Waukewan Highlands Community Park

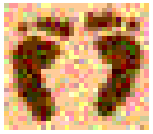
Interpretive Trail System

Town of Meredith
Parks & Recreation Department

In Cooperation With:
Lake Winnipesaukee Watershed Partnership
&
Winnipesaukee Watershed Corps

Welcome . . .

to Waukewan Highlands Community Park Interpretive Trail System. Please feel free to begin at any station and follow any trail you would like. The numbered stations are only a reference, and it is up to you, the hiker, to decide what path you would like to follow. The trails are of easy to moderate hiking difficulty. Please be careful of exposed roots and rocks! For your own safety, stay on the trail, and remember: take only photos and leave nothing but footprints.



1 **Pretend you are a chipmunk, scurrying about the forest floor. Suddenly you are being chased by a predator. Where might you run to hide? Look around and notice the brush piles on the side of the trail. These piles were left here intentionally as a wildlife management tool. You may think the piles are an eyesore, but ecologically they are beneficial, adding to diverse wildlife habitat. The brush offers a home to many smaller animals, especially during the winter months. You may notice small footprints leading to and from the piles in the snow.**

2 **Look around you. Notice the numerous evergreen trees around the trail. Do you notice any smaller trees which are not evergreen? These are apple trees that were once part of an orchard that was located here over 50 years ago. The apple tree is a link to the history of the land. This land was once used for agricultural purposes and now has reforested. Nature will take back cleared areas with quick growing species, such as the pines we see here today, until the area evolves into a thickly forested area again. (To learn more about the history of Meredith's fields and reforestation see station 9.)**

Apple Tree Leaf

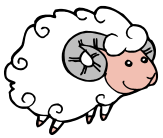
3 **Looking around, you may notice a stream as well as a large wet area which may feel cooler and moister. Low growing and non-woody plants are the dominant flora here. This area is actually a wetland which drains into Hart's Pond. Wetlands perform many more important functions than meets the eye. Wetlands act as a bed for migrating birds and provide shelter for young wildlife. Wetlands filter small impurities and strain silt from the water helping to cleanse the environment, as well as absorb excess water from runoff, preventing flooding.**

4 **What is that tiny house in Hart's Pond? What you are looking at is the reservoir and pumphouse constructed in 1895 as a "state of the art" public water supply serving Meredith Village. The reservoir remained in service until 1985, when it was replaced by a modern water tower. More history about the property, pond, and the pumphouse can be found on the kiosk.**

5 Notice the rather high banks running along the streambed next to the trail. The bank height is due to years of moving water eating away at the surrounding soil, a natural form of erosion.

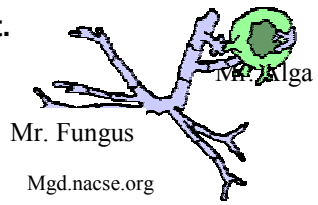
This stream, called Reservoir Brook, connects Hart's Pond to Lake Waukewan. Lake Waukewan, the Town of Meredith's drinking water supply, follows a canal through the village, down a waterfall, and into Meredith Bay.

6 Have you ever wondered what the purpose of the stone walls running through the woods are? Over 100 years ago, most of New Hampshire was cleared for pasture and crops. The stone walls were built to mark property boundaries and keep livestock contained.



7 Did you notice any rocks along the trail with green stuff growing on them? Lichen, the light green growth you see on some rocks, is an algae and fungus growing together. The relationship between the algae and fungus is a symbiosis, meaning that both benefit from their partnership more than if they were living on their own.

Lichen growth on rocks is the first step in the colonization of bare rocks. Decomposition of lichen creates enough soil for lush carpets of mosses to take hold (dark green growth). As mosses grow and then die, more soil is added to the surface of the rocks. Eventually enough soil is built up, allowing ferns and small trees to take root. The process from bare to vegetated rock may take up to 100 years!



8 Looking out across the field, you will see Lake Waukewan in the foreground and the White Mountains National Forest in the distance. From this point you can take in a birds eye view of a watershed. Did you know that you are standing in the Lake Winnipesaukee Watershed? A watershed consists of all the land that contributes water to a specific body of water, either as runoff or groundwater. The 190 acres encompassing Waukewan Highlands Community Park drains into lake Winnipesaukee and is a part of the 236,225 acre Lake Winnipesaukee Watershed. Remember, we all live, work, and play in a watershed!

9 In the middle of the field, a few trees are growing. Why is there a field here and why are these trees the only trees that decided to grow here? In 1992, a conservationist worked with the Town of Meredith to reclaim this field that had been forested since the days when the entire hillside was an apple orchard.

