveyed have retrofitted lighting to be energy efficient and 7 school districts have installed green roofs.
- Of the school districts surveyed 19 have installed solar electricity systems, 4 have installed wind turbines, 24 have installed geothermal heating and cooling systems.
- 97.6% of the school districts surveyed shut off lights, 80% turn off computers and 45.7% adjust thermostats to reduce energy consumption.
- To pursue sustainability initiatives; 83.7% of the school districts surveyed require funds for retrofits, 62.2% require matching funds to access grants, 42.6% need consulting assistance on sustainable strategies and 41.1% need assistance with studies.

Complete survey questions and results are provided in Appendix 5 of this report.

Capital Needs Assessment Survey

Public Act 93-0489 requires the Illinois State Board of Education and Capital Development Board to file a comprehensive assessment report of school district capital needs to the General Assembly every two years. Responses were submitted by 618 elementary, secondary and unit districts who reported over \$9.9 billion of capital needs for new schools, building additions, and general repair work for the next two years.

Significant findings of the survey include:

- Of the overall general repair and remodeling needs, over \$226 million is needed for Energy Conservation projects in 979 school buildings.
- Of the overall general repair and remodeling needs, over \$1.4 billion is needed for heating/ventilating and air conditioning projects in 1,671 school buildings.
- Of the overall general repair and remodeling needs, nearly \$700 million is needed for electrical systems projects in 1,523 school buildings.
- Of the overall general repair and remodeling needs, over \$253 million is needed for plumbing system projects in 1,536 school buildings.
- To ease overcrowding districts are using 596 temporary classrooms.

Illinois Sustainable Schools Compact

The Illinois Sustainable Schools Compact is a voluntary initiative coordinated by the Illinois Governor’s Office that encourages schools to adopt a variety of sustainability initiatives in several broad areas, including operations, building and grounds, and curriculum. An overview of some of the most common initiatives adopted by schools is listed below. A copy of the Illinois Sustainable Schools Compact is provided in Appendix 7 of this report.

Of 220 Compact member schools, the following numbers committed to sustainability practices:

- 206 schools (94%) committed to encouraging recycling (including batteries and electronics), composting, and purchasing products with minimal packaging.
- 204 schools (93%) committed to conserving energy and lowering carbon emissions by shutting off lights and computers when not in use and adjusting thermostat settings.
- 186 schools (85%) committed to practicing sustainable grounds maintenance by minimizing use of chemical fertilizers and following a conservative watering schedule.
- 168 schools (76%) committed to reducing fuel consumption and pollution from school transportation by limiting car and bus idling, encouraging carpooling, and increasing the fuel efficiency of school vehicles.

B. Illinois Schools’ Best Practices in Sustainability

In addition to the survey discussed above, the Task Force solicited sustainability best practices from schools throughout Illinois during the summer and fall of 2010. A total of 33 best practices were submitted. Below is a small sampling of the sustainable initiatives being undertaken by schools across the state to enhance their operational performance and educational programs to focus on sustainability. A full list of participating schools and a summary of their sustainable programs and elements are provided in Appendix 6 of this report.

Chicago Public Schools (CPS)

CPS serves the educational and development needs of more than 409,000 students at 675 schools. CPS is working to minimize its impact on the environment and teach students to be environmental stewards. CPS’ Environmental Action Plan, adopted in 2008 in partnership with the Chicago Climate Action Plan, outlines 26 results-oriented strategies on energy, waste, land, water, and engagement that impact the entire CPS community.

State of Sustainability in Illinois Schools *continued*

In new construction, Chicago Public School has awarded more than \$4 billion in projects that include 31 new schools, 16 replacement schools and 57 major additions and annexes. Guidelines for projects include high efficiency boilers, variable air volume (VAV) heating, ventilation and air conditioning (HVAC) systems, geothermal heating and cooling systems, green roof design, occupancy sensors, and daylight harvesting as well as LEED Silver certification.

Operationally, CPS initiatives include green cleaning; computer shut-downs; Energy Shared Savings, giving schools financial incentives to save energy; district-wide recycling, including of milk cartons; composting; and local food purchasing. CPS is a leader among urban school districts with its environmental action plan, information available at www.cps.edu/gogreen.

LEED for Existing Buildings Operations and Maintenance (LEED EB:O&M)

Three suburban high school districts are utilizing the U.S. Green Building Council’s LEED EB:O&M program. Adlai E. Stevenson HSD 125, Evanston Township High School District 202, and Niles Township High School 219 incorporate LEED EB:O&M as framework to evaluate current policies and revise operating procedures to meet key metrics related to: energy savings, water efficiency carbon dioxide (CO2) emissions reduction, improved indoor environmental quality improvement and resource stewardship. The primary objective is to move an aging school facility to a high performance building, making the school building itself a “teaching tool.” Adlai E. Stevenson HS, located in Lincolnshire has incorporated participation from all levels within the school from School Board members, administration, staff and students. They have been able to realize savings in nearly every area of public school operation.

Retrofits

Several schools highlighted a variety of sustainable retrofits including:

- Clinton SD 15 replaced single pane, non-insulating glass at Lincoln and Douglas Elementary Schools.
- Arlington Heights SD 15 completed lighting retrofit in ten schools; by taking advantage of Illinois DCEO funding; realized within at .62 year payback period.
- Prairieview-Ogden CCSD 197 renovated a school built in 1955 with lighting retrofit and geothermal system that was partially financed through ARRA funds and grant from Illinois Clean Energy Community Foundation. Another rural distinct, Hiawatha School District 426 in Kirkland utilized performance contracting as a construction financing vehicle to upgrade its lighting systems, replace an aging boiler, and upgrade HVAC systems with a geothermal system.

Curriculum

The Academy for Global Citizenship (AGC), a Chicago Public Charter School and Prairie Crossing Charter School (PCCS) serving the Fremont (District 79) and Woodland (District 50) school districts are clear examples for curriculum integration. At AGC the students participate in studies on natural resources, pollution, climate change and alternative energy. Some curriculum is tied to hands on participation in composting and the school’s garden. AGC has also developed a Sustainability Handbook located on their website to encourage and inspire other schools to implement operational and academic environmental initiatives.

At PCCS students from kindergarten through seventh grade participate in a minimum of two Service Learning Projects per year. These projects are focused on social and environmental issues and require students to understand and work with governmental and societal systems to make change to their communities. Each

class also has its own theme garden. For example this year, the second grade has a pizza garden, focusing on growing pizza toppings.

All eighth grade students at PCCS, in order to graduate, must complete a year-long environmental project. One of this year’s projects is a Zero Waste Audit. As part of the project, an application will be submitted to DCEO for a Zero Waste School Grant.

Sustainable Sites and Operations

After receiving grants from DCEO, the Oak Park/River Forest Community Foundation and the Lumpkin Foundation, Holmes Elementary School District 97 worked with its Parent Teacher Organization (PTO) and a local non-profit to implement a number of initiatives aimed at moving the school towards a zero waste status. Initiatives include increased recycling, the elimination of specific waste sources, food scrap composting, and the use of re-useable trays and silverware in the lunchroom. Students selected as Waste Ambassadors help educate other students, parents and visitors about the school’s zero-waste efforts. They also help with the composting, recycling and maintenance of the worm bins used in composting food waste.

Building upon the Holmes Pilot project, six other District 97 schools secured grants through the DCEO Zero Waste Schools Grant Program to fund hard costs associated with becoming zero waste schools.

CPS’s Drummond Montessori Magnet School has also incorporated several green operational and site initiatives ranging from student-led recycling to and organic gardening program to replacing its on-site asphalt parking with grass fields and landscaping.

Geothermal and Renewable Energy

Many school districts are feeling the crunch of energy costs. PORTA CUSD 202 was no different. PORTA is leading the way in renewable energy for Illinois schools with three green energy projects: wind, solar and geothermal. The projects included the installation of a geothermal heat pump system to replace the aging HVAC system and renewable energy generation included both a 1 kW photovoltaic array and a 600 kW wind turbine. The turbine alone is projected to produce enough power to meet half of the schools’ electricity needs. Any surplus generation will feed to the grid and the school will receive credits. The school plans to develop curriculum related to the wind turbine that will teach students about renewable energy.

New Berlin CUSD #16 installed a 312 well geothermal system at their new elementary school; the school’s entire domestic hot water consumption is served by this system.

McLean County UD #5 has multiple schools with geothermal systems and plans to continue converting existing schools with traditional HVAC systems and construct new schools with geothermal heating and cooling.

C. Update on LEED for Existing Buildings Pilot at Three Illinois Schools

During 2009, USGBC – Illinois selected three diverse Illinois public schools (Lakewood in Carpentersville; Prairie in Urbana; Prescott in Chicago) to participate in a turn-key program for their school to achieve LEED EB:O&M. USGBC – Illinois is working with local and regional funding entities, related not-for-profits, national USGBC member companies, and Chapter members to provide comprehensive resources and consultation for each school to achieve certification. Schools were selected through a request for proposal (RFP) process with final selection based in part on a the variety of criteria including schools with a high number of students/

State of Sustainability in Illinois Schools *continued*

families at or below the poverty line and/or number of students from underrepresented groups. A portion of the initial year of the project was supported by the Boeing Company Charitable Trust.

The long-term goal of the program is to provide three unique case studies on the certification process to provide a better understanding of the issues facing schools as they pursue LEED EB:O&M certification and to understand the true cost in achieving certification. The project focuses on the unique attributes of each school and will identify the most impactful and cost effective means for achieving certification. Results are anticipated to help inform other schools considering pursuing, LEED EB:O&M certification.

This project is locally and regionally noteworthy given that sustainable renovation of existing schools, many of which are historically significant and located in close proximity to city centers or high density residential areas, is a more sustainable and economically feasible option than constructing entirely new green schools. This is coupled with the fact that there are more existing schools with the potential of green retrofits than newly planned schools ripe for greening. This pilot will serve to inform key decision-makers from local and regional schools, governments, and the building and design communities as to the steps necessary for undertaking green school retrofits on a larger scale.

To date, USGBC – Illinois is currently working with the three schools to implement the program. The original project timeline was to be completed during the 2010-11 school year, has been extended through winter 2011 to allow for additional time for schools to implement the program. Two of the three schools (Prairie; Prescott) currently do not meet the ENERGY STAR® minimum energy performance score required as a prerequisite for LEED® certification. USGBC-Illinois is currently working with these schools on identifying methods for addressing energy performance. In addition, one school (Prairie) is planned to have major reconstruction in the next 12 to 18 months. Given this, USGBC-Illinois and Prairie have decided that the timing is not right for the perusing LEED EB:O&M certification, but rather the USGBC-Illinois will work with Prairie on initiating a variety of sustainable strategies, including energy management, without pursuing certification. USGBC-Illinois plans on working with the other two schools to achieve certification.

A major issue with all three schools in completing the project, and the project’s most significant finding to date, is that all three schools lack significant capacity to implement the policy, tracking, or retrofits required to successfully achieve LEED for Existing Buildings certification. In feedback from all three schools, additional hands-on assistance from the Chapter has been requested to help school teams develop sustainable policies, track resource utilization, and complete LEED check lists. USGBC-Illinois is currently seeking additional assistance from its members to help the participating schools and envisions being able to reengage each school with a higher level of support beginning in early 2011. USGBC-Illinois is also seeking additional grant support to assist with completing the project by year’s end. This finding is telling and is a reality beyond these three schools. If sustainability is to be adopted in a wider sense by Illinois schools, they require additional resources to assist them in developing, implementing, and tracking sustainability programs. This issue is addressed further in the Recommendations section of this report.

D. Programs that Support Sustainability

A variety of agencies and organizations provide programming that supports public schools in greening existing facilities. For more detail on the following programs and links to programs’ websites, please refer to Appendix 3 of this report.

Illinois State Government

- The Offices of Illinois Governor Pat Quinn and Illinois Lt. Governor Sheila Simon run the Illinois Sustainable Schools Compact program, host an annual Illinois Sustainable Schools Symposium, and provide information and advice on complying with the Illinois Green Cleaning Schools Act. Through the Illinois Green Governments Coordinating Council, the Governor’s and Lt. Governor’s Offices provide referrals to individual contacts for sustainability programs and assistance within Illinois state agencies For more information on the Sustainable Schools Symposiums visit www.green.illinois.gov.
- The Illinois Department of Commerce and Economic Opportunity (DCEO), through the Illinois Energy Office and the Division of Recycling and Waste Reduction, provides advice on energy efficiency, renewable energy, recycling, composting, and other sustainability initiatives. DCEO recycling and waste reduction programs are detailed at www.illinoisrecycles.com
- The Smart Energy Design Assistance Center (SEDAC) at the University of Illinois at Urbana-Champaign (UIUC) provides free advice, audits, and design services for energy efficiency upgrades. More information on SEDAC is available at www.sedac.org.
- The Illinois Environmental Protection Agency (IEPA) offers educational materials and advising on issues including air and water quality, earth stewardship, environmental health, waste reduction and composting, and climate change. Details on the IEPA’s educational programs are available online at <http://www.epa.state.il.us/education.html>
- The Illinois Department of Natural Resources (IDNR) offers events, training, and resources on outdoor education and recreation, open space conservation, and biodiversity. IDNR is also leading the development of an updated Environmental Literacy for Illinois strategic plan, laying out a systemic approach to environmental education in Illinois. Details on the IDNR’s educational programs are available online at <http://dnr.state.il.us/education>.

Not-For-Profits

- The Healthy Schools Campaign (HSC) provides educational resources and training on topics including school food and fitness, environmental health including indoor air quality (IAQ), and school nurse leadership. More information is available online at www.healthschoolscampaign.org.
- The Illinois Council of the American Institute of Architects (AIA) provides resources to its nearly 4,000 members, policymakers and the public on a wide range of design issues. Nearly every school district in Illinois has an ongoing relationship with an architecture firm through health life safety surveys, maintenance projects, grant programs or capital improvements. AIA Illinois advocates for laws and policies to help everyone involved have a successful building project from concept to completion and operation. More information is available online at www.aiaill.org.
- The U.S. Green Building Council – Illinois Chapter provides a variety of resources to assist Illinois schools in sustainability. The Chapter has an active Green Schools Committee which meets regularly and conducts regional education sessions and tours of green schools, collaborates with other related organizations on green school policies, and advocates for green school initiatives at the local and state level. More information is available online at www.usgbc-illinois.org.
- The U.S. Green Building Council’s Center for Green Schools is helping to engage educators in creating sustainable learning environments for their students and apply solid research to inform leadership—

State of Sustainability in Illinois Schools *continued*

from school boards to college presidents—about the benefits of healthy, high-performing schools. The Center for Green Schools works with state and local governments to draft smart, practical policies, and provide trainings and helpful resources to those who need it most—K-12 schools serving lower-income families, under-resourced institutions and community colleges. The Center for Green Schools serves to convene conversations with key decision makers, collaborate with leading education and environmental associations and create tools and resources that help make green schools possible. More information is available online at www.usgbc.org; www.centerforgreenschools.org.

- Illinois Association of School Business Officials – IASBO offers a variety of professional development opportunities for professional school business officials, including training for building engineering staff on efficient building operations. More information is available online at www.iasbo.org.

Federal Government

- The U.S. Environmental Protection Agency (USEPA) provides numerous free programs in which schools can participate, including ENERGY STAR benchmarking with Portfolio Manager, the Green Power Partnership, Indoor Air Quality (IAQ) Tools for Schools, Clean School Bus USA, and many others.

E. Funding Sources that Support Sustainability

An estimated \$10 billion is needed for capital improvements for public schools in the State of Illinois, according to the 2011 Capital Needs Assessment Survey results. School districts and public schools currently have a variety of potential sources for funding building improvements and enhancements. In general, these improvements typically focus on measures that improve health/life and safety of schools, measures that enhance energy efficiency or critical infrastructure and facility improvement.

The following section provides an overview of existing funding mechanisms and incentives offered by various agencies and organizations, both in Illinois and nationwide. A more detailed list and links to websites are provided in Appendix 4 of this report.

Illinois State Government

- The ISBE administers the State’s school construction funding program in conjunction with the CDB (below). ISBE also administers grant funding for school maintenance and energy efficiency projects.
- The CDB is the construction management arm of Illinois’ state government. CDB oversees the design and construction of new elementary and high schools, among other types of public facilities.
- The IFA is a self-financed state authority that issues taxable and tax-exempt bonds, makes loans, and invests capital for businesses, non-profit corporations, and local government units – including school districts – statewide. IFA has the authority to issue bonds on behalf of Illinois school districts for energy efficiency projects.

Local Government

- **Health/Life and Safety Funding** – Health/life safety funds may be obtained through the issuance of Fire Prevention and Safety Bonds. These can be used to alter and repair existing school buildings and provide equipment for fire prevention and safety purposes, energy conservation and school security.
- **County Sales Tax** – the Illinois General Assembly passed the Illinois County Facility tax Act in 2007. The intent of the law is to provide a source of funding for public schools as well as an alternative source of funding to traditional property tax revenues. The tax has been passed in nine counties for 45 school districts.

Foundations and Grant-making

- **Illinois Clean Energy Community Foundation (ICECF)** – The Foundation exists to improve energy efficiency, advance the development of renewable energy resources and protect natural areas for people in communities all across Illinois. Over the past decade, the Foundation has steadily grown its support of clean energy investments in Illinois through a widening array of programs. Since its first sets of grants in 2001, the Foundation has awarded over 3100 grants, totaling \$168 million, to Illinois nonprofit organizations, schools, municipalities and other local and state government agencies. The grants support activities in every one of Illinois’ 102 counties. The Foundation makes grants in three main areas: energy efficiency, renewable energy, and natural areas preservation. More information is available online at www.illinoiscleanenergy.org.
- **Donors Forum** (coordinated resources on foundation and grants) – The Donors Forum is a comprehensive resource on philanthropy and nonprofits serving the entire state of Illinois. The Donors Forum provides a variety of tools and education resources including a unique database, Illinois Funding Source, on grantors in Illinois and grants received by nonprofits in Illinois. More information is available online at www.donorsforum.org.

