

Ecological Pond Management



The book cover features a green-to-orange gradient background. On the left, a black silhouette of a person stands on a rocky outcrop. In the center, a large, glowing globe of the Earth is visible. On the right, there are silhouettes of tall grasses. The title 'Green Fire' is written in a large, elegant, cursive font, with the 'i' in 'Fire' having a yellow and green leaf-like shape at its top. Below the title, the author's name and the subtitle are printed in a smaller, sans-serif font.

Green Fire

ALDO LEOPOLD AND A
LAND ETHIC FOR OUR TIME

"When our rifles were empty, the old wolf was down, and a pup was dragging a leg into impassable slide-rocks. We reached the old wolf in time to watch a fierce green fire dying in her eyes. But after seeing the green fire die, I sensed that neither the wolf nor the mountain agreed with such a view."

The Pond Problem

- Permitted
- Unpermitted
- Smell
- Appearance

Longshore Lake Actions

- **Sediment**
- **Inventory**
- **Water Quality Testing**
- **Landscape Management**
- **Aeration**



WATER & SEDIMENT DEPTHS AS OF JANUARY 5, 2011

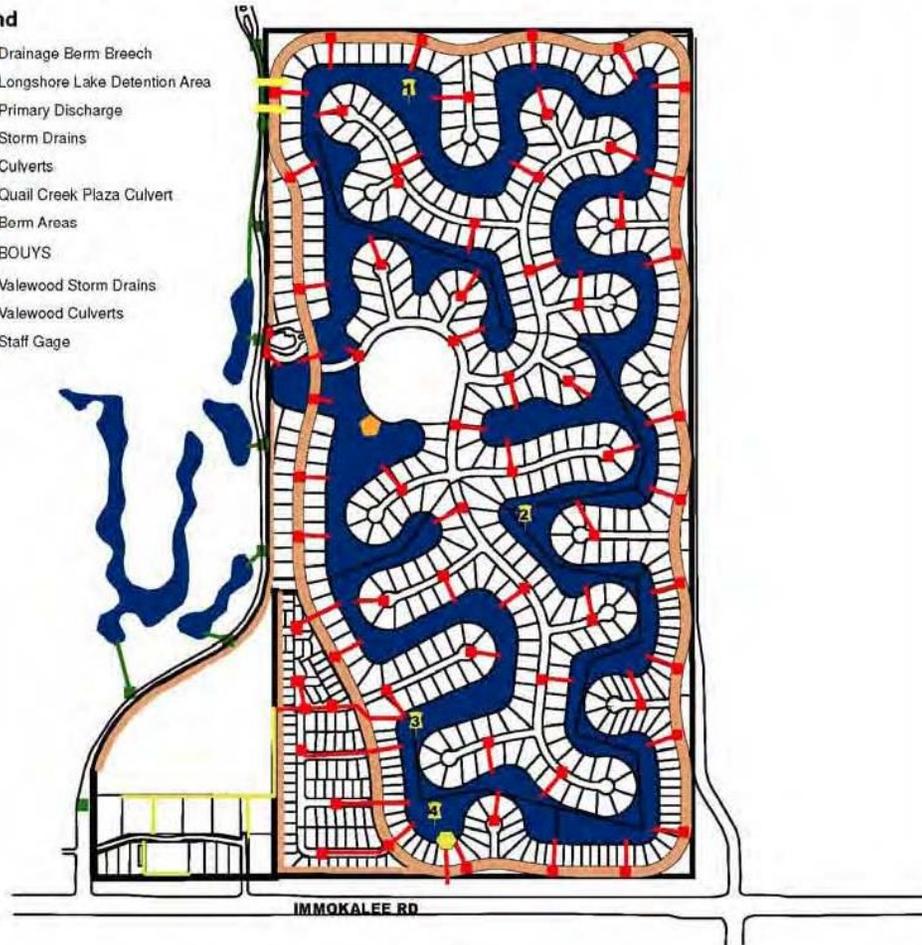
Longshore Lake

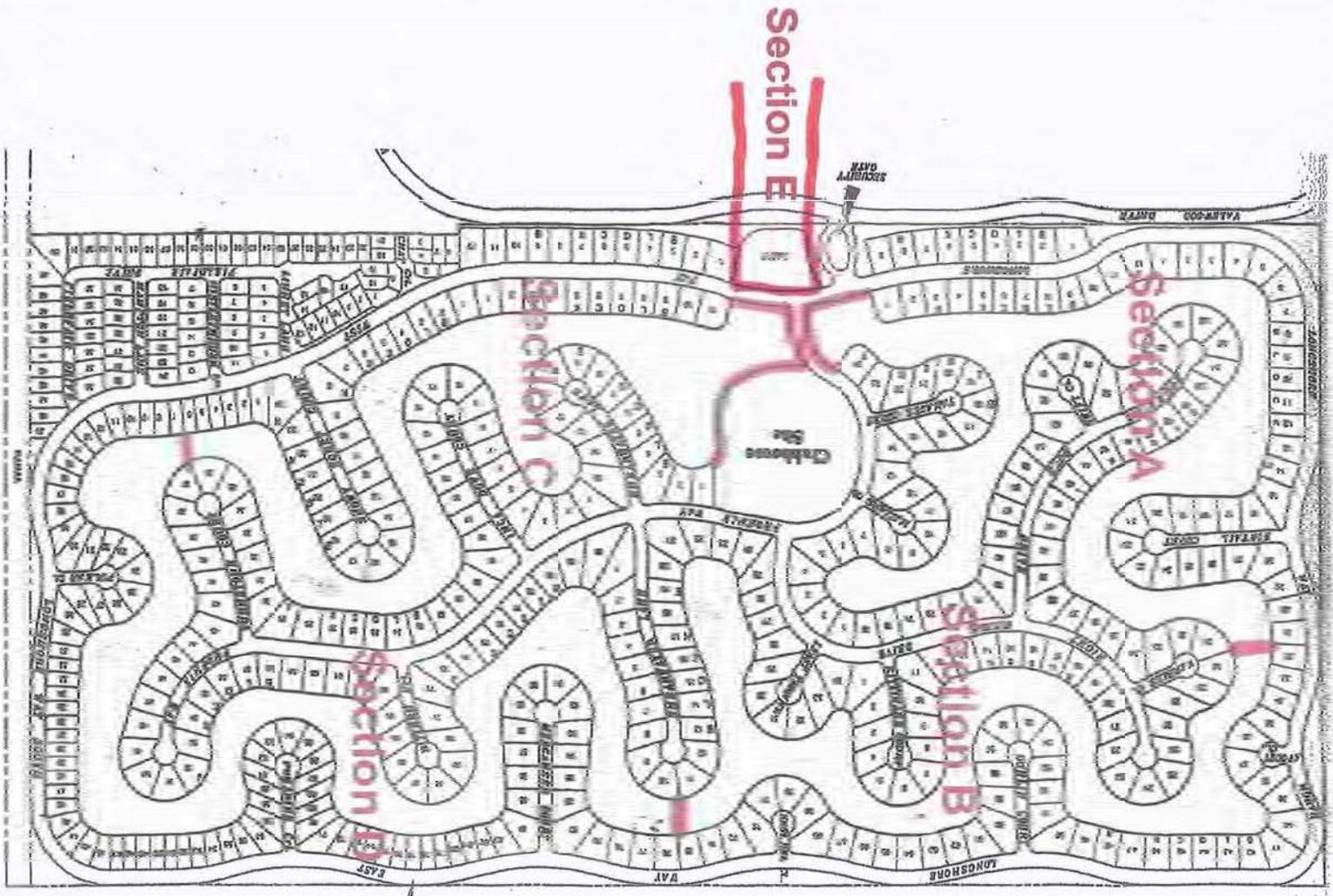


