

VILLAGE OF LOMBARD
REQUEST FOR BOARD OF TRUSTEES ACTION
For Inclusion on Board Agenda

Resolution or Ordinance (Blue) _____
Waiver of First Requested
Recommendations of Boards, Commissions & Committees (Green)
Other Business (Pink)

X

TO: PRESIDENT AND BOARD OF TRUSTEES

FROM: David A. Hulseberg, Village Manager *dh*

DATE: 11/12/08 (COW) (B of T) Date: November 20, 2008

TITLE: Environmental Concerns Committee, Recycling Education Grants

SUBMITTED BY: David Gorman, Assistant Director of Public Works *DD*

BACKGROUND/POLICY IMPLICATIONS:

A recommendation from the Environmental Concerns Committee to approve Recycling Education Grant requests from Glenbard East High School, St. John's Lutheran School and Willowbrook High School.

FISCAL IMPACT/FUNDING SOURCE:

\$2,226.72 / 2790.777500
Glenbard East High School \$350.00
St. John's Lutheran School \$950.00
Willowbrook High School \$926.72

Review (as necessary):

Village Attorney X
Finance Director X
Village Manager X *[Signature]*
Date _____
Date _____
Date _____

NOTE: All materials must be submitted to and approved by the Village Manager's Office by 12:00 noon, Wednesday, prior to the Agenda Distribution.



To: David A. Hulseberg, Village Manager *DH*

From: David Gorman, Assistant Director of Public Works *DG*

Through: Carl Goldsmith, Director of Public Works *CG*

Date: November 12, 2008

Subject: Environmental Concerns Committee Recommendation
Recycling Education Grants

At the October 28, 2008, Environmental Concerns Committee meeting, the Committee recommended approval of three Recycling Education Grant requests. The requests are as follows:

Glenbard East High School \$350.00
For the purchase of native prairie plants.

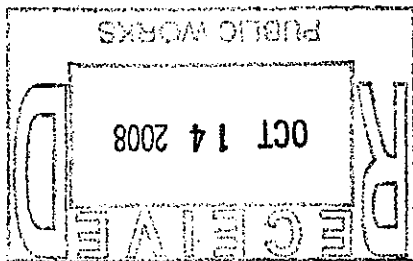
St. John's Lutheran School \$950.00
For the purchase of a worm bin, worms and three self-contained saltwater ecosystems.

Willowbrook High School \$926.72
For the purchase of water quality monitoring kits, leaf shape rakers mount, a paper recycling lab and primary succession raker mount.

Please present this item for consideration by the Board of Trustees at their next regular meeting.

DG:sc

Village of Lombard
Recycling Education Grant Program
APPLICATION



636.424.7196

Part 1-General Information
Name of Institution: Glenbard East High School
Address: 1014 S. Main St., Lombard, IL 60148
Name and title of person to contact: David A. Krodel-ecology/field biology teacher
Number of students: 25
Number of students residing in incorporated Lombard (estimate): 13

Part 2-Amount Requested and Project Description

- Amount of grant requested: \$350
- How many students will the grant funds help educate? 25
- Has the institution received prior grant money from the Village of Lombard? Yes
- Description of proposed project-See attached
- Description of items requested and costs-See attached

Part 3-Current Program (Recycling, Environment, Conservation)

- Has your institution earned the Earth Flag? Yes
- Does your institution have an environmental club? Yes
- How many students participate in recycling/environmental/conservation efforts? 60
- How many students are being taught about recycling/environment/conservation? 2700
- How are environmental programs emphasized in your classes? See attached
- Current recycling/environmental/conservation program and past accomplishments-See attached

2e-Proposed Project Description

Proposal

My plan is to continue to facilitate an existing prairie restoration effort at Glenbard East High School where I currently teach Field Biology/Ecology. As part of a service learning component of the class known as "Eco-Action," students currently volunteer their time to rehabilitate a restoration site on the school grounds. The requested sum of money would be used to advance this effort through the purchase of native prairie plugs (plants) that would be planted at the site in spring.

This project will promote learning about the environment in several ways. The first is through the actual restoration effort, which involves continual maintenance of the site. Planting and weeding are continually being done in the spring and fall in order to maximize attempts at returning this site to a native tall grass prairie ecosystem so students become familiar with the concept and practice of ecological restoration. Secondly, students also use the site for biodiversity analyses, which are utilized for assessing environmental quality of varying ecosystems. Techniques for assessing biodiversity are taught to students at the restoration site and are later utilized for comparative purposes in other field studies. Practicing these techniques on restored habitats on school grounds provides students with skills to use them in subsequent field studies and also provides valuable data that can be used to monitor yearly progress of the prairie restoration effort.

