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The Loon Pond Experience

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The Loon Pond Experience

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Introduction

- Located in Lakeville, Massachusetts
- Approximately 32 feet deep
- Covers an approximate 0.69 square miles
- Surrounded by forest and houses
- Most of the houses are summer homes
- Used for:
 - swimming
 - fishing
 - canoeing

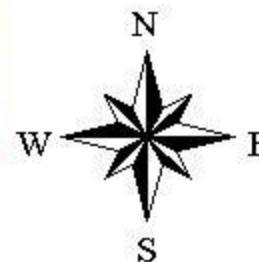
Land Use Loon Pond



Land Use

-  Crop Land
-  Pasture
-  Forest
-  Non-Forested Wetland
-  Mining
-  Open Land
-  Participation Rec.
-  Spectator Rec.
-  Water-based Rec.
-  Multi-Fam. Res.
-  High Density Res.
-  Medium Dens. Res.
-  Low Dens. Res.
-  Salt Water Wetland
-  Commercial
-  Industrial
-  Urban Open
-  Transportation
-  Waste Disposal
-  Water
-  Woody Perennial
-  MA Towns

0.1 0 0.1 0.2 0.3 0.4 0.5 0.6 Miles



Created By:
Katherine Mirra
April 1, 2005



History of Loon Pond

- The property was owned by Horatio Sampson until Orville Gerrish bought it in 1889
- When Orville died, the Boy Scouts bought it to be used as a summer camp
- The property was later sold to the Lakeville Parks Department
- The land was then sold to baseball great Ted Williams who created Ted Williams Baseball Camp
- In 1986, the town of Lakeville bought the park and now use it as a recreational area

Objective:

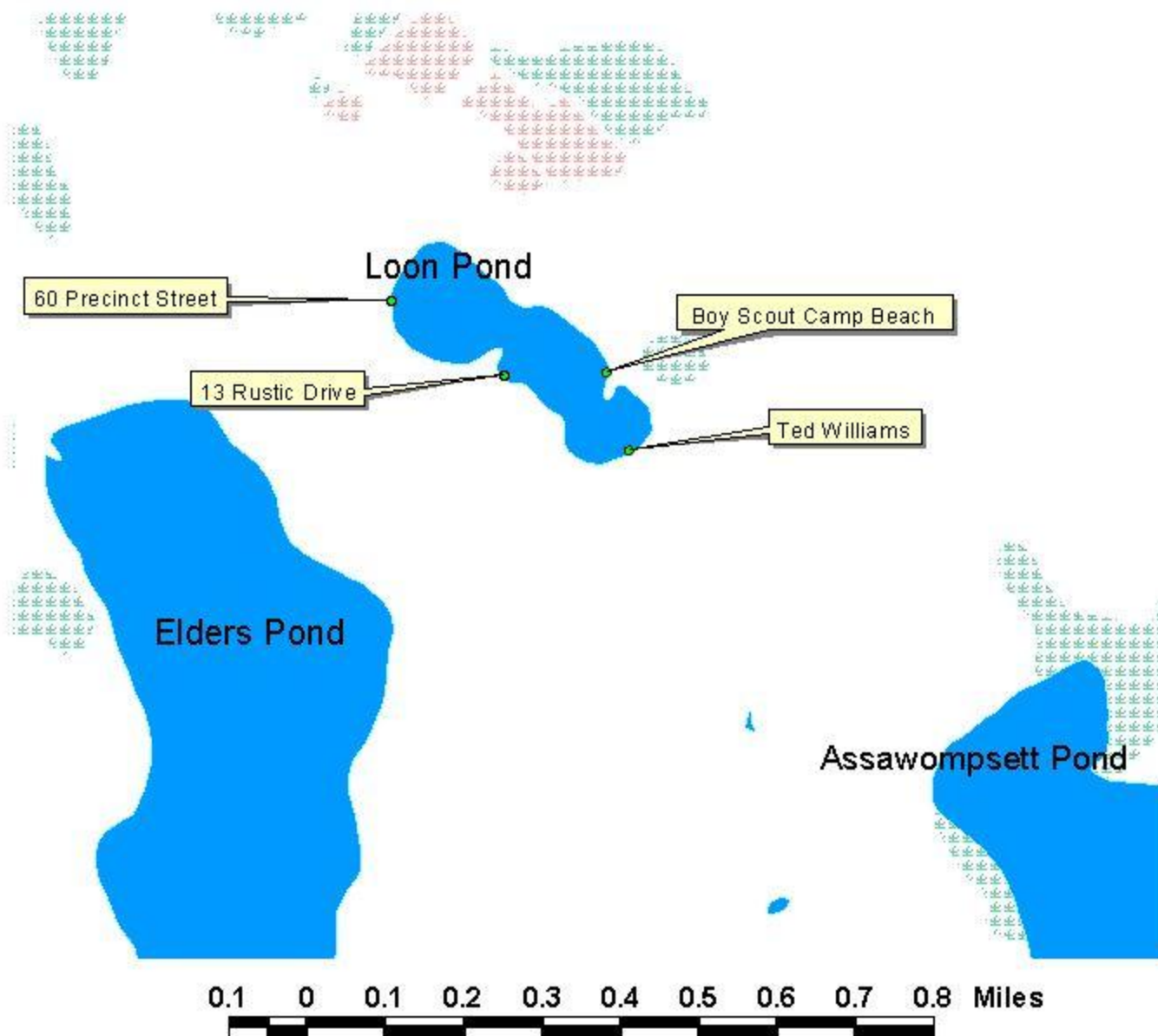
To find out if there are invasive weeds in Loon Pond