Certain wildlife are dependent on open land such as this field. Humans have controlled natural disturbances like fire and flooding, which create open spaces like grasslands. Since the abandonment of farms in the 1900s most of the human created open space has been reforested. All of these factors have resulted in the loss of open land and decline in species dependent on the open land, such as the upland sandpipers. This field will provide habitat for many species which may not have been able to live in the forested habitat as well as provide a glimpse into Meredith's past now that the open area looks much like it would have in the early 1900's.

10 Looking down the field you will see a plant growing on the trunk of an apple tree and on the ground. This is poison ivy!!! You don't want to touch this plant but from a distance we can point out its dangers and talk about what it looks like. The plant has three pointy leaves and when you get close it is shiny from the oils it produces. The plant is dangerous even in the winter when it has no leaves and only roots and stems left, so be careful all year long.

You may also notice a large concrete structure in the field. This is the remains of an old well that feeds into the reservoir. The property is dotted with these wells and this one is still standing and visible for hikers to see.

11 On the trail in front of you is a pile of stones that appears to have been built here as a bridge to cross the stream. In fact, the rocks are part of what is called a check dam. These dams were built in 1894 as part of the filtration process for the reservoir water. When water flowed down the hill, these large gullies would collect the water and direct it towards the pond below us. The rocks acted like a filter trapping any larger particles of dirt.

You can see evidence of this check dam still working today. As you walk across the dam, look to your right and you will notice that the land is built up behind the dam and to your left the gully is deeper. All this built up sediment would have been in the water supply requiring further filtration and dam maintenance had these check dams not been in place.

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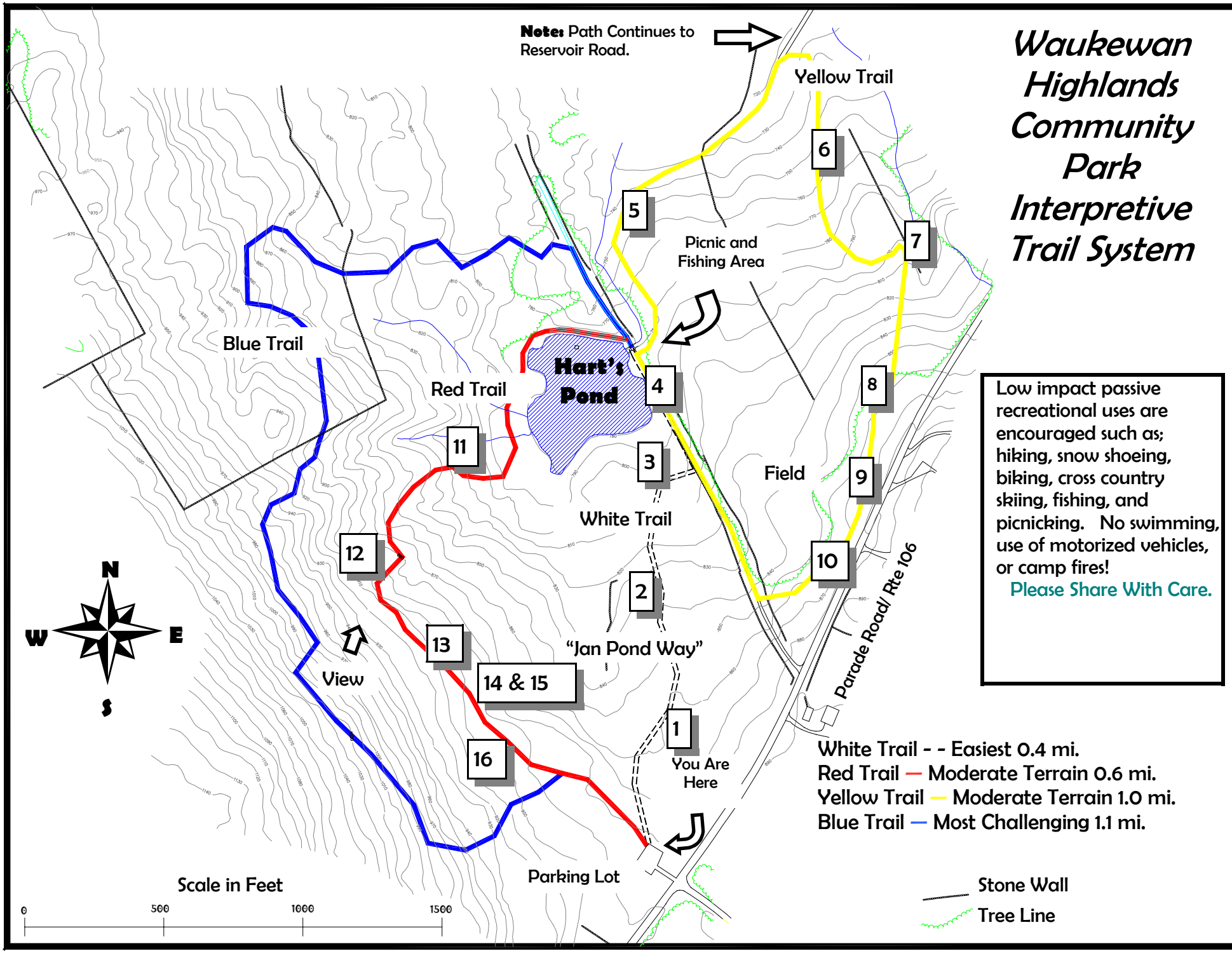

