Water Test Report

For

Windstar Pond 13

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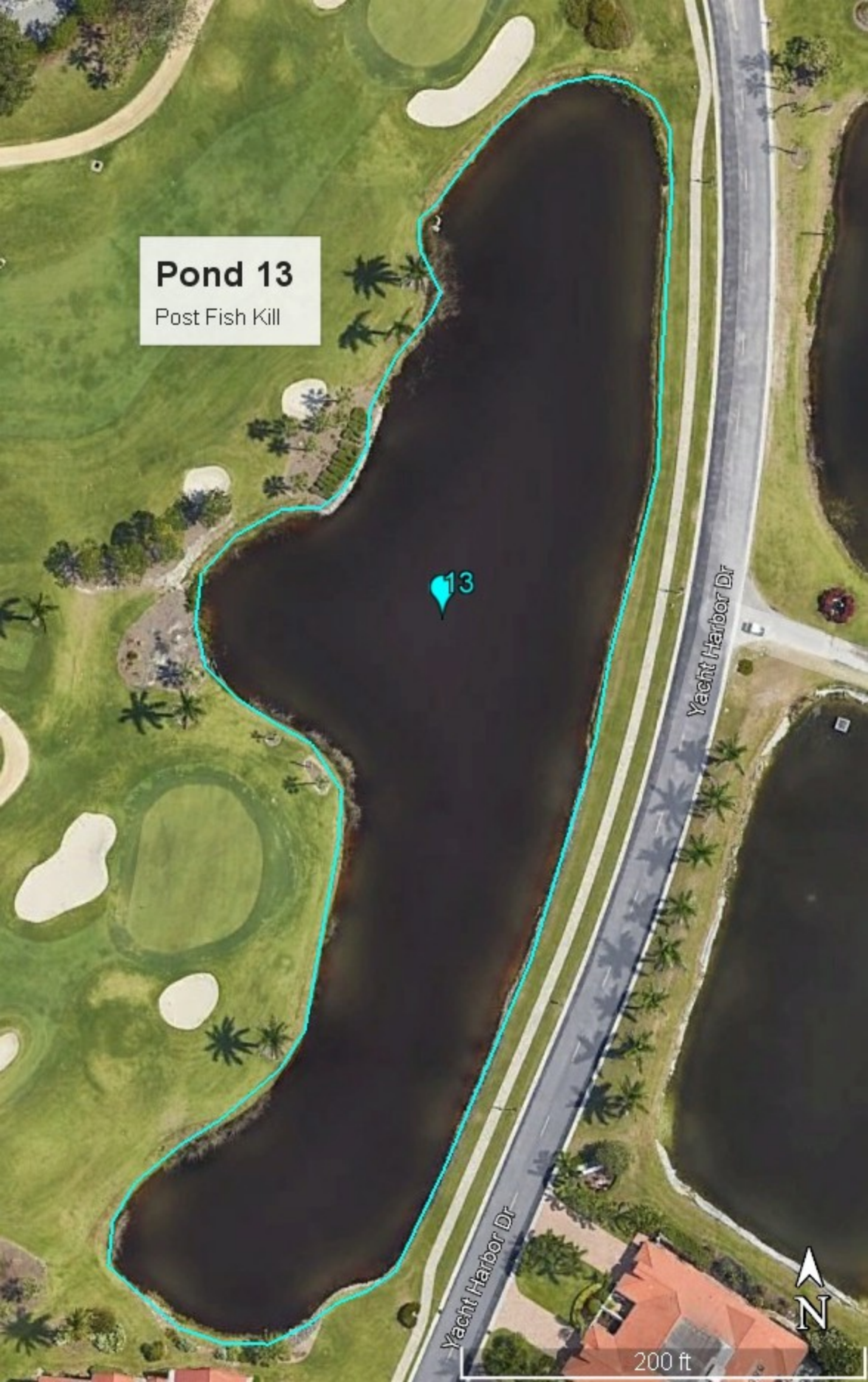
292 S. Military Trail – Deerfield Beach, FL 33442
Locations in: Deerfield Beach, Fort Myers, Port St. Lucie, and Clearwater/Tampa
1-800-491-9621


Pond 13
Post Fish Kill
13
Yacht Harbor Dr
Yacht Harbor Dr
N
200 ft

Vertical dissolved oxygen (D/O) readings analysis

Readings taken on [7/21/2025]

Water column Dissolved oxygen / Saturation % / Temperature readings (measured at 1' increments)

Dissolved oxygen (D/O) is a measure of the amount of dissolved oxygen dissolved in water. The amount can tell us a lot about the water quality and whether the pond can sustain life, as in microorganisms and larger organisms like fish. By combining temperature and D/O levels from the surface to the bottom, we can also determine if stratification is occurring. Stratification can cause dead zones at the bottom of a pond. The dead zones are hypoxic (low oxygen) and sustain very little life. The hypoxic water also triggers a chemical reaction that releases phosphates from the sediments that ultimately feeds algae growth.