Why?

The town of Lakeville wanted to know if there were invasive weeds in Loon Pond.

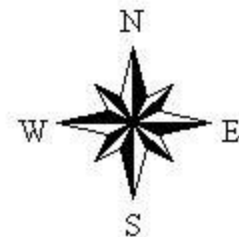


Loon Pond Sample Sites



Lakes & Ponds

- Wetland / Salt Marsh
- Cranberry Bog
- Surface Water
- Tidal Flat
- Impoundment
- Dam
- MA Towns



Created by: Jeff Kent

April 15, 2005

Protocol

- 20 feet into the water, 45 feet across
- Waded parallel to the shore
- Established protocol in order to keep consistency and uniformity
- Utilized weed watcher's booklet in order to identify weeds

Weeds Identified

- White Water Lily
- Little Floating Heart
- Pipewort
- Elodea Nuttallii
- Elodea Canadensis
- Hedge Hyssop
- Water-star Grass
- Wild Celery

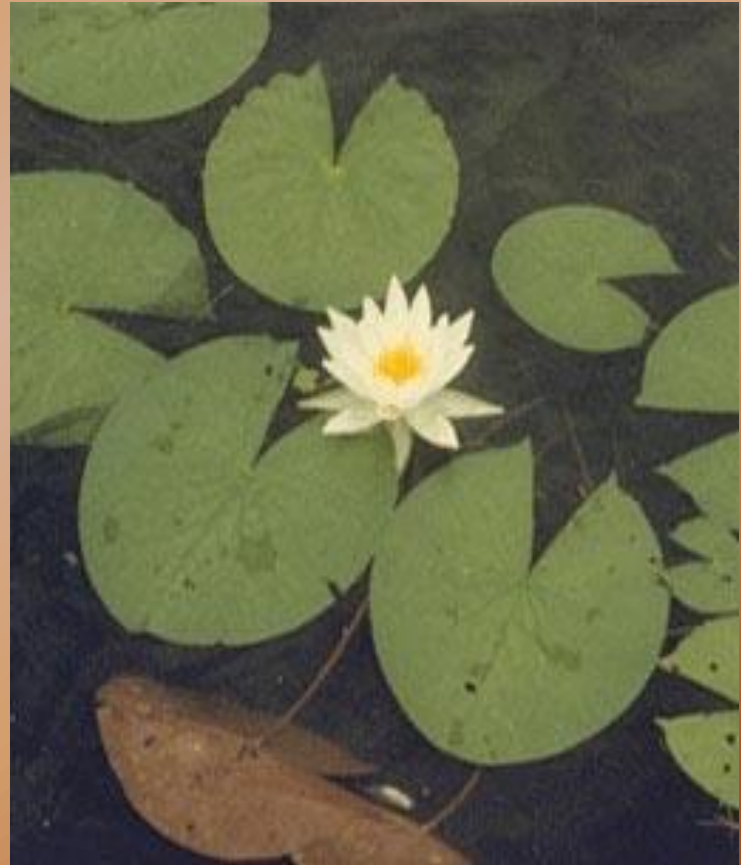


Data

	5*	5*	4*	4*
Macrophyte Species:	Ted Williams Camp	Boy Scout Beach	60 Precinct St.	Rustic Drive
White Water Lily	5	0	3	0
Little Floating Heart	5	0	0	2
Pipewort	5	5	3	0
Elodea Nuttallii	5	5	0	0
Elodea Canadensis	0	0	3	3
Hedge Hyssop	5	0	0	0
Waterstar Grass	possibly	0	3	1
Wild Celery	0	0	0	2
*indicates the number of times the site was visited				

White Water Lily

- Rooted plant with large, firm, dark green leaves
- Leaves are circular with a 5" to 9" diameter and are usually floating or standing above the water's surface
- Have a distinctive sweet-scented white or pink flower
- Found throughout ponds, lakes, swamps, and streams
- Non-invasive



Little Floating Heart



- Located in ponds, lakes, and slow moving streams
- Has shiny, green, heart-shaped leaves and white flowers
- Leaves are arranged alternately along the stem and oppositely on the flower stalks
- Leaves are purplish underneath and root bunches on the bottom of the stem
