

A New View

From dam & reservoir to natural cold water stream

The Grand River Conservation Authority purchased this property in 1964. The Taquanyah Dam was built in 1966 to create a freshwater marsh and help with flood control. The dam, however, caused the water to slow and warm up.

The dam was removed over several months in 2004-2005, and since then Mill Creek is returning to its natural beauty and biodiversity. The creek has found a new pathway, and because the water is now colder, it is able to support trout and other cold water fish. Mill Creek is one of only two cold water streams in the lower Grand River area.

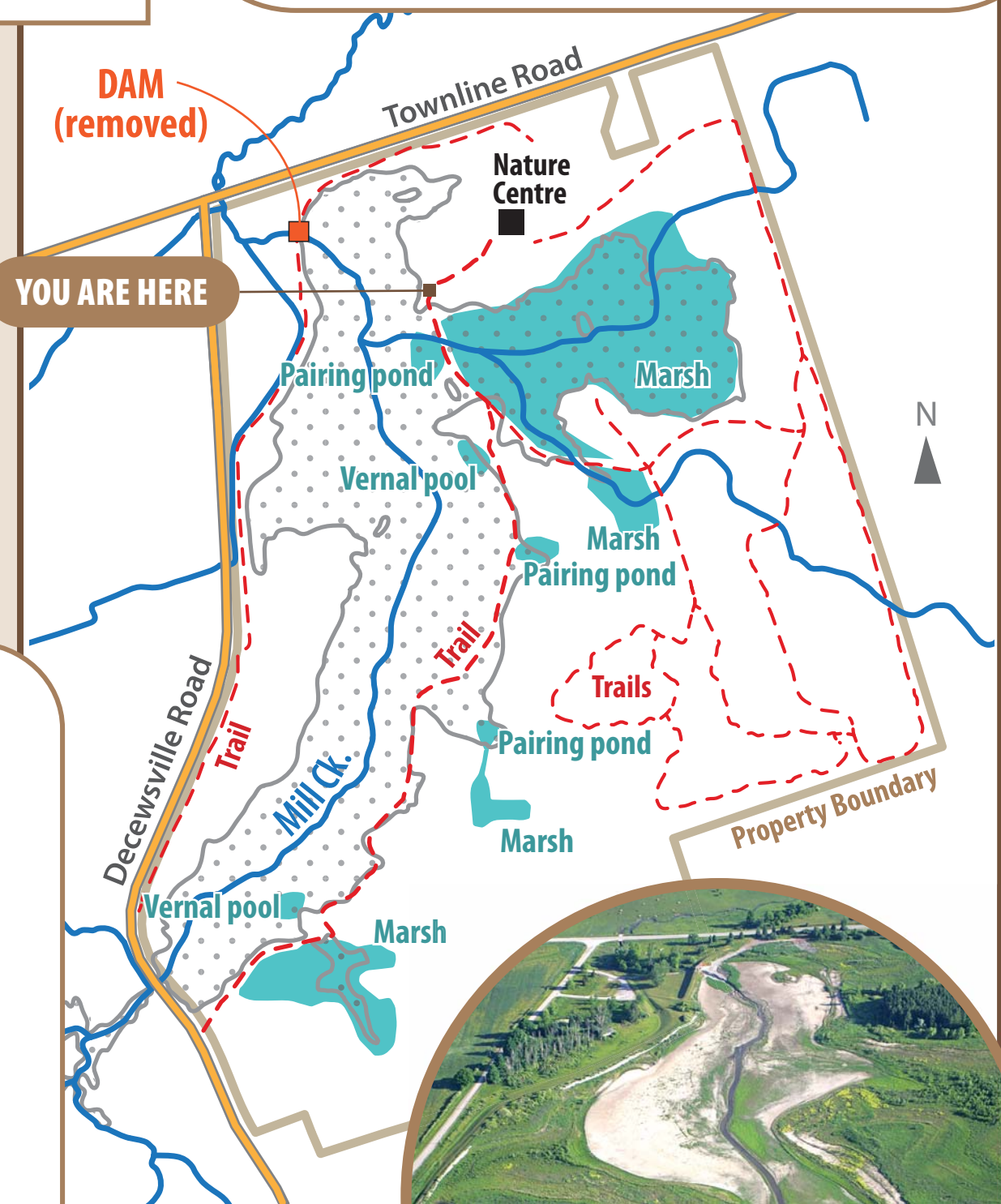
Beyond this sign is a bridge – the old dam structure – which was removed starting in 2003. Much of this trail was once under the reservoir.

Restoration

The area along this trail was restored to include many types of habitat: **marsh areas, vernal pools, waterfowl pairing ponds and a cold water creek**. Also on the property are floodplain areas, Carolinian and plantation forests and swamp.

