

**Santuit Pond**, a kettle-hole pond, lies in Mashpee on the Barnstable border. The major outlet from this groundwater-connected water body is the Santuit River, flowing from its southern end to the Shoestring subembayment of nutrient- stressed Popponesset Bay.

The pond exchanges surface waters with a grouping of cranberry bogs adjacent to its shoreline on a seasonal basis. There was a stream/bog channel (intermittent stream) that flowed from the pond's eastern shore to Lovells Pond (a Commonwealth trout stocked pond) in Barnstable. The bogs to Santuit Pond connections were blocked in 2007 reducing the outflow during high water conditions and modifying conditions for adjacent wetlands. The pond's maximum depth is 9 feet and it is host to an anadromous fish run well as the typical warm water species found in Cape ponds.

The pond is listed as impaired for nutrients and noxious weeds on the Clean Water Act 303(D) list. Although classified for primary contact recreation, transparency measurements are usually below the State Sanitary Code guideline of 4 feet (1.2 meters) minimum and a western shore located homeowners association has given up their private beach. The Town of Mashpee now owns the property. Santuit Pond Estates on the eastern shore maintains a private beach. The Mashpee Board of Health posted the pond in 2006 and again in 2008 with transparency and health cautions although no posting was evident in 2007 with similar conditions. The 2009 posting, again due to the blue/green algae bloom was done by the Massachusetts Dept. of Public Health. Bryants Neck Access was posted once for high bacteria counts as experienced in previous years during 2009.

The Town boat launching dirt ramp, off Timberlane Rd., is suitable for small trailered and car-top boats, canoes, kayaks, etc. The Commonwealth, Barnstable and Mashpee undertook a joint conservation purchase of lands on the eastern and southern shores of the pond as the "Santuit Pond Preserve". This 200 plus acre purchase was completed for slightly more than \$9 million by utilizing funds from each town's Land Bank and from the Division of Fisheries Wildlife and Environmental Law Enforcement.

The Town, in cooperation with the Mashpee Wampanoag Tribe, maintains a water quality measuring/recording device in the pond.

The pond takes on a summer "pea soup green" (also brown during 2007 and tending to brownish in Fall 2009) condition due to a strong continuing algae bloom that is a combination of minute particles and conjoined clumps of varying sizes. The algae have been identified as bluegreen, some species of which can cause health problems and also can assimilate nitrogen from the air potentially contributing to downstream embayment nutrient problems. The Town has funded a study to determine the cause of the pond's poor trophic condition.

(continued, next page)

The Santuit River outlet structure has been repaired for a condition where the land immediately adjacent to both sides was eroded during high water events, but, needs added repairs according to State Officials. During 2008/2009 winter the pond level was temporarily lowered for dam inspection and the outlet structure height has been lowered (unauthorized) in October 2009 with a significant amount of water entering the Santuit River temporarily lowering the pond. Hopefully, a Fall/Winter lowering would reduce residence times and increase the flushing rate. A visit to this pond during the foliage season provides an attractive display of color significantly different than the typical Cape Cod "Scrub Oak Brown".

# Santuit Pond is classified eutrophic and needs remediation

# SANTUIT POND (Mashpee) (MA 1993 DFW Description)

#### General Information:

This shallow, 172 acre warm water pond has a maximum depth of 9 feet and an average depth of 5 feet. The bottom is predominantly sand overlain with muck, with some areas of gravel and rubble. Transparency is good, extending to the bottom even in the deepest hole. Aquatic vegetation is abundant, although much of it is submerged. The shoreline is moderately developed and generally steep and wooded.

The pond is located about a mile north of Route 28 and east of Route 130. The access is at the end of Hornbeam Street, which is off Sandwich/Cotuit Road a little north of its junction with Route 130. The access is a town right-of-way with a dirt ramp suitable for car top boats, canoes and light trailer boats. There is parking for approximately six vehicles.

#### Fish Populations:

This pond was last surveyed in 1979, at which time nine species were recorded present: largemouth bass, chain pickerel, golden shiner, pumpkinseed, alewife, yellow perch, brown bullhead, white sucker and white perch.

#### Fishing:

Due to the length of time since the last fisheries survey was conducted, we can only guess as to the current fishing opportunities offered at this pond. Unless it has become acidified, it is likely that it remains a fair bass pond. Pickerel should still be abundant, perhaps providing some truly intense action, but they will tend to be on the small side. Yellow perch will offer some panfish action, but individuals over 9 inches are probably scarce. According to recent reports, this pond is producing some very large brown bullheads, so panfishermen may want to target that species. Try fishing for them on the bottom on early summer evenings. A slip-sinker rig baited with nightcrawlers or small dead shiners should produce results. Boat anglers may want to concentrate their efforts off one of the two inlet streams. <sup>1</sup> March 1993

1 Ed Note: The inlet streams mentioned are Cranberry Bog outlets to the pond.

# **General Information:**

Santuit Pond is a shallow, fertile, 172 acre warmwater pond with a maximum depth of 9 feet and an average depth of 5 feet. The bottom is predominantly sand overlain with muck, with some areas of gravel and rubble. The pond is groundwater fed and forms the headwaters of the Santuit River (also known as the Cotuit River). Transparency is generally good extending to the bottom even in the deepest hole. Aquatic vegetation is very abundant, although much of it is submerged. The 3.4 miles of shoreline are moderately developed with homes and cranberry bogs and generally steep and wooded.