Not-For-Profits

- **USGBC** – Through its Center for Green Schools, at times, makes direct funding available for school/district-based initiatives involving sustainability. At the time of the publication of this report (Q1 2011), USGBC’s newly launched Center for Green Schools has direct funding available to districts across the country related to the Green Schools Fellows Program identified as one of the programmatic recommendations of this report. USGBC is committed to deploying Green Schools Fellows across the country this year and currently has an RFP process open for schools through February. The Center for Green Schools’ web site is the best source for current funding and green schools resources. Information is available online at www.centerforgreenschools.org; www.usgbc.org.

Federal Government

- **U.S. EPA Environmental Education Grants** – these grants are sponsored by the Office of Environmental Education (OEE) to support environmental education projects that enhance the public’s awareness, knowledge and skills to make informed decisions with a positive impact to the environment.
- **Community Action for a Renewed Environment (CARE)** grant program. The CARE program offers innovative ways for a community to organize and improve the local environment
- Through the **American Recovery and Reinvestment Act of 2009 (ARRA)**, Illinois received approximately \$101 million in State Energy Program (SEP) funding and \$112 million in Energy Efficiency and Conservation Block Grant (EECBG) funding, both from the U.S. Department of Energy. School districts were eligible to receive these funds for projects including electricity and natural gas efficiency retrofits, renewable energy installations, and fleet efficiency improvements. Although not all ARRA energy funds have been expended yet, they were 100% allocated in 2010. Programs are not anticipated to solicit new projects in 2011.

An estimated \$10 billion is needed for capital improvements for public schools in the State of Illinois.

State of Sustainability in Illinois Schools *continued*

F. Environmental Literacy

If we are to make a lasting difference regarding sustainability, it is vital to engage actively the next generation of learners in the knowledge and skills necessary to be environmentally literate citizens. Environmental education is a learning process that increases people’s knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action (UNESCO, Tbilisi Declaration, 1978). The IDNR, in collaboration with the Illinois Governor’s Office, ISBE, Illinois Department of Agriculture, DCEO, IEPA, several federal entities, and non-governmental organizations recently released the updated Environmental Literacy for Illinois 2010 Strategic Plan, an analysis of the exiting state of environmental literacy in Illinois and a comprehensive series of recommendations for improving environmental literacy throughout the state. The Environmental Literacy for Illinois strategic plan is a systemic five-year plan, designed to incorporate fully environmental education into Illinois learning opportunities. The plan prioritizes those needs and outlines strategies to provide the necessary direction for the establishing of environmental literacy as an integral part of lifelong learning. Major objectives of the plan include:

- Provide a mechanism for implementing environmental education programs and utilizing the resources of Illinois’ communities;
- Assist citizen access to local, state and federal environmental information and data resources;
- Design implementation options for modeling and adapting effective programs;
- Develop a mechanism for including business, industry, civic groups, etc. in partnership opportunities, including career awareness;
- Provide avenues for environmental learning for providers from throughout the learning continuum, including pre-service, in-service and non-formal education, as well as scientific expertise;
- Correlate with emerging and existing national, state and
- Continue internal evaluation and external review.

A full copy of the plan is attached to this report as Attachment 8.

Recommendations for Increasing Sustainability in Illinois Schools

Based on the findings above, the Task Force makes the following recommendations for increasing sustainability in Illinois schools. These recommendations fall into three major categories: Programs and Coordination, Funding, and Data.

A. Programs and Coordination

Create a program to provide schools with access to sustainability resource professionals at no cost.

In order to more fully integrate sustainable operating, curricular, and other practices, schools need additional support in developing sustainability goals, training staff on efficient strategies, and championing environmental objectives to administrators, staff, teachers, students, parents, and the community. In addition, while numerous programs currently exist to help schools defray the costs of implementing sustainability programs, obtaining available funds requires a significant investment of staff resources. Schools must dedicate staff time to preparatory activities such as researching funding opportunities and eligibility requirements, writing and submitting applications, gathering necessary data, and conducting preliminary assessments or audits. Most schools lack staff with sufficient extra capacity and/or expertise to perform the above activities; therefore, they are unable to integrate sustainable strategies or access available funding to do so. Lack of staff capacity was also noted by many schools on the 2010 Sustainable Schools Survey conducted as a part of this report and by the three schools participating in the USGBC-Illinois LEED EB:O&M pilot.

To address this lack of staff capacity to implement programs or secure funding related to sustainability initiatives, the Task Force recommends creating and maintaining a pool of Green Schools Fellows. Fellows would be individuals with a basic knowledge of available resources and a strong interest in sustainability, who can float among – and work side-by-side with – multiple schools and/or districts to perform the necessary research, paperwork, and legwork to establish sustainability programs. Specific tasks may include developing sustainability plans, creating school-wide green teams, instituting sustainability programs and curricula, staff training, and applying for project funding.

The Green Schools Fellows program could be piloted and then rolled out at a broader scale, with a structure based on one of several models:

- The ISBE/ Regional Office of Education (ROE) Technology Hub program from the 1990s, where a sustainability advisor is available to consult with schools within a ROE’s territory. ISBE, in collaboration with the Task Force, could seek external funding to pilot this concept in a few ROEs.
- USGBC Green Schools Fellowship Program, which will begin placing full-time sustainability officers in school districts across the country in 2011. More information is available at <http://centerforgreenschools.org/main-nav/k-12/community/fellowship.aspx>.
- Green Schools Fellows based at the University of Illinois (UIUC) Smart Energy Design Assistance Center (SEDAC), which already provides free energy efficiency advisory and auditing services to schools. Under an expanded program, Fellows would be dedicated to working with schools and would focus on a broader spectrum of sustainability initiatives than just energy efficiency. More information on SEDAC at www.sedac.org.

Recommendations for Increasing Sustainability in Illinois Schools *continued*

Create a “one-stop shop” for schools to access information and services related to sustainability improvements.

Establishing a single resource center and point-of-contact for sustainability programs would greatly assist Illinois schools in accessing the technical and financial resources that they need to go green. While a broad array of relevant services, education, training programs, and funding opportunities currently exists, no single organization or agency provides an umbrella service – or serves in a bundling role – to connect schools to the appropriate providers. Such a one-stop shop would be able to assess schools’ needs and then link them to potential funding sources and other resources at the local, state, and federal levels; non-profit organizations; higher education institutions; foundations; and corporations.

A bundled school support service could be structured based on one of these models:

- As discussed in the previous recommendation, SEDAC at UIUC already provides free energy efficiency advisory and auditing services to schools, and could potentially (with additional funding) expand its scope to serve as a more comprehensive one-stop shop. SEDAC staff has in-depth knowledge of financial incentives available to schools for energy efficiency upgrades. SEDAC also has professional engineers that can provide technical advising and perform energy audits. A key step in creating a one-stop shop at SEDAC would be to establish a position dedicated to green schools and to market SEDAC’s green schools program to schools, districts, and ROEs.
- The State of Kentucky established a center for linking schools to energy efficiency services and funding: the Kentucky Energy Efficiency Program for Schools (KEEPS) uses a systematic approach to help Kentucky school districts reduce energy consumption and lower operating expenses. It is administered by the Kentucky Pollution Prevention Center (KPPC) at the University of Louisville J.B. Speed School of Engineering. More information available at: <http://louisville.edu/kppc/keeps>.

The program also partners with the Kentucky Green and Healthy Schools (KGHS) program, a joint project of the Kentucky Environmental Education Council and the Kentucky Department of Education. More information available at <http://www.greenschools.ky.gov>.

Web-based directories can be valuable tools for displaying aggregated information, and should be publicized more widely (see recommendation below); however, schools need more interactive channels – i.e., in-person or over-the-phone advising – to address their specific questions and individual needs.

Further enhance and publicize existing directories of support services and funding opportunities for schools pursuing green practices.

Several comprehensive websites currently do a good job of categorizing resources related to sustainability in Illinois schools. These web sites need further publication and regular content updates to be more comprehensive resources.

Existing directories include:

- **Illinois Green Governments Coordinating Council –**
Directory of resources for schools:
<http://www2.illinois.gov/green/Pages/GreenSchoolsFAQs.aspx>
Directory of funding opportunities:
<http://www2.illinois.gov/green/Pages/FundingOpportunities.aspx>

Directory of Green School Funding Opportunities:

<http://www2.illinois.gov/green/Pages/GreenSchoolsFAQs.aspx>

Directory of technical assistance providers:

<http://www2.illinois.gov/green/Pages/TechnicalAssistance.aspx>

- **Illinois State Board of Education –**

Directory of funding opportunities:

http://www.isbe.net/funding_opps/default.htm

- **Healthy Schools Campaign –**

Illinois Resource Guide for Healthy High Performing School Buildings:

<http://www.healthyschoolscampaign.org/publications/hhpsg>

Support the Environmental Literacy for Illinois 2010 strategic plan.

The Environmental Literacy for Illinois 2010 Strategic Plan is a comprehensive strategy for increasing environmental literacy in Illinois students and teachers. Lead by the IDNR, in collaboration with the Illinois Governor’s Office, ISBE, Illinois Department of Agriculture, DCEO, IEPA, several federal agencies, and non-governmental organizations, the plan identifies key strategies for standards-based classroom instruction, non-formal learning, pre-service teacher training, in-service training, funding, and resources necessary for ensuring that Illinois’ next generations of citizen are well prepared to live in a sustainable society. The plan is currently in front of the Governor and Directors of the above agencies for review and adoption. The plan’s acceptance and adoption by these groups as well as support for the plan and its goals by individual school districts, colleges and universities, Illinois businesses, and non-governmental organizations is recommended.

Encourage training of building engineers and operations staff related to sustainable operations.

National and local studies show that a building’s performance and sustainability are largely driven by its operations; how systems are controlled and how tenants utilize resources. Several organizations across Illinois offer training to assist school engineers and operations staff related to building operations and sustainability (e.g. Illinois Association of School Business Officials; Midwest Energy Efficiency Alliance; Illinois affiliates of the Building and Owners and Managers Association, USGBC – Illinois, many community colleges). It is recommended that school districts be supported in seeking relevant training for their staff to improve operational efficiency and sustainable measures.

B. Funding

While the State of Illinois has extensive funding mechanisms available for the construction of new green education facilities, additional financial resources are necessary to address existing buildings. An estimated \$9.9 billion is needed for capital improvements for public schools in the State of Illinois according to the 2011 Capital Needs Assessment Survey results. School Districts and public schools currently have a variety of potential sources for funding building improvements and enhancements. However, the effectiveness of these programs is largely reliant on available funding. These mechanisms focus on measures that improve health/life and safety of schools, and measures that enhance energy efficiency or critical infrastructure and facility improvement. As a result the programs benefitting existing buildings are limited when compared with the incentives available for new construction. Accordingly, the following recommendations are made to further assist existing schools.

Recommendations for Increasing Sustainability in Illinois Schools *continued*

Fully authorize capital funding grants for schools.

The State of Illinois General Assembly appropriated funding for School Construction, Energy Efficiency Maintenance Grants and Early Childhood Capital Grants. Additional bond authorization is necessary in fulfilling the appropriations. The General Assembly passed additional authorization in January 2011 to continue these grant programs. Additional authorization will be necessary to obligate the remaining appropriations passed in the FY2010 Capital Bill.

Make matching funds available for state grants

The state grant programs for schools require a match ranging from 25% to 65% for School Construction; 50% for Energy Efficiency Grants and Maintenance Grants; and 10% for early childhood capital grants. School districts in the most impoverished areas of the state are challenged to meet the matching requirements. The DCEO EEPS grant program provides a match for electrical energy efficiency projects that meet program criteria. A statutory change for the most impoverished districts would assist in providing access to state capital grant programs for all areas of the state. Additionally, private foundations in Illinois are recommended to provide this match to schools that may require support to meet the match but that are not included in the statutory changes referenced above.

Provide funds for sustainability consulting.

While state funds and private foundations prioritize capital energy efficient retrofits in existing schools, priority needs to be also given to helping schools fund the softer costs of greening existing buildings including outside services to help design and implement green policies, procedures, and funding plans. A program akin to the ICECF's design and commissioning LEED certification grant program for new schools needs to be created for a similar range of services required by schools seeking LEED-EB+OM certification or other similar sustainability endeavors for existing school buildings. Private foundations are encouraged to consider this type of support for Illinois schools.

Enhance the Illinois Finance Authority's (IFA) energy efficiency bond program to enables schools to implement retrofit projects.

The IFA's energy efficiency bond program (described in detail in the "Existing Funding" section) could be made much more beneficial to school districts with the addition of two program-related funds:

- A debt service reserve to secure the bonds in the event that a borrower defaults.
- A revolving loan fund that provides bridge loans to school districts to cover the upfront costs of designing an energy efficiency retrofit project.

The Task Force recommends that the General Assembly create and newly appropriate both of these funds at the IFA for the purposes of enhancing the existing energy efficiency bond program. The debt service reserve would eliminate the need for an additional insurance policy to guarantee the savings from an energy efficiency retrofit project, which would reduce both the interest rate and fees incurred by school districts. The revolving loan fund would enable school districts to plan and design retrofits projects, addressing the initial funding gap – a major barrier – that currently precludes districts from undertaking energy efficiency upgrades. Repayment of the bridge loan could be rolled into the financing package for the retrofit project itself, which would ensure a funding stream from the energy savings.

C. Data

More comprehensive data needs to be collected on existing and new efforts by schools related to a broad range of sustainability factors. As described above, the Task Force implemented a survey of Illinois public schools related to their existing efforts in sustainability. Over 250 schools completed the survey. The following recommendations are made to increase the amount of data that is regularly collected on school sustainability in Illinois.

Implement a statewide sustainable survey on a regular basis.

It is recommended that a survey similar to the one implemented for this report be administered regularly to track ongoing sustainability initiatives of Illinois schools. It is also recommended that survey data is made accessible via an online database. This will provide a tool both for state decision-makers and local school officials.

Create a report card on school sustainability.

Additionally, it is recommended that a report card of school sustainability be created on a regular basis to assess trends in Illinois and gauge performance impacts. The report card would be based on the survey tool referenced above.

Establish benchmarks or standards for existing school sustainability measures.

Standardization is important in implementing and gauging the impact of sustainability initiatives. It is recommended that one or more standards for measuring sustainability measures be implemented. These could include: ENERGY STAR, LEED EB:O&M for Schools, CHPs Sustainable Schools report, Illinois Sustainable Schools Compact, or others.

Create a recognition program for schools that achieve measurable results in their sustainability efforts.

The need for recognizing school achievement related to sustainability was also noted by the Task Force. One approach would be to use the Illinois Sustainable Schools Compact, the survey results, or benchmarking program(s) addressed above as a basis to recognize schools that have achieved measurable results.

Conclusion

With a firm foundation of schools already implementing some level of sustainable practice, the State of Illinois now needs to support and expand the ability of our schools to use resources efficiently and eliminate negative environmental impact (both inside and outside the school) as these schools pursue their mission of educating our state's next generation of leaders. Any and all schools will benefit from the recommendations of this report once adopted. We encourage the Illinois General Assembly, school districts, state agencies, external funding entities, and other stakeholders to consider these recommendations in order to achieve sustainability, improve efficiency, and advance student achievement in Illinois' schools.

Appendix 1. House Joint Resolution 45 (HJR 45)

WHEREAS, The Chicago Chapter of the United States Green Building Council (USGBC), in cooperation with civic and corporate partners, has announced a project to help 3 Illinois public schools (one in Chicago, one in the suburbs, and one downstate) achieve certification under the USGBC's Leadership in Energy and Environmental Design (LEED) standard for existing buildings; and

WHEREAS, The LEED building rating system provides standards for environmentally sustainable construction; and

WHEREAS, Thousands of buildings throughout the United States and other countries have become LEED certified; and

WHEREAS, This project will cover all of the additional costs of achieving LEED certification and will provide resources to project schools to allow them to determine how to shift costs from materials and services that negatively impact the environment toward those that improve the environment; and

WHEREAS, This project provides a model for a statewide campaign to transform every existing Illinois public school into a green school so that within a generation every child in Illinois can attend a green school; therefore, be it

RESOLVED, BY THE HOUSE OF REPRESENTATIVES OF THE NINETY-SIXTH GENERAL ASSEMBLY OF THE STATE OF ILLINOIS, THE SENATE CONCURRING HEREIN, that a Task Force shall be created to investigate how to retrofit 3 public schools in the State of Illinois to achieve LEED certification; and be it further

RESOLVED, That the Task Force shall be composed of one individual appointed by the Chair of the Chicago Chapter of the USGBC, who shall serve as the Chair of the Task Force; one individual appointed by the Director of Commerce and Economic Opportunity; one individual appointed by the Executive Director of the Capital Development Board; one individual, appointed by the Governor, from the Illinois Green Government Coordinating Council; one individual appointed by the State Superintendent of Education; one individual appointed by the Speaker of the Illinois House of Representatives; one individual appointed by the Minority Leader of the Illinois House of Representatives; one individual appointed by the President of the Illinois Senate; and one individual appointed by the Minority Leader of the Illinois Senate; and be it further

RESOLVED, That the Task Force shall develop the infrastructure for a statewide program coincident to the USGBC's project; and be it further

RESOLVED, That the Task Force shall, in a written report that is to be delivered to the General Assembly on or before November 1, 2010, make findings and recommendations concerning the creation and financing of a system to ensure that existing public schools are retrofitted and new public schools are constructed in a manner that promotes energy efficiency and sustainability; and be it further

RESOLVED, That the Capital Development Board shall provide administrative and other support to the Task Force; and be it further

RESOLVED, That the members of the Task Force shall be reimbursed for their travel expenses from appropriations to the Capital Development Board available for that purpose and subject to the rules of the appropriate travel control board; and be it further

RESOLVED, That suitable copies of this resolution shall be delivered to the Chairperson of the Chicago Chapter of the USGBC, the Executive Director of the Capital Development Board, the Director of Commerce and Economic Opportunity, and the State Superintendent of Education.

Appendix 2. HJR 45 LEED Task Force Members/Acknowledgements

Special thanks to the HJR 45 Task Force Members. Without the dedication and leadership of the individuals below the Task Force's work and this report would not be possible.