- Found on the water's surface

Pipewort

- Lives in shallow freshwater
- Has small, white flowers
- 1" to 10" in height
- Unmistakable when in bloom; a tiny, white pinhead rising just above the water
- Distinguished by its leafless stem and narrow, grass-like leaves
- Non-invasive



Elodea Nuttallii



- Underwater perennial plant
- May occur as a tangled mass
- Provides food and habitat for fish
- Common throughout the Eastern United States
- Non-invasive

Foto: Anna-Lena Anderberg

Elodea Canadensis



- Has leaves in whorls around the stems
- Three leaves per whorl
- Found throughout temperate North America
- Provides a good habitat
- Food for some animals
- Non-invasive

Hedge Hyssop

- Trailing to standing annual plants up to 30 cm tall
- Found along shorelines of lakes, ponds, and rivers
- Oppositely arranged narrow leaves with slightly toothed margins
- Tubular, irregular flowers, with groups of 5 petals
- Distinguished by its leaf shape and attachment, the presence of sticky glands, and the flower shape
- Non-invasive



Water star Grass



- Underwater plant
- Has small, star shaped yellow flowers that float or rise above the water surface
- Has long, grass-like, dark green leaves
- Frequently grow into large tangled masses in shallow water or along shore lines
- Can be distinguished from pond weeds by the lack of a prominent mid-vein in the leaves
- Non-invasive

Wild Celery



- Surface plant
- Ribbon-like leaves which grow to the surface and then bend and float on the surface
- Leaves are serrated with a stripe down the middle
- Flowers are on long stalks that float
- Found in ponds
- Provides food and habitat
- Non-invasive

