Hunterdon County Democrat

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STATE

New report scrutinizes river's quality

By Nick Falsone
For The Hunterdon County Democrat

Parts of the Musconetcong River get too warm in the summer, lack the amount of aquatic life that's considered ideal, and suffer from an eroding habitat.

These are among the findings in a report issued Tuesday by the Musconetcong Watershed Association. It is the first time the association has compiled such a report. The Watershed Institute and the Lake Hopatcong Foundation funded it.

The Musconetcong River joined the National Scenic River System in December 2006. The river is about 42.5-miles long and heads in a general southwest direction to the Delaware River and ultimately hits the Delaware Bay.

— Rivers.gov

The watershed affects parts of Hunterdon, Morris, Sussex and Warren counties. To compile data for the report, the association's river watchers analyzed conditions at four different points of the river during four different times of the year.

Two of those points were in Warren County — off Route 57 in Washington Township and near the Point Mountain Bridge in Mansfield Township. The report also did analyses off Willow Street in Roxbury Township, Morris County, and off Mount Joy Road in Holland Township, Hunterdon County.

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RARITAN TWP.

Town appoints administrator

By Sallie Graziano
For Hunterdon County Democrat

Jerry Giaimis has been appointed as administrator for Raritan Township.

Giaimis has been serving as interim administrator since

ALEXANDRIA

Attending flight school

Using STEM skills, students at Kingwood Township School get a lesson in flying.

By Sallie Graziano
For Hunterdon County Democrat

Foam picnic plates turned into airplanes Tuesday morning as sixth-graders from Kingwood Township School tested their science, tech, engineering and math skills.

They were at Alexandria Field, where owner Linda Castner and flight instructor Todd Cooper led them through controlled experiments in flight.

After discussing air pressure and the four forces that work on a plane — lift, drag, weight and thrust, the students followed a template to build foam plate gliders dubbed FPG-9s.

The class split into two teams to see how well their planes would fly. There were two configurations involving flaps on the wings, and the goal of the experiment was to see how one configuration differed from the other.

Castner and Cooper timed the test flights as students recorded the data. One after another the student pilots let their aircraft go, with the observers timing how many seconds the planes stayed aloft. Some soared; some dove.

"We're looking at how drag works in opposition to lift, and what makes an airplane fly," Cooper said. "The more drag you have, the shorter your flight will be."

The results were compiled into a chart on a whiteboard. Averaging the flight times called on students' math skills, and the class evaluated the results.

"I'm teaching them what a controlled experiment is in class," math and science teacher Tanya Brooks said as the students took out their calculators. "So often you hear, 'When am I going to use this?' Now they say, 'Oh!' It's neat getting them to see how and where they can use this."

It takes concentration to launch a foam glider. Students from Kingwood experimented with the gliders in a program at Alexandria Field that aimed to show the links between, math, science and flight. (PHOTOS BY SALLIE GRAZIANO/HUNTERDON COUNTY DEMOCRAT)

This is Brooks' second year bringing students to "flight school" at Alexandria Field. Brooks said she and Castner have come up with four lessons, with plans to do more.

"Now we're talking about a weather and water unit," Brooks said. "In spring we'll be looking at solar balloons, because we'll have started geometry by then and they'll understand surface area."

School officials throughout the state can see how the program works later this month, in a presentation for the New Jersey School Boards Association.

Kingwood sixth-grader Samantha Parlato launches her glider during a program at Alexandria Field on Tuesday.

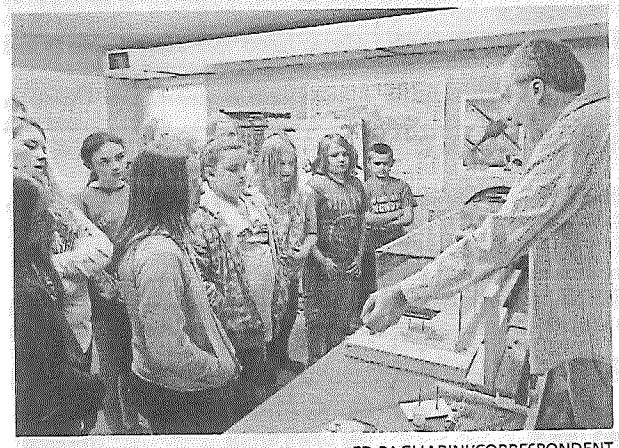
"We're going into the iSTEAM studio on Tuesday, Oct. 27, from 1:30 to 2," Brooks said.

STEAM stands for science, technology, engineering, arts and math, and Brooks said the studio is basically a green room, where they can perform their experiments. "We're giving a mock lesson for everyone about what we're doing," Brooks said.

Learning to fly

ED PAGLIARINI/CORRESPONDENT

Sixth-grader Jake Lonergan works on his plane.



ED PAGLIARINI/CORRESPONDENT

Flight instructor Todd Cooper explains a wind tunnel.

ED PAGLIARINI/CORRESPONDENT

Alexandria Field Airport conducted a "living laboratory" for Kingwood School's sixth-graders on Thursday. The students applied Archimedes' Principle of buoyancy, constructed tetrahedrons and solar balloons and designed and flew airplanes and rockets. The lesson, "What Makes an Airplane Fly," taught the students about Newton's first, second and third laws as well as Bernoulli's Principle for the generation of "lift" in flight. The students built FPG-9 Flyers out of foam plates and then set the control surfaces in various configurations to see how airplanes are controlled. After several test flights, the students plotted the results and then discussed them. Here, Master Aviation Educator Linda Castner explains flight to the students.