

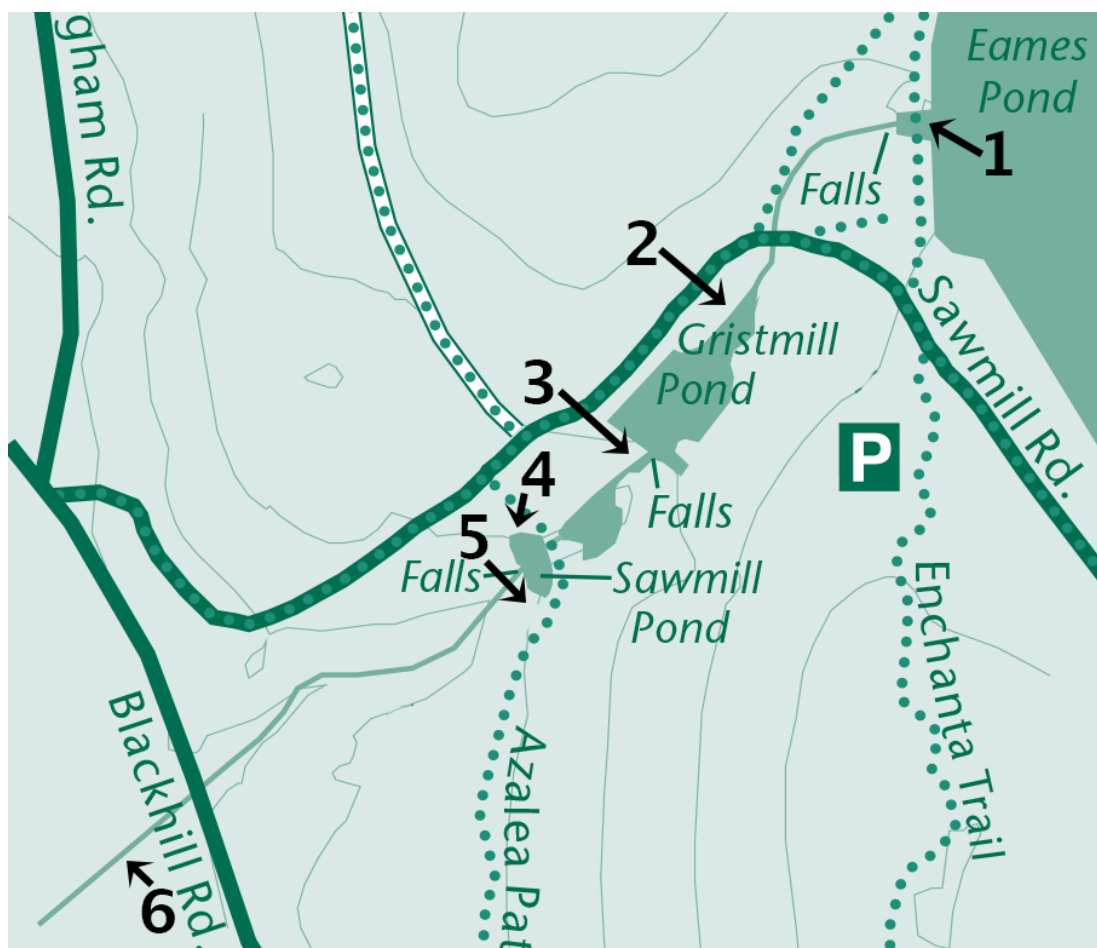
Water Power Walk

Massachusetts Department of Conservation and Recreation
Moore State Park

"Necessity is the mother of invention." Throughout history, people have searched for a way to make things easier, freeing up time for other activities or doing more in the same amount of time. As far back as the Persian Empire in 350 BCE, one way that we have done this is using the power of flowing water to operate machines. Instead of humans turning a crank, water can do it instead. In the 18th and 19th centuries, Moore State Park was home to a mill village doing exactly this.