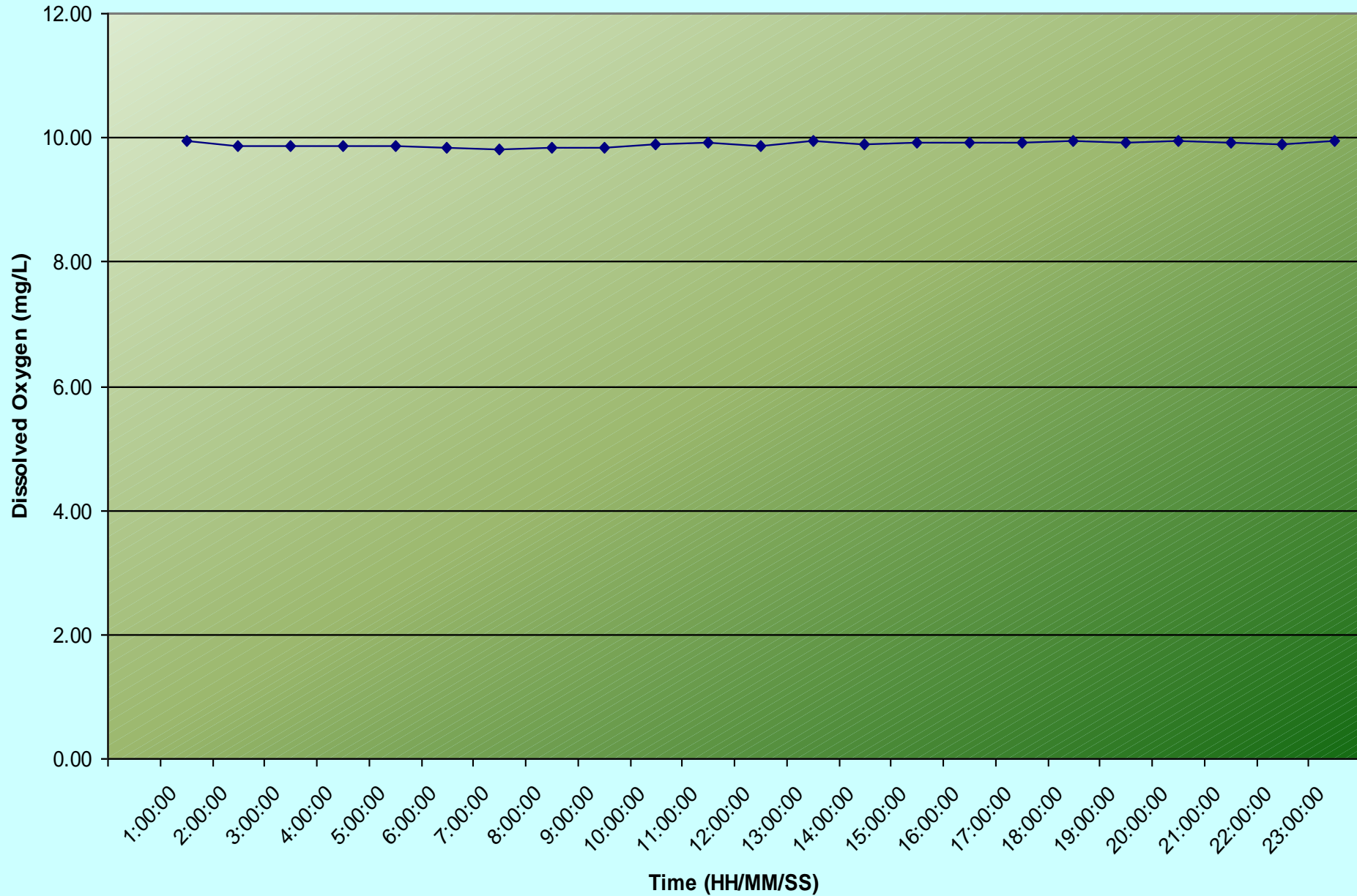
Water Quality Analysis

- Data from Probe launched on April 15, 2005
- Nitrogen as Nitrate monthly sampling data
- Reactive Phosphorous monthly sampling data