Task Force Appointed Members

- **Representative Karen May**, Illinois House of Representatives, 58h District, individual appointed by the Speaker of the Illinois House of Representatives
- **Representative Robert Pritchard**, Illinois House of Representatives, 70th District, individual appointed by the Minority Leader of the Illinois House of Representatives
- **Christopher Dillion**, Campbell Coyle Holdings, LLC, individual appointed by the President of the Illinois Senate
- **Daniel Bulley**, Mechanical Contractors Association, individual appointed by the Minority Leader of the Illinois Senate
- **Karen Shoup**, Illinois State Board of Education, individual appointed by the State Superintendent of Education
- **Eric Heineman**, Office of Illinois Governor Pat Quinn, individual, appointed by the Governor, from the Illinois Green Government Coordinating Council
- **Lisa Mattingly**, Illinois Capital Development Board, individual appointed by the Executive Director of the Capital Development Board
- **Kate Tomford**, Illinois Department of Commerce and Economic Opportunity, individual appointed by the Director of Commerce and Economic Opportunity
- **Doug Widener**, U.S. Green Building Council – Illinois Chapter, individual appointed by the Chair of the U.S. Green Building Council - Illinois Chapter, who shall serve as the Chair of the Task Force

Task Force Additional Members

Mike Waldinger, AIA-Illinois

Mark Bishop, Healthy Schools Campaign

Stuart Brodsky, Cannon Design, Co-Chair USGBC-Illinois Green Schools Committee

Doc Kotecki, Energy Systems Group, Co-Chair USGBC-Illinois Green Schools Committee

Joseph Clair, Illinois Institute of Technology, former Board Chair, USGBC-Illinois

Ruth Harris, Adopt-A-School Program consultant, USGBC-Illinois

Seth Johnson, Intern, USGBC-Illinois

Appendix 2: HJR45 LEED Task Force Members/Acknowledgements *continued*

Acknowledgements

Thank you to the following organizations and individuals that generously offered support for the Task Force and its work:

- Illinois Association of School Business Officials
- American Institute of Architects -Illinois
- Healthy Schools Campaign
- U.S. Green Building Council, Center for Green Schools
- U.S. Green Building Council – Illinois Chapter
- Office of Illinois Governor Pat Quinn
- Illinois Department of Commerce and Economic Opportunity
- Illinois Capital Development Board
- Illinois State Board of Education
- Illinois Finance Authority
- Seth Johnson, Intern, USGBC-Illinois
- Christine Kolaz, Illinois State Board of Education

Appendix 3. Full Description of Program Resources

Illinois State Government

Offices of Illinois Governor Pat Quinn and Illinois Lt. Governor Sheila Simon

The Offices of Illinois Governor Pat Quinn and Illinois Lt. Governor Sheila Simon run the Illinois Sustainable Schools Compact program, host an annual Illinois Sustainable Schools Symposium, and provide information and advising on complying with the Illinois Green Cleaning Schools Act. Through the Illinois Green Governments Coordinating Council, the Governor’s and Lt. Governor’s Offices provide referrals to individual contacts for sustainability programs and assistance within Illinois state agencies

- Program details are available online at: www.green.illinois.gov.
- **Illinois Sustainable Schools Compact:**
The Illinois Sustainable Schools Compact features best practices in sustainability that K-12 schools can voluntarily pursue to help lead the way to a greener, cleaner future. To participate, principals or superintendents select practices that the school or district is now pursuing and aims to pursue.
- **Annual Illinois Sustainable Schools Symposium:**
The annual Sustainable Schools Symposium is an opportunity to exchange ideas with other symposium participants including school and district administrators, regional superintendents, school board members, facilities managers and custodial staff, teachers, school health practitioners, facility planners and architects, school-related non-profits and agencies, and high school student environmental leaders. Speakers and workshops cover topics such as sustainable school facility planning and siting, green facilities management, sustainable renovation and construction, energy efficiency and conservation, environmental education and service learning, water conservation, waste reduction, and sustainable school transportation.
- **Guidance on Compliance with the Green Cleaning Schools Act:**
The Green Cleaning Schools Act (Public Act 095-0084) became effective August 13, 2007, making Illinois the second state in the nation (after New York) to require the purchase and use of environmentally sensitive cleaning supplies in schools. The purpose of the Act is to protect students, teachers, staff, and other school building occupants by improving indoor air quality and reducing harmful exposure to chemicals in cleaning products. Guidance on complying with the Act is posted online at: <http://www2.illinois.gov/green/Pages/GreenCleaning.aspx>.
- **Illinois Green Governments Coordinating Council (GGCC):**
The GGCC consists of members from 15 state agencies and serves to improve the sustainability of Illinois government operations and policies. First formed by an executive order, the GGCC is now established under the Green Governments Illinois Act, enacted in October 2007. For additional details on the GGCC, visit: <http://www2.illinois.gov/green/Pages/GGCC.aspx>.

Illinois Department of Commerce and Economic Opportunity (DCEO)

DCEO works to raise Illinois’ profile as a global business destination and nexus of innovation. To provide a foundation for the economic prosperity of all Illinoisans, through the coordination of business recruitment and retention, infrastructure building and job training efforts, and administration of state and federal grant programs.

Appendix 3: Full Description of Program Resources *continued*

- Illinois Energy Office:
 - Illinois Energy Office programs are detailed at www.illinoisenergy.org.
 - Large-customer Energy Analysis Program (LEAP):
DCEO administers the Large-customer Energy Analysis Program (LEAP) to reduce the cost of doing business in Illinois by reducing energy costs for large energy users (with annual energy expenditures of \$500,000 or more), such as manufacturers, hospitals, large commercial buildings, universities, and local governments.
 - Energy Performance Contracting Program:
Energy Performance Contracting is an innovative arrangement for designing, installing and financing energy improvement projects where the savings achieved by the project are guaranteed to amortize the cost of the project over the term of the agreement. DCEO offers free guidance and assistance in designing and establishing performance contracts, including boilerplate contract documents.
- Division of Recycling and Waste Reduction:
DCEO recycling and waste reduction programs are detailed at www.illinoisrecycles.com.

Smart Energy Design Assistance Center (SEDAC) at the University of Illinois at Urbana Champaign (UIUC)

SEDAC at UIUC provides free advising, auditing, and design services for energy efficiency upgrades.

- Details on SEDAC's programs are available online at: www.sedac.org.
- SEDAC is sponsored by DCEO in partnership with ComEd and Ameren Illinois Utilities and provides valuable services at no cost to for-profit businesses and public facilities. SEDAC is managed by the School of Architecture at UIUC and the 360 Energy Group.
- SEDAC currently provides a variety of services to the public sector, including public schools in the State of Illinois. Those services include technical services to public entities to identify opportunities to save energy and money by reducing overhead as listed above. SEDAC also actively compiles a network of Energy Service Providers and Design Assistance Experts to assist SEDAC with program implementation, resource efficiencies in building design, materials selection and construction practices as they relate to energy. SEDAC also provides assistance to public entities to adopt sustainable energy practices and reduce emissions.
- SEDAC also provides education and training and serves as a source of job creation and information dissemination. SEDAC hosts free electric efficiency workshops for public sector officials in K-12 schools, community colleges, public universities, and local, state and federal government. The programs specifically address incentives available from DCEO and energy cost reduction measures.
- SEDAC provides advice and analyses enabling private and public facilities in the State of Illinois to increase their economic viability through the efficient use of energy resources. SEDAC provides four levels of free technical services to Illinois entities that are planning energy improvements:
 - Quick Advice:
Initial consultation to inform individuals and organizations about the Smart Energy Design Assistance Program opportunity, answer energy efficiency technical questions, and assess the need for additional program services.

- Site Visit and Energy Consult:
Energy audits for an existing facility may include rehab plan review and/or site visit. SEDAC provides a list of energy cost reduction measures (ECRMs) that the facility should enter for consideration. SEDAC and the participant can determine the need for further program services. Priority is given to applicants who have firm plans for new construction or rehab and are serious about implementing SEDAC's energy recommendations.
- Design Assistance:
SEDAC provides more in-depth analysis and life cycle cost analysis to identify specific energy cost reduction measures (ECRMs) and potential savings. Major energy-consuming building components including building envelope, lighting, heating, cooling, and ventilating Systems will be examined. An evaluation will be conducted of project plans to identify specific opportunities for utilizing energy efficient technologies and building design techniques including geoexchange (geothermal heat pumps), where applicable. Assessment will include results and analyses utilizing an energy simulation model. A cost-benefit analysis for upgrades will be performed in order to rank the ECRMs identified.
- Implementation Assistance:
Includes all follow-up activities by SEDAC for the program participants. The goal is to ensure that each SEDAC participant will receive support toward implementing the identified energy cost reduction measures. Support may include help finding alternative financing assistance, bid process support, and field support.

Illinois Environmental Protection Agency (IEPA)

IEPA offers educational materials and advising on issues including air and water quality, earth stewardship, environmental health, waste reduction and composting, and climate change.

- Details on the IEPA's educational programs are available online at: <http://www.epa.state.il.us/education.html>.

Illinois Department of Natural Resources (IDNR)

IDNR offers events, training, and resources on outdoor education and recreation, open space conservation, and biodiversity. IDNR is also leading the development of an updated Environmental Literacy for Illinois strategic plan, laying out a systemic approach to environmental education in Illinois.

- Details on the IDNR's educational programs are available online at: <http://dnr.state.il.us/education>.
- In 2010, IDNR engaged ISBE and IEPA to develop the Environmental Literacy for Illinois strategic plan, with input from over 30 organizations. The state agencies also posted drafts of the plan for public comment and received over 100 comments on its goals, objectives and strategies. In addition, Governor Pat Quinn signed Executive Order 10-7 on April 14, 2010, supporting the adoption of the Environmental Literacy for Illinois strategic plan. The Environmental Literacy for Illinois strategic plan implements a systemic approach to environmental education in Illinois. The integration of the essential environmental standards and benchmarks for Illinois' schools and classrooms is addressed through the Illinois Learning Standards Project. This project aligns standards in all learning areas from kindergarten through grade 12 to national standards projects and current research. Environmental Literacy for Illinois encompasses the needs identified for the meaningful implementation of many of the standards developed through the Illinois Learning Standards Project.

Appendix 3: Full Description of Program Resources *continued*

Not-For-Profits

Healthy Schools Campaign (HSC)

The HSC provides educational resources and training on topics including school food and fitness, environmental health (including IAQ), and school nurse leadership. Details on HSC’s programs are available online at: <http://www.healthyschoolscampaign.org/>

- **School Food and Fitness:**
Parents United for Healthy Schools trains parents to advocate and promote healthy eating and active life styles. HSC provides resources to charter schools to address wellness and cost effective food programs. Healthy Schools Farm to school programs collaborates with local farmers and distributors to incorporate locally grown produce into schools. HSC works with principals, teachers and students on eating healthy and improving physical activity.
- **Environmental Health:**
HSC promotes green cleaning in schools, improved indoor air quality, and promotes Healthy High Performing School Construction and the siting of schools for walkability along with sound policies to reduce climate change through energy efficient schools.
- **School Nurse Resources:**
Healthy Schools Campaign provides a Guide for School Wellness and promotes school nurse leadership training. These programs along with the green school cleaning are providing healthier environments for children.

Illinois Chapter of the American Institute of Architects (AIA-Illinois)

The Illinois Council of the AIA provides resources to its nearly 4,000 members, policymakers and the public on a wide range of design issues. Nearly every school district in Illinois has an ongoing relationship with an architecture firm through health life safety surveys, maintenance projects, grant programs or capital improvements. AIA Illinois advocates for laws and policies to help everyone involved have a successful building project from concept to completion and operation. www.aiaill.org.

U.S. Green Building Council - Illinois Chapter (USGBC-Illinois)

The U.S. Green Building Council – Illinois Chapter is Illinois’ only not for profit organization focused solely on green building and community design, construction, and operations. As Illinois’ green building advocate and education resource, USGBC-Illinois offers over 150 education programs, networking events, green building tours, research studies, and advocacy initiatives each year through its seven-branch, statewide network. The Chapter has a variety of committees that create programs and resources for a variety of audiences related to sustainable buildings and communities. The Chapter’s Green Schools Committee meets regularly and conducts regional education sessions and tours of green schools, collaborates with other related organizations on green school policies, and advocates for green school initiatives and the local and state level. www.usgbc-illinois.org.

U.S. Green Building Council’s Center for Green Schools

The U.S. Green Building Council (USGBC) is a 501(c)(3) nonprofit community of members, chapters, advocates and practitioners that give voice to our commitment to improve human health, support economies and protect the environment through green buildings.

USGBC’s Center for Green Schools provides guidance, programming and resources for all members of the education community. While each school’s path will be different, the core commitment of K-12 schools, colleges and universities to create green buildings transcends school type, size and location. High-performing schools result in high-performing students, and the Center for Green Schools works directly with staff, teachers, faculty, students, administrators, elected officials and communities to drive the transformation of all schools into sustainable places to live and learn, work and play. Green schools go far beyond bricks and mortar. USGBC sees an opportunity to educate a new generation of leaders, sustainability natives capable of driving global market transformation.

The case for green schools is simple. Twenty percent of Americans go to school every day. There are nearly 140,000 schools, colleges and universities in the United States, and no one has ever counted the number of buildings, thousands of which are barely built to code. Fresh and clean air improves health, daylight boosts concentration, comfortable temperatures increase focus and improved acoustics enable communication. And when we transform the physical environment of a learning institution, we have the ability to transform how students, teachers and communities engage in their world.

A green school also serves as an interactive teaching tool, imparting lessons of stewardship and kinship, preparing students for life beyond its walls. A green school uses less water and energy and saves schools approximately \$100,000 year because it is less expensive to operate. That is enough savings to fund two new teachers, purchase 200 computers or buy 5,000 textbooks. Given this compelling data, USGBC is dedicating significant resources toward the Center for Green School’s overall goal of all students attending a green school within this generation. Additional information is available at: www.usgbc.org; www.centerforgreenschools.org.

Federal Government

U.S. Environmental Protection Agency (USEPA)

- ENERGY STAR benchmarking with Portfolio Manager:
http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager
- Green Power Partnership
<http://www.epa.gov/greenpower/>
- Indoor Air Quality (IAQ) Tools for Schools:
<http://www.epa.gov/iaq/schools/>
- Clean School Bus USA:
<http://www.epa.gov/cleanschoolbus/>

Appendix 4. Full Description of Funding Resources

An estimated \$10 billion is needed for capital improvements for public schools in the State of Illinois, according to the 2011 Capital Needs assessment Survey results. School districts and public schools currently have a variety of potential sources for funding building improvements and enhancements. In general, these improvements typically focus on measures that improve health/life and safety of schools, measures that enhance energy efficiency or critical infrastructure and facility improvement.

The following list describes existing funding mechanisms and incentives offered by State of Illinois departments and programs, the federal government, and those offered by private entities in Illinois:

Illinois State Government

Illinois Department of Commerce and Economic Opportunity (DCEO)

- DCEO, Ameren Illinois and ComEd currently offer a portfolio of electric efficiency programs to achieve targeted annual energy savings goals. Several of the programs are actively utilized for the renovation of public facilities, including schools.
- Under the “Illinois Energy Now” program, DCEO provides electricity savings incentives for the public sector, in addition to training and education. An estimated \$41.6 million in grants will be available between June 1, 2010 and May 31, 2011. For the current program year, incentives for local government, public schools, and community colleges are capped at \$300,000 per building. Those programs offered by DCEO’s Energy Office include the following:
 - Standard and Custom Incentive Program (Equipment Replacements/Retrofits):
Provides grants and rebates to public sector entities for electric system efficiency improvements. The Standard Incentive Program provides set incentive levels for common retrofits for lighting, HVAC, variable frequency drive controls, motors and refrigeration. The Custom Incentive Program provides incentives for electric efficiency improvements not listed in the Standard Incentive Program. The funding is capped at \$300,000.
 - New Construction Program:
Provides grants to public sector entities to encourage applicants to design new or rehabbed buildings to achieve the greatest level of energy efficiency. The program offers financial incentives for facility design improvements beyond code, with incentive levels increasing for additional percentages beyond code. Estimated electricity savings must be documented by energy modeling and/or supporting calculations. This program is part of the Illinois Energy Efficiency Portfolio and is limited to ComEd and Ameren Illinois electric service territories. The New Construction Program provides up to \$300,000 in incentives for new buildings and additions in excess of 15,000 square feet.
 - Retro-Commissioning Program:
Provides funding to identify and implement low cost tune-ups and adjustments that improve the efficiency of existing public buildings’ operating systems by returning them to intended operation or design specifications, with a focus on building controls and HVAC systems. Retro-commissioning services will be delivered through a network of commissioning providers that have been trained in program protocols and participation processes. This program is part of the Illinois Energy Efficiency Portfolio and is limited to ComEd and Ameren Illinois electric service territories. The Retro-commissioning Program is managed by the Smart Energy Design Assistance Center (SEDAC).