Poor water quality is also indicated by a low **D/O saturation % level**. Levels below 60% can occur with warm water temps and or biological activity. Bacteria and microorganisms use oxygen as they decompose organic material in the water column and at the bottom of the pond.

Guidelines for Interpretation of Dissolved Oxygen Readings

- 0-2 mg/L: not enough oxygen to support fish
- 2-4 mg/L: only a few kinds of fish and insects can survive
- 4-7 mg/L: acceptable for warm water fish
- 7-11 mg/L: very good for most stream fish including cold water fish

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Water test analysis descriptions

Total Phosphorous (TP)

Is the measurement of all forms of phosphorous; inorganic, organic, particulate and dissolved. Excess phosphorous is the prime contributor to eutrophication in most water systems. Measuring the amount of phosphorus indicates how productive and susceptible to algae blooms the pond is.

Total Nitrogen (TN)

An important test indicating the concentration of organic and inorganic forms of nitrogen that are in the water column. Nitrogen is one of the primary nutrients required by plants and algae for growth. At high levels, and in combination with phosphorous, plant and algae growth can excel to undesirable levels.

Ammonia and Ammonium (NH3-NH4+)

When plants, fish, and animals die (or give off waste) the first product formed from their decomposition is ammonium. If the pond is oxygenated enough, it is quickly converted to nitrates. Excessive amounts of either can cause an overload of nutrients to a pond called eutrophication. If the temperature and pH is moderately high the ammonium is converted to toxic ammonia which is lethal to organisms including fish.

pH

The pH test indicates how acidic or basic the water is. Most natural waterbodies in Florida have a pH between 6.5 to 8.5. The pH of water determines the solubility of nutrients (phosphorous, nitrogen, carbon) and heavy metals (lead, copper etc.). if the nutrients are soluble, they can be utilized by aquatic organisms. Heavy metals tend to be toxic at a lower pH. At high pH ammonia can become toxic.

Alkalinity

Alkalinity is a chemical measurement of a water's ability to neutralize acids. Alkalinity is also a measure of a water's buffering capacity or its ability to resist changes in pH.

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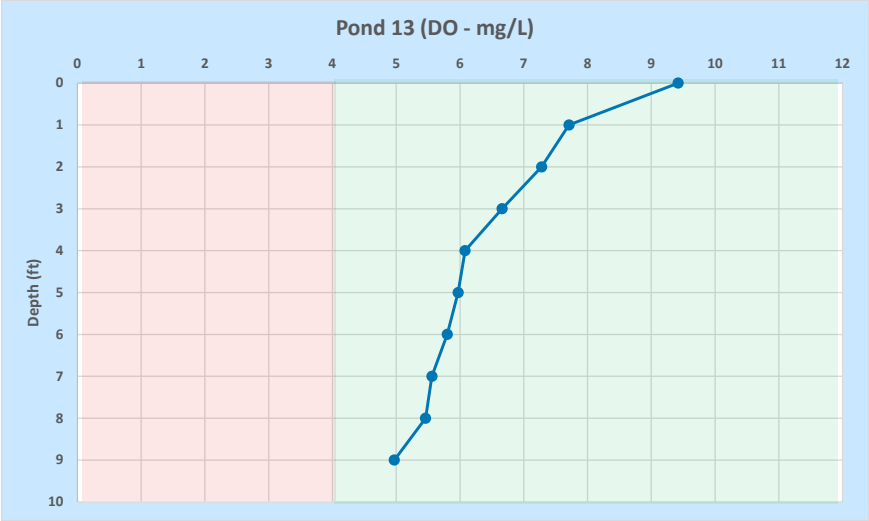
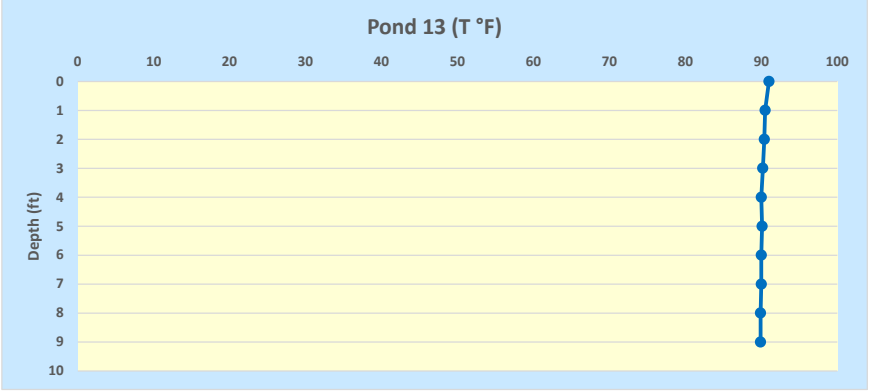
DO & T° Profile - Pond 13