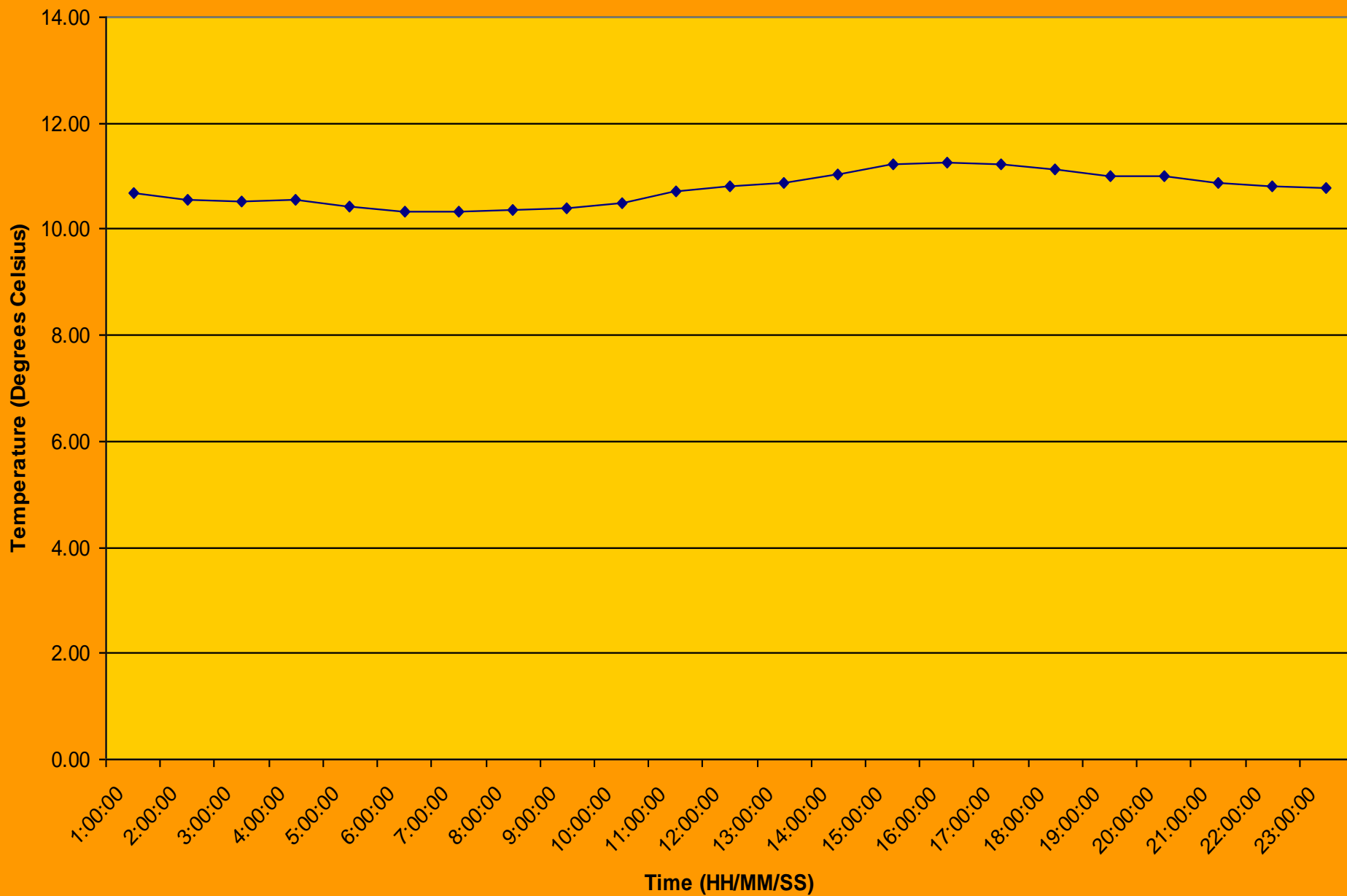


The above photo shows the launching of the probe.

