

FREQUENTLY ASKED QUESTIONS

Spring Mill Pioneer Village Grist Mill Maintenance



The Spring Mill Pioneer Village and the grist mill that lies at its center are a significant part of the history of Indiana. The grist mill is a representation of pioneer tradecrafts and contributes to that significance; therefore, it is considered historic by state and federal law.

Water and time continually impact this historic structure, so to maintain and preserve the functional operation of the grist mill, certain parts must be replaced periodically. The DNR Division of State Parks, in collaboration with divisions of Engineering and Historic Preservation & Archaeology, have developed a plan for repairs. Most of the elements impacted by the project are not original and have been previously replaced. This project will not be a full restoration, but instead will address specific maintenance issues.

What does this maintenance project include?

The grist mill shaft, a gear, water wheel, flume, windows, siding, and awning need repair or replacement, and all will be a part of this project.

- **Mill Shaft.** The mill shaft was last replaced in 1953. It is cracked and broken from age and deterioration. The shaft shifted in October 2021, making the mill inoperable. DNR's Division of Forestry identified a white oak tree in Morgan-Monroe State Forest that was large enough and tall enough to produce a new shaft. The mill shaft will be hand hewed to match the existing shaft's dimensions. We hope to see this process occur on-site, rather than in a shop, so that park guests can experience the reconstruction process.
- **Mill Gear No. 1 - Great Cog Wheel.** The mill's main gear (aka great cog wheel) was last rebuilt in 1997. The new gear will be built to match the existing gear. The steel banding will be replaced or re-used, which is necessary to maintain the integrity of the gear and limit the breaking of teeth during operation. DNR Engineering files, dated 1932, will be used, along with the existing gear, to create the new cog wheel.
- **Water Wheel.** The existing water wheel, which is 24 feet in diameter and 4-feet wide, was built in 1997. Previous water wheels have lasted for approximately 15 years. The 25-year-old wheel is extensively deteriorated. The new wheel will be built to match the existing one. The 1982 wheel was designed and created by DNR Engineering using drawings on file from the 1930s. The 1982 wheel was used to create templates for the wheel replacement in 1997. These templates are in storage. They and existing drawings will be used to construct the new wooden water wheel using white oak.
- **Flume.** The flume channels water from Hamer Cave to the water wheel. It is 550 feet long and is supported by a 20-inch cast iron pipe. The existing flume was constructed from drawings created by DNR Engineering in 1980 based on files from the renovation of the mill done in the 1930s. The wood and the cast iron pipe have deteriorated since the flume was last rebuilt in 1982. Because of the number of repairs required, the flume above the stone piers requires replacement, which will include the wooden chute, enclosed pipe, and associated valves. New wood construction will use poplar salvaged from trees removed from the campground at McCormick's Creek State Park, which was hit by a tornado in the spring of 2023. The iron pipe will be replaced with a noncorroding PVC pressure pipe system. The chute and associated diverter valves for the sawmill will be replaced to match the existing ones. The existing stone piers will be tuckpointed as needed.
- **Windows, Awning and Siding.** The first-floor windows, awning, and some wood siding must be removed for the installation of the mill shaft. Any replacements or repairs to these items will match the existing by referencing drawings from the 1930s and 1980s. The existing windows will be used as templates for new ones.

Is the grist mill currently operational?

No. By October 2021, the condition of the shaft had deteriorated to the point that the mill became impossible to operate. The Pioneer Village and its other structures have remained open and staffed, and events have continued at the site as the planning for repairs to the grist mill got underway. Staff have been stationed outside the grist mill and have shared video of the mill in operation with guests.

Will we still be able to visit the Pioneer Village during work on the mill?

Yes. The Pioneer Village will remain open as usual with activities and with opportunities to learn about the grist mill project; however, the grist mill will, in general, be closed to the public during construction.

Will we still be able to buy cornmeal during maintenance work?

We will continue our partnership with Beck's Mill, located near Salem, that began when we had to stop grinding at Spring Mill due to the condition of the shaft. We provide the corn to Beck's Mill, and have staff observe as it is ground on a biweekly basis. We will continue to sell the cornmeal at the park, but only in the Pioneer Village. Check with the park office for village hours.

How long will this project take?

Evaluation and design of the work is complete. Current estimated construction timeline is nine to 12 months. Construction on the project is anticipated to begin in January and is estimated to be complete by the end of 2024.

How will you keep repairs historically accurate?

We are working with DNR Engineering on planning and design. The Division of Historic Preservation & Archaeology will assess and guide the process of ensuring authenticity. All replacements will be made to match the existing parts with added reference to DNR Engineering's historic files on the Spring Mill Village and grist mill that date as far back as 1932.

What is the total cost for this project?

This project is funded through a deferred maintenance allocation from the Indiana General Assembly and is expected to cost about \$2.1 million.

When was Spring Mill Pioneer Village originally founded?

The village was founded in 1814, and the grist mill was built in 1817 by the Bullitt family.

What is the history of the mill?

The mill was used throughout the 1800s until it fell out of use in favor of newer technology. The mill and village area were abandoned in the 1890s. The land was acquired by the Lehigh Portland Cement Company in 1902. In 1928, Lehigh donated the village area to the State to create a park. During the late 1920s and early 1930s, DNR (then known as the Department of Conservation) worked to rebuild the village and mill. Major repairs to the mill took place in 1953, 1982, and 1997. Over time this work has included replacing the mill shaft, water wheel, gear, wood flume, water pipe, wood windows, wood siding, and other features as needed.

What are the Spring Mill Pioneer Village and grist mill currently used for?

These features serve as an educational venue for the public and are the focal point of Spring Mill State Park, drawing approximately 780,000 guests annually. When operable, the mill is run for five minutes every hour during regularly scheduled hours, spring through fall. The wheel and gears drive the 2-ton millstone, grinding the corn into meal at a rate of 25-30 pounds in 5 minutes. The meal produced is sold to the public, with annual sales of nearly \$40,000.

Spring Mill State Park's Pioneer Village

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