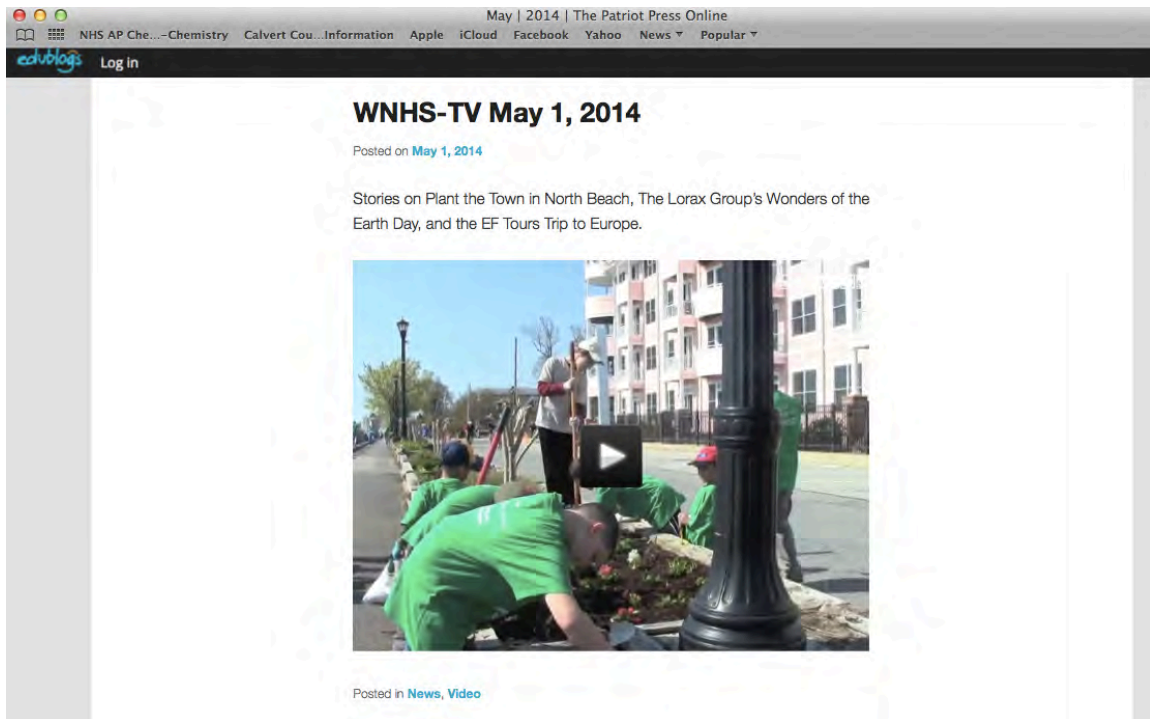


Objective 1: Systemic Sustainability

1.1 Curriculum & Instruction: Environmental Issue Instruction

Journalism students cover environmental issues in the *Patriot Press* news magazine, in the *Patriot Images* yearbook, and on their weekly broadcast – WNHS TV; SchoolTube. This involves over 100 students each year, who work on the broadcasts and publications, some who are specifically assigned the environmental “beat”.



The screenshot shows a web browser window displaying a news article. The browser's address bar shows the URL "NHS AP Che...-Chemistry Calvert Cou...Information Apple iCloud Facebook Yahoo News Popular". The page title is "WNHS-TV May 1, 2014". Below the title, it says "Posted on May 1, 2014". The article text reads: "Stories on Plant the Town in North Beach, The Lorax Group's Wonders of the Earth Day, and the EF Tours Trip to Europe." Below the text is a video player showing a group of people in green shirts working on a boardwalk. The video player has a play button in the center. Below the video player, it says "Posted in News, Video".

Screenshot is from WNHS online archive; story about *Plant the Town* - a day in North Beach for planting trees and gardens and cleaning up the boardwalk and beach.

A new Northern High

Students may move in as soon as 2017



by Ekaterina Sysoeva
News Editor

Plans for a new Northern High School have been discussed for about a decade. The Northern community will finally see the ground broken as the construction of the new building starts in spring 2015. Students may occupy the new school as soon as 2017, with the entire project set to conclude in 2019.