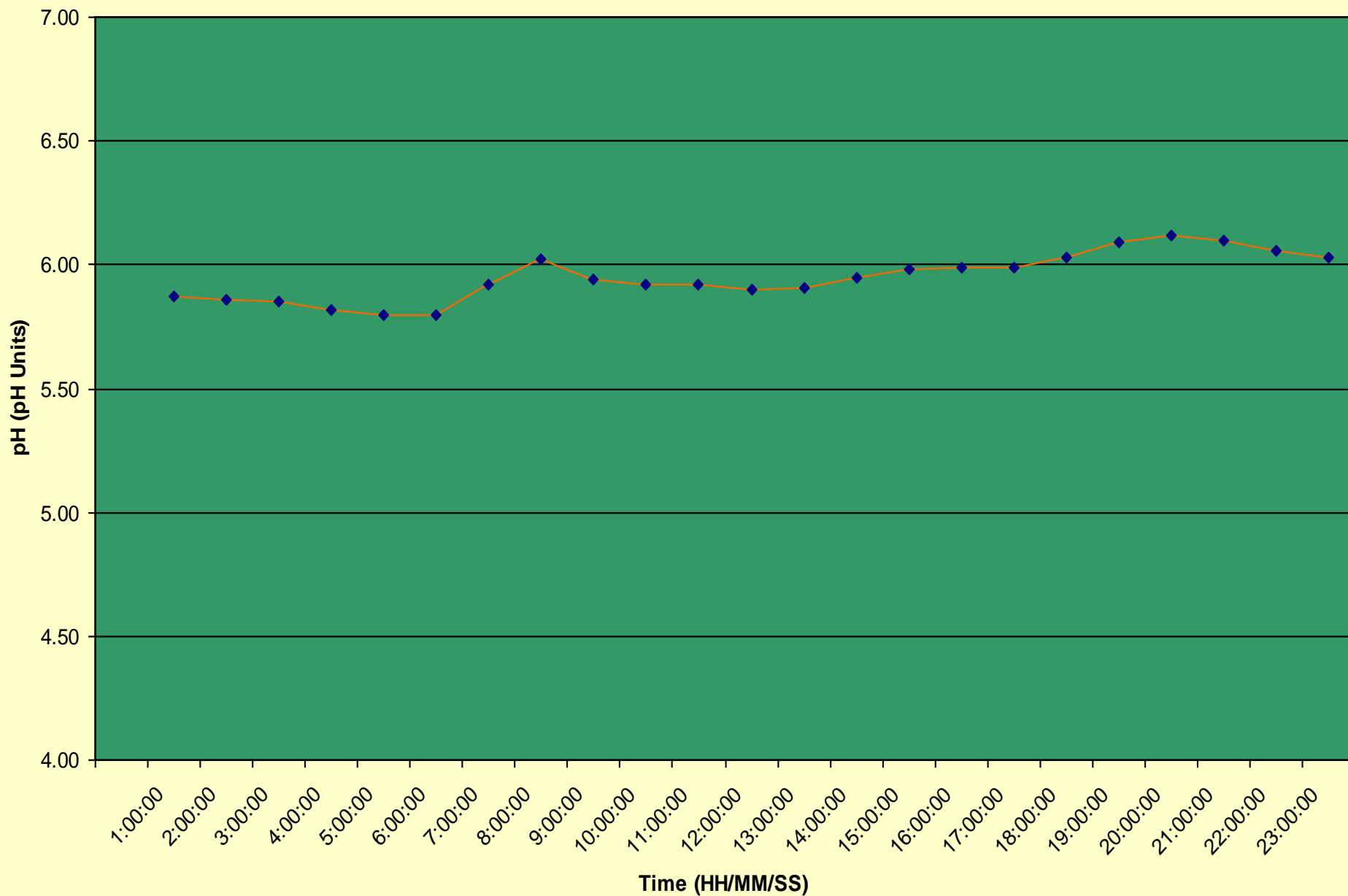
D.O. vs. Time, Loon Pond, Rustic Drive, April 15, 2005