This project fits into the present curriculum in many ways. The aforementioned biodiversity analysis for assessing environmental quality is the primary curricular focus, but there are others. "Eco-Action" is the service learning component of the course I teach. Students are required to do a minimum of two hours of community service that is environmentally related each quarter, and they choose from several options how they will fulfill this commitment. One way is through work on the prairie restoration effort. Another curricular connection focuses on the investigation of the relationship between insects and their pollination habits concerning different types of flowering plants, many of which we observe directly in the prairie during the summer and fall months. Finally, students are also engaged in a unit of study that centers on biomes of North America. One of the predominant areas of focus is the ecology of the Midwestern tall grass prairie, which students are able to experience firsthand via the restoration effort at Glenbard East High School.

The restoration effort is also involved in environmental education and outreach. In Spring of 2008 a new sign designed by students was put in at the site entrance to inform others about the restoration effort. Public service announcements by students and articles in the school paper have also helped to raise attention about the prairie. Articles and photos in local newspapers have informed others in the surrounding community about what the restoration is about and why it is important. Flags showing locations of recent plantings and study areas within the site provide visual evidence that the site is actively monitored and used. Purchased plugs bought with Lombard Recycling Grant funds would advance efforts to show the school and surrounding communities that continual progress is being made in the restoration effort as more native plants are planted at the site, thereby exemplifying ideas of restoring native biodiversity, conserving natural resources, and making environmentally responsible land-use decisions.

2f-Requested Items and Costs

An accompanying sheet regarding costs of specific prairie plugs is attached along with a copy of last year's order. I hope this will provide sufficient information for how funds obtained through the Recycling Grant would be spent.

There are limited numbers of vendors who sell quality native plantings for reasonable prices and that are locally based. Vendors that I have referenced on past occasions include Prairie Moon Nursery in Winona, Minnesota, and Natural Gardens located in St. Charles, Illinois. While both of these vendors seem to have quality products, they are consistently more expensive both in the plugs they sell and because of their location. Also, both vendors are legitimate businesses who sell their respective prairie plants for profit, while also doing their part to educate clients on the benefits of and practices related to native plant restoration.

Upon the advice of retired colleague, Christine Schwarz, I investigated the Schaumburg Garden Club as my source for the purchase of prairie plugs last year. Prices were more competitive on average than those offered by the aforementioned vendors, and the proceeds of the Garden Club's sales are directed to non-profit and volunteer environmental initiatives with which they are involved. The Club itself is a non-profit entity staffed by volunteers. The local location, ordering, pick-up, and knowledge base of the volunteers make the purchase of the prairie plugs incredibly easy, and I know that the funds used to purchase the plants will go to advance environmental restoration causes with which the Schaumburg Garden Club is affiliated. For these reasons it would be my preference to use funds from the Recycling Grant to purchase native plants from the Schaumburg Garden Club as opposed to other vendors.

3e-Environmental Programs In My Classes

There are several ways in which environmental programs are emphasized in the classes I teach. Most of these manifest themselves in the aforementioned Eco-Action part of the ecology/field biology class I teach, most notably in efforts like the Glenbard East High School prairie restoration effort. For students who are not able to satisfy their community service component of the class working on the prairie restoration, they can choose to partake in any one of the numerous volunteer opportunities put forth by the DuPage County Forest Preserve District. Each weekend the DCFPD has multiple sites where seed collecting, brush removal, and weeding are in need of being done. Also, Glenbard West High School and Glenbard East High School are currently pursuing a partnership with the DCFPD in which the schools will become environmental stewards of a certain part of Churchill Woods in which many of the same maintenance activities mentioned earlier will be done to restore various sites in that preserve area. At times students will offer their volunteer services at SCARCE in Glen Ellyn, Illinois, helping either with book reorganizing or the Nike Shoe Drive. Finally, students in last year's ecology class participated for the first time in the DuPage County Green Design Challenge, in which students throughout the county built three-dimensional models of Green Design homes and entered them in a one day exposition in which the students were able to explain to viewers aspects of Green Design and how it could be incorporated into local homes and businesses.

