

# Park eyes climate change

By JOHN PEPIN  
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MUNISING — With numerous changes predicted for climate in the Great Lakes Region over the next several decades, staff at Pictured Rocks National Lakeshore, with the help of educators and interested members of the public, worked last week on ideas to contend with those changes and ways to lessen the park's contributions to global warming.

"I think it's clear climate change is occurring at a more rapid pace than scientists would have imag-

ined just a few years ago," said Pictured Rocks Superintendent Jim Northup.

Less ice coverage on Lake Superior, earlier spring thaws, longer autumns, expanding ranges of bird populations, fewer sugar maples and birch trees, dropping groundwater levels and more exotics species are all things scientists think are likely changes to expect for the Great Lakes Region.

Pictured Rocks has been honored as a model among several national park units nationwide working on ways to reduce the ways park ac-

tivities contribute to global warming.

Karen Scott, an educator with the U.S. Environmental Protection Agency from Washington, D.C. said national parks are places the public can see the effects of global warming and have beautiful natural features that could be jeopardized by changes in climate.

"There's much the park service can do to inform the public about reducing emissions," Scott said.

At an all-day "Climate Friendly

See Climate Page 10A, col. 1

## Climate

Continued from page 1A

Parks Workshop" in Munising Thursday, park staff, citizens and tourism and business interests linked to the park discussed how the park is contributing to the amount of heat-trapping greenhouse gases and air pollutants in the atmosphere.

The group also broke into work groups to discuss ways to reduce park emission levels and educate the public about what positive steps the park is taking.

"Everything we do has an environmental footprint," said Pictured Rocks Facilities Manager Chris Case, who has received national awards for the park's programs to reduce energy consumption, use alternative fuels and more environmental-friendly products. "The bottom line is we never do enough. We should always be doing more."

A 2005 emissions inventory for Pictured Rocks detailed the park's estimated emissions of greenhouse gases and certain air pollutants. The inventory considered activities occurring only within the park boundary.

"We estimated the park's emissions based on activities," said Chris Steuer, of ICF International, a group helping rangers complete their inventory. "Transportation emissions were the bulk of the emissions."

Pictured Rocks contributes an estimated net total of 400 metric tons carbon equivalent of greenhouse gases into the environment each year.

That figure is equal to the amount of greenhouse gases produced by 350 U.S. automobiles annually, or the electricity of 200 households. It would take 40,000 seedlings a decade to pull that amount of gases back in.

In a draft version of the survey, greenhouse gas emissions were estimated at the park to be comprised primarily from snowmobile emissions, which made up 37 percent of the total.

Visitor vehicles contributed 23 percent, Pictured Rocks Cruises tour boats provided 19 percent, with visitor watercraft, park equipment and park vehicles each contributing 7 percent and park watercraft less than 1 percent.

Of the 4.3 tons of nitrous oxide emissions, visitor vehicles contributed 55 percent of the total, park vehicles 6 percent, Pictured

Rocks Cruises 28 percent, visitor snowmobiles 9 percent and park watercraft and equipment each 1 percent.

In a Climate Friendly Park comparison of a dozen parks studied, Pictured Rocks had the lowest total for gross greenhouse gas emissions at 4.37 metric tons carbon equivalent.

But in this statistic, the number of park visitors plays an important role. Pictured Rocks has roughly a half-million visitors each year.

The highest gross greenhouse gas emissions park was Great Smoky Mountains National Park with 21,033 metric tons carbon equivalent.

But that park has about 9 million visitors annually.

Pictured Rocks currently has several features in place to help conserve energy and reduce emissions including a cabin, toilets and water pumps run on solar energy, the park's vehicle fleet using biodiesel and several fluids and other lubricants made from soybeans.

Northup said park officials are deeply concerned about the potential impacts of global climate change on Lake Superior and the ecological integrity of the national lakeshore.

One of the park's primary legal responsibilities is to maintain the ecological integrity of the lakeshore to leave it unimpaired for future generations, he said.

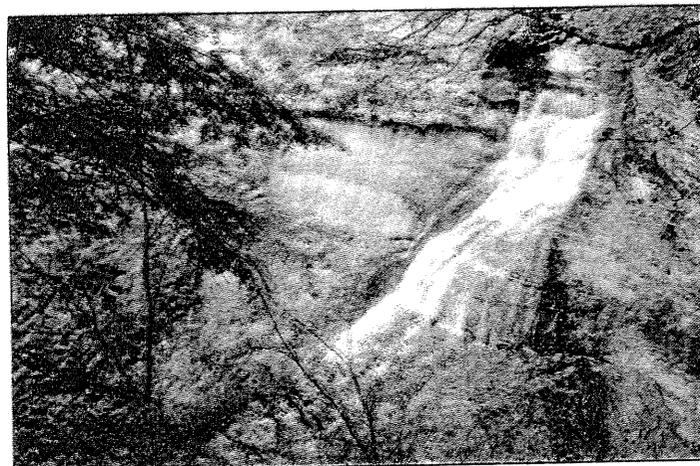
"This will become increasingly difficult if not impossible as climate and the distribution of vegetation, insects and other wildlife changes," Northup said. "There will be impacts on everything from

our ability to access boat ramps and docks to public health, and it behooves all of us to learn as much as we can about what is going on."

Northup said that as one of the nation's premier conservation agencies, the National Park Service has an obligation to serve as role models and do everything it can to reduce the greenhouse gas emissions from park operations and visitation.

Using suggestions from breakout groups at this week's workshop, Pictured Rocks officials are expected to work on an action plan, monitor progress and take additional steps to educate the public about climate dynamics and efforts all visitors and staff can take to improve conditions for the future.

For more information, visit the park's web site at [www.nps.gov/piro](http://www.nps.gov/piro)



Chapel Falls is one of the numerous attractions that draws more than 400,000 visitors to Pictured Rocks National Lakeshore each year. (Journal file photo by John Pepin)