Low impact passive recreational uses are encouraged such as; hiking, snow shoeing, biking, cross country skiing, fishing, and picnicking. No swimming, use of motorized vehicles, or camp fires!

Please Share With Care.

White Trail - - Easiest 0.4 mi.
Red Trail — Moderate Terrain 0.6 mi.
Yellow Trail — Moderate Terrain 1.0 mi.
Blue Trail — Most Challenging 1.1 mi.

Stone Wall
Tree Line

12 Did you notice that the forest around you has transitioned since the last stop? You just came out of a cooler and much darker stand of trees, which is characteristic of an evergreen forest. The evergreen forest you passed through consists mostly of white pines. You can easily distinguish a white pine from other pines by the characteristic bundles of 5 needles. To remember this distinction, you can think of the word white having 5 letters so a white pine has five needles in a bundle.

White Pine

In front of you is a broad-leaved, hardwood forest. It includes a variety of trees such as oak and beech trees. Did you notice how there is not much growth directly under the beech trees. This is because the leaves block out any sunlight that may reach the ground and a beech tree's root system is very shallow and soaks up any available water which does reach the ground, out competing other plant growth.

13 Wow, are you out of breath from walking up that steep hill? You have climbed about 135 feet in altitude since you were standing at Hart's Pond. You can gauge how tough a hike is going to be by using a topographic map, a map featuring changes in elevation using contour lines, like the one shown on the trail map above. On this map the elevation between contour lines indicates a 10 foot rise. If the contour lines fall farther apart, such as on the White Trail, the elevation rise takes place over a longer distance and makes for a more leisurely hike. If the lines are closer together, as they are on the Red Trail, the elevation rise takes place over a shorter distance, indicating a steeper and tougher hike.

14 & 15 Looking up towards the tops of the trees you will notice trees which still have leaves on them but also have limbs that look like they are dying. Dead limbs or snags, as they are called, normally appear near the tops of the trees. Most trees will die and decay from the top down. Trees get most of their nutrients and water from their roots. The parts of the tree furthest from the roots will be cut off from nutrients first allowing the rest of the tree to survive longer. Trees become more susceptible to disease from breaks in the bark which may be caused by lightning, branch breakage, and insect infestation.

You may think you just crossed another check dam, but this rocky crossing was not built in the days when the reservoir was up and running. Notice the low point between two hills which may be heavily saturated. It is generally wet here so a stone fjord or walkway was built to buffer soil erosion problems caused by people walking through the wet area. The use of the fjord is called a Best Management Practice or BMP. Many different BMPs exist for activities ranging from farming to wastewater treatment.

16 Look up the hill and notice how the forest opens up. You may even notice an abundance of tree stumps. A multi-use management plan has been created for the park that is focused on wildlife, recreation, and timber harvesting. The plan allows for a sustainable amount of cutting to occur while promoting future harvest and wildlife habitat. The tree stumps are the result of a selective harvest conducted on the property in 1995. Trees that were large enough to sell were removed and mid-sized trees were carefully worked around so they can mature for the next harvesting.

Waukewan Highlands Trails

Waukewan Highlands Community Park is a multi-use, 190 acre managed forest owned by the Town of Meredith. Four marked trails lead to the pristine Hart's Pond.

White Trail: The White Trail is 0.4 miles long. This is a nice easy walk with fairly consistent terrain. The trail includes an elevated boardwalk through a wetland.

Red Trail: The Red Trail is a moderate 0.6 mile hike. The trail is fairly narrow with many natural obstacles such as roots, boulders, and seasonal streams.

Blue Trail: The Blue Trail is 1.1 miles long and is the most challenging trail with several steep slopes. Many obstacles are present on the trail such as stone walls and boulders. A small clearing reveals a northerly mountain view.

Yellow Trail: The Yellow Trail is 1 mile of gradual terrain great for hiking and cross-country skiing. The trail meanders through forest, stone walls, and into an open reclaimed field. The field offers a great view of mountains and Lake Waukewan.

For More Information Contact:
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