- Building Industry Training and Education Program:
DCEO currently offers grants to fund projects that provide statewide, regional or sector-based capacity building through outreach, education, and application assistance to ComEd and/or Ameren Illinois public sector electric customers. These grantees, or Application Assistance Providers (APPs), may be contacted for possible assistance with completion and/or submission of required documentation associated with the Public Sector Electric Efficiency program.
- Illinois Sustainable Education Projects (ISTEP):
DCEO administers the Illinois Sustainable Education Project (ISTEP) to provide education and information about energy efficiency, renewable energy, recycling, composting, and vermi-composting. ISTEP will fund educational projects focused in these areas as key learning examples of resource conservation and environmental stewardship. In addition, ISTEP will fund educational projects that promote energy efficient, renewable energy, recycling, composting and vermi-composting technologies. The program will, in part, encourage implementation of cost-effective energy efficiency measures. Implementing such measures will also enhance economic development in the state of Illinois through job creation and business development.
- Program details and application materials are available online at www.illinoisenergy.org.
- DCEO’s Natural Gas Energy Efficiency Programs authorized by Public Act 96-0033 will start June 1, 2011. Analogous to the existing programs for electric efficiency, DCEO will administer incentives for the public sector, training, and education. The gas utilities – Integrys (Peoples Gas and North Shore Gas), Nicor, and Ameren – will administer incentives for the private, residential, and non-profit sectors in their respective territories.
- DCEO facilitates public sector projects with grant programs focused on recycling and renewable energy deployment:
 - Illinois Recycling Grants Program: This program provides technical assistance and grants to governmental entities, private businesses, and not-for-profit organizations. Through an annual competitive request for applications (RFA) process, funds are awarded to support projects that develop or expand recycling collection and processing efforts in Illinois. A priority goal of the program is to reduce the amount of recyclable commodities being disposed of in Illinois landfills. While most funding from this program has gone to support “traditional recycling” (fiber, plastic, metal, and glass), the program, from time-to-time, also issues special RFA’s to solicit applications designed to target specific non-traditional recyclables (e.g., electronic waste). This program is not currently accepting applications.
 - Food Scrap Composting Revitalization & Advancement (F-SCRAP) Program: This program is designed to support projects that will divert food scraps and other organic material, excluding yard waste, from Illinois landfills for composting, increasing the quantity of materials composted in Illinois. The Department anticipates that these projects will provide new jobs and other economic and environmental benefits to the State of Illinois as well as advance Illinois’ composting infrastructure. The Department encourages the submission of joint projects or applications that address regional or multi-jurisdictional composting approaches from any combination of two or more governmental, for-profit, or not-for-profit organizations. This program is not currently accepting applications.
 - The Recycling Expansion and Modernization (REM) Program: This program provides grants to divert

Appendix 4: Full Description of Funding Resources *continued*

materials from the municipal solid waste stream, thereby conserving natural resources, and improve the performance and “bottom line” of Illinois businesses and organizations (reduced operating costs, increased sales, etc.) while demonstrating public economic benefits.

- Illinois Zero Waste Schools Grant Program: A funding opportunity for K-12 Illinois schools to implement or expand recycling, waste reduction, and composting/vermicomposting programs.
- Program details and application materials are available online at www.illinoisrecycles.com.
- DCEO offers incentive programs for renewable energy.
 - Solar and Wind Energy Rebate Program: The focus of the Solar and Wind Energy Rebate Program, through the State’s Renewable Energy Resources Program, is to encourage utilization of smaller-scale solar and wind energy systems in Illinois. Eligibility applicants include public sector and non-profit entities that are customers of an electric or gas utility that impose the Renewable Energy Resources and Coal Technology Development Assistance Charge. The program offers incentives up to 50% for public sector and non-profit entities. The maximum rebate is \$50,000.
 - Biogas and Biomass to Energy Grant Program: The focus of the Biogas and Biomass to Energy Grant Program, through the State’s Renewable Energy Resources Program, is to encourage the use of biogas and biomass for on-site energy generation in Illinois. Projects designed to use biogas or biomass as a source of fuel to produce electricity with combined heat and power (CHP) through gasification, co-firing or anaerobic digestion technologies are being targeted. Applicants are eligible for incentives up to 50% of the total project cost. The maximum award for biogas or biomass to energy feasibility studies is \$2,500. The maximum grant amount for biogas to energy systems is \$225,000 and the maximum grant for biomass to energy systems is \$500,000.

Illinois State Board of Education (ISBE)

- ISBE in conjunction with CDB, oversees funding programs for school construction, maintenance, and energy efficiency.
- The FY10 Capital Bill included \$50 million in funding for matching Energy Efficiency Grants. The grants provide \$250,000 in matching funds to school districts, charter schools, vocational centers and public university lab schools for improvements, including insulation, windows, doors, energy controls, lighting, energy recovery, energy conservation, alternative energy systems and other projects designed to reduce energy consumption. Matching funds may be eligible through the DCEO Illinois Energy Now rebate program (under the Energy Efficiency Portfolio Standard).
- In addition, the Capital Bill included \$100 million in funding for matching Maintenance Grants. The grants provide \$50,000 in matching grants to school districts, coops, charter schools, vocational centers and public university lab schools for infrastructure and facility improvements.
- In the 1970s, the School Code was amended to authorize the sale of bonds for the purposes of Fire Prevention and Safety. This allows for the funding of reconstruction, construction of school buildings, asbestos abatement and accessibility improvements. All school buildings are required to be surveyed every ten years. The Illinois State Board of Education has implemented a web-based Health/Life Safety processing system to facilitate the surveys and improvements.

Illinois Capital Development Board (CDB)

- CDB is the construction management arm of Illinois’ state government. CDB oversees the design and construction of new elementary and high schools, college and university facilities, public safety centers, museums and historic sites, state recreation areas, health centers, office buildings and prisons.
- The FY10 Capital Bill included \$1.5 billion in matching school construction grant funding. To date, the 23 school districts from the FY02 list and 18 school districts from the FY03 priority ranking have funded \$567 million in state match. Since its inception, the school construction program has provided over \$3 billion in grant funds and benefited 502 school districts. ISBE, which runs the schools construction program in conjunction with CDB, has a backlog of over 300 applications from fiscal years FY03 through FY10. A 2010 needs assessment survey indicates an estimated \$9.9 billion will be needed over the next two years for new schools, building additions and general repair work. The majority of the School Construction Program will be funded through the sale of General Obligation Bonds by the State of Illinois. In addition, the FY10 Capital Bill provides for \$45 million in matching grant funds for capital improvements for pre-school programs. These grants are for school districts and non-for-profits.

Illinois Finance Authority (IFA)

- The IFA’s mission is statutorily defined to foster economic development to public and private institutions that create and retain jobs and improve the quality of life in Illinois by providing access to capital. The IFA’s role is to support the Governor of Illinois’ economic development agenda. The IFA is uniquely positioned to provide such support by providing required financing resources for businesses, municipalities and not-profit entities.
- As a state Authority, IFA does not set the State priorities. Rather, it supports and carries out State established priorities—being a tool of the State created to spur business maintenance and growth and support the State goals for the overall economic direction of Illinois. The IFA is a self-funded state authority that has financed 850 projects totaling \$18.8 billion since 2004.
- The majority of the IFA’s work with the public sector is to provide low-interest loans for capital projects and debt refinancing services. The IFA can help schools by offering lower cost borrowing options for new facilities, renovations and expansions, and to help school districts better manage cash flows and reduce operating costs.
- IFA, through its Local Government Pooled Bond Program, issues bonds for capital projects on behalf of municipal government entities including school districts. The Local Government Pooled Bond Program was designed with a \$150 million borrowing cap, of which the IFA has issued about \$95 million to date.
- In the event that the borrowing entity defaults, bonds issued under this program are secured by two debt service reserves that were appropriated by the Illinois General Assembly when the program was established. As a final layer of security, the state backs these bonds with its own “moral obligation,” i.e., a commitment to pay the lender out of Illinois taxpayer revenues if the borrowing entity defaults and the two debt service reserves are exhausted. Since the program’s inception, not a single municipal borrower has defaulted, so the IFA has never needed to tap into the two debt service reserves.
- This program enables a school district, as a borrower, to finance debt using the state as a conduit, which, in theory, can offer a number of advantages:

Appendix 4: Full Description of Funding Resources *continued*

- School districts can borrow at lower interest rates because the debt is backed by the IFA's debt service reserves and the State's moral obligation.
- School districts can pool with other municipal districts (e.g., municipal governments, park districts, water/sewer districts, etc.), providing greater leverage in obtaining competitive interest rates and economies of scale in terms of defraying transaction fees.
- Schools districts can obtain lower interest rates because the bonds are double tax exempt, i.e., exempt from both federal and state taxes, making them more attractive to lenders.
- School districts can commit their state revenue intercept (i.e., the portion of locally generated state taxes that the district receives) to secure their debt, which further enhances their credit worthiness and lowers their rate.
- In actuality, however, these benefits may be reduced or outweighed by opposing factors:
 - At the State's current credit rating, many school districts have better credit themselves and are able to obtain lower interest rates on their own.
 - Pooling across municipal districts can be prohibitively challenging in terms of coordination, administrative alignment, and extra time. These additional hurdles may not be worth the potential interest rate benefit.
 - School districts already get a federal rate reduction because their interest is exempt from federal tax. The additional exemption from Illinois state tax may not be a sufficient benefit to offset the transaction costs of borrowing through the IFA.
 - While school districts can commit their state revenue intercept to secure the bonds, again, the associated interest rate benefit may not be worth the loss of autonomy due to borrowing through the IFA.
- Public Act 096-0817 (Senate Bill 390), signed by Governor Quinn in late 2009, gave the IFA authority to issue up to \$2 billion in bonds specifically for energy efficiency projects under a program structured as described above (analogous to the Local Government Pooled Bond Program). However, the General Assembly did not create a corresponding debt service reserve to secure the bonds issued under this program. Therefore, the IFA needed to take additional precautions to reduce the risk to Illinois taxpayers in the event that a borrower defaults and the State's moral obligation is employed. These precautions include:
 - The pre-qualification of energy services companies (ESCOs) to perform the energy efficiency upgrades at borrowers' facilities. IFA pre-qualified ESCOs in four regions covering the entire state.
 - The establishment of an additional insurance component to guarantee projected savings, further securing ESCOs' guaranteed savings. IFA procured the services of two insurance brokers to provide these policies.
 - The limitation of principal repayment to seven years, which ensures that selected upgrades are those with the highest near-term return on investment.
- School districts and other municipal government entities are now eligible to take advantage of the IFA's new bonding authority for energy efficiency upgrades under Public Act 096-0817. A description of the program and relevant contact information are posted on the IFA's website at <http://www.il-fa.com/energy/> and <http://www.il-fa.com/news/10%2028%2010%20energy%20efficiency.pdf>.

- Interested school districts should be aware that the drawbacks described above for the Local Government Pooled Bond Program also apply to this program. IFA can assist school district staff in determining whether the district is a good candidate for this bonding program, given the considerations described above.

Illinois State Treasurer's Office

- The Treasurer's Office has \$800 million of bonded funding for public sector entities. In addition, the Treasurer's Office has programs in place to provide low-interest loans for capital projects and equipment purchases.
- The Cultivate Illinois Green Energy Program is an initiative that encourages energy efficient development and improvements by offering low-interest loans to businesses, non-profit organizations and local governments in Illinois. The Treasurer's Office secures below-market interest rates for borrowers who finance their purchase or installation of energy efficient and renewable energy equipment at participating lenders. Projects can range from \$10,000 to \$10 million. Uses of Green Energy loans can include the purchase or installation of renewable energy equipment, including solar panels, solar thermal energy systems, small wind energy systems, and equipment or upgrades that enhance energy efficiency. Loans are provided at below-market interest rates, available for two years with the possibility of a three-year extension. A short term loan program (3-12 months) is also available to local governments from the Illinois Funds program. More details are available online at <http://www.treasurer.il.gov/programs/cultivate-illinois/green-energy.aspx>

Local Government

District Funds for Health, Life, Safety

Health/Life and Safety Funding- Health/life safety funds may be obtained through the issuance of Fire Prevention and Safety Bonds. These can be used to alter and repair existing school buildings and provide equipment for fire prevention and safety purposes, energy conservation and school security.

County Tax Funds

County Sales Tax- the Illinois General Assembly passed the Illinois County Facility tax Act in 2007. The intent of the law is to provide a source of funding for public schools as well as an alternative source of funding to traditional property tax revenues. The tax has been passed in nine counties for 45 school districts.

Foundations

Illinois Clean Energy Community Foundation (ICECF)

- An additional funding source for the public sector in the State of Illinois is the Illinois Clean Energy Community Foundation, a not-for-profit foundation that has issued 3,050 grants totaling \$161 million since 2001. The Foundation funds projects in three core program areas: improving energy efficiency, developing renewable energy resources, and preserving and enhancing natural areas and wildlife habitat throughout Illinois.
- The Task Force has ongoing dialogue with the ICECF as it evaluates its strategic priorities for its second decade of existence. Past grants have focused on energy saving retrofits, including the following:

Appendix 4: Full Description of Funding Resources *continued*

- Small-scale photovoltaic energy demonstration projects for K-12 schools
- Integrated building solar photovoltaic energy or solar thermal energy systems
- Design and commissioning services for new construction
- LEED Certification project grants, including a maximum of \$75,000 for LEED silver certification and \$150,000 for LEED Gold or Platinum certification
- Existing building energy performance improvements beyond energy codes
- Geothermal energy system design and installation grants up to \$90,000
- The ICECF has also completed several other notable programs, including over \$2 million supporting the installation of PV systems at 175 K-12 schools in 51 Illinois counties. This very popular program is helping schools that have committed to integrate renewable energy into their curricula to install 1 kW PV systems. Approximately \$8.4 million has been distributed for wind grants, a portion of which has gone to support community wind projects in which one or more commercial-sized turbines are installed to generate power for local use. Several notable applications benefited public schools throughout the State of Illinois. Inquiries about a Wind-for-Schools program that would mirror the Solar Schools program remain numerous and seem to be linked to the overall development of wind in Illinois. Four schools have received grants to support small (approximately 1 kW) installations to date; one has been installed and is operational.
- The most notable grant program undertaken by the ICECF was the Energy Efficient Lighting Upgrade Grant Program. This program was responsible for 1,144 grants in 2,054 K-12 public schools. The grants resulted in a 54,338 kW reduction. The grant dollars awarded from the ICECF totaled \$37.3 million with total project costs of roughly \$65.3 million. Based on the success of this program in public schools, the ICECF is currently exploring a new focus on other public buildings and community centers, signaling the need for additional funding mechanisms for K-12 public schools to access similar energy efficiency measures.
- Donors Forum (coordinated resources on foundation and grants) – The Donors Forum is a comprehensive resource on philanthropy and nonprofits serving the entire state of Illinois. The Donors Forum provides a variety of tools and education resources including a unique database, Illinois Funding Source, on grantors in Illinois and grants received by nonprofits in Illinois. www.donorsforum.org.

Not-For-Profits

U.S. Green Building Council – Through its Center for Green Schools, at times, makes direct funding available for school/district-based initiatives involving sustainability. At the time of the publication of this report (Q1 2011), USGBC’s newly launched Center for Green Schools has direct funding to districts across America related to the Green Schools Fellows Program identified as one of the programmatic recommendations of this report. USGBC is committed to deploying a certain number of Green Schools Fellows across the country this year and currently has an RFP process open for schools through February. The Center for Green Schools’ web site is the best source for current funding and green schools resources. More information is available at: www.centerforgreenschools.org; www.usgbc.org.

Federal Government

American Recovery and Reinvestment Act (ARRA) – State Energy Program (SEP) and Energy Efficiency and Conservation Block Grants (EECBG)

- On February 17, 2009, President Obama signed into law the \$787 billion economic stimulus bill known as the American Recovery and Reinvestment Act (ARRA). The Act included substantial investment in Energy Initiatives. The Illinois Energy Office at DCEO was charged with implementing these provisions in order to create jobs, stimulate the economy, improve the environment and further the Nation in energy independence.
- On August 14, 2009, the U.S. Department of Energy (DOE) approved Illinois’ Energy Plan submitted as part of the Federal SEP. DOE’s approval gives Illinois authority to move forward with implementing the plan, which is the most comprehensive effort to date to address the state’s energy production needs. Over \$100 million in federal recovery funding was available for grants to implement the plan.
- Under the separate Energy Efficiency & Conservation Block Grant (EECBG) Program, the total funding for all Illinois state and local governments was \$112,175,600, of which DCEO received \$21,834,600. The balance of the funding was distributed by formula directly to the largest cities and counties in the state. Sixty percent of DCEO’s funds (approximately \$13 million) were sub-granted to smaller municipalities via the Illinois Association of Regional Councils. Applications were due in June of 2010. The remaining 40% of DCEO’s funds were used for efficiency improvements to state facilities and the state vehicle fleet.
- The objective of the EECBG program is to assist eligible state and local government entities in implementing energy efficiency and conservation strategies to reduce fossil fuel emissions created as a result of activities within the jurisdictions of eligible entities; to reduce total energy use; and to improve energy efficiency in the transportation, building, and other appropriate sectors.

U.S. Environmental Protection Agency

- Environmental Education Grants - these grants are sponsored by the Office of Environmental Education (OEE) to support environmental education projects that enhance the public’s awareness, knowledge and skills to make informed decisions with a positive impact to the environment.
- Community Action for a Renewed Environment (CARE) grant program. The CARE program offers innovative ways for a community to organize and improve the local environment.

Appendix 5. Complete Results of the Illinois School Sustainability Survey

Illinois Sustainable School Survey 2010 Summary

The purpose of this survey is to understand the types of sustainability initiatives schools in Illinois are currently participating in. It was conducted by a task force of state legislators, representatives from several state departments, and several not for profit organizations. The following is a summation of survey responses from 259 different schools in Illinois.