Pioneer roots

In 1966 **the dam** was constructed at the site of the original dam that pioneer John Decew built in 1840 to power the grist mill. The grist mill itself was located behind the Young-Decew cemetery on the north side of Townline Road and was run by John's son, Robert.



A view of Taquanyah Conservation Area in June, 2005, a couple of months after the last stop log was removed from the dam. Mill Creek has found a new pathway and the footprint of the old reservoir is still evident.



Willows

Sandbar willow.

A medicinal history

The Sumerians, an ancient civilization dating back to 4000 BC, recorded the pain-relieving ability of the willow tree on early clay tablets. Later, around 400 BC, the Greek physician Hippocrates recorded that the use of powder made from willow bark and leaves helps heal headaches, pains and fevers.



In 1829, scientists discovered it is the chemical *salicin* found in willow trees that turns into salicylic acid in the body and provides pain relief. In 1900, the German company Bayer patented the drug Aspirin, a buffered version of salicylic acid which is easier on the stomach.

Photo: Bayer collection.

Sandbar willow (*Salix exigua*)

Along the trail look for sandbar willow. This deciduous shrub reaches 4 to 7 metres (13 to 23 feet) in height and has long, narrow leaves. Sandbar willow had many uses for First Nations people. The branches were used as flexible poles and building materials, the smaller twigs were used to make baskets, and the bark and leaves were used as a painkiller.



Photo: Matt Lavin

American willow (*Salix discolor*)

American willow, commonly called pussy willow, grows to 6 metres (20 feet) tall. The flowers – soft, silky and silver – are a sure sign of spring.

Pussy willow is loved by songbirds, waterfowl and small mammals as a source of food, and is a larval host for mourning cloak and viceroy butterflies.



Settlement History

Pioneer John DeCew

(1766-1855)

Captain John DeCew (also spelled DeCou, DeCow, DeCeu, DeCue) was a United Empire Loyalist, an early settler in Upper Canada, a commissioned militia officer in the War of 1812 and an important figure in the history of Haldimand County .

John DeCew first came to the Niagara area from the United States in 1790. He purchased 100 acres of land where he built a gristmill, and later a sawmill and oil mill. He was a very successful entrepreneur and businessman. It was in Niagara that he built a fine, limestone house for his wife Katherine. During the War of 1812 it was the headquarters of the British troops where Laura Secord came to warn of the American advance.

What is now the Taquanyah Conservation Area was part of the 600 acres once owned by John DeCew. On this very property he built the dam and millpond that powered his grist mill. In fact, the dam the GRCA constructed in 1964 (and removed in 2003) was built at the site of John DeCew's original dam.

When the new Welland Canal diverted water from his mills, he closed them and turned his attention to his 600 acres of Crown grant land in the Township of Cayuga.



John DeCew
tombstone:
Haldimand County
Museum & Archives

"Dequania Valley"

John DeCew took up residence in the Township of Cayuga on 600 acres of Crown grant land in 1833. In 1835 he built dams on Dequania (Derquania) Creek – now Mill Creek – for saw and grist mills.

Captain John subdivided some of his land to accommodate the settlers who were working in his mills. He also built a church and donated land for a cemetery, hoping the area would develop into a town he would call *Dequania Valley*. Instead, the settlement flourished two kilometres south of here and was named Decewsville, in his honour.

John DeCew was an influential figure in the European settlement of this area. He died in 1855 at the age of 89.



Stories

from the past

People arrived in southern Ontario about 11,400 years ago, shortly after the end of the last ice age. Archaeologists have found artifacts around Taquanyah Conservation Area that date back that far.