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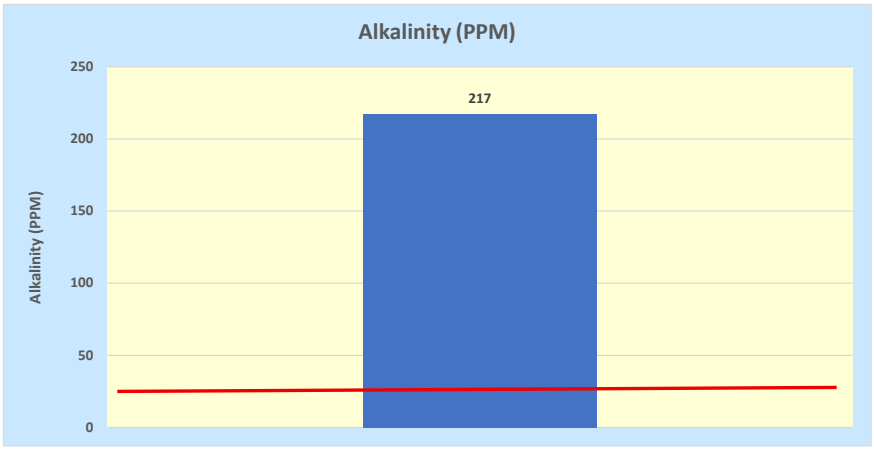
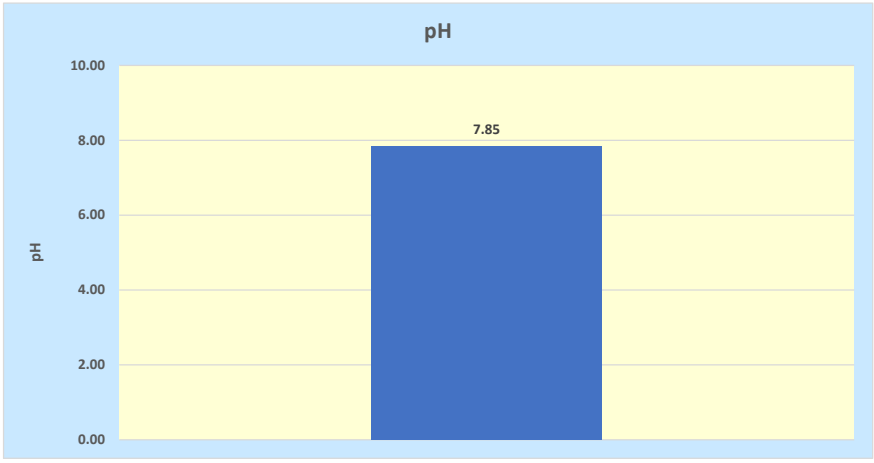
Alkalinity - Pond 13



*Red line indicates Stormwater Pond max. avg.

