Pre-District

It has been 50 years since the Riley Purgatory Bluff Creek Watershed District was created, but human and geologic forces had been shaping and reshaping the landscape long before that. Explore how today’s land and water are a reflection of this past.
Giant glaciers

The landscape that is now home to the Riley, Purgatory, and Bluff Creeks has been shaped by glacial activity over the past 2 million years. Across this span of time, at least 12 major glacial movements occurred, with the last of the ice retreating from this area about 12,000 years ago.

This melting ice sheet formed the massive glacial Lake Agassiz in Canada, northern Minnesota, and North Dakota. As Lake Agassiz drained through its southern outlet, it created the River Warren—a large river that carved out the area now known as the Minnesota River Valley. Approximately 7,500 years ago, the lake slowly receded, it deposited sediments and created smaller creeks, including Riley, Purgatory and Bluff Creeks.

It was these glacial movements that also created most of Minnesota's lakes, including the lakes in this district. As the glaciers retreated, they left behind small patches of ice that melted into lakes, and depressions in the landscape that slowly filled with water. Most of the lakes were groundwater lakes, with no natural inlet or outlet.

A solid foundation

The bedrock of the District has three main layers: St. Peter Sandstone, Prairie Du Chien dolostone, and Jordan Sandstone.

Sandstone is a sedimentary rock, formed as sand is exposed to extreme pressure until it becomes a solid rock. Dolostone is made of dolomite, a carbonate rock that has traces of magnesium and calcium. It forms when water runs through limestone, and is used in concrete and fertilizers. The Prairie Du Chien dolostone is thickest in Chanhassen, where it formed roughly 480 million years ago.

Approximately 14,000 years ago, the Des Moines Glacial Lobe deposited thick layers of rich soil loam in this area. This loam (a soil mixture of sand, silt and clay) is a fertile soil, which supported diverse plant ecosystems, and later on, agriculture. The soils in this area are mainly classified as Alfisols (soil developed under trees), with some Mollisols (soil developed under grass). Wetland areas in the region have different types of soil, which is made of organic debris and clay.

Land of big woods

Before the land was developed, this area was dominated by oak woodland and maple-basswood forest, with prairie to the east and west.

Early European settlers gave it the name “Big Woods,” because at that time a continuous maple-basswood forest covered over 3,000 square miles. The boundaries of this forest were in large part controlled by the frequency of fire. The dominant trees were highly fire sensitive and restricted to areas where natural firebreaks such as rivers, lakes and rough topography prevented the spread of fire from the adjacent prairie lands. Only a small fraction of the original “Big Woods” area remains intact, while the rest of the landscape has been converted for agricultural and residential use. The area that do remain are fragmented into small patches. One such remnant forest patch that exists within the RPBCWD can be found in the Riley Creek Conservation Area in Eden Prairie.

Fertile ground

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Glaciers in Minnesota also left us with one of our most precious natural resources—groundwater. In this region, groundwater is the main source of drinking water for most cities. The main aquifers are the Prairie Du Chien - Jordan Sandstone aquifers. These are two unique aquifers, but they function as one because, excepting local features, there is nothing that prevents water from one from flowing into the other.
The Dwellers of Spirit Lake

A large part of what we consider the Midwest was home to The Great Dakota (Sioux) Nation, made up of 7 bands of Dakota, Lakota and Nakota peoples. Today, tribal governments and communities of The Great Dakota Nation are located in Minnesota, North and South Dakota, Nebraska, and Montana in the United States, and Alberta, Manitoba, and Saskatchewan in Canada.

One of the seven bands was the Mdewakaŋtuŋwaŋ (Mday-wahKah-too-wah) Dakota who have lived in this area for thousands of years. The Jeffers Petroglyphs in southwest Minnesota left by the early Dakota date back 3,000 years. “Wiha Makte” is translated as “Spirit Lake” and refers to the Great Dakota (Sioux) Nation.

What is now Minnesota was acquired by the United States of America via two separate treaties – the 1851 Treaty of Mendota and the 1858 Treaty of Traverse des Sioux. These treaties allowed for the cession of land to the United States in exchange for economic compensation and the establishment of reservations. The government passed the “Preemption Act of 1862” which gave the rights to settlers who occupied and improved the land. The government land survey had been done, but they marked their land by “putting notches in trees or plowing a ditch.”

European settlement

News of fertile prairies in attracted pioneers who wanted to farm Minnesota in 1800’s. When the first settlers arrived, no official government land survey had been done, but they marked their land by “putting notches in trees or plowing a ditch.”

Many settlers were concerned about land titles, and so the government passed the "Homestead Act of 1862" which gave land to those who occupied and improved the land. The government land survey had been done, but they marked their land by “putting notches in trees or plowing a ditch.”

The Shakopee Mdewakaŋton Sioux Community (SMSC)

The Shakopee Mdewakaŋton Sioux Community (SMSC) gained federal recognition as a tribal government in 1969. Despite severe systemic disadvantages and attempted cultural annihilation, the SMSC has not only revitalized itself but has become the largest employer in Scott County.

Although its casinos are perhaps the most famous of the SMSC businesses, they are only two of more than a dozen projects, all of which are built with sustainability in mind. A common phrase of the SMSC is “for the next 7 generations,” which represents the fact that all decisions, especially those involving land, are intended to be sustainable for future generations. For example, in 2006 SMSC opened the largest green roof water reclamation facility in the Midwest, which collects an average of 11 million gallons of stormwater annually, reducing pressure on aquifers and decreasing runoff.

Additionally, the SMSC has invested in public safety departments, infrastructure maintenance, green initiatives, charitable donations and academic scholarships. Since 2007 they have offered a wide range of health services free to several communities throughout the state.

The US-Dakota War

In 1863 Dr. Nathan Starnon built a grain mill on Purgatory Creek just north of Fountain Trail, which was then called Mill Creek. Historical references give the name Eden Mills, but local residents remember it as the Happy Hollow Mill. In 1867, mill operators planned to dig a channel into a wetland area that is now Mill Creek for extra water, but the plan was abandoned when property owners opposed it. Instead, they built a dam in the 1870s to try to solve the low water problem, but by 1880 the mill was foremost start using steam power. The dam was rebuilt in 1893, then removed in the following decade.

When canes were first being used in the United States, there were very few roads for them, and most were carried on wagons and trails. In 1812, the Wampum Trail was established along the St. Lawrence River to the Great Lakes. In the mid-1820s, intermittent highways became more common, and were regulated by state and federal agencies. The narrow roadway Yellowstone Trail slowly died off, and the Association disbanded in 1897.

A people of the seasons

The Mdewakaŋtuŋwaŋ women were a seasonal people, relying on hunting, trapping and gathering for the majority of their food source. They did grow some wamnaheza (corn), but also gathered foods such as tipsiŋna (wild rice) and wohkaya kass (wild root). In the summer months, they would hunt, fish, and gather from the river and the lakes, as well as harvesting, making food, clothes and several other necessary tasks.

They marked time by a 13 moon cycle. Each moon was associated with certain events such as the Wozupi Wi (planting moon), the Psiŋhnaketuŋ Wi (rice harvesting moon), and the Takekapu Wi (deer antler shedding moon).