

BIOBASED PRODUCTS:

Keeping Pictured Rocks National Lakeshore Picturesque

Wild Beauty Worth Protecting

Hugging the Lake Superior shoreline in Munising, Michigan, the landscape of Pictured Rocks National Lakeshore is as stunning as any island off the coast of Italy or Greece. More than a half million people visit the park each year.

Hosting so many visitors while preserving the irreplaceable natural resources of the park is a delicate balancing act. As chief of facility management, it's a task that Chris Case has made his life's work.

cost-competitive and perform as well or better than their traditional counterparts, according to Case, who has used biobased products for more than a decade.

“We have seen nothing but positive effects from using biobased products,” Case says. “They are at least equal, if not better than petroleum-based products. Why wouldn't we do this?”

Why biobased?

Biobased products have many benefits to humans and the environment. Typically, they:

- Are lower in toxicity than petroleum products.
- Perform similarly to their more toxic counterparts.
- Reduce volatile organic compounds. VOC emissions pose dangers to human health and the environment both as indoor air pollutants and outdoor air pollutants.
- Reduce exposure to hazardous chemicals as well as irritation from odors.
- Are made from domestically produced, abundant, renewable resources that replace products made from petroleum, and help reduce demand for imported oil.

“Even in our remote location, we have no problem finding and buying these widely available biobased products,” Case says. “And they are cost-competitive.”

Graffiti Remover and Other Cleaners

One of the staff's favorite biobased products is a **graffiti remover**. Fortunately, graffiti itself is not much of a problem at the park, but it works well

A young family enjoys a picnic at Sand Point in Pictured Rocks National Lakeshore in Munising, Michigan.



Pictured Rocks National Lakeshore Facility Manager Chris Case.

“Biobased products are readily available, cost-competitive and perform as well or better than traditional products.”

— Chris Case, Chief of Facility Management

getting just about any surface clean. “It attacks aggressively but with no hazardous fumes, and there's a lot less concern about getting it on our hands,” Case says.

The park also uses a biobased **wood preservative** on picnic tables, which weather over time.

“We didn't feel good about using toxic chemicals on the same tables where parents were feeding peanut butter and jelly sandwiches to their kids,” Case says. “We spray the soy wood treatment on every two years and it seals up and protects the wood.”

Chris Case demonstrates the power of a soy-based graffiti remover by cleaning a park sign.



Pictured Rocks National Lakeshore employee William Magli maintains a large snowplow with soy-based lubricants while using a hydraulic lift that also uses soy-based hydraulic fluid.

In the 1990s, as a growing variety of biobased products made from soy began emerging, Case jumped at the chance to be an early adopter. Today, Pictured Rocks National Lakeshore continues to lead in its use of biobased products. Case and his team use soy biobased products to replace petroleum-based products – in everything from **hand cleaner to graffiti remover to auto lubricants**. They are readily available,



Pictured Rocks National Lakeshore employee William Magli washes grease from his hands with a soy-based hand cleaner.

Shop Uses

The maintenance shop keeps the park's diesel vehicles and other equipment running smoothly, and many petroleum products have been replaced with biobased products. These include:

- **Hand cleaner.** The soy-and-pumice cream removes ink, stains, grease and oil with ease, and is gentle on skin.
- **Auto lubricants.** The all-natural, soy-based lubricant penetrates gears, chains and hinges just as well as other products. There are no harmful fumes or vapors.
- **Hydraulic fluids.** A readily biodegradable, non-hazardous hydraulic oil for use in general-purpose hydraulic systems used in the park's vehicles and shop lifts.
- **Parts cleaner.** The shop workers had struggled with parts cleaners, which were highly flammable and gave off high levels of VOCs. The park asked Renewable Lubricants, Inc., if they could make a biobased parts cleaner, and the resulting product is now marketed as Bio-Parts Cleaner/Degreaser™.

Biodiesel Fuel

Almost all of the diesel vehicles and other pieces of equipment run on B20, a blend of 20 percent biodiesel. Biodiesel is a diesel fuel replacement made from soybean oil as well as other readily renewable sources. Vehicles include a ten-ton dump truck, backhoe loaders, utility tractors, snow blowers, and a diesel pickup truck. The park has used biodiesel since 1999.

"We've always liked biodiesel due to its ease of use, solid performance and its cleaner exhaust," Case says.

FACT FILE



For more information about the following Bio-Soy lubricants from Renewable Lubricants, visit www.renewablelube.com or call (330) 877-9982:

- Bio Hydraulic Fluids
- Bio-Synthetic Trans Hydraulic Fluid
- Bio-TC-W 2-Cycle Engine Oil
- Bio-Pro Bar & Chain Oils
- Bio-Parts Cleanser/Degreaser
- Bio-Penetrating Lubricant

For more information on Soy Scrub Hand Cleaner or SOY Gel Paint and Urethane Remover from Franmar Chemical, visit www.franmar.com or call (309) 828-2900

For more information on BioGearEP from BioBlend visit www.bioblend.com or call (630) 227-1800

For more information on Soy EP Plus #2 from Environmental Lubricants Manufacturing visit www.elmusa.com or call (319) 277-9075

For more information on Graffiti Remover from SoyClean visit www.soyclean.biz or call (641) 522-9559

America's farms are just beginning to tap their potential as a source for natural, renewable biobased products that offer benefits to worker health, the environment, America's economy and energy security. To learn more about the many biobased products made from soybeans, go to www.soy-biobased.org. Because of the potential for biobased products to create new markets for soybeans, U.S. soybean farmers have invested millions of dollars to research, test and promote biobased products. Much of this work was done through the United Soybean Board (USB), which is composed of 69 U.S. soybean farmers appointed by the U.S. Secretary of Agriculture to invest soybean checkoff funds. As stipulated in the Soybean Promotion, Research and Consumer Information Act, USDA's Agricultural Marketing Service has oversight responsibilities for the soybean checkoff.

Go to www.soybiobased.org to read and see more about Pictured Rocks National Lakeshore's Environmental Education, Awards and more.



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