

Today

Most of the 10-square-mile NBWA consists of flat plains where outwash streams dumped sand on the bedrock and glacial till below. These plains mainly are called “uncollapsed” because they remain as they were laid down. Precipitation drains through them quickly, leaving a dry, low-nutrient land suitable for scrub oak, jack pine and birds like the sharp-tailed grouse and other dry-land species. The terrain proved tempting but unsuitable for farming in the early 1900s, and many families struggled before giving up by the 1930s.

In some places, such as the Burnett-Washburn county line in the NBWA’s north unit, sand covered blocks of ice that had broken from the glacier. When this buried ice melted, the flat ground “collapsed” to form pits called glacial kettles that stay wetter than the surrounding plains. Depressions of 20 to 30 feet let aspen grow and ducks and deer find shelter.

The hilly south unit formed differently. A ridge near Springbrook Trail stands 100 feet above a bog. Sand here was thrust up and deposited by the ice itself as it withdrew, not by streams, leaving a landscape of more hills.

The bog stays wet and is still nutrient-poor, but it supports sphagnum moss, sedges, black spruce, and pitcher plants that find nutrients in insects instead of the sand.



So even though sand is everywhere in the barrens, it gives rise to a critical habitat that supports a variety of life systems.

For more information

- “Northwest Sands Ecological Landscape,” by the Wisconsin Department of Natural Resources. Detailed look at the ecology and economy of the sands region.
- The Wisconsin DNR maintains on its website a description and maps of the Namekagon Barrens Wildlife Area. <https://dnr.wi.gov/topic/lands/WildlifeAreas/namekagon.html>
- The Friends of the Namekagon Barrens Wildlife Area leads guided walks, promotes the area and operates a system of online reservations to watch the spring mating dance of sharp-tailed grouse. <http://www.fnbwa.org/>

Prepared by Dave Peters
Friends of the Namekagon Barrens Wildlife Area.



Almost everything associated with the Namekagon Barrens Wildlife Area (NBWA) in northwestern Wisconsin has to do with sand: the scrub oaks, jack pines and blueberries; the frequency of fires; the failure of early 20th Century farming. Sand that is hundreds of feet thick in places covers the landscape.

When rain and snow fall, water drains quickly through the sand, leaving the land prone to fire. Native Americans burned the area to improve their blueberry harvests, but the sand is poor in nutrients, and 100 years ago it left homesteaders unable to make a living from their small farms. Today, wolves, wild turkeys and sharp-tailed grouse leave their tracks in the sand of this ecologically rare and threatened landscape.

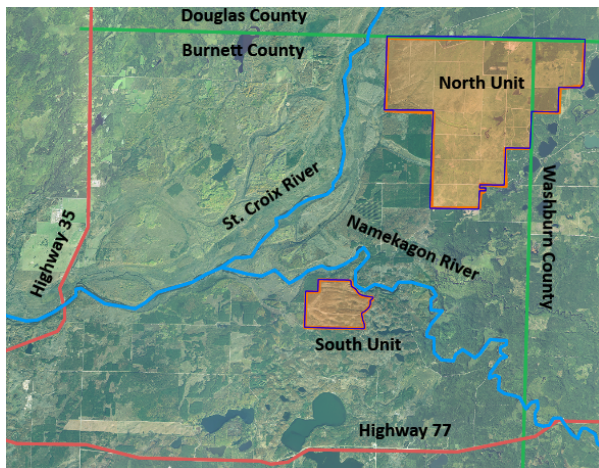
Why is the sand here?

Before the sand

Long before the sand arrived, more than a billion years ago, this land was part of a cataclysmic event known as the mid-continent rift. North America almost came apart, and for millions of years lava spilled out and spread. It cooled and shrank and became the basalt you can see at Amnicon Falls, Pattison and Interstate state parks.

Sediment washed in from surrounding high ground, cementing into sandstone atop the basalt. From this rock were built many “brownstone” churches and government and commercial buildings of northern Wisconsin and Michigan.

It is on this “basement” that the sand of the barrens sits. And compared to the basalt and the brownstone, the sand is a very recent arrival.



Namekagon Barrens Wildlife Area.

Glacial action

Some 22,000 years ago, the last glaciation in North America was at its greatest extent. Ice more than a mile thick covered Canada and much of Wisconsin, and it ground southward over a huge area of rock – granite and gneiss in the Canadian shield and the sandstone of the Lake Superior region, mixing and carrying sand southward. Then, as this southward grinding continued, the edge of the ice started to melt northward.

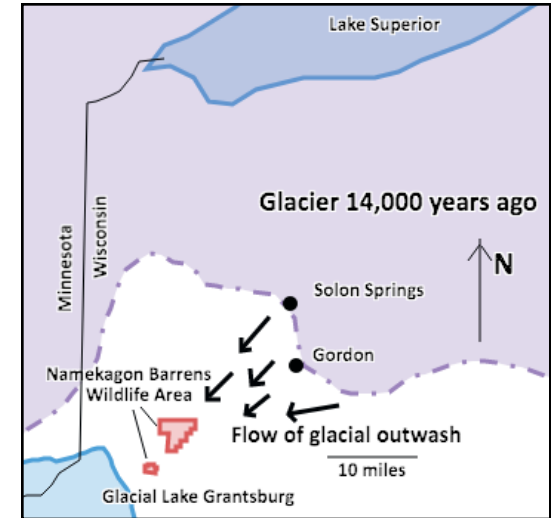


Wisconsin Department of Natural Resources map.

Imagine the scene as that mass of ice shrank, tons of sediment-rich water pouring from it. Sand laid down this way formed an irregular band roughly 150 miles long and 10 to 20 miles wide, the Northwest Sands.

This left a distinctive landscape, mostly a plain of sand called glacial outwash because braided, shifting streams carried sediment away from the glacier, sorting it as they flowed. Geologists believe this band was created by two parallel “sub-lobes” of the glacier feeding it from both sides.

The land we walk today in the wildlife area was deposited about 14,000 years ago when the retreating glacier paused near what is now Solon Springs and Gordon, some 10 miles northeast of the wildlife area.



Map based on Lee Clayton research.

For a time, the streams draining the ice were blocked by another glacier to the west, and Glacial Lake Grantsburg formed temporarily. Fine sediment formed layers of silt and clay that today allow flowages in Crex Meadows near Grantsburg to retain rainwater and snowmelt more than the NBWA.