3f-Current Recycling/Environmental/Conservation Program

The current recycling, environmental, and conservation program at Glenbard East High School features several positive aspects and past accomplishments, but there are also significant improvements that need to be made. For example, the Ecology Club earned two Earth Flags from SCARCE for developing and implementing a school-wide recycling program. The students in Ecology Club also currently participate in service projects such as making large crayons for SCARCE, which in turn donates the crayons to schools and programs that have students with special needs.

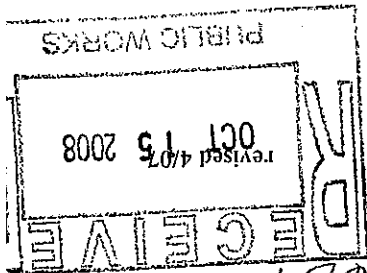
Many of the students in the ecology/field biology class have also contributed to the recycling, environmental, and conservation program at Glenbard East. One such contribution is the student involvement in the aforementioned prairie restoration effort as well as other school beautification projects. Students in the ecology class have also participated in community efforts to improve the environment as well. The aforementioned work at SCARCE doing book reorganization or helping with the Nike Shoe Drive are two examples, but students in ecology/field biology also take part in other types of recycling/environmental/conservation work such as the Lombard Recycling Extravaganza. Each year during this event, several students from the Village of Lombard and Glendale Heights give two, three, and four hours of their time to help with the organization and transport of materials being donated.

While the previously mentioned examples point to positive aspects of the recycling, environmental, and conservation program at Glenbard East High School, there is still room for improvement. The recycling program, once strongly utilized throughout the school to limit waste, has stagnated. In an effort to reinvestigate recycling efforts in the school, the Ecology Club is now investigating alternatives to bring this part of the program back to its once prominent status, hopefully to earn another Earth Flag.

Christine Schwarz, the former teacher of the ecology/field biology class and former sponsor of the Ecology Club, initiated many of these efforts in the past twenty years of her career. With her retirement the challenge of helping the recycling, environmental, and conservation program to grow falls to her successors, of which I am one. With funds from the Recycling Grant and the purchase and planting of prairie plugs from the Schaumburg Garden Club, the expectation is that Glenbard East High School will help the Village of Lombard move toward a more environmentally sustainable future.



Village of Lombard
Recycling Education Grant Program
APPLICATION



PART 1 - GENERAL INFORMATION

Name of institution: St. John's Lutheran School
Address: 220 S. Lincoln Ave.
Name and title of person to contact: Nora Holler, Teacher
Number of students: 225 Number of students residing in incorporated Lombard: 10 (estimate)

PART 2 - AMOUNT REQUESTED & PROJECT DESCRIPTION

a. Amount of grant request: \$ 950 (includes shipping)
b. How many students will the grant funds help to educate? 225

c. Has the institution received prior grant money from the Village of Lombard? ☒ YES ☐ NO
d. Provide a clear, concise description of the proposed project. Indicate how the project promotes enthusiasm to learn more about the environment, how the project fits into your organizations curriculum and how it will enhance environmental education or outreach.
e. Provide detailed descriptions of items requested and costs. If the grant involves commodity purchases, provide three quotes including vendor name and prices. If recycled products are being purchased, list what percentage of product is made from recycled materials.

PART 3 - CURRENT PROGRAM (RECYCLING, ENVIRONMENT, CONSERVATION)

a. Has your institution earned the Earth Flag? ☒ YES ☐ NO
(for information on earning the Earth Flag visit www.bookrescue.org/scarce/default.asp?page=SearchFlag)
b. Does your institution have an environmental club? ☒ YES ☐ NO

c. How many students participate in recycling/environmental/conservation efforts? 225

d. How many students are being taught about recycling/environmental/conservation? 225

e. How are environmental programs emphasized in your classes? All of our students

f. In your typed report, explain your current recycling/environmental/conservation program and past accomplishments. How long have you had this program? What does the institution do for the environment other than recycling? How has the program helped people in the Village of Lombard? receive environmental information as part of our science curriculum.