Energy Conservation: End User Strategies

What types of energy conservation strategies, focused on end-user behaviors (students, teachers, staff) are being implemented in your school?		
Choices	Percentage	Actual
Shut off lights	97.6%	239
Turn off computers	80.0%	196
Purchasing Energy Star(r) equipment	45.7%	112
Adjust thermostats	84.5%	207

Are the strategies above voluntary actions, school or district-wide policies or both?		
	Percentage	Actual
Voluntary	97.6%	239
School/District wide	80.0%	196
Both	45.7%	112

Energy Conservation: Retrofits

What types of Energy Conservation retrofits have been employed in your school or district?		
Choices	Percentage	Actual
Energy efficient lighting	92.2%	212
New, efficient boiler	41.3%	95
New HVAC system	41.7%	96
Building Automation System	42.2%	97
New windows	44.3%	102
Insulation	27.0%	62
Reflective roofing materials	18.7%	43
Green roof	3.0%	7

Are the strategies above voluntary actions, school or district-wide policies or both?		
	Percentage	Actual
Voluntary	31.2%	72
School/District wide	43.3%	100
Both	34.2%	79

Alternative Energy

What types of alternative energy systems are employed at your school or district (check all that apply)?		
Choices	Percentage	Actual
Solar - electricity	42.2%	19
Solar - hot water	8.9%	4
Wind Turbine(s)	8.9%	4
Geothermal	53.3%	24

Are the strategies above voluntary actions, school or district-wide policies or both?		
	Percentage	Actual
Voluntary	45.5%	25
School/District wide	43.6%	24
Both	18.2%	10

Indoor Water Conservation

What types of indoor water conservation strategies are being implemented in your school or district (check all that apply)?		
Choices	Percentage	Actual
Major fixture upgrade (sinks, toilets, etc.)	55.7%	102
Aerators on faucets	40.4%	74
Low flow valves/dual flush, flush meters	61.2%	112
signage/education materials	30.6%	56

Are the strategies above voluntary actions, school or district-wide policies or both?		
	Percentage	Actual
Voluntary	33.5%	61
School/District wide	41.8%	76
Both	30.8%	56

Appendix 5: Complete Results of the Illinois School Sustainability Survey *continued*

Outdoor Water and Soil Conservation

What types of outdoor water and/or soil conservation techniques are being employed at your school or district (check all that apply)?		
Choices	Percentage	Actual
Rain barrels	8.8%	6
Bioswales	8.8%	6
Rain gardens	17.6%	12
Native landscaping	75.0%	51
Permeable pavement	10.3%	7
No potable water used for irrigation	14.7%	10

Are the strategies above voluntary actions, school or district-wide policies or both?		
	Percentage	Actual
Voluntary	46.7%	35
School/District wide	32.0%	24
Both	26.7%	20

Sustainable Grounds and Maintenance

What types of sustainable grounds or interior maintenance programs are being implemented at your school or district (check all that apply)?		
Choices	Percentage	Actual
Drought resistant landscaping	17.4%	39
Indoor integrated pest management	84.8%	190
Outdoor integrated pest management	62.1%	139
Green cleaning	75.0%	168

Are the strategies above voluntary actions, school or district-wide policies or both?		
	Percentage	Actual
Voluntary	17.9%	39
School/District wide	55.5%	121
Both	30.7%	67

Waste Reduction

What types of waste reduction strategies are being employed in your school or district?		
Choices	Percentage	Actual
Recycling	99.5%	219
Composting	5.0%	11
Reusable food service	12.3%	27

Are the strategies above voluntary actions, school or district-wide policies or both?		
	Percentage	Actual
Voluntary	45.9%	101
School/District wide	30.0%	66
Both	32.7%	72

Sustainable Purchasing

Does your school or district have a sustainable purchasing policy?		
Choices	Percentage	Actual
Yes	34.3%	82
No	42.7%	102
Don't know	23.0%	55

What items do your school or district purchase, using sustainability as a criteria in making your purchasing decision (check all that apply)?		
Choices	Percentage	Actual
Office supplies	45.6%	77
Text books	26.0%	44
Furniture and fixtures	31.4%	53
Building supplies	49.7%	84
Cleaning supplies	89.9%	152
Local/regional products	20.7%	35
Foodstuffs	19.5%	33

Are the strategies above voluntary actions, school or district-wide policies or both?		
	Percentage	Actual
Voluntary	36.6%	63
School/District wide	39.5%	68
Both	29.7%	51

Appendix 5: Complete Results of the Illinois School Sustainability Survey *continued*

Sustainable Food

Does your school or district have a sustainable food program?		
Choices	Percentage	Actual
Yes	25.2%	60
No	52.1%	124
Don't Know	24.4%	58

What types of sustainable food initiatives are employed at your school or district (check all that apply)?		
Choices	Percentage	Actual
Healthy food options	94.8%	109
Locally sourced menu items	21.7%	25
Organic foods	7.0%	8
Food from student garden	8.7%	10

Are the strategies above voluntary actions, school or district-wide policies or both?		
	Percentage	Actual
Voluntary	43.3%	52
School/District wide	37.5%	45
Both	25.0%	30

Transportation

What types of programs to reduce fuel consumption and other environmental impacts related to transportation are being employed in your school or district (check all that apply)?		
Choices	Percentage	Actual
Alternative fuel or high efficiency vehicles	21.2%	33
Encourage carpooling	26.9%	42
No idling policy	60.9%	95
Safe walking route to school program	55.8%	87
Biking	42.3%	66
Other (please specify)	16	24

Are the strategies above voluntary actions, school or district-wide policies or both?		
	Percentage	Actual
Voluntary	39.8%	64
School/District wide	34.2%	55
Both	35.4%	57

Curriculum

How is your school or district integrating sustainable themes into the curriculum (check all that apply)?		
Choices	Percentage	Actual
Environmental service projects	58.2%	124
Field trips	65.3%	139
Assemblies	36.6%	78
Integration of environmental topics into the curriculum:	65.7%	140
- Math	22.5%	48
- Science	64.3%	137
- English/Language Arts	20.2%	43
- Social Studies	35.7%	76
- Others	5.6%	12

Are the strategies above voluntary actions, school or district-wide policies or both?		
	Percentage	Actual
Voluntary	49.0%	102
School/District wide	25.0%	52
Both	33.2%	69

Advocacy

Has your school or district signed the Illinois Sustainable Schools Compact?		
Choices	Percentage	Actual
Yes	9.4%	22
No	46.6%	109
Don't know	44.0%	103

How has your school or district funded the sustainability initiatives in which it is engaged (check all that apply)?		
Choices	Percentage	Actual
State grants	31.6%	48
Private grants	17.1%	26
Bond referenda	12.5%	19
School/District funds	91.4%	139

Appendix 5: Complete Results of the Illinois School Sustainability Survey *continued*

What do you need as a school or district in order to pursue sustainability initiatives further (check all that apply)?		
Choices	Percentage	Actual
Funds for retrofits	83.7%	175
Matching funds for grants	62.2%	130
Low/no interest loans	26.3%	55
Curriculum support	28.7%	60
Consulting on sustainable strategies	42.6%	89
Studies (energy audits, building systems commissioning, etc.)	41.1%	86

Appendix 6. Complete Case Studies on Best Practices in Illinois Schools

As a part of the Task Force's work, the Task Force sought documentation from schools on model programs related to sustainability that can be shared with all schools and the general public. In these tight budget times the sharing of best energy management practices and funding sources for green school retrofits are vital to making Illinois schools more sustainable.

Thirty-two schools and school districts submitted information to be used as case studies in the report. Six areas of focus were used to highlight the exemplary projects or policies of these schools and school districts. The six areas include Sustainable Sites and Operations, Curriculum Integration, Energy Efficient Upgrades or Retrofits, Geothermal, Renewable Energy, and Operations and Maintenance. A survey of the responses submitted by schools and school districts is below.

Curriculum Integration

Students learn best when they are engaged and inspired. In the survey of 32 schools and school districts, 5 schools have discovered the learning potential when the school building itself becomes an interactive teaching tool. The school building is no longer a vessel filled with students, teachers and books, but itself an opportunity for experiential learning and discovery.

At The Academy for Global Citizenship (AGC), a Chicago Public Charter School, the students participate in studies on natural resources, pollution, climate change and alternative energy. Some curriculum is tied to hands on participation in composting and the schools garden. AGC has also developed a Sustainability Handbook located on their website to encourage and inspire other schools to implement operational and academic environmental initiatives.

At Prairie Crossing Charter Schools (PCCS) students from Kindergarten through 7th grade participate in a minimum of two Service Learning Projects per year. These projects are focused on social and environmental issues and require students to understand and work with governmental and societal systems to make change to their communities. Each class also has its own theme garden. For example this year, the 2nd Grade has a pizza garden, focusing on growing pizza toppings.

All 8th grade students at PCCS, in order to graduate, must complete a year-long environmental project. One of this year's projects is a Zero Waste Audit. As part of the project, an application will be submitted to IL DCEO for a Zero Waste School Grant.

Oak Park Elementary Schools and Holmes Elementary School are developing Zero waste program for students to learn that instead of seeing used materials as garbage in need of disposal, discards are seen as valuable resources.

Other schools such as Booker T Washington STEM Academy and PCCS have taken advantage of their LEED accreditation to use the school building itself as a learning tool for students.

Energy Efficient Upgrades

Energy efficient upgrades constitute any change to an existing facility that improves energy performance, such as the addition or removal of equipments or adjustments, connection, or disconnection of equipment. The majority of the schools and school districts have made some form of energy efficient upgrades, whether it be the instillation of geothermal technology, energy efficient light fixtures, low-flow water systems, improvement of HVAC systems, and other upgrades or retrofits.

Appendix 6: Complete Case Studies on Best Practices in Illinois Schools *continued*

The replacement of single pane, non-insulating glass and the installation of a geothermal system, at Lincoln and Douglas Elementary Schools, significantly decreased the schools energy cost even with the addition of A/C.

Arlington Heights School District #25 completed lighting retrofit in ten school gyms; by taking advantage of Illinois Department of Commerce and Economic Opportunity grant. The schools realized with the improvement a payback period of 8 months, in savings from energy costs.

Prairieview-Ogden #197 renovated a school dating back to 1955 with lighting retrofit and geothermal system that was partially financed through the America Recovery and Reinvestment Act funds and grant from Illinois Clean Energy Community Foundation. Another rural school distinct, Hiawatha School District 426 in Kirkland utilized performance contracting as construction vehicle to upgrade lighting systems and replace aging boiler and HVAC systems with a geothermal installation.

Operations and Maintenance

Four suburban high schools are utilizing the USGBC’s LEED EB:O&M program. Adlai E. Stevenson High school, Evanston Township High School, Niles North and Niles West High Schools incorporate LEED EB:O&M as framework to evaluate current policies and revise operating procedures to meet key metrics related to: energy savings, water efficiency, CO2 emissions reduction, improved indoor environmental quality and stewardship of resources. The primary objective is to move an aging school facility to a high performance building, making the school building itself a “teaching tool”. Adlai E. Stevenson HS, located in Lincolnshire has incorporated all levels within the school from School Board members, administration, staff and students. They have been able to realize savings in nearly every operation of a public school.

Geothermal and Renewable Energy

The recent economic downturn and shortage in school funding has encouraged schools to discover ways to cut energy cost. Many schools in Illinois are realizing the cost benefits of integrating Geothermal and Renewable Energy into their schools. In the survey of 32 schools and school districts, 4 schools and 1 school district have installed geothermal and 1 school has integrated renewable resources into their energy saving practices.

PORTA Junior Senior High School is leading the way in renewable energy for Illinois schools with three green energy projects: wind, solar and geothermal. The projects included the installation of a geothermal heat pump system to replace the aging HVAC system and renewable energy generation included both a 1 kW photovoltaic array and a 600 kW wind turbine. The turbine alone is projected to produce enough power to meet half of the schools’ electricity needs. Any surplus generation will feed to the grid and the school will receive credits. The school plans to develop curriculum related to the wind turbine that will teach students about renewable energy.

New Berlin Elementary School installed a 312 well geothermal system at their new elementary school. The school’s entire domestic hot water consumption is served by this system.

McLean County Unit District #5 has multiple schools with geothermal systems and plans to continue to convert existing schools with traditional HVAC systems and constructing new schools with geothermal heating and cooling.

Sustainable Sites and Operations

The maintenance and operations of a building’s site is a fundamental component to the comprehensive, sustainable building impact. The implementation of long-term sustainable site maintenance and site operations

is especially important because environmental damage from retrofits or new construction, may take years to remedy. In the survey of 32 schools and school districts, 2 schools and 1 school district, have integrated sustainable sites into their school building complexes, along with these projects, two other schools have put into place sustainable operation practices.

After receiving grants from Department of Commerce and Economic Opportunity, the Oak Park/River Forest Community Foundation and the Lumpkin Foundation, Holmes Elementary School worked with it’s Parent Teacher Organization and a local non-profit to implement a number of initiatives aimed at moving the school towards a zero waste status. It includes increased recycling, the elimination of specific waste sources, food scrap composting, and the use of re-useable trays and silverware in the lunchroom. Students selected as Waste Ambassadors help educate other students, parents and visitors about the school’s zero-waste efforts. They also help with the composting, recycling and maintenance of the worm bins.

Building upon the Holmes Pilot project, six other District 97 schools secured grants through the DCEO Zero Waste Schools Grant Program to fund hard costs associated with becoming zero waste schools.

Chicago Public School’s Drummond Montessori Magnet School has also incorporated several green operational and site initiatives ranging from student-led recycling to and organic gardening program to replacing its on-site asphalt parking with grass fields and landscaping.

The Des Plaines School District #62 has recently applied for Illinois Environmental Protection Agency grants which they hope to use for additional green elements including permeable pavers, rain gardens, bioswales, vegetative roofs.

Summary

Area of Focus	Number of Schools	Number of Districts
Curriculum Integration	5	0
Energy Efficient Upgrades	2	3
Renewable Energy	1	0
LEED EB:O&M	3	0
Geothermal	5	0
Sustainable Sites	2	1
Sustainable Operations	5	0
New Construction	21	0

Appendix 7. Illinois Sustainable Schools Compact

IN COOPERATION WITH THE GOVERNOR’S OFFICE

AGREES TO THIS VOLUNTARY COMPACT TO PROMOTE SUSTAINABILITY AND ACCOMPLISH THE FOLLOWING MARKED GOALS BY DECEMBER 31, 2015.

Operations

- Create a focal point (e.g. sustainability coordinator) to lead sustainability work across the school district.
- Conserve energy and lower carbon emissions by shutting off lights and computers when not in use and adjusting thermostat settings.
- Encourage recycling (including batteries and electronics), composting, and purchasing products with minimal packaging.
- Organize a school wide basic waste audit
- Reduce fuel consumption and pollution from school transportation by limiting car and bus idling and increasing the fuel efficiency of school vehicles.
- Encourage alternative transportation to and from school among students, faculty, and staff (ie. walking, bicycling, use of public transportation, carpooling, and adoption of the Safe Routes to School Program.
- Practice sustainable grounds maintenance by minimizing use of chemical fertilizers and following a conservative watering schedule.
- Use of environmentally sensitive cleaning and maintenance products in all Illinois public and non-public elementary and secondary schools with 50 or more students, as required by the Illinois Green Cleaning Schools Act.
- Purchase ENERGY STAR appliances and technology where appropriate.

Buildings & Grounds

- Improve energy efficiency of buildings; install solar panels, wind turbines, and/or geothermal units.
- Participate in a school energy audit to determine energy use base line.
- Participate in the ENERGY STAR labeling system for a school building.
- Convert a school rooftop to a green roof or a white reflective roof.
- Retrofit existing electric and water fixtures with high-efficiency models.
- Pledge that new or existing buildings constructed will earn the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED) certification.
- Conserve soil and water resources by:
 - Incorporating rain barrels and swales into landscaping to slow and filter stormwater runoff.
 - Planting drought-resistant native species in landscaped areas.
 - Installing or retrofitting parking lots with permeable paving.

Curriculum

- Participate in environmental community service projects, field trips, and assemblies.
- Start an environmental club to promote green awareness and track school-wide sustainability measures.
- Develop energy awareness by participating in a compact fluorescents fundraiser.
- Integrate environmental studies and green career development programs into the school curriculum.
- Lead students, teachers, and staff in creating a rain garden or vegetable garden on school property.

Signature

Governor Pat Quinn

Name (please print)/Title

Email address

Send two completed copies to:

Sustainable Schools Compact Program
 Office of Governor Pat Quinn
 100 W. Randolph St., Suite 16-100
 Chicago, IL, 60601
 Phone – 312-814-2121

Appendix 8. *Environmental Literacy for Illinois* 2010 Strategic Plan

STATE OF ILLINOIS
Environmental Literacy for Illinois
2010 Strategic Plan

Illinois State Board of Education
Illinois Department of Natural Resources
Illinois Environmental Protection Agency
Final Draft 3

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Forward

The *Environmental Literacy for Illinois* strategic plan was originally released in July of 1995. In January of 1998 six of the ten original committee chairs met in Bloomington to revise and update the plan to reflect upon objectives that had been met, as well as the technological advances achieved in the past few years. The original plan was endorsed by over 200 leaders throughout the state, from agency personnel and nature center staff, to educators and Illinois State Board of Education staff. During Conservation Congress 2000 *Environmental Literacy for Illinois* won the full support of the congressional body and was unanimously passed for statewide adoption. In May of 2005 a revision team convened to amend the plan to reflect the accomplishments of the plan's goals since its conception and modify it for the next five years. The revision was available for review to over 150 environmental educators throughout the state.

In October of 2009, the Conservation Congress voted on a number of recommendations to increase youth involvement and interest in outdoor activities. The top recommendation in the Youth Recruitment and Retention subcommittee made by the congress was to update the *Environmental Literacy for Illinois* strategic plan. The Illinois Department of Natural Resources engaged the Illinois State Board of Education and the Illinois Environmental Protection Agency to develop this plan, with input from over 30 organizations. The state agencies also posted drafts of the plan for public comment at two comment sessions on April 13 and October 21, 2010, and received over 200 comments on its goals, objectives and strategies. In addition, Governor Pat Quinn signed Executive Order 10-7 on April 14, 2010, supporting the adoption of the *Environmental Literacy for Illinois* strategic plan.

The *Environmental Literacy for Illinois* strategic plan implements a systemic approach to environmental education in Illinois. Environmental education is "a learning process that increases people's knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action" (UNESCO, Tbilisi Declaration, 1978).

The integration of the essential environmental standards and benchmarks for Illinois' schools and classrooms is addressed through the Illinois Learning Standards Project. This project aligns standards in all learning areas from kindergarten through grade 12 to national standards projects and current research. *Environmental Literacy for Illinois* encompasses the needs identified for the meaningful implementation of many of the standards developed through the Illinois Learning Standards Project.

In addition to promoting environmental education integration into classroom learning standards, this plan also evaluates, integrates and promotes non-formal education initiatives as a necessary supplement to environmental education in Illinois. Because of limited state funding to initiate a holistic education reform, this plan incorporates resources and strategies for non-formal educators. The committee rejects the concept that formal education is the only means to implement cultural changes among children. Many non-formal education organizations not only provide support for formal educators, but they also have many resources and programs for families and youth that warrant their participation as a necessary and integral component of the *Environmental Literacy for Illinois* strategic plan.