Alkalinity provides insight into the overall health and functionality of the pond.
Results lower than 20 PPM are below the reasonable range for stormwater ponds.

pH - Pond 13



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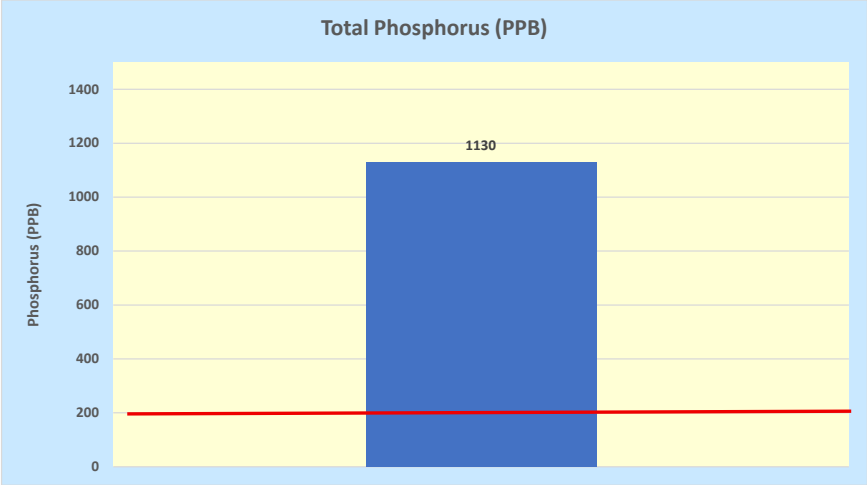
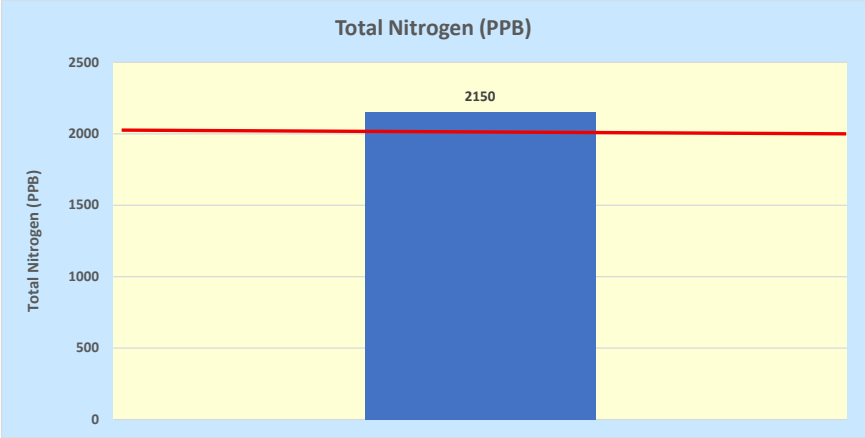
Total Phosphorus - Pond 13



*Red line indicates Stormwater Pond max. avg.

Total Phosphorus measures all forms of phosphorus, including dissolved and particulate forms.
Results greater than 200 PPB are above the reasonable range for stormwater ponds.

Total Nitrogen - Pond 13



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A measurement of both organic and inorganic forms of Nitrogen.
Results greater than 2000 PPB are above the reasonable range for stormwater ponds.

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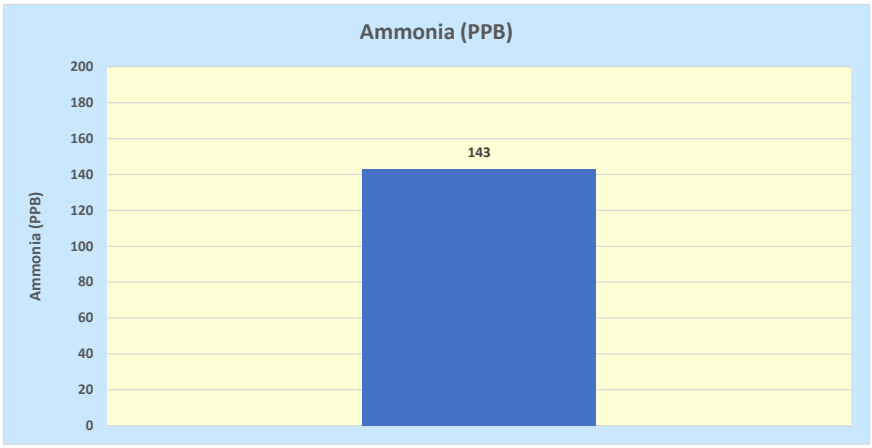
Ammonia - Pond 13



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Ammonia is used to indicate/monitor pollution via fertilizers, animal waste, or sewage.
Results greater than 1000 PPB are above the reasonable range for stormwater ponds.

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