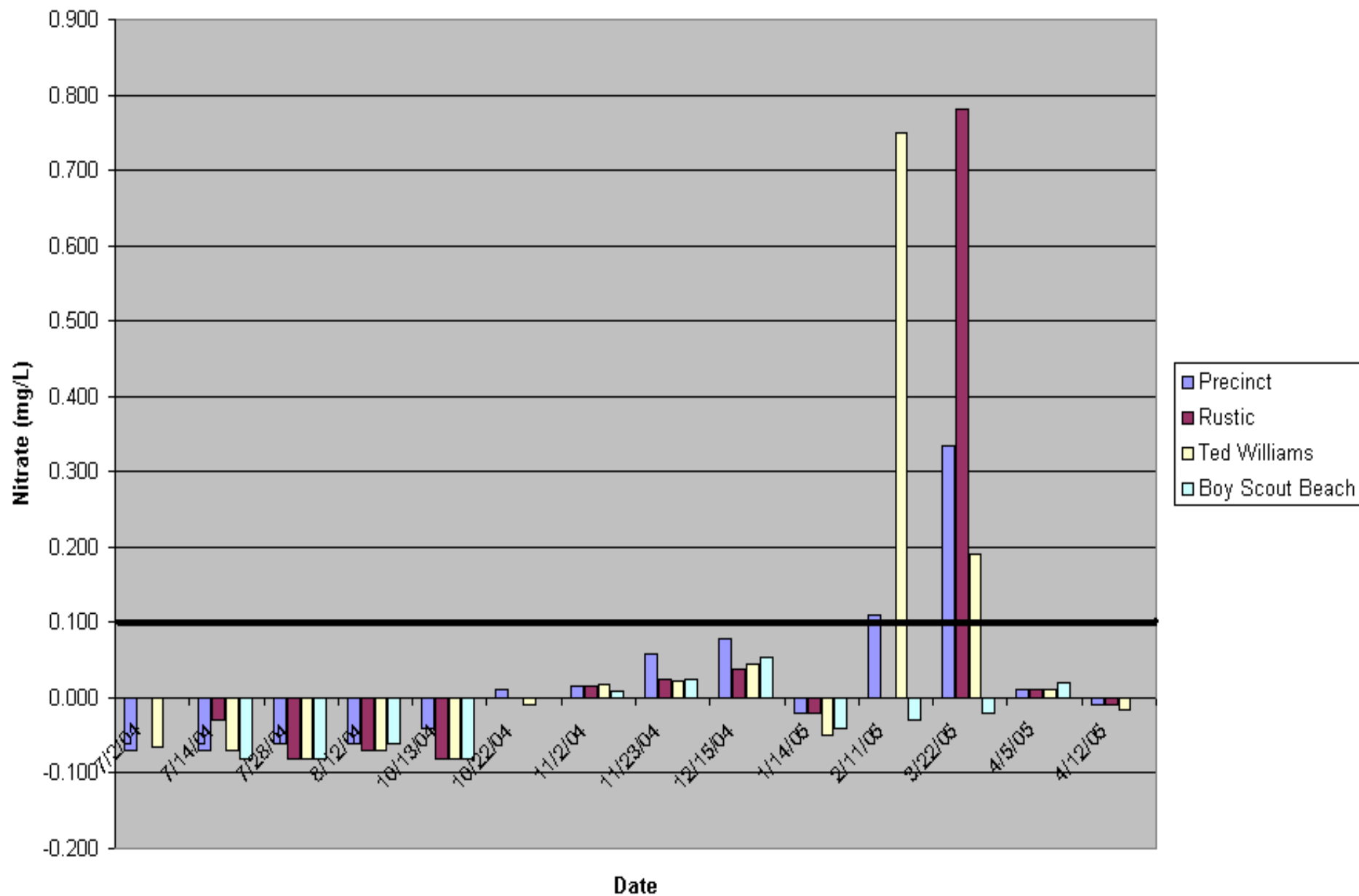
Temperature vs. Time, Loon Pond, Rustic Drive, April 15, 2005