Office use only

Approved by: _____

Chairperson, Environmental Concerns Committee

Date: _____

PART 2, D:

We are asking for the supplies needed to create an area that can recycle organic waste from school lunches into garden compost. We will use redworms for worm composting, in which we will use worms to recycle food scraps into valuable vermicompost, or worm compost. The worms will eat the food scraps that the students will recycle from their lunches, and the scraps will become compost as it passes through the worms' bodies. Compost exits the worms through their tails, and this compost can be used to grow plants. Students will be involved in all phases of this program as they collect and feed the worms lunch scraps and gather the finished compost that can be added to the plants around school. Students will have the opportunity to observe the worms as they work. We are also asking for 3 EcoSphere self-contained saltwater ecosystems. These are enclosed ecosystems that students can observe. These ecosystems harbor shrimp, algae, and bacteria in a balanced, symbiotic environment. Students of all ages (we will share these with all classrooms) will have the opportunity to observe the delicate balance of a closed ecosystem like the earth. The EcoSphere's biological cycle represents a simple version of the earth's own ecosystem. Each classroom learns about the earth, and these EcoSpheres will provide the teachers a living example of balanced, successful ecosystem to share with their students.

Worm bin (Worm-a-way, model 7002, includes book and worms):

\$69: www.wormwoman.com (WormWoman)

\$75.95: www.abundantearth.com (Abundant Earth)

\$82.95: www.sciencevillie.com (Fisher Science Education)

Worm bin Creature video

\$25: www.wormwoman.com (WormWoman, only available here)

Wormania Video

\$34.90: www.wormwoman.com (WormWoman, only available here)

Worms Eat Our Garbage book

\$22.95: www.wormwoman.com (WormWoman)

\$22.95: www.amazon.com

Large Ecosphere

\$199.95: www.abundantearth.com (Abundant Earth)

\$215.95: www.greenfeet.com (Green Feet)

\$250: www.eco-sphere.com (Ecosphere Associates, Inc)

Turntable Base (for Ecosphere)

\$14.95: www.abundantearth.com (Abundant Earth)

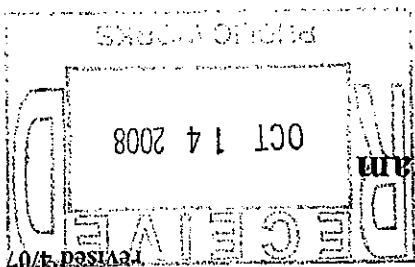
\$14.95: www.greenfeet.com (Green Feet)

PART 3, F:

Our entire school and church (offices and classrooms) recycle paper, and have for many years. During the 2007-2008 school year we celebrated Earth week, which included a number of recycling activities. The seventh grade science class hosted a no-waste week, where we significantly reduced our lunch waste. We recycled milk cartons, plastic, and glass during the month of May. We hope to continue this effort this spring as we reduce the amount of garbage that the village of Lombard will need to collect and dispose of from our school. Our student council sponsors several clean-up days throughout the year when our students clean up trash around our neighborhood. Our church and school also have a paper recycling container, and people from the church and school are encouraged to use it to dispose of their unwanted paper.



Village of Lombard
Recycling Education Grant Program
APPLICATION



PART 1 - GENERAL INFORMATION

Name of institution: Willowbrook High School
Address: 1250 S. Ardmore Ave Villa Park IL 60181
Name and title of person to contact: Mrs. Justine Boyers - Teacher
Number of students: 2200 Number of students residing in incorporated Lombard: 800 (estimate)

PART 2 - AMOUNT REQUESTED & PROJECT DESCRIPTION

a. Amount of grant request: \$ 926.72
b. How many students will the grant funds help to educate? 730

c. Has the institution received prior grant money from the Village of Lombard? ☒ YES ☐ NO
d. Provide a clear, concise description of the proposed project. Indicate how the project promotes enthusiasm to learn more about the environment, how the project fits into your organizations curriculum and how it will enhance environmental education or outreach.
e. Provide detailed descriptions of items requested and costs. If the grant involves commodity purchases, provide three quotes including vendor name and prices. If recycled products are being purchased, list what percentage of product is made from recycled materials.

PART 3 - CURRENT PROGRAM (RECYCLING, ENVIRONMENT, CONSERVATION)

a. Has your institution earned the Earth Flag? ☒ YES ☐ NO
(For information on earning the Earth Flag visit www.booktreasure.org/scarce/default.asp?page=SearchFlag)
b. Does your institution have an environmental club? ☒ YES ☐ NO

c. How many students participate in recycling/environmental/conservation efforts? 2200
d. How many students are being taught about recycling/environment/conservation? 700
e. How are environmental programs emphasized in your classes? See attached

f. In your typed report, explain your current recycling/environmental/conservation program and past accomplishments. How long have you had this program? What does the institution do for the environment other than recycling? How has the program helped people in the Village of Lombard?