The final replacement project with the new building was presented by George Leah, director of school construction, at a meeting of the Calvert County Board of Education in October. The design phase is complete and bids on the project are being accepted now. Work on the new \$65 million school is expected to take 40 months.

The 244,090-square-foot building will be built behind the current Northern High while students continue to attend the school. After the old school is demolished, there will be a larger area for buses and cars built on the site with 618 spots for parking. The Mary Harrison Center will also see the addition of 5,535 square-foot instructional space improvements.

Student capacity of the new school will increase to 1,500 from the 1,233 the current school is designed to hold. The new building will include two gyms, a larger Media Center, and security improvements.

The building will be a United States Green Building Council LEED Silver building (Leadership in Energy and Environmental Design). Some of the main features will be a geothermal HVAC system that will reach 300-feet underground to use ground temperatures to produce heat and air

conditioning; a rainwater storage system for irrigation; a water infiltration system to collect water from the building and parking areas; bio-retention systems; low energy LED lighting; a reflective roofing system; bike racks; and a digital display of various building systems for student interaction. Leah noted, "These features are all intended to reduce our carbon footprint and energy reduction."

The rainwater harvesting and filtration system is similar to one used at the Velodrome stadium in London at the Summer Olympics in 2012 that provided more than 75% of the water needed.

Students at NHS will experience going to school in a construction area the next two years. If everything is on schedule, the current freshman class will be the first to graduate as students at the new and improved Northern High.



The new school from the football field

by Ekaterina Sysoeva
News Editor

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The new school from the football field

Patriot press article explaining LEED certification for which the new Northern High building will qualify. December 19, 2014 issue.

Several issues of the school news magazine have covered environmental stories and green building design. Magazine dates span from April 3, 2014 to December 4, 2015.



A story on the buffer garden designed and planted by the Lorax club. Issue published on June 4, 2014.

Save the Bay

Lorax helps the community by reducing the amount of fertilizer runoff into the bay.

by Claire Gautros
Editor-in-Chief

Northern's environmental club, the Lorax, planted nearly 100 plants in a buffer garden in the Richfield Station neighborhood of Chesapeake Beach on April 26. It surrounds a retention pond which was built to hold both water and the fertilizer runoff. Growing plants around the pond is the perfect way to allow the plants to absorb nutrients in the runoff to stop the fertilizer from reaching the bay.

The Lorax club and the Richfield Station Homeowner's Association teamed up on this project. They installed all native Maryland plants around a retention pond in the development.



One of the completed buffer gardens.

"There was a valuable opportunity for a NHS student program that fit nicely with Richfield Station Homeowner's Association's timeline for action on a particular SWM (stormwater management) pond," said the homeowner's association president Greg Morris. The homeowner's association provided the materials for the project.

The Richfield Station Homeowner's Association agreed to host the buffer garden after group sponsor Robin Clites and senior member Susanna Ek pitched the idea at a meeting of the association in early April. "We were pleased to find the commu-

nity so receptive to getting involved in an environmental project with the students," said Clites.

The group members didn't mind the work and say they enjoyed their day planting. "I've always been an avid gardener and have a passion for the environment so this project was a great way to combine the two," explained Ek.

The environmental work wasn't extremely hard but it was still very helpful. "The planting of buffer gardens will help to reduce the amount of pollution from runoff that enters Fishing Creek and will improve the condition of the bay," said the chair of the Chesapeake Beach Oyster Cultivation Society, John Bacon.

The two biggest sources of pollution in the bay are nitrogen and phosphorus coming from fertilization. Ek said, "It feels wonderful to have the buffer garden finished because not only did we improve the area's appearance, but we also put in plants that will help stop fertilizer runoff and hopefully have a positive impact on the bay." The group plans to continue projects to try to preserve the earth.



Lorax members working on the garden.



Lorax group members with Clites (left).



Ek holding the buffer garden plan.

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Images by Melissa Henwood and by permission of the Clites for Oyster Cultivation Society.
Percentage