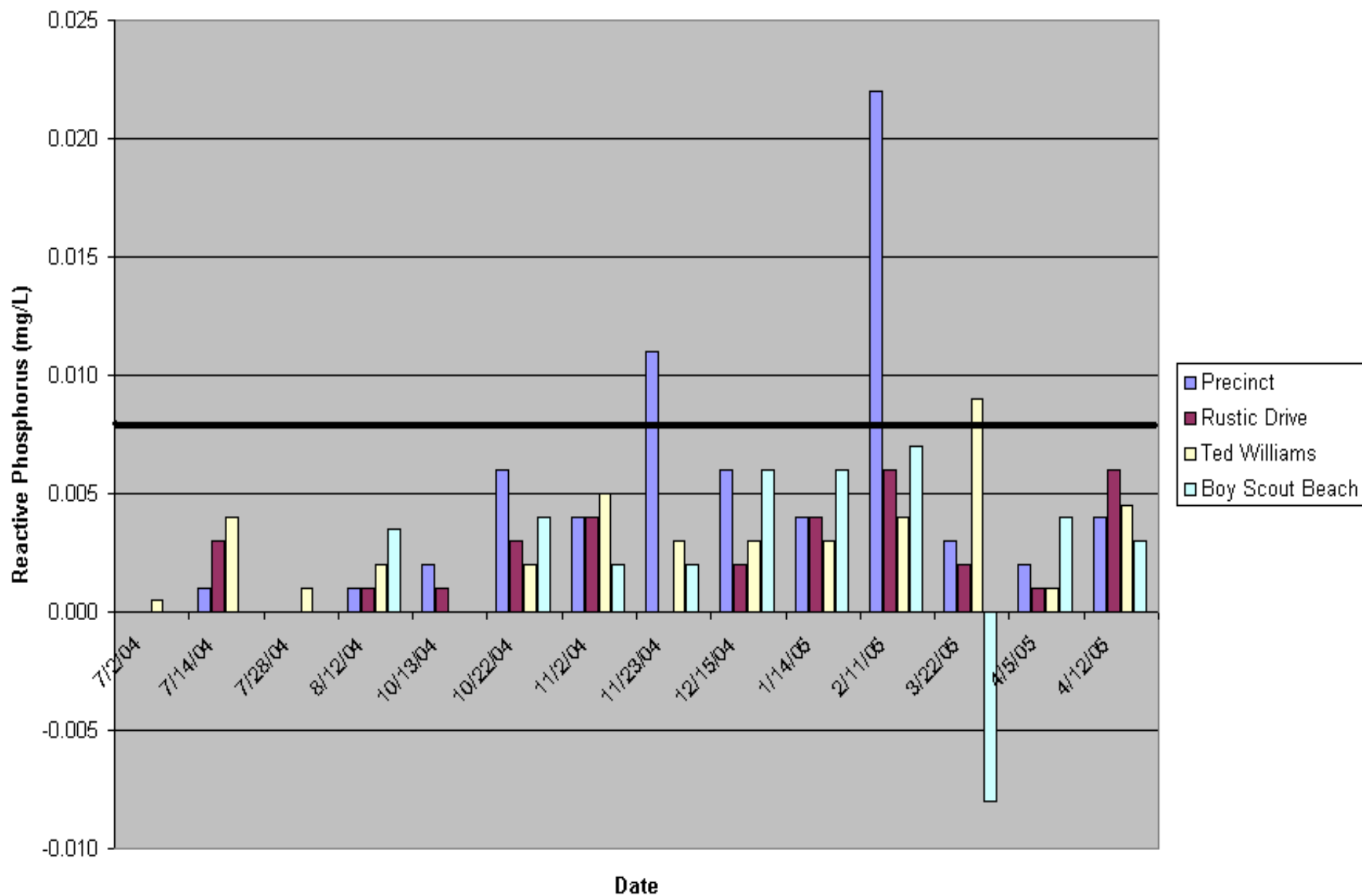
pH vs. Time, Loon Pond, Rustic Drive, April 15, 2005



Nitrogen as Nitrate in Loon Pond from July 2004 to April 2005



Reactive Phosphorus (mg/L) in Loon Pond from July 2004 to April 2005



Conclusions

- ~Loon Pond does not contain invasive weeds.**
- ~Loon Pond contains healthy nitrogen and phosphorous levels**
- ~Loon Pond retained normal temperatures and levels of dissolved oxygen throughout the year**

Acknowledgements

- Mrs. Hubbard, Rustic Drive, Lakeville
- Ms. Kim McCoy, WAL, Bridgewater State College
- Mr. Ralph Blackburn, Lakeville
- Residence of Precinct St., Lakeville