Chain of Ponds Unit

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Property Description

The Chain of Ponds unit surrounds the northern portion of Natanis Pond and all of Round Pond. The linear series of ponds, actually four interconnected lake basins, form numerous coves for small wetlands as well as providing a popular recreation destination. Natanis Pond Campground, leased from the state, is located on the unit.

Geology and Soils

Chain of Ponds is underlain by acidic granite, most of which was deposited during the Devonian period, 354 to 417 million years ago. These igneous intrusions formed during one of the three major mountain building events in New England. As plates collided, magma welled up and cooled slowly beneath the earth's surface. After millennia of erosion, the rock that was once buried beneath hundreds of feet of bedrock is now at the earth's surface.

The north end of Chain of Ponds is underlain by glacial outwash deposits (such as glacial deltas). Along the east side of the lake, some esker deposits are found. In other areas – including most of the unit – till is the dominant glacial deposit. The soils at Chain of Ponds are dominated by the Skerry-Becket-Brayton formation.

Hydrology and Water Quality

The Chain of Ponds Lake consists of four basins arranged in a straight line that runs northwest to southeast. The lake covers 700 acres and drains 64.5 square miles. The maximum depth is 106 feet, while the average depth is 24 feet (PEARL database). A 300 feet long, ten feet tall, dam at the outlet of Lower Pond was rebuilt in 1991 and is maintained by Inland Fisheries and Wildlife to maintain trout and salmon habitat within Chain of Ponds.

State land borders all sides of Natanis Pond.

Wetlands

The Chain of Ponds unit has 132 acres of wetlands, only 20 of which are forested. Much of the wetlands consist of shrub-lined tributaries to the ponds. The unit also has 180 acres of wading bird habitat, most of which is concentrated around Round Pond and its tributaries.

Ecological Processes

Both active and abandoned beaver impoundments were observed on the unit. Beavers build dams to give them safe access to the hardwoods they prefer to eat. When active, beaver ponds flood adjoining uplands, enlarging wetlands and creating new areas for wetland species to colonize. Once the hardwoods within a safe distance of the pond are gone, beavers often abandon their dam and build a new dam in a different location. These abandoned ponds typically slowly fill with sediment and transition from marshy wetlands back to uplands. By creating and abandoning impoundments along the stream course, beavers create a mosaic of habitats for other plant and wildlife species.

Land Use and Harvest History

The state acquired most of the unit in 1978 from the Brown Company as part of a larger statewide land deal. Small additional acquisitions took place in 1985 (100 acres) and 1986 (22 acres) to bring the total area to 1,119 acres. The northern end of the lake includes Natanis Pond Campground, which is leased from the state. The narrow spit of land that separates Round Pond from Natanis Pond is composed of sand and gravel and is used both as a roadway and as an area for several RV camping sites. A bridge across the stream in this location was rebuilt in 2004. Five residential camp lot leases are located on the unit, and BPL maintains two boat access points, one at the campground and one at the Long Pond thoroughfare.

A bridge connects the narrow spit of land that separates Round Pond from Natanis Pond.

Because much of the forested land on the unit consists of steep slopes that border the ponds, few acres are considered operable timberland. No harvesting has taken place on the unit for the last 30 years.

Fisheries and Wildlife

Fish found in Chain of Ponds include: blacknose dace, brook trout, brown bullhead, common shiner, creek chub, cusk, fallfish, golden shiner, lake chub, lake trout, landlocked salmon, longnose sucker, northern redbelly dace, rainbow smelt, slimy sculpin, white sucker, and yellow perch (PEARL database). No wildlife studies have been conducted at Chain of Ponds, but one would expect the typical mix of species for the region, including deer, moose, black bears, and fishers. Sporadic winter deer use has been noted in the softwood stands along Horseshoe Stream. A five acre field managed for grassland birds is part of an old farm site on the unit, and some speckled alder (*Alnus incana*) stands are managed for woodcock. Wetland bird species likely use the unit's abundant wading bird and waterfowl habitat, and there is evidence of beaver activity on the unit.

Rare Animal and Plant Species

There are no rare plants or animals known from the Chain of Ponds Unit.

Natural Communities

There are no exemplary natural communities documented from the Chain of Ponds unit, though the area does contain a diverse collection of wetlands and uplands in good condition.

The western edge of Natanis Pond is characterized by steep slopes with several rocky outcrops covered with rock polypody (*Polypodium* sp.). A Spruce-Northern Hardwoods forest dominates these steep slopes down to the pond edge. The understory is open with hobblebush (*Viburnum lantanoides*), spinulose wood fern (*Dryopteris carthusiana*), and other common forest herbs including painted trillium (*Trillium undulatum*), common wood-sorrel (*Oxalis montana*), bunchberry (*Cornus canadensis*), and bluebead lily (*Clintonia borealis*). Canopy species include white cedar (*Thuja occidentalis*), red spruce (*Picea rubens*), yellow birch (*Betula alleghaniensis*), red maple (*Acer rubrum*), and hemlock (*Tsuga canadensis*), with spruce as the most abundant tree. Tree ages include a 133 year old cedar, a 77 year old spruce, and a 130 year old yellow birch.

A small Mixed Graminoid – Shrub Marsh is found along the northwestern edge of the unit. This is characterized by several graminoid species (including species of *Scirpus*, *Carex*, *Eleocharis*, *Glyceria*, and *Calamagrostis canadensis*). Black bulrush (*Scirpus*

atrovirens) and inflated sedge (*Carex vesicaria*) are dominant. Old beaver dams are evident here (the marsh appears to be an abandoned impoundment), but no recent activity was noted. Plant species diversity is very high in this area.

The northern end of Round Pond is characterized by a Sweet Gale-Mixed Shrub Fen. This small open fen is dominated by sweet gale (*Myrica gale*) and speckled alder (*Alnus incana*). Meadowsweet (*Spiraea alba*) and star sedge (*Carex echinata*) are frequently encountered. Slender sedge (*Carex lasiocarpa*) and marsh-potentilla (*Comarum palustre*) are scattered throughout the community. A fen such as this is typically used by a number of bird species including common yellow throats and flycatchers.

A Spruce-Larch Wooded Bog is found on the eastern edge of the fen at the northern edge of the pond. This is characterized by black spruce (*Picea mariana*) up to 30' and an understory of sheep laurel (*Kalmia angustifolia*), leatherleaf (*Chamaedaphne calyculata*), three-seeded sedge (*Carex trisperma*), and Labrador tea (*Rhododendron groenlandicum*) with hummocks of sphagnum.

Management Considerations

- There are a number of possible impacts associated with the campground's proximity to the water. Potential impacts include soil compaction, sedimentation of the ponds, and eutrophication of the ponds. None of these impacts have been evaluated. Maintaining an adequate forested buffer around the lake's edge will reduce sedimentation of the lake.

- Invasive aquatic species are always a concern at boat launches. Finding ways to prevent the spread of these species, including educating boaters, is important to maintaining the quality of the lakes.

Appendix 1: Maps of the Chain of Ponds Unit