#### Access:

Santuit Pond is an enlarged great pond located about a mile north of Route 28 and east of Route 130.

A town provided access is at the end of Pocknomett Street, which is off Sandwich/Cotuit Road a little north of its junction with Route 130. The access is an unpaved town right-ofway with a dirt ramp suitable for cartop boats, canoes and light trailered boats. There is parking for approximately six vehicles. During the summer months, parking is limited to town residents with stickers only but boats

can be launched and nearby roadside parking can be found. Public foot access can also be made through the Santuit Pond Preserve on the southern end of the pond. The primary access to the Santuit Pond Preserve is in Barnstable where a small access area is available off Santuit-Newtown Road just to the north and west of the Lovells Pond Boat Ramp.

### **Management History:**

Santuit Pond was surveyed on August 17, 1911 and yellow perch, white perch, sunfish pickerel, catfish and herring were reported. Santuit Pond was stocked with smallmouth bass and white perch between 1931 and 1947. A 1948 survey reported that they were unable to sample the pond with seines or gill nets due to a heavy growth of pond weed over the entire pond bottom. It was recommended the pond be managed for chain pickerel and yellow perch. An August 1958 survey found pumpkinseeds, bluegills, brown bullheads, golden shiners, alewives, banded killifish, chain pickerel, yellow perch, bridle shiners, white suckers and white perch. The pond was stocked with 700 hybrid tiger muskies in 1982. Largemouth bass and herring in the pond were studied in 1994 for a Master's thesis.

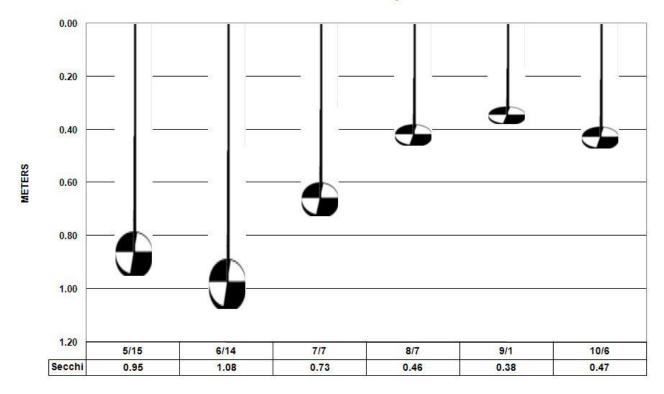
#### **Fish Populations:**

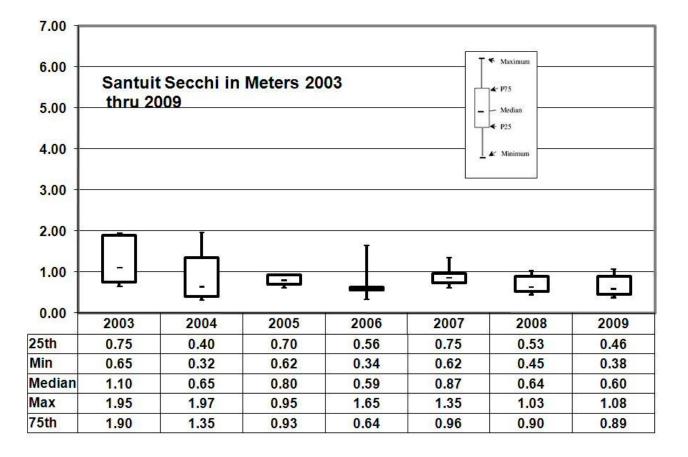
Santuit Pond was last surveyed in July, 1998. The pond is known to contain largemouth bass, chain pickerel, golden shiner, pumpkinseed, alewife, yellow perch, brown bullhead, white sucker, white perch and American eel.