Appendix 8: Environmental Literacy for Illinois 2010 Strategic Plan *continued*

The non-formal partners participating in the implementation of the *Environmental Literacy for Illinois* strategic plan are working to increase environmental literacy through not only classroom resources based on Illinois learning standards but through activities that focus on providing opportunities to families, such as nature education and outdoor play opportunities. Additionally, many of our non-formal partners are focusing on promoting sustainable practices of communities such as sustainable school siting, increasing alternative and active transportation options and promoting sustainable food choice practices. These efforts, coupled with classroom education, will create the culture necessary to foster a new generation of environmentally conscience citizens.

Unlike previous plans, stakeholder partnerships are identified for each strategy. These organizations are pro-actively engaging classrooms, youth, educators and families to ensure the goals of the *Environmental Literacy for Illinois* strategic plan are accomplished. We thank our State, federal, and non-government partners who include:

State of Illinois

Office of Governor Pat Quinn, Department of Agriculture, Department of Commerce and Economic Opportunity, Department of Natural Resources, Environmental Protection Agency, and State Board of Education.

Federal

U.S. Army Corps of Engineers River Project Office, and U.S. Army Corps of Engineers Lake Shelbyville and Carlyle Lake.

Non-Government Organizations

Active Transportation Alliance, Association of Illinois Soil and Water Conservation Districts, Chicago Metropolitan Association for the Education of Young Children, Chicago Wilderness, Environmental Education Association of Illinois, Fuller Park Community Development/Eden Place Nature Center, Illinois Science Teachers Association, Lincoln Park Zoo, Nature’s Classroom, Northern Illinois University, One Star/Chicago Astronomical Society, and Salt Creek Greenway Association.

In addition, we invite you to assume a personal responsibility as a shareholder in this process. Prepare for active participation in reaching the goal of environmental literacy in Illinois. Examine this road map for opportunities to utilize your talents and expertise in endorsing and implementing the strategies. Our success will depend on statewide awareness, acceptance and action. To that end, this document will be available to all shareholders through a vast network of dedicated individuals and organizations representing public schools, colleges, universities, resource agencies, businesses, government agencies and non-formal environmental education providers.

If you are interested in partnering with us to implement the strategies outlined in this plan, please contact any of our partners.

The Illinois Department of Natural Resources, Illinois State Board of Education and Illinois Environmental Protection Agency have taken the lead in initiating this revision. The resulting document is published herein.

Executive Summary

The Environmental Literacy for Illinois strategic plan is a systemic five-year plan, designed to fully incorporate environmental education into Illinois learning opportunities. This plan prioritizes those needs and outlines strategies to provide the necessary direction for the establishment of environmental literacy as an integral part of lifelong learning. Annual action plans and budgets for such an effort may be generated from this document. The plan will play a central role in achieving the goals of each focus area by:

- providing a mechanism for implementing environmental education programs and utilizing the resources of Illinois’ communities;
- assisting citizen access to local, state and federal environmental information and data resources;
- designing implementation options for modeling and adapting effective programs;
- developing a mechanism for including business, industry, civic groups, etc. in partnership opportunities, including career awareness;
- providing avenues for environmental learning for providers from throughout the learning continuum, including preservice, inservice and nonformal education, as well as scientific expertise;
- correlating with emerging and existing national, state and local standards and recommendations; and
- continuing internal evaluation and external review.

At the original writing in 1995 each of these specialists chaired a committee focusing on an area of environmental education need in Illinois:

Ms. Kathy Andrews, Illinois Department of Natural Resources, Springfield; Dr. John Beaver, Western Illinois University, Macomb; Ms. Nan Buckardt, Lake County Forest Preserves, Libertyville; Ms. Carol Fialkowski, The Field Museum, Chicago; Dr. Marylin Lisowski, Eastern Illinois University, Charleston; Ms. Judy Mann, Environmental Education Association of Illinois, Olympia Fields; Ms. Gwen Pollock, Illinois State Board of Education, Springfield; Mr. Mike Schneider, Regional Office of Education, Belleville; Dr. Deborah Simmons, Northern Illinois University, DeKalb; Dr. Trudy Volk and Mr. Versil Withrow, Southern Illinois University, Carbondale; Dr. Robert A. Williams, Southern Illinois University, Edwardsville.

2010 Revision Team:

Mr. David Abendroth, Red Hill High School, Bridgeport; Ms. Janet Beach Davis, Heartland Community College, Normal; Dr. Deborah Beal, Illinois College, Jacksonville; Mr. Eric Bjorlin, Active Transportation Alliance, Chicago; Mr. Jason Brewer, Illinois Department of Natural Resources, Springfield; Ms. Nan Buckardt, Lake County Forest Preserve District, Deerfield; Ms. Kristin Camp, Champaign School District, Champaign; Dr. Bob Carter, Northern Illinois University, DeKalb; Jill Carter, Pekin Community High School, Pekin; Mr. Steve Clark, Chicago Public Schools, Chicago; Ms. Stacey Clementz, Champaign County Forest Preserve District, Homer; Ms. Gail Conway, Chicago Metro Association for the Education of Young Children, Chicago; Mr. Kevin Daugherty, Illinois Farm Bureau, Bloomington; Ms. Kathi Davis, Illinois Department of Natural Resources, Springfield; Ms. Olivia Dorothy, Illinois Department of Natural Resources, Springfield; Mr. Gil Downey, Illinois State Board of Education, Springfield; Mr. Herb Dreier, Illinois Department of Natural Resources, Springfield; Dr. Megan Dunning, Morton Arboretum, Lisle; Ms. Carol Fialkowski, Chicago Wilderness, Chicago; Mr. Emilian Geczi, Chicago Wilderness, Chicago; Mr. David Guritz, Forest

Appendix 8: Environmental Literacy for Illinois 2010 Strategic Plan *continued*

Preserve District of DuPage County, Wheaton; Mr. Eric Heineman, Office of the Governor, Chicago; Mr. Harry Hendrickson, Illinois Science Teachers Association, Rochester; Mr. Jeff Hopkins, Illinois Department of Natural Resources, Springfield; Mr. Ron House, National Wild Turkey Federation, Benton; Ms. Brett Ivers, Illinois Department of Commerce and Economic Opportunity, Springfield; Mr. Jeffrey Jones, Illinois Department of Natural Resources, Chicago; Ms. Valerie Keener, Illinois Department of Natural Resources, Springfield; Ms. Sandy Kennedy, Riverton High School, Riverton; Mr. Wes King, Illinois Stewardship Alliance, Springfield; Mr. Steve Kolsto, Illinois Environmental Protection Agency, Springfield; Ms. Sarah Livesay, Environmental Education Association of Illinois, St. Joseph; Dr. John F. Loehr, Chicago Public Schools, Chicago; Dr. Jason Lukaski, Chicago Botanic Garden, Glencoe; Ms. Jean Mendoza, University of Illinois, Urbana-Champaign; Ms. Judy Miller, Urbana Park District, Urbana; Ms. Kristi Morris-Richards, Illinois Environmental Protection Agency, Springfield; Mr. Richard Nichols, Association of Illinois Soil and Water Conservation Districts, Springfield; Ms. Laura Nitanda, The Peggy Notebaert Nature Museum, Chicago; Ms. Sandy Laird Perkins, Triad High School, Troy; Mr. Dan Persky, Active Transportation Alliance, Chicago; Ms. Gwen Pollock, Illinois Science Teachers Association, Sherman; Ms. Barbara Powell, The Peggy Notebaert Nature Museum, Chicago; Ms. Ruth Prescott, Chicago Metro Association for the Education of Young Children, Chicago; Ms. Jessica Prince, Forest Preserve District of Will County, Joliet; Mr. Mike Rahe, Illinois Department of Agriculture, Springfield; Ms. Kimberly Rea, U.S. Army Corps of Engineers, St. Louis; Christine Rolka, National Wild Turkey Federation, Edgefield, SC; Mr. Rafael Rosa, The Peggy Notebaert Nature Museum, Chicago; Ms. Carol Schnaiter, Amboy Central School, Amboy; Ms. Cindy Smith, Citizen, Ozark; Ms. Stacy Stremsterfer, Association of Illinois Soil and Water Conservation Districts, Springfield; Dr. Bonnie Styles, Illinois State Museum, Springfield; Mr. Jason Tyszko, Illinois Department of Commerce and Economic Opportunity, Chicago; Ms. Susan Wagner, The Morton Arboretum, Lisle; and Ms. Sheila Walk, Illinois Stewardship Alliance, Springfield.

Introduction

The *Environmental Literacy for Illinois* strategic plan is the culmination of the efforts of dedicated individuals from throughout Illinois who represent public schools, colleges, universities, resource agencies, businesses, government agencies and non-formal environmental education providers. These visionaries have long aspired to establish an Illinois plan for environmental education.

In 1957, legislation directed the first mandates for conservation education in Illinois. Over the years, individuals and organizations on the local, regional and state levels have focused energies on successful activities and projects to improve lifelong learning and decision-making skills relating to our environment. Many of these programs have been used in Illinois, providing for inservice educator education and classroom activities. In 1991, the Conservation Education Advisory Board, an executive board that made recommendations on conservation education programs, began the development of its own strategic plan for conservation education, having an impact on agency-directed efforts. Task forces charged by the Governor and Conservation Congress have made recommendations regarding the necessity of coordinated environmental education efforts.

The efforts for the original plan began officially in 1993 with informal meetings organized by Lieutenant Governor Bob Kustra, the Governor's Science Advisory Council, the Illinois State Board of Education's Center on Scientific Literacy and other member agencies of the Conservation Education Advisory Board. Model legislation, which had been enacted in several states, served as a template for the original design of *Environmental Literacy for Illinois*.

The actual formulation of *Environmental Literacy for Illinois* began in earnest in late 1994 and continued through the spring of 1995, funded through the Illinois State Board of Education's Center on Scientific Literacy. During this time, committees met to design a plan that would bring effective, meaningful environmental education to the schools in Illinois. Every aspect of the plan was deliberated extensively to ensure that the plan embraced the full definition and implications of environmental literacy. Moreover, the overarching multicultural tenets of environmental literacy were considered to encompass the provisions for a healthy and just environment for all, while understanding the past, acting in the present and protecting the future.

Status of Environmental Education in Illinois

Environmental education in Illinois today has a strong foundation. Formal educators from early learning through college-level classes are working to implement plan components with their students while supporting the goals and benchmarks of the Illinois Learning Standards. Non-formal educators reach students and families through a variety of programs. Non-traditional groups are being targeted as participants. Volunteer organizations provide statewide support to the plan directly by implementation and indirectly through lobbying efforts. Consortiums of educational providers cooperate to coordinate regional programming. Governmental agencies provide support and programming as well. Staff members of national environmental education initiatives regularly seek out Illinois educators for input.

The National Environmental Education Advancement Project suggests the components below as integral to the establishment of a successful state plan. Shown with each component is a detailed description of the work Environmental Literacy for Illinois plan partners are doing to promote environmental education in Illinois.

Appendix 8: Environmental Literacy for Illinois 2010 Strategic Plan *continued*

Structure Components

- State environmental education master plan: Environmental Literacy for Illinois is the state’s master plan for environmental education.
- State environmental education board or advisory council: The partners listed within the Environmental Literacy for Illinois plan serve on an informal council to ensure plan implementation.
- State environmental education office: The Illinois State Board of Education, Science Division, serves as the environmental education office.
- State-level environmental education centers/regional offices: Environmental education centers exist at Southern Illinois University-Carbondale and Northern Illinois University. Publicly and privately funded environmental centers are found throughout the state. For the most part, the Illinois centers operate independently and little coordination exists between programs.
- State interagency committee: The partners listed within the Environmental Literacy for Illinois plan serve on an informal council to ensure plan implementation.
- State environmental education association: The Environmental Education Association of Illinois, founded in 1972, has over 200 members from throughout the state. Their master plan focuses on services to both non-formal and formal educator members including training, Web-based resource lists and an annual conference.
- Online database of environmental education resources: An online database of environmental education resources exists at www.IllinoisEE.org.
- State curriculum/resource guides: No curriculum/resources guides exist.
- Annual environmental education conference: The Environmental Education Association of Illinois hosts an annual conference each spring.

Program Components

- K-12 environmental education instruction requirements: An instruction requirement does exist, listed in the School Code of Illinois, 105 ILCS 5/27-13.1, and reads “In every public school there shall be instruction, study and discussion of current problems and needs in the conservation of natural resources, including but not limited to air pollution, water pollution, waste reduction and recycling, the effects of excessive use of pesticides, preservation of wilderness areas, forest management, protection of wildlife and humane care of domestic animals.”
- Environmental education guidelines/standards (environmental education correlations to State Content Standards): Environmental education correlations exist for all Illinois Learning Standards. Environmental education correlations for Science and Social Studies descriptors also exist. Both sets of correlations can be found at www.IllinoisEE.org.
- State assessment that includes environmental education: Although there is not a specific assessment for environmental education, there are many questions in the State’s standardized tests that are related to environmental education.
- Coordinated educator inservice program: Nothing exists.
- Environmental education training for preservice educators: Some training in environmental education exists for pre-service educators. No standardized program exists.

- Environmental education training for educator educators (university faculty) (non-formal providers): Nothing exists.
- Environmental education training for non-formal educators: Training for non-formal providers is offered. Illinois educators created the Tools for Nonformal Inservice Providers workshop that has become an important training program nationally.
- Environmental education model or resource for schools: Nothing exists.

Funding Components

- Fees, fines, taxes and lottery general revenue: Nothing exists.
- Public/private grants and donations: Limited grants are available for environmental education-related projects through a variety of funding sources, both private and public.
- Environmental education grants program: The Environmental Education Association of Illinois, U.S. Environmental Protection Agency and the Illinois Department of Natural Resources/Illinois Conservation Foundation offer small grants for environmental education-related projects.

Plan Sustainability

Goal: Sustain the goals of environmental literacy over time for the citizens of Illinois.

Objectives:

- 1. Support mechanisms that will build a more educated populace that will preserve, protect and enjoy the environment through sound personal and environmental decisions.**

Strategies:

- a. Inform decision-makers of the existence of the *2010 Environmental Literacy for Illinois* plan and educate them of its relevance to all projects they undertake.

Date of completion: 2011.

Collaborative partners: Governor’s Office, Illinois Environmental Protection Agency, Illinois State Board of Education, Illinois Department of Natural Resources, U.S. Army Corps of Engineers Rivers Project Office, Chicago Wilderness, Association of Illinois Soil and Water Conservation Districts²

- b. Provide people with the information and incentives needed to make healthy personal and societal choices.

Date of completion: 2015.

Collaborative partners: Governor’s Office, Illinois Environmental Protection Agency, Illinois State Board of Education, Illinois Department of Natural Resources, Association of Illinois Soil and Water Conservation Districts²

- c. Develop a marketing plan and promote enhanced communication between formal and nonformal educators.

Date of completion: 2010-2015.

Appendix 8: Environmental Literacy for Illinois 2010 Strategic Plan *continued*

Collaborative partners: Governor's Office, Illinois State Board of Education, Illinois Department of Natural Resources, Illinois Environmental Protection Agency, Illinois Department of Commerce and Economic Opportunity, Illinois Department of Agriculture, Environmental Education Association of Illinois, Illinois Science Teachers Association, Association of Illinois Soil and Water Conservation Districts²

2. Pursue funding opportunities and resources for governmental, for-profit and non-profit partners that will assure long- and short-term successes for the Environmental Literacy for Illinois plan.

Strategies:

- a. Incorporate objectives of the *2010 Environmental Literacy for Illinois* plan into the Science Technology Engineering and Math (STEM) Programs of Study, particularly in the development of the Agriculture, Food and Natural Resources Learning Exchange.

Date of completion: 2011

Collaborative partners: Governor's Office*, Illinois State Board of Education, Department of Commerce and Economic Opportunity

- b. Assure compliance of the Environmental Literacy for Illinois plan to the emerging parameters of the No Child Left Inside Act to effectively pursue funds to implement the goals, objectives and strategies contained therein. To view the No Child Left Inside Act visit <http://www.govtrack.us/congress/bill.xpd?bill=s111-866>.

Date of completion: 2011.

Collaborative partners: Governor's Office*, Illinois State Board of Education, Illinois Department of Natural Resources, Chicago Wilderness

- c. Coordinate with the Governor's appointed P-20 (prekindergarten through PhD) Council to build connections and alignment with post-secondary programs. For information on the P-20 Council visit <http://appointments.illinois.gov/appointmentsDetail.cfm?id=211>.

Date of completion: 2011.

Collaborative partners: Governor's Office*, Illinois State Board of Education

- d. Develop partnerships that integrate the Illinois State Board of Education's Green Career and Technical Education Program into the *2010 Environmental Literacy for Illinois* plan. For more information on the Programs of Study visit <http://www2.ed.gov/news/pressreleases/2009/06/06222009f.html>.

Date of completion: 2011.

Collaborative partners: Illinois State Board of Education

- e. Connect with green industries to enhance student career opportunities, particularly the State Energy Sector Partnership, Illinois' public-private task force established as part of the American Reinvestment and Recovery Act to develop a 21st Century green workforce.

Date of completion: 2011.

Collaborative partners: Illinois Department of Commerce and Economic Opportunity, Illinois State Board of Education

3. Promote networking and participation in existing and future programs, initiatives, standards and curriculum development.

Strategies:

- a. Incorporate environmental literacy into relevant Common Core Standards, the National Science Conceptual Framework and the guidelines for the Partnership for 21st Century Skills. For more information on Illinois' Common Core Standards visit <http://www.isbe.net/common-core/>. For more information on the Partnership for 21st Century Skills visit <http://www.p21.org/>.

Date of completion: 2011 (or within one year of the development and release of these Standards).

Collaborative partners: Governor's Office, Illinois State Board of Education, Illinois Environmental Protection Agency, Illinois Science Teachers Association

- b. Coordinate a variety of training opportunities for educators, within the framework of the Environmental Learning Sites and Centers.