Take a short walk through the park and see the remains of this mill village and how it harnessed the energy from Turkey Hill Brook to save both time and effort.

This walk begins on the Enchanta Bridge and lasts about ¼ of a mile. For your own safety and to preserve our historic resources, please stay on the trails and paved surfaces, and stay off of the historic walls and foundations.



Moore State Park
1 Sawmill Road, Paxton, MA
(508) 792-3969

STOP 1

Main Dam & Enchanta Bridge

Standing on the Enchanta Bridge, it is hard to picture water flowing freely through the area as it did 250 years ago. The mills here date to 1747, but the first dam dates to 1828. While you can use waterpower without a dam, having one helps harness the power of the water. By controlling the water levels, a mill owner could increase or decrease the speed and efficiency of the mill machinery.



*Illustration of a grist mill.
Attributed to Henry
Harris Lines, 1884.*

STOP 2

Blacksmith Shop

When we talk about industries or mills that use waterpower, a blacksmith shop is not typically one that comes to mind. There are several tasks that can be made easier with waterpower, notably operating the bellows to get the fire hotter as well as powering drill presses and grindstones. The blacksmith traded in ironwork repairs such as farm tools and mill machinery, and shod horses.



A blacksmith at work.

STOP 3

Upper Grist Mill

Today we can get flour at the grocery store, but in farming communities, people had to either grind it by hand or bring it to a mill. Without a grist mill, a person can grind 4 to 5 pounds of flour in an hour. In the same time, a grist mill can process 100 to 300 pounds!

This mill operated into the 20th century and you can see the remains of a more advanced form of waterpower, a hydraulic turbine. Unlike a traditional water wheel, a turbine sits underwater and requires less water while generating more power.



*Mortar and pestle for
hand grinding grain.*

STOP 4

Sawmill

People needed wood for just about everything; from building homes and furniture to burning for heat. Built in 1747, the foundation is original and is one of the oldest in New England. A sawmill like this could cut about 1000 board feet in a day. Contrast this to doing it by hand; two experienced people could cut about 200 board feet in a day. Considering all factors, the water powered mill is 10-12 times more efficient, saving significant time.

The current sawmill structure is a reproduction built in 1983 on the original foundation.



*The sawmill in operation,
date unknown.*

STOP 5

Lower Grist Mill

As mentioned, grist mills were an important part of life in the 19th century. A grist mill works by grinding the grains between two stones called millstones. Without a mill, there are two ways to grind the grains; either a giant mortar (typically made from a hollowed-out tree stump) and pestle or a miniature set of millstones called a quern. Querns are still used today by people living in remote areas.

To get to the next stop, you will need to cross the road to the marked path/trail to the triphammer location.

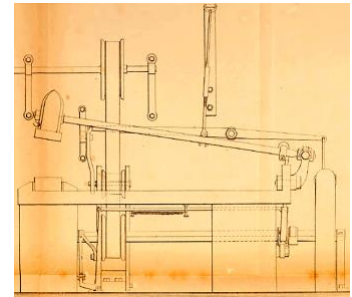


A set of millstones at Old Sturbridge Village. Photo curtesy Old Sturbridge Village.

STOP 6

Trip Hammer

Not much is known about the triphammer that operated here. A trip hammer uses waterpower to operate a heavy-duty hammer. This hammer could have been used in metalwork, but triphammers were also used in agriculture to remove the husk from grains. Either way, having the water power the hammer allowed both a more powerful strike and less effort for the operator.



Patent illustration of a triphammer, 1854

What does the future hold?

Waterpower gave way to electric power, and the last mill here shut its doors in 1927. A few years later, the Morton family bought the property and built an estate. Over time, electric power became more reliable and versatile. Machines powered by electricity grow more advanced each year saving us time, energy, and money. What do you think the future will bring? What other kinds of green energy might we see? How can we balance our increasing energy needs with the need to also protect the earth?

Thank you to both Old Sturbridge Village and Plimoth Plantation for their assistance in gathering research for this walking tour.