# **Fishing:**

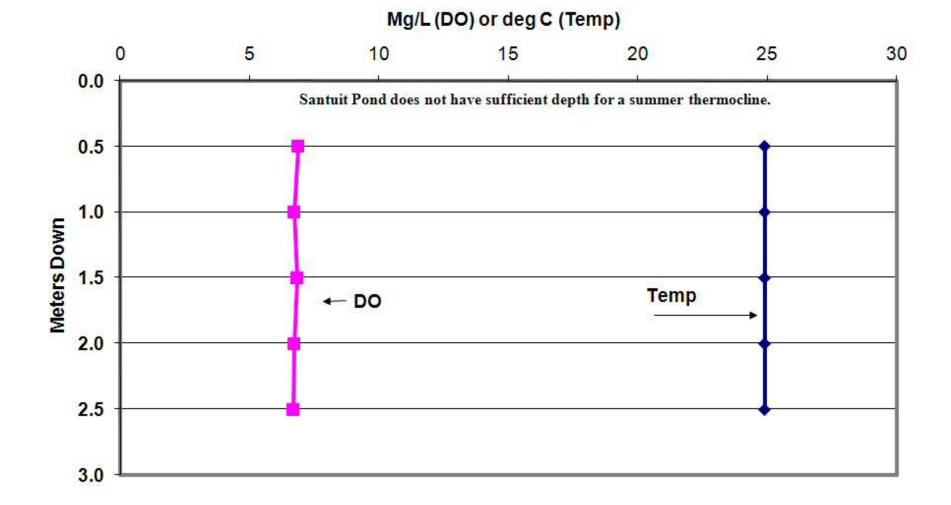
Santuit Pond is one of the most fertile ponds on Cape Cod and offers good fishing for largemouth bass, chain pickerel, pumpkinseed sunfish and brown bullhead. The large amounts of aquatic vegetation during the summer months may hamper fishing at times. There are big largemouth bass here due to the food supply provided by the herring which run up the Santuit River. A seven-pound largemouth was captured here in July of 1998 and displayed at the Barnstable County fair before being released back into the pond. This pond is also producing some very large brown bullheads; try fishing for them on the bottom on early summer evenings. A slip-sinker rig baited with nightcrawlers or small dead shiners should produce results. Santuit Pond is a good bet for ice fishing when conditions permit. Other nearby ponds are Mashpee-Wakeby Ponds and Lovells Pond. *Updated: March 8, 2007 S.T.H.* 

Santuit Secchi Depth 2009





# Santuit DO/Temp Profile 8/7/09





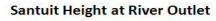
**Santuit Pond Watershed with Parcels** 

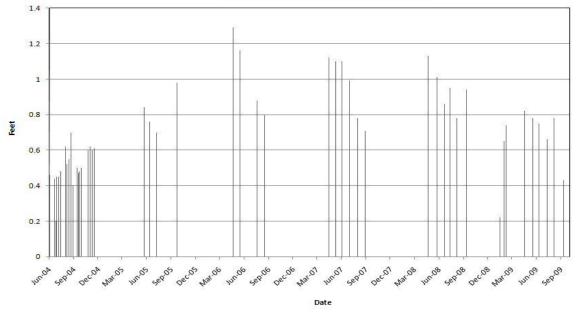


	09	09	09	09	09	09
Depth	5/15	6/14	7/7	8/7	9/1	10/6
(meters) Total	2.3	2.5	2.6	2.4	2.5	2.1
Secchi	0.9	1.1	0.7	0.5	0.4	0.5
Temp.						
0.5	16.5	20.4	23.5	24.9	21.6	16.8
1.0	16.5	20.4	23.5	24.9	21.6	16.9
1.5	16.5	20.4	23.4	24.9	21.6	16.9
2.0	16.5	20.0	23.4	24.9	21.5	16.8
2.5		19.7	23.4	24.9	21.5	
DO						
0.5	9.1	7.9	9.8	6.9	7.0	10.1
1.0	9.2	7.9	10.0	6.7	7.0	10.1
1.5	9.2	7.7	9.8	6.9	6.9	10.1
2.0	9.2	6.5	9.4	6.7	6.8	10.0
2.5		5.0	2.6	6.7		

#### **Snapshot analyses**

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Santuit	Depth	2003	2004	2005	2006	2007	2008
Chl a (µg/L)	0.5M	11.36	6.27	31.96	77.47	51.94	58.88
	3M	11.97	16.03	30.85	73.49	75.81	50.88
TP (µg/L)	0.5M	55.75	96.02	71.24	83.63	37.63	33.79
	3M	46.46	96.02	71.24	86.73	57.34	60.06

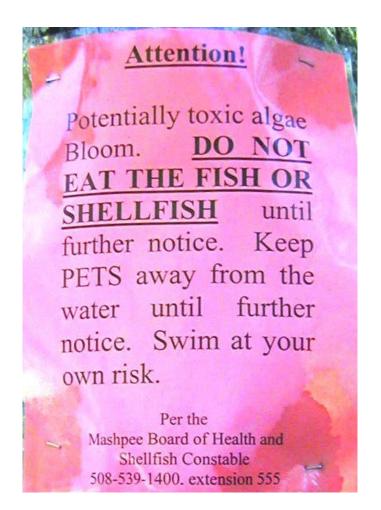




Height numbers are gauge readings referenced to a fixed point.



Santuit Pond near boat ramp 9/13/06



Santuit Pond near boat ramp 9/2/08