Office use only

Approved by: _____

Chairperson, Environmental Concerns Committee

Date: _____

d. Willowbrook High School started studying the brook that runs through the property. The students study the chemical make up of the water along with micro invertebrates and macro invertebrates. The environmental studies program has grown and more lab supplies are needed to ensure every student gets and opportunity to perform field tests on the brook. The kit will allow us to test nitrate nitrogen, phosphate, dissolved oxygen, alkalinity, turbidity, temperature and pH. The students then go on to research their results and determine possible sources of pollutants that are found.

Willowbrook had also been expanding forestry studies. Knowing the leaf shapes and varieties helps the students to use identification guides properly. Having a mount of these shapes and varieties would provide an excellent visual for comparison as the students work in the field to identify various tree specimens.

Primary succession is difficult for students to understand. Because it takes quite a long time to complete the process students find it difficult to visualize the steps. A mounted display of succession would greatly aid the students understanding of this concept.

The papermaking lab would be a wonderful way for students to get hands on experience with recycling. What happens to the paper after we put it in the recycling bin? Seeing the process will help students understand the importance of recycling.

These items will be used with the Environmental Science and Biology classes at Willowbrook High School. Since the products can be used year after year-a great many students will benefit from them.

e.

Itemized list of grant requests

Item	Vendor	Number	Price	Amount
Water Quality Monitoring Outfit	Wards Scientific	21 V 0008	\$378.00	2
Leaf Shape Rikers Mount	Wards Scientific	67 V 1153	\$52.25	1
Paper Recycling lab	Fisher Scientific	S660008	\$47.22	1
Primary Succession Riker Mount	Wards Scientific	67 V 1112	\$71.25	1
Total			\$926.72	5 items

See attached packet for quotes and vendors.

e. How are environmental programs emphasized in your classes?

Every classroom recycles paper products and students are encouraged not to waste paper and other materials. The cafeteria offers aluminum recycling as well as paper recycling. Resource conservation is discussed in social studies classes as well as in science courses. All freshmen are taught about ecology and conservation in the Biology courses. Over 100 students go one to take the Environmental Science elective to further apply the concepts of ecology. Teachers strive to use double-sided copies and scrap paper is bound and given out to the teachers in the beginning of the year. A display cabinet that the environmental club keeps up educates students on recycling and conservation.

f. In your typed report, explain your current recycling/ environmental conservation program and past accomplishments. How long have you had this program? What does the institution do for the environment other than recycling? How has this program helped the Village of Lombard?

Willowbrook's recycling program started 19 years ago with the birth of Students for a Better Environment, which promoted recycling and conservation throughout the school.

Besides recycling and reducing our waste- the school has sent volunteers to work at events including Lombard's Recycling Extravaganza, and Wheaton's Recycling Event. Students for a Better Environment have collected gym shoes for Nike's reuse a shoe program and have competed in the Illinois Envirothon where the Willowbrook team had two first place finishes and one second place finish over the past four years for DuPage county. The students of Willowbrook generously donated unwanted or used crayons to be melted down and reformed into large crayons for students with special needs to use. Willowbrook's bookstore and library has donated gently used books to Book Rescue and SCARCE to send to needy students. The environmental club worked to stencil "Do not dump-Goes to Stream" on storm drains in Villa Park and passed out door hangers with information about illegal dumping to residents of Villa Park. Also, the cleaning of the brook that crosses the school property has been the responsibility of the students. Finally, the Environmental Club has worked to clean the Prairie Path and to remove teasel from the Great Western Trail.

Students for a Better Environment continue to learn about conservation outside the class by attending workshops by the National Conservation Society, visiting Brookfield Zoo and learning about endangered species and animal conservation, visiting the Morton Arboretum to learn about tree conservation and having special guest speakers to discuss environmental topics. Members of the Environmental Club have attended green building workshops and participated in a green building design competition in the past.

By promoting recycling and conservation efforts in the school it is hoped that the students that live within the Village of Lombard will practice recycling and conservation efforts at home. In participating in Lombard's Recycling Extravaganza, the students aided the people of Lombard directly by helping them to unload books, lumber or scrap metal. We hope to continue to find way to reach out to the people of Lombard and to aid in environmental causes.