Date of completion: 2015.

Collaborative partners: Governor's Office, Illinois State Board of Education, Illinois Department of Natural Resources, U.S. Army Corps of Engineers Rivers Project Office, Environmental Education Association of Illinois, Association of Illinois Soil and Water Conservation Districts²

Evaluation

Goal: Establish mechanisms for assessing, analyzing and evaluating the status of environmental literacy in Illinois and the effectiveness of the Environmental Literacy for Illinois plan.

Objectives:

1. Interpret the current and on-going status of environmental literacy in Illinois schools and non-formal programs.

Strategies:

- a. Evaluate implementation of environmental literacy in schools through assessment and student participation.

Date of completion: 2015.

Collaborative partners: Illinois State Board of Education

- b. Evaluate non-formal environmental literacy education programs through required annual reports on selected objectives.

Date of completion: 2015.

Collaborative partners: Active Transportation Alliance, Association of Illinois Soil and Water Conservation Districts, Chicago Metropolitan Association for the Education of Young Children, Chicago Wilderness, Environmental Education Association of Illinois, Fuller Park Community Development/Eden Place Nature Center, Illinois Science Teachers Association, Lincoln Park Zoo, Nature's Classroom, Northern Illinois University, One Star/Chicago Astronomical Society, Salt Creek Greenway Association, U.S. Army Corps of Engineers River Project Office, U.S. Army Corps of Engineers Lake Shelbyville and Carlyle Lake.

Appendix 8: Environmental Literacy for Illinois 2010 Strategic Plan *continued*

2. Ensure that Environmental Literacy for Illinois plan’s strategies, timelines and outcomes are discussed on an annual basis.

Strategies:

- a. Develop an annual forum for all collaborative partners to report on progress.

Date of completion: 2015.

Collaborative partners: Illinois State Board of Education, Illinois Department of Natural Resources, Illinois Environmental Protection Agency²

- b. Participate in the annual program showcase.

Date of completion: 2015.

Collaborative partners: Office of Governor Pat Quinn, Illinois Department of Agriculture, Illinois Department of Commerce and Economic Opportunity, Illinois Department of Natural Resources, Illinois Environmental Protection Agency, Illinois State Board of Education, U.S. Army Corps of Engineers River Project Office, U.S. Army Corps of Engineers Lake Shelbyville and Carlyle Lake, Active Transportation Alliance, Association of Illinois Soil and Water Conservation Districts, Chicago Metropolitan Association for the Education of Young Children, Chicago Wilderness, Environmental Education Association of Illinois, Fuller Park Community Development/Eden Place Nature Center, Illinois Science Teachers Association, Lincoln Park Zoo, Nature’s Classroom, Northern Illinois University, One Star/Chicago Astronomical Society, Salt Creek Greenway Association

Grants and Long-Term Funding

Goal: Secure adequate grants and funding to sustain the goals of environmental literacy over time for the citizens of Illinois.

Objectives:

- 1. Expand funding opportunities from local sources, state and federal government and private foundations that support mechanisms that will build a more educated populace that will preserve, protect and enjoy the environment through sound personal and environmental decisions.**

Strategies:

- a. Identify and coordinate grant information to better disseminate funding resources to educators.

Date of completion: 2015.

Collaborative partners: Northern Illinois University, Salt Creek Greenway Association, Illinois Environmental Protection Agency², Association of Illinois Soil and Water Conservation Districts²

- b. Encourage collaboration between organizations to strengthen funding applications and opportunities.

Date of completion: 2015.

Collaborative partners: Illinois Department of Natural Resources, Chicago Wilderness, Illinois Conservation Foundation, Northern Illinois University, Salt Creek Greenway Association

- c. Encourage cooperative grant applications between school districts, state agencies, Regional Offices of Education, colleges, universities and other appropriate agencies.

Date of completion: 2015.

Collaborative partners: Governor’s Office, Illinois Environmental Protection Agency, Chicago Wilderness, Northern Illinois University, Salt Creek Greenway Association

- d. Ensure funding information and application opportunities are available for both formal and non-formal educators.

Date of completion: 2015.

Collaborative partners: Governor’s Office, Chicago Wilderness, Illinois Science Teachers Association, Northern Illinois University, Salt Creek Greenway Association

- e. Establish a database of grant opportunities to facilitate trips to non-formal facilities that can be made available to both formal and non-formal educators.

Date of completion: 2015.

Collaborative partners: Illinois Science Teachers Association, Northern Illinois University, Salt Creek Greenway Association

2. Inform educators of professional development opportunities for grant writing.

Strategies:

- a. Collaborate with environmental organizations to sponsor and present seminars for grant writing for environmental grants.

Date of completion: 2015.

Collaborative partners: Environmental Education Association of Illinois, Illinois Science Teachers Association, Northern Illinois University, Salt Creek Greenway Association

- b. Encourage science educators and science curriculum coordinators to attend grant-writing workshops.

Date of completion: 2015.

Collaborative partners: Environmental Education Association of Illinois, Illinois Science Teachers Association, Northern Illinois University, Salt Creek Greenway Association

Environmental Learning Sites and Centers

Goal: A network of environmental learning sites and centers will support and improve the facilitation of environmental literacy efforts statewide and accomplish the goals and objectives of Environmental Literacy for Illinois.

Objectives:

- 1. Continue to expand the number of high-quality environmental literacy sites and centers that provide professional, standards-based environmental education opportunities, services and information for educators in Illinois.**

Appendix 8: Environmental Literacy for Illinois 2010 Strategic Plan *continued*

Strategies:

- a. Recognize environmental learning sites and centers that serve as learning communities recognized by formal and non-formal educators. Develop the criteria for such sites.

Date of completion: 2010-2015.

Collaborative partners: Illinois State Board of Education, Chicago Wilderness, Environmental Education Association of Illinois, Illinois Science Teachers Association, One Star/Chicago Astronomical Society, Association of Illinois Soil and Water Conservation Districts²

- b. The sites will operate as an approved Illinois State Board of Education teacher recertification provider facility.

Date of completion: 2010-2015.

Collaborative partners: Illinois State Board of Education

- c. Ensure that Environmental Learning Sites and Centers adhere to North American Association for Environmental Education evaluation standards and measures with incentives for ongoing compliance and refinement. For more information on these guidelines visit http://www.naaee.org/npeee/learner_guidelines.php.

Date of completion: 2010-2015.

Collaborative partners: Illinois State Board of Education, Environmental Education Association of Illinois, Illinois Science Teachers Association

- d. Provide opportunities for networking and recognition to create environmental literacy learning communities.

Date of completion: 2010-2015

Collaborative partners: U.S. Army Corps of Engineers Lake Shelbyville and Carlyle Lake, Environmental Education Association of Illinois, Lincoln Park Zoo, Fuller Park Community Development/Eden Place Nature Center

2. Coordinate and expand the reach of existing networks to include integration of non-formal and formal partners.

Strategies:

- a. Identify existing networks, sites and centers that can potentially serve as models statewide.

Date of completion: 2015.

Collaborative partners: Illinois Science Teachers Association, U.S. Army Corps of Engineers Rivers Project Office, Nature's Classroom

- b. Promote Environmental Learning Sites and Centers as extensions of an environmental and other curricula.

Date of completion: 2010-2015.

Collaborative partners: Illinois State Board of Education, Illinois Environmental Protection Agency, Environmental Education Association of Illinois, Illinois Science Teachers Association, One Star/Chicago Astronomical Society

- c. Develop a marketing plan and promote enhanced communication.

Date of completion: 2010-2015.

Collaborative partners: Illinois State Board of Education, Environmental Education Association of Illinois, Illinois Science Teachers Association

3. Establish partnerships among Environmental Learning Sites and Centers.

Strategies:

- a. Recruit Environmental Learning Sites and Centers partners to actively participate in environmental literacy opportunities.

Date of completion: 2010-2015.

Collaborative partners: Illinois State Board of Education, Illinois Environmental Protection Agency, Environmental Education Association of Illinois, U.S. Army Corps of Engineers Rivers Project Office, One Star/Chicago Astronomical Society

Electronic Information Resources

Objectives:

- 1. Use innovative technologies to enhance cooperation and make resources and/or information available to all.**

Strategies:

- a. Include Environmental Literacy for Illinois curriculum resources, work-based learning opportunities, problem-based learning challenges, career development guidance and professional development as part of the State's proposed Learning and Performance Management System, which will be hosted on a cloud computing-based environment and longitudinal data system.

Date of completion: 2012.

Collaborative partners: Governor's Office, Illinois State Board of Education, Illinois Environmental Protection Agency

- b. Develop an Agriculture, Food and Natural Resources Learning Exchange Program of Study within the Science Technology Engineering and Math (STEM) Learning Exchange framework by which key stakeholders will collect and disseminate environmental literacy information to participating schools.

Date of completion: 2011.

Collaborative partners: Illinois Department of Natural Resources, Department of Commerce and Economic Opportunity

Appendix 8: Environmental Literacy for Illinois 2010 Strategic Plan *continued*

- c. Identify key stakeholders to provide ongoing information within the STEM Learning Exchange.

Date of completion: 2015.

Collaborative partners: Governor’s Office, Illinois State Board of Education, Illinois Department of Natural Resources, Illinois Science Teachers Association, Department of Commerce and Economic Opportunity, Environmental Education Association of Illinois²

2. Provide centrally located environmental literacy information that is accessible to all educators, within the framework of Electronic Information Resources.

Strategies:

- a. Establish Web site to be used as a central access point.

Date of completion: 2011.

Collaborative partners: Governor’s Office, Illinois State Board of Education, Illinois Department of Natural Resources, Environmental Education Association of Illinois²

- b. Determine keeper(s) of the repository (i.e. Webmaster and/or database administrator).

Date of completion: 2010.

Collaborative partners: Governor’s Office, Illinois State Board of Education, Illinois Department of Natural Resources, Association of Illinois Soil and Water Conservation Districts², Environmental Education Association of Illinois²

- c. Research, develop, promote and implement existing and new electronic resources and tools (social networking and others) to promote awareness and access to environmental literacy Internet resources.

Date of completion: 2010-2015.

Collaborative partners: Governor’s Office, Illinois State Board of Education, Illinois Department of Natural Resources, Illinois Science Teachers Association, Environmental Education Association of Illinois², Association of Illinois Soil and Water Conservation Districts²

- d. Investigate and establish new links to quality resources to support Environmental Literacy Sites and Centers.

Date of completion: 2010.

Collaborative partners: Governor’s Office, Illinois State Board of Education, Illinois Department of Natural Resources, Illinois Environmental Protection Agency, Association of Illinois Soil and Water Conservation Districts², Illinois Science Teachers Association, Environmental Education Association of Illinois²

- e. Evaluate the effectiveness, quality and utility of environmental literacy Internet resources and encourage reporting of methodologies and results to electronic clearinghouses. For more information on electronic evaluation tools visit <http://meera.snre.umich.edu/>.

Date of completion: 2012.

Collaborative partners: Governor’s Office, Illinois State Board of Education, Illinois Department of Natural Resources, Illinois Science Teachers Association, Environmental Education Association of Illinois²

Preservice Formal Educator Education

Goal: Preservice formal educator education programs will provide future educators with the knowledge, skills, abilities and resources to develop environmentally literate students.

Objectives:

- 1. Develop a statewide environmental literacy network of formal and nonformal educators to provide resources to Illinois universities and colleges to incorporate environmental literacy in their formal educator education programs.**

Strategies:

- a. Identify and establish a communication network among preservice science, social science and elementary instructors.

Date of completion: 2015.

Collaborative partners: Illinois Science Teachers Association, Northern Illinois University, Association of Illinois Soil and Water Conservation Districts², Environmental Education Association of Illinois²

- b. Establish and maintain an inventory of preservice environmental education programs.

Date of completion: 2015.

Collaborative partners: Illinois Science Teachers Association, Northern Illinois University, Environmental Education Association of Illinois²

- c. Agencies and organizations assist with identifying instructors/facilitators and sponsor curriculum enhancement projects.

Date of completion: 2015.

Collaborative partners: Environmental Education Association of Illinois, Lincoln Park Zoo, Northern Illinois University, Association of Illinois Soil and Water Conservation Districts²

- d. Familiarize preservice educator instructors with the nationally recognized Guidelines for Preparation and Professional Development of Environmental Educators. For more information on these guidelines visit <http://www.naaee.org/programs-and-initiatives/guidelines-for-excellence/materials-guidelines/educator-preparation>.

Date of completion: 2015.

Collaborative partners: Environmental Education Association of Illinois, Illinois Science Teachers Association, Northern Illinois University

2. Support environmental literacy opportunities for preservice educators.

Strategies:

- a. If feasible, provide reduced-cost organizational membership and conference registration fees, internships, scholarships, field experiences, independent study and practica to preservice education instructors.

Date of completion: 2015.

Appendix 8: Environmental Literacy for Illinois 2010 Strategic Plan *continued*

Collaborative partners: Environmental Education Association of Illinois, Illinois Science Teachers Association, Northern Illinois University

- b. Market learning opportunities to preservice educators and faculty.

Date of completion: 2015.

Collaborative partners: Environmental Education Association of Illinois, Illinois Science Teachers Association, Lincoln Park Zoo, Northern Illinois University

- c. Conduct a survey on current providers to determine the status of environmental courses and components.

Date of completion: 2015.

Collaborative partners: Illinois Science Teachers Association, Northern Illinois University

- d. Find or develop assessment tools to determine the effectiveness of the preservice educator environmental literacy programs.

Date of completion: 2015.

Collaborative partners: Illinois Science Teachers Association, Northern Illinois University

3. Support the efforts of preservice educators to provide environmental literacy opportunities during their student teachers' training experiences: clinical, practicum, student teaching.

Strategies:

- a. Provide cooperating schools and educators with research results on benefits of environmental education.

Date of completion: 2015.

Collaborative partners: Illinois Science Teachers Association, Northern Illinois University

- b. Assist cooperating schools and educators in removing barriers to environmental education.

Date of completion: 2015.

Collaborative partners: Illinois Science Teachers Association, Northern Illinois University

4. Establish or enhance preservice educator training in environmental education for students who are non-science majors.

Strategies:

- a. Through environmental education workshops, familiarize non-science educators with environmental concepts so that they can meet Leave No Child Inside goals. The No Child Left Inside Act can be viewed at <http://www.govtrack.us/congress/bill.xpd?bill=s111-866>.

Date of completion: 2015.

Collaborative partners: Illinois Department of Natural Resources, Environmental Education Association of Illinois, U.S. Army Corps of Engineers Rivers Project Office, Northern Illinois University

- b. Collaborate with Illinois colleges and universities to create, identify and promote Illinois-specific non-science major environmental education classes in preservice educator programs.

Date of completion: 2015.

Collaborative partners: Illinois Department of Natural Resources, U.S. Army Corps of Engineers Rivers Project Office, Northern Illinois University

Inservice Educator Education

Goal: Promote incorporation of environmental literacy programs into prekindergarten through 12th grade teaching and learning.

Objectives:

1. Provide support for the development and implementation of effective programs, activities and resources for a standards-led environmentally literate classroom.

Strategies:

- a. Provide supplemental models within existing professional development frameworks.

Date of completion: 2011-2015.

Collaborative partners: Governor's Office, Illinois State Board of Education, Illinois Science Teachers Association, Northern Illinois University, Environmental Education Association of Illinois²

- b. Develop, conduct and analyze classroom needs assessments for environmental literacy resources and options.

Date of completion: 2010-2015.

Collaborative partners: Governor's Office, Illinois State Board of Education, Illinois Department of Natural Resources, Illinois Science Teachers Association, Northern Illinois University, Environmental Education Association of Illinois²

2. Support opportunities for prekindergarten through 12th grade classroom educators to deepen and broaden their own expertise in environmental literacy concepts, strategies and resources, including the research supporting the Illinois Children's Outdoor Bill of Rights.

Strategies:

- a. Analyze and respond to educator needs assessments for inservice professional development.

Date of completion: 2011-2015.

Collaborative partners: Governor's Office, Illinois State Board of Education, Illinois Department of Natural Resources, Northern Illinois University, Environmental Education Association of Illinois, Illinois Science Teachers Association, Association of Illinois Soil and Water Conservation Districts²

- b. Using nationally recognized criteria, evaluate effectiveness of opportunities that expand classroom educators expertise in environmental literacy.

Date of completion: 2010-2015.

Appendix 8: Environmental Literacy for Illinois 2010 Strategic Plan *continued*

Collaborative partners: Governor’s Office, Illinois State Board of Education, Illinois Science Teachers Association, Northern Illinois University, Environmental Education Association of Illinois²

- c. Create opportunities for prekindergarten through 12th grade educators with attention to underserved audiences.

Date of completion: 2010-2015.

Collaborative partners: Governor’s Office, Illinois State Board of Education, Illinois Department of Natural Resources, Illinois Environmental Protection Agency, Environmental Education Association of Illinois, Illinois Science Teachers Association, U.S. Army Corps of Engineers Rivers Project Office, Northern Illinois University

- d. Develop partnerships for delivery of environmental literacy classroom strategies.

Date of completion: 2010-2015.

Collaborative partners: Governor’s Office, Illinois State Board of Education, Illinois Environmental Protection Agency, Environmental Education Association of Illinois, Illinois Science Teachers Association, Northern Illinois University

- e. Host and promote Kindergarten through 12 grade Sustainable Schools Symposiums to provide networking opportunities and skills sharing. For more information on the Sustainable Schools Symposiums visit <http://www.green.illinois.gov>.

Date of completion: 2010-2015.

Collaborative partners: Governor’s Office

3. Investigate adoption of an Illinois professional certification process utilizing existing certificate models.

Strategies:

- a. Develop criteria for qualifications and responsibilities required for and develop a master environmental literacy designation.

Date of completion: 2011

Collaborative partners: Illinois Science Teachers Association, Northern Illinois University Environmental Education Association of Illinois²

- b. Review and recommend standards-led, research-based curriculum, instructional and assessment models.