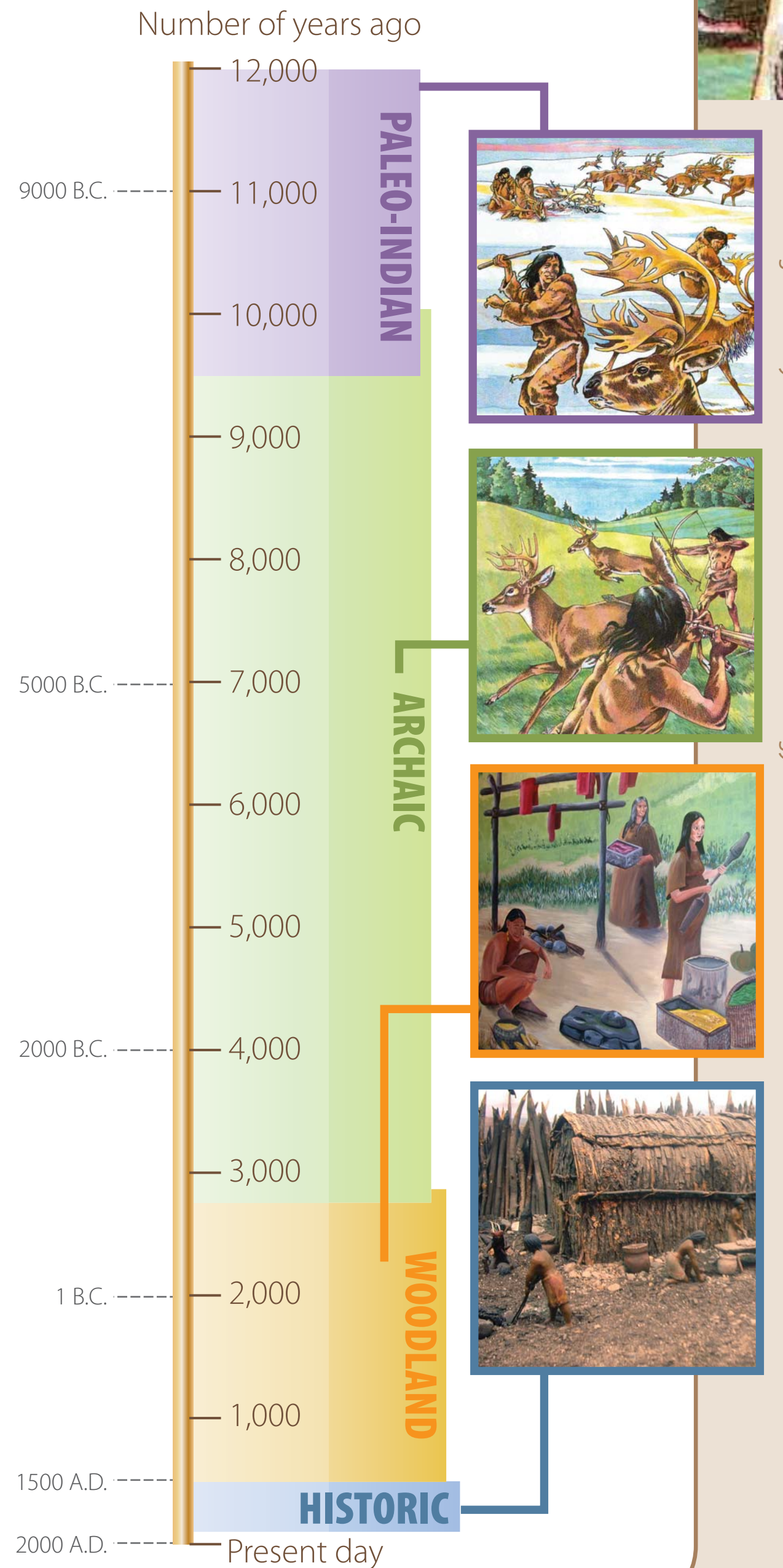
Early Native peoples came to the area for fresh water, shelter, animals and fish. Another resource that brought them here was a type of hard rock called Haldimand chert. They used this prized resource to make tools such as spearheads and arrowheads. Broken and worn-out tools were left behind, and new tools were made from Haldimand chert to take on their seasonal rounds.



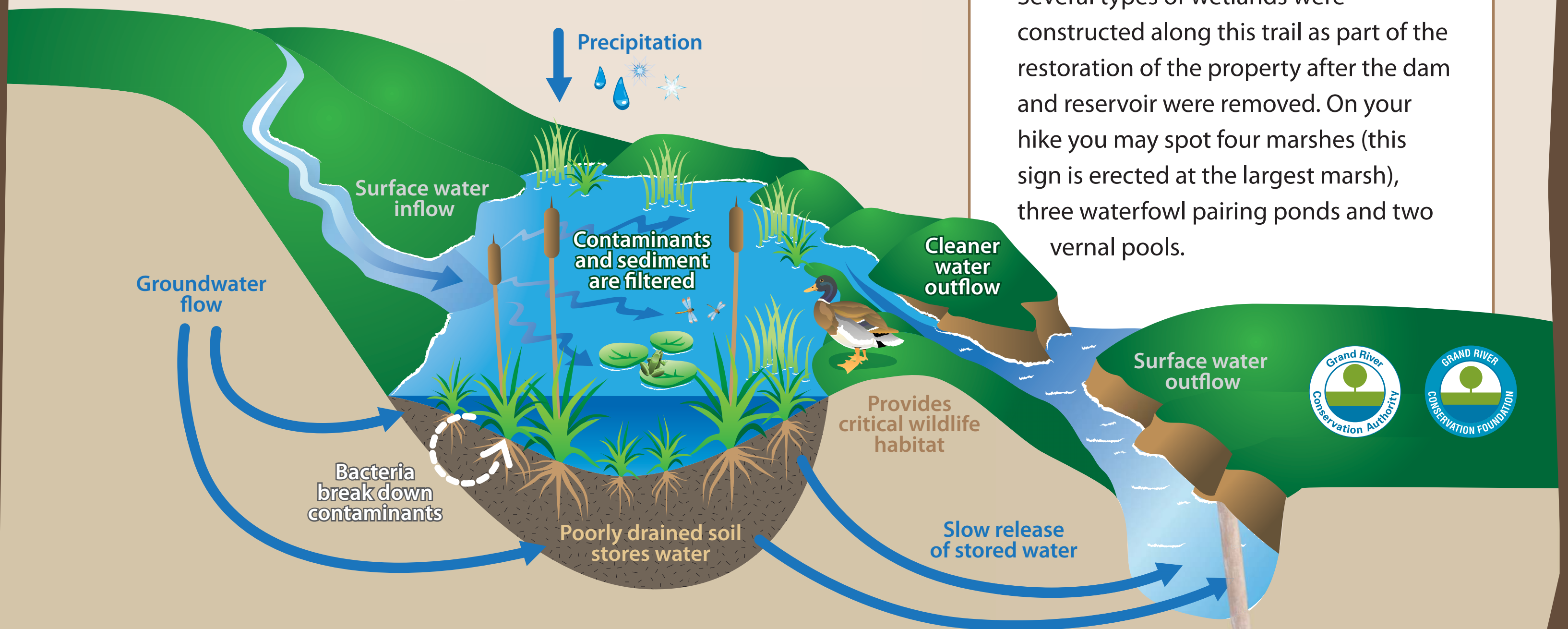
These are stone tools found at Taquanyah by archaeologists dating to 800-500 B.C. The fragment in the lower left is made from Haldimand chert. The one in the top left is made from Onondaga chert from the Niagara area.



