Woolen Mill Flood Mitigation Project Helps Improve Cannon River Water Quality

If you glance around the Faribault Woolen Mill Factory, you may notice a lot of new flowers blooming this August. A series of rain gardens and a berm were installed last year as part of a flood mitigation and water quality improvement project.

During the last ten years, the Faribault area has experienced several 500-year flood events. In 2010, a flood damaged part of the Woolen Mill building. After Chuck and Paul Mooty purchased the Woolen Mill and opened it back up in 2011, another flood appeared in 2013. During this flood, staff filled and placed sandbags around the building to keep the rising water out. A couple of years later there was a flood of even greater proportion where they needed to sandbag again.

"Living on the river and experiencing greater frequencies of flooding, the risk to our property was a great concern," said Paul Mooty, co-owner of the mill. "Floods don't just happen during work hours. They happen in the middle of the night and we needed a better fix than just being on guard for every flood."

In 2018, the Woolen Mill approached the Rice SWCD about putting in a rain garden in the front of the building to capture some of the parking lot runoff. While meeting with SWCD staff, discussions began about ways to fix the flooding issues around the factory and controlling the parking lot and additional street water runoff which would flow through the Woolen Mill's property and into the river during heavy rains.

The planning and engineering of the project began in the fall of 2018. Houston Engineering, Inc. of Maple Grove, Minnesota, designed a large berm that prevents floodwaters from reaching the building and parking lot while a rain garden in front of the berm collects stormwater runoff. As the runoff collects in the rain garden, it percolates down through a series of soil and sand. Pollutants are filtered out as clean water recharges groundwater aguifers.

If stormwater runoff fills the rain garden, an intake pipe allows the water to pass out through the berm. In the case of a flood, the pipe has a special valve that prevents water from coming back through the pipe from the river.

The project also included a second large rain garden and smaller berm in the back of the factory. This rain garden captures water from a paved parking lot and gravel driveway area while protecting the back end of the building from rising floodwaters. Healy Construction of Faribault started the construction of the project in June of 2019 and finished two months later in August. Blazing Star Gardens of Owatonna completed the planting of native wildflowers, which were selected to grow in the wet conditions of the rain gardens and provide habitat for local pollinators.

A small rain garden in front of the building, the initial project that started the conversation about flooding issues, was installed in 2018 through the Rice SWCD Rain Garden Cost Share Program. This rain garden captures runoff from a parking lot.

Together, the three rain gardens and berm protect the Woolen Mill building while treating stormwater runoff, which helps to improve the water quality of the Cannon River.

The Rice SWCD was able to secure funding for the \$106,000 project from the Minnesota Board of Water and Soil Resources Flood Relief Grant Program. The grant provided 90% of the cost in cost-share funding while the Woolen Mill paid the remaining 10 %.

"Funding for such a project like this is often difficult to come by, so when we received some funding from the state to address recent flooding, we moved quickly to utilize it for this site," said Steven Pahs, Rice SWCD Manager.

Besides the flood mitigation project, the Faribault Woolen Mill has implemented other environmentally friendly practices throughout their business. When the building was purchased, the Mootys installed high efficiency LED lighting that is controlled by motion detection as well as a new, more efficient boiler system.

All dyes used in production are certified to be safe and meet the highest standards of environmental regulations in the U.S. Ninety percent of the wool that they scrap in the building while making products gets recycled and made into other products. Leftover materials that they can't use get sold to other companies who can use them.

The mill also buys recycled wool from other companies to use in their products. Products are also in development that will use a polyester derived from recycled water bottles. Woolen Mill staff are always looking for ways to incorporated recycled materials into their products.

Conservation of natural resources and protecting the environment are part of the core values of the Faribault Woolen Mill. "We are stewards of a great brand, the Faribault Woolen Mill Company, and we strive to be stewards of our environment too. If we all do a little, it ends up to be a lot," said Paul Mooty. "It's something we can do and should do, and hopefully it can be an example for others too to do the same thing."

For more information about the installation of rain gardens or flood mitigation issues, contact the Rice SWCD at 507-332-5408.

Native wildflowers bloom in a rain garden at the Faribault Woolen Mill. The rain garden and berm protect the Woolen Mill building while treating stormwater runoff, which helps to improve the water quality of the Cannon River.