Date of completion: 2011-2015

Collaborative partners: Illinois Science Teachers Association, Northern Illinois University, Association of Illinois Soil and Water Conservation Districts², Environmental Education Association of Illinois²

- c. Develop strategies to fund, promote, select and recognize master environmental literacy initiatives.

Date of completion: 2012-2015

Collaborative partners: Illinois Science Teachers Association, Northern Illinois University, Environmental Education Association of Illinois²

4. Establish or enhance inservice educator training in environmental education for educators who are non-science majors.

Strategies:

- a. Through environmental education workshops, familiarize non-science educators with environmental concepts so that they can meet Leave No Child Inside goals. The No Child Left Inside Act can be viewed at <http://www.govtrack.us/congress/bill.xpd?bill=s111-866>.

Date of completion: 2015.

Collaborative partners: Illinois Department of Natural Resources, Environmental Education Association of Illinois, U.S. Army Corps of Engineers Rivers Project Office, Northern Illinois University

- b. Collaborate with Illinois colleges and universities to create, identify and promote Illinois-specific non-science major environmental education classes in inservice educator programs.

Date of completion: 2015.

Collaborative partners: Illinois Department of Natural Resources, U.S. Army Corps of Engineers Rivers Project Office, Northern Illinois University

Integration

Goal: Provide a framework and options for effective integration of environmental literacy studies and professional development for formal and nonformal educators, including mechanisms to measure integration successes and challenges.

Objectives:

- 1. Develop a classroom implementation framework that effectively integrates environmental literacy concepts into the interdisciplinary theme of environmental literacy for 21st Century Student Outcomes. For more information on the Partnership for 21st Century Skills visit http://www.p21.org/index.php?Itemid=120&id=254&option=com_content&task=view.

Strategies:

- a. Evaluate quality and quantity of current environmental literacy resources to determine needs of current and emerging concepts.

Date of completion: 2013.

Collaborative partners: Governor’s Office, Illinois State Board of Education, Illinois Department of Natural Resources, Illinois Science Teachers Association, Environmental Education Association of Illinois²

- 2. Through Environmental Learning Sites and Centers, assure high-quality, research-based, Illinois-specific and meaningful environmental literacy activities for students.

- a. Develop a designation mechanism, training, record-keeping and evaluation/analysis of environmental literacy activities.

Date of completion: 2015

Collaborative partners: Illinois Science Teachers Association

Appendix 8: Environmental Literacy for Illinois 2010 Strategic Plan *continued*

Early Childhood: Birth to Five Years

Goal: Increase the amount of exposure to the natural environment for children from birth to five years by educating and providing resources to parents, caregivers and providers serving that population.

Objectives:

1. Develop an understanding of options for environmental literacy integration with respect to families' places of residences and centers' locations, i.e. rural, urban, safety factors and culture.

Strategies:

- a. Research existing birth to age five environmental literacy integration models.
Date of completion: 2011.
Collaborative partners: Chicago Metropolitan Association for the Education of Young Children
- b. Convene parents, family childcare providers, center staff and birth to five experts to collaboratively determine options for environmental literacy integration to be recommended as best practices.
Date of completion: 2011.
Collaborative partners: Chicago Metropolitan Association for the Education of Young Children
- c. Construct an early childhood definition for environmental literacy.
Date of completion: 2011.
Collaborative partners: Chicago Metropolitan Association for the Education of Young Children
- d. Develop a position paper for early childhood on developmentally appropriate practices for environmental literacy.
Date of completion: 2012.
Collaborative partners: Chicago Metropolitan Association for the Education of Young Children

2. Develop, design and disseminate content for providers in environmental literacy integration.

Strategies:

- a. Develop environmental literacy integration resources that focus on the definition, application, supporting research and the advantages of environmental literacy integration.
Date of completion: 2012.
Collaborative partners: Chicago Metropolitan Association for the Education of Young Children
- b. Develop an action plan to disseminate environmental literacy integration resources.
Date of completion: 2012.
Collaborative partners: Chicago Metropolitan Association for the Education of Young Children
- c. Provide training on environmental literacy integration into program curricula.

Date of completion: 2014.

Collaborative partners: Chicago Metropolitan Association for the Education of Young Children, Environmental Education Association of Illinois

- d. Embed environmental literacy integration and tutorial information in all trainings.

Date of completion: 2014.

Collaborative partners: Chicago Metropolitan Association for the Education of Young Children

3. Develop content and design materials for parents and caregivers that demonstrate appropriate activities for environmental literacy.

Strategies:

- a. Working within the framework of the Electronic Information Resources, develop an online data bank with links to appropriate infant/toddler environmental literacy resources.
Date of completion: 2012.
Collaborative partners: Chicago Metropolitan Association for the Education of Young Children
- b. Provide opportunities for “hands-on” learning about environmental literacy for parents and caregivers in communities using the Illinois Children’s Outdoor Bill of Rights and June Leave No Child Inside Month events. To learn more about the Outdoor Bill of Rights and Leave No Child Inside visit www.kidsoutside.com.
Date of completion: 2014.
Collaborative partners: Chicago Metropolitan Association for the Education of Young Children, Illinois Department of Natural Resources, Chicago Wilderness, Illinois Environmental Protection Agency, Association of Illinois Soil and Water Conservation Districts²

4. Develop “Green Standards” using the Illinois Early Learning Standards for preschool and ages birth through three using the Illinois Birth to Three Program Standards. For more information on Illinois Early Learning Standards visit <http://illinoisearlylearning.org/standards/index.htm>, Early Childhood Environmental Education Programs: Guidelines for Excellence visit <http://www.naaee.org/programs-and-initiatives/guidelines-for-excellence/early-childhood> and Illinois Birth to Three Program Standards visit http://www.isbe.net/earlychi/html/03_standards.htm.

Strategies:

- a. Using the kindergarten through 12th grade model, create green standards that align with Early Learning and Birth to Three Standards.
Date of completion: 2013.
Collaborative partners: Chicago Metropolitan Association for the Education of Young Children, Illinois Science Teachers Association, Association of Illinois Soil and Water Conservation Districts², Environmental Education Association of Illinois²

Appendix 8: Environmental Literacy for Illinois 2010 Strategic Plan *continued*

5. Evaluate programs and strategies.

Strategies:

- a. Using the Illinois Early Learning Standards, programs would measure children’s progress by assessing children by using photos, examples of children’s work, open-ended questions and observation.

Date of completion: 2015.

Collaborative partners: Chicago Metropolitan Association for the Education of Young Children

Non-Formal Education

Goal: Provide a framework for non-formal education initiatives, including identifying funds and resources and promoting awareness of nature and the environmental education opportunities and programs available for families, youth organizations, formal educators and students.

Objectives:

- 1. Promote awareness of non-formal education’s opportunities and programs to formal classroom principals and educators and provide links between what is being taught in the classroom and non-formal opportunities to enhance classroom lessons.**

Strategies:

- a. Within the frameworks established in Electronic Information Resources, establish an online resource guide that inventories non-formal programs/organizations/Websites outlining available activities or upcoming events and site locations that can be accessed by formal educators.

Date of completion: 2013.

Collaborative partners: Regional Offices of Education, Environmental Education Association of Illinois, Illinois Science Teachers Association, One Star/Chicago Astronomical Society, Association of Illinois Soil and Water Conservation Districts²

- b. Through the frameworks of the Environmental Learning Sites and Centers and Electronic Information Resources, make formal educators aware of available resources and program opportunities provided by participating non-formal educators.

Date of completion: 2013.

Collaborative partners: Illinois State Board of Education, Regional Offices of Education, Illinois Environmental Protection Agency, Environmental Education Association of Illinois, Illinois Science Teachers Association, One Star/Chicago Astronomical Society, Lincoln Park Zoo, Nature’s Classroom, Association of Illinois Soil and Water Conservation Districts²

- 2. Incorporate non-formal organizations into Science, Technology, Engineering and Math (STEM) Learning Exchanges through the Agriculture, Food and Natural Resources Learning Exchange.**

Strategies:

- a. Develop programs and real-life exercises for participating schools to incorporate field trips to non-formal facilities into the curricula.

Date of completion: 2015.

Collaborative partners: Illinois Science Teachers Association, U.S. Army Corps of Engineers Rivers Project Office, Department of Commerce and Economic Opportunity

- b. Provide programs and exercises where the non-formal education experience is a component or base of a research project.

Date of completion: 2015.

Collaborative partners: Illinois Science Teachers Association, U.S. Army Corps of Engineers Rivers Project Office, Department of Commerce and Economic Opportunity

- c. Provide learning standards criteria for non-formal education field trips to non-STEM schools.

Date of completion: 2015.

Collaborative partners: Illinois Science Teachers Association

- 3. Support fairness and equal partnerships between, and for, formal and non-formal educators. Ensure that fairness (between formal and non-formal education) in partnerships and funding are a part of any legislation involving the distribution of funds for environmental education.**

Strategies:

- a. Ensure legislation will make funds available to both formal and non-formal educators.

Date of completion: 2011-2015.

Collaborative partners: Illinois Science Teachers Association, One Star/Chicago Astronomical Society

- b. Work to include language in any documents that recognize non-formal education opportunities as valued and of equal significance as formal education opportunities.

Date of completion: 2011-2015.

Collaborative partners: Illinois Science Teachers Association

Professional Development for Non-Formal Environmental Educators

Goal: Provide training and support for non-formal environmental educators to serve families, introduce youth to nature and assist formal educators in meeting the goals, objectives and strategies of the Environmental Literacy for Illinois strategic plan.

Objectives:

- 1. Promote and provide quality professional development opportunities for non-formal educators.**

Strategies:

- a. Provide statewide training and enrichment opportunities targeted to self-identified non-formal organizations expressing a need.

Date of completion: 2010-2015.

Appendix 8: Environmental Literacy for Illinois 2010 Strategic Plan *continued*

Collaborative partners: Illinois Environmental Protection Agency, Illinois State Board of Education, U.S. Army Corps of Engineers Lake Shelbyville and Carlyle Lake, Environmental Education Association of Illinois, Lincoln Park Zoo, Fuller Park Community Development/Eden Place Nature Center, Association of Illinois Soil and Water Conservation Districts²

- b. Identify, consolidate and promote existing training opportunities through Environmental Learning Sites and Centers.

Date of completion: 2010-2015.

Collaborative partners: U.S. Army Corps of Engineers Lake Shelbyville and Carlyle Lake, Environmental Education Association of Illinois, Fuller Park Community Development/Eden Place Nature Center, Illinois Environmental Protection Agency², Association of Illinois Soil and Water Conservation Districts²

2. Establish, promote and maintain an accreditation program for Illinois environmental educators.

Strategies:

- a. Establish an accountable process for educators and providers to earn this professional certification.

Date of completion: 2011-2012.

Collaborative partners: U.S. Army Corps of Engineers Lake Shelbyville and Carlyle Lake, Environmental Education Association of Illinois

- b. Develop partnerships with other organizations to assist participants in meeting requirements for this professional certification.

Date of completion: 2010-2015.

Collaborative partners: Illinois Environmental Protection Agency, U.S. Army Corps of Engineers Lake Shelbyville and Carlyle Lake, Environmental Education Association of Illinois

3. Equip non-formal educators with tools, terminology and resources to integrate their programs and resources into formal curricula.

Strategies:

- a. Provide training which focuses on the definition, application and supporting research of formal pedagogy and the advantages of environmental education integration.

Date of completion: 2010-2015.

Collaborative partners: Environmental Education Association of Illinois, Environmental Education Association of Illinois, Illinois Science Teachers Association, Illinois State Board of Education, Lincoln Park Zoo

- b. Provide training on the incorporation and correlation of Learning Standards into non-formal programming. For more information on the Illinois Learning Standards visit <http://www.isbe.state.il.us/ils/>.

Date of completion: 2010-2015.

Collaborative partners: Environmental Education Association of Illinois, Environmental Education Association of Illinois, Illinois Science Teachers Association, Illinois State Board of Education, Lincoln Park Zoo

4. Sustain long-term oversight of non-formal professional development.

Strategies:

- a. Identify and designate an implementation team to achieve non-formal professional development of Environmental Literacy for Illinois Plan strategies.

Date of completion: 2011-2015.

Collaborative partners: Environmental Education Association of Illinois

Quality of Life

Goal: Promote school administrative decisions that encourage healthy student lifestyles and encourage environmental stewardship.

Objectives:

1. Encourage school decision-makers to consider environmental impacts when making infrastructure and operational decisions.

Strategies:

- a. Encourage sustainable school siting, comprehensive school travel plans and transportation policies that promote student walking and biking and conservation of resources.

Date of completion: 2011-2015.

Collaborative partners: Active Transportation Alliance

- b. Increase the number of schools who participate in the Governor's Sustainable Schools Compact and ensure the compact is being used to promote sustainable practices. For more information on the Sustainable Schools Compact visit <http://www.green.illinois.gov>.

Date of completion: 2011-2015.

Collaborative partners: Governor's Office, Active Transportation Alliance

- c. Encourage schools to take advantage of funding opportunities to increase energy efficiency projects. Funding opportunities will be listed at <http://IllinoisEnergy.org>.

Date of completion: 2011-2015.

Collaborative partners: Governor's Office, Department of Commerce and Economic Opportunity

- d. Ensure schools are adhering to standards in the Green Cleaning Schools Act (105 ILCS 140).

Date of completion: 2011-2015.

Collaborative partners: Governor's Office

Appendix 8: Environmental Literacy for Illinois 2010 Strategic Plan *continued*

2. Educate students about active lifestyle choices as a way to promote environmental stewardship.

Strategies:

- a. Increase bicycle and pedestrian safety education in schools.
Date of completion: 2011-2015.
Collaborative partners: Active Transportation Alliance
- b. Encourage schools to implement lessons across the curriculum that educate students about the multitude of benefits from active transportation.
Date of completion: 2011-2015.
Collaborative partners: Active Transportation Alliance
- c. Use nonformal educators and after school programs to reach and educate students outside of the classroom about alternative transportation options.
Date of completion: 2011-2015.
Collaborative partners: Active Transportation Alliance
- d. Promote outdoor play that integrates nature education with physical activity.
Date of completion: 2011-2015.
Collaborative partners: Chicago Wilderness

3. Educate students on healthy eating choices as a way to promote environmental stewardship.

Strategies:

- a. Educate students on the benefits of environmentally sustainable farming through field trips, classroom visits from farmers and other hands-on opportunities.
Date of completion: 2011-2015.
Collaborative partners: Fuller Park Community Development/Eden Place Nature Center
- b. Teach students the cultivation, nutritional value and cultural significance of fresh food.
Date of completion: 2011-2015.
Collaborative partners: Fuller Park Community Development/Eden Place Nature Center
- c. Encourage the establishment of sustainable food gardens at schools.
Date of completion: 2011-2015.
Collaborative partners: Fuller Park Community Development/Eden Place Nature Center
- d. Encourage partnerships with local restaurants and chefs to teach educators, parents and students on how to prepare healthy meals.
Date of completion: 2011-2015.
Collaborative partners: Fuller Park Community Development/Eden Place Nature Center

Careers

Goal: Identify, support and promote environmental careers education to diverse youth audiences to help achieve environmental sustainability.

Objectives:

1. Coordinate development and dissemination of environmental careers education programs that appropriately link career knowledge from prekindergarten through grade 12.

Strategies:

- a. Within the framework of Electronic Information Resources, encourage links between current Websites to broaden the circulation of information on environmental community service programs, field experiences, scholarships, internships/externships, conferences and other similar opportunities.
Date of completion: 2012.
Collaborative partners: Governor's Office, Illinois Environmental Protection Agency, Chicago Wilderness, Environmental Education Association of Illinois, Illinois Science Teachers Association
- b. Within the framework of Electronic Information Resources, build a separate Webpage or coordinate with the STEM Programs of Study to ensure access to links to environmental careers, labor market information, training sources, related credentials, internships, mentorships, projects, partnerships and other career-related opportunities and planning tools.
Date of completion: 2013.
Collaborative partners: Governor's Office, Illinois Department of Natural Resources, Illinois State Board of Education, Illinois Department of Commerce and Economic Opportunity, Association of Illinois Soil and Water Conservation Districts²
- c. Extend the occupational areas of the Career and Technical Education Division at the Illinois State Board of Education by including an area that focuses on environmental careers.
Date of completion: 2012.
Collaborative partners: Governor's Office, Illinois State Board of Education, Department of Commerce and Economic Opportunity
- d. Integrate environmental careers into applicable established Science, Technology, Engineering and Math (STEM) Programs of Study, including orientation level courses and career pathway specific courses that align with and articulate into postsecondary programs.
Date of completion: 2012.
Collaborative partners: Governor's Office, Illinois State Board of Education, Department of Commerce and Economic Opportunity

Appendix 8: Environmental Literacy for Illinois 2010 Strategic Plan *continued*

2. Identify and promote career partnerships between and among business, government, community members and prekindergarten through higher education providers.

Strategies:

- a. Provide models that integrate environmental careers and work-based learning opportunities into the learning experience through job shadowing, career day programs, mentorships, internships, sponsored problem-based learning challenges, and similar opportunities.

Date of completion: 2013.

Collaborative partners: Governor's Office, Illinois Environmental Protection Agency, Illinois Board of Higher Education, Illinois Science Teachers Association, Lincoln Park Zoo

- b. Use service project requirements to expose students to environmental careers.

Date of completion: 2011.

Collaborative partners: Governor's Office, Illinois State Board of Education, Illinois Science Teachers Association, U.S. Army Corps of Engineers Rivers Project Office

- c. Broaden understanding of environmental careers to include such vocations as environmental law, sustainable building design and construction, green agriculture, law enforcement, entrepreneurship, tourism and other careers through the career development tools provided by the proposed STEM Learning Exchanges.

Date of completion: 2014.

Collaborative partners: Governor's Office, Illinois Environmental Protection Agency, Illinois State Board of Education, Illinois Board of Higher Education, Illinois Science Teachers Association, U.S. Army Corps of Engineers Rivers Project Office, Department of Commerce and Economic Opportunity, Association of Illinois Soil and Water Conservation Districts²

Appendix 9. References Cited

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