Native Cultural History of Ontario



Wetlands



What are wetlands?

Wetlands are lands that are saturated with water long enough to form waterlogged soils and the growth of water-loving, or water-tolerant, plants.

Several types of wetlands were constructed along this trail as part of the restoration of the property after the dam and reservoir were removed. On your hike you may spot four marshes (this sign is erected at the largest marsh), three waterfowl pairing ponds and two vernal pools.

Why are wetlands important?

- Wetlands hold water, reducing the severity of flooding.
- They act as a natural filtration system, absorbing nutrients and contaminants.
- They are essential habitat for many species and have the highest biodiversity of any landscape unit.
- It is estimated that wetlands provide about \$22,000 of ecosystem services each year per hectare. All of this value is provided by the biodiversity of the wetlands — the combination of all the plants, fish, insects, amphibians, birds and mammals that do a job we hardly notice.



Red-winged blackbirds build their nests low among vertical shoots of marsh vegetation, shrubs or trees.

Taquanyah's Wetlands

You are standing at one of four marsh cells that were created after the dam and reservoir were removed. Using water control structures placed in the berm, the water levels of the marshes can be increased or decreased based on planned objectives.

Water control structure

Berm / trail



Cattails

The common cattail (*Typha latifolia*) offers habitat for many species including songbirds, waterfowl, reptiles, amphibians and fish. Many other species such as deer, raccoons, rabbits and wild turkeys take advantage of the excellent cover and protection that cattail plants offer.

Cattail stems, roots and young flower spikes were a traditional food source for First Nations people. The seed fluff was used to line moccasins and for bedding for infants. In fact, almost every part of the plant has been found to be useful at one time or another!



Photo: A. Drauglis

These marshes are self-sustaining, but the water levels

can be managed when needed. The

amount and type of vegetation that grows in wetlands is directly related to the amount of water present, so the water levels can be drawn up, or down, to create specific habitat communities and to be less attractive to invasive species. This helps meet the targets of the management plan for the property and keep the wetlands balanced and healthy over time.



Pairing Ponds

Photo: Ducks Unlimited Canada



A mallard female with ducklings



Pairing ponds are small pools of water used by ducks

during their bonding period in early spring. They can be permanent or temporary wetlands or ponds, or even a bit of standing water left after the snow melts. Look for duck pairs on these small pools of water as they settle back on the landscape after their return migration in spring.

Many pairing ponds have been eliminated from the landscape. Often there are many breeding duck pairs in an area but few pairing ponds to settle on. Increasing the numbers of pairing ponds increases the breeding success for ducks. To that end, three pairing ponds were created here at Taquanyah Conservation Area as part of the restoration of the property after the dam and reservoir were removed.

Considered by many to be the most beautiful of North American waterfowl, the wood duck (*Aix sponsa*) is a perching duck that normally nests in cavities in trees. Males are iridescent chestnut and green, with ornate patterns on nearly every feather. The elegant females have a distinctive profile and delicate white pattern around the eye. Wood ducks are one of the few duck species equipped with strong claws that can grip bark and perch on branches.

Wood ducks

Male and female



Photo: Nancy Johnston