SURFACE WATER MANAGEMENT SYSTEM MAP

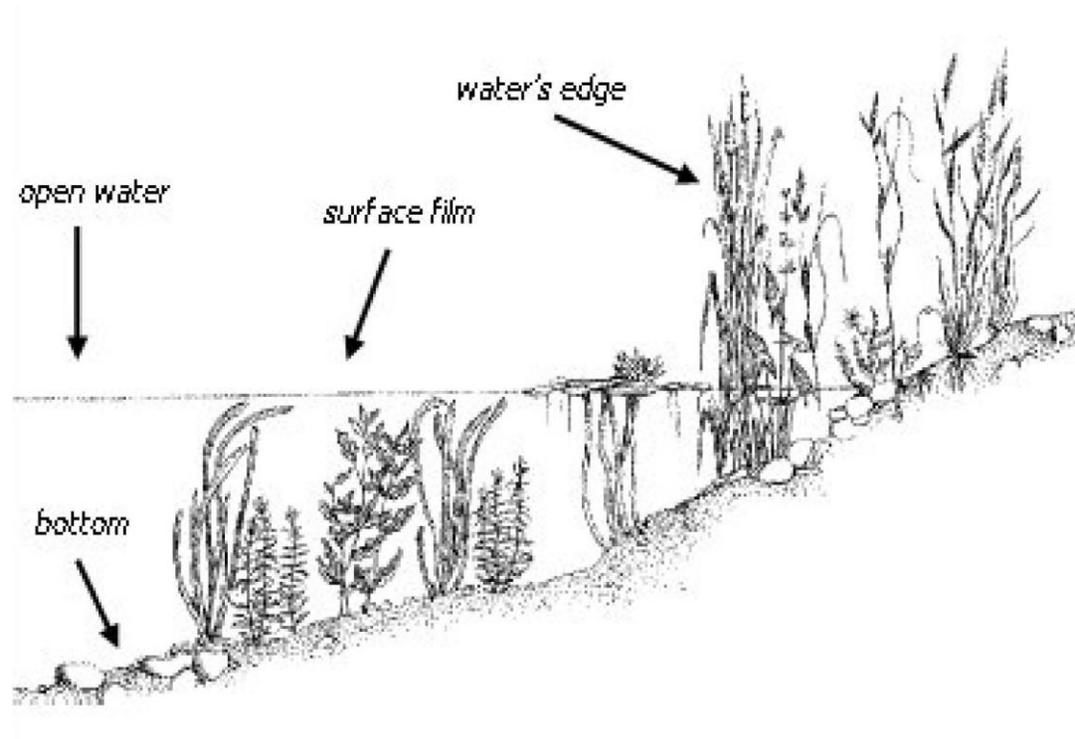
Legend

- Drainage Berm Breach
- Longshore Lake Detention Area
- Primary Discharge
- Storm Drains
- Culverts
- Quail Creek Plaza Culvert
- Berm Areas
- BOUYS
- Valewood Storm Drains
- Valewood Culverts
- Staff Gage

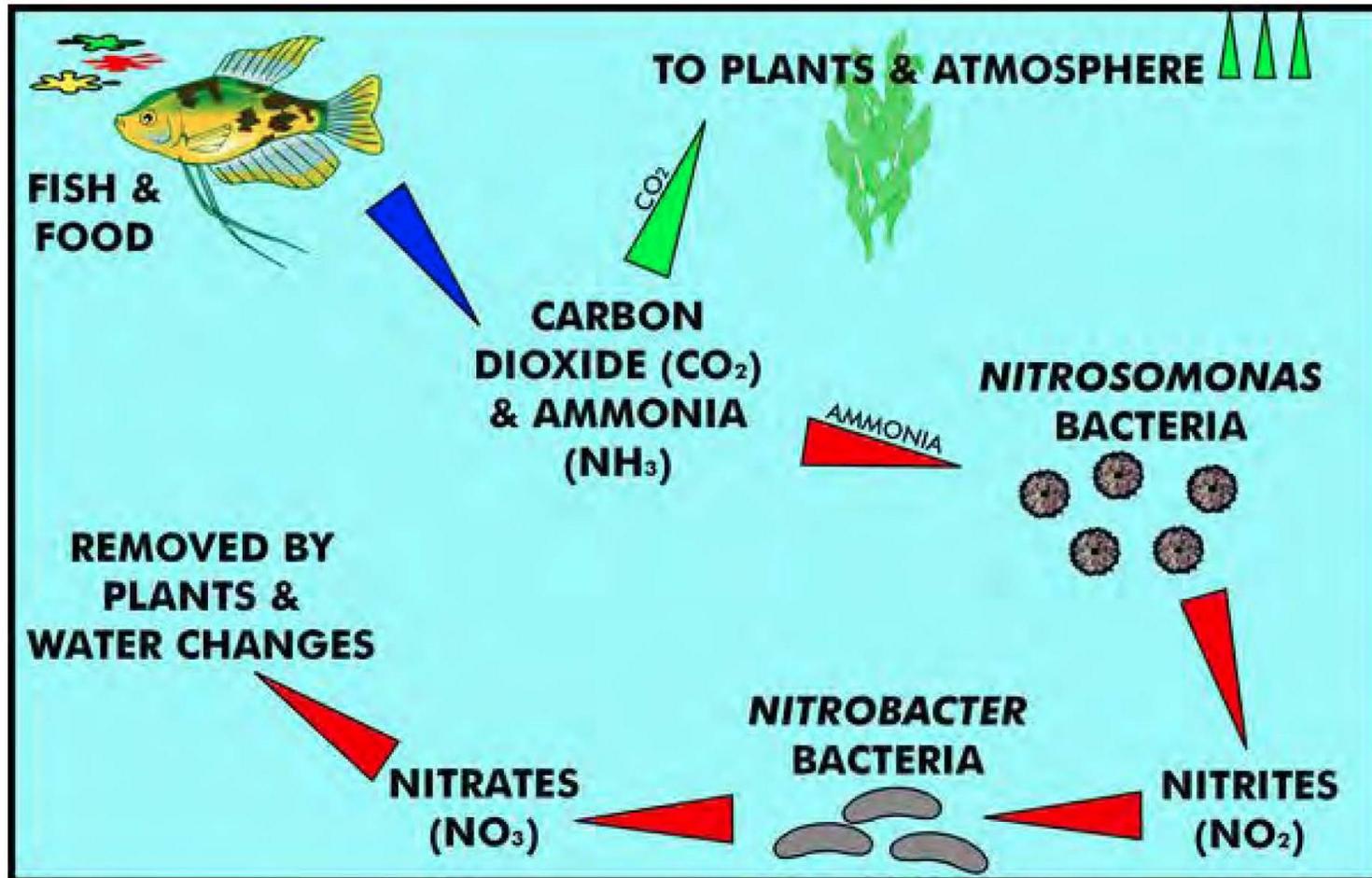




Littoral Plant and Buffer Policy







Plant Management Options

- Physical removal
- Chemical control
- Biological control
- Triploid grass carp
- Lake Planner



Water Quality Testing

Total Kjeldahl Nitrogen TKN

Nitrate + Nitrite NOX

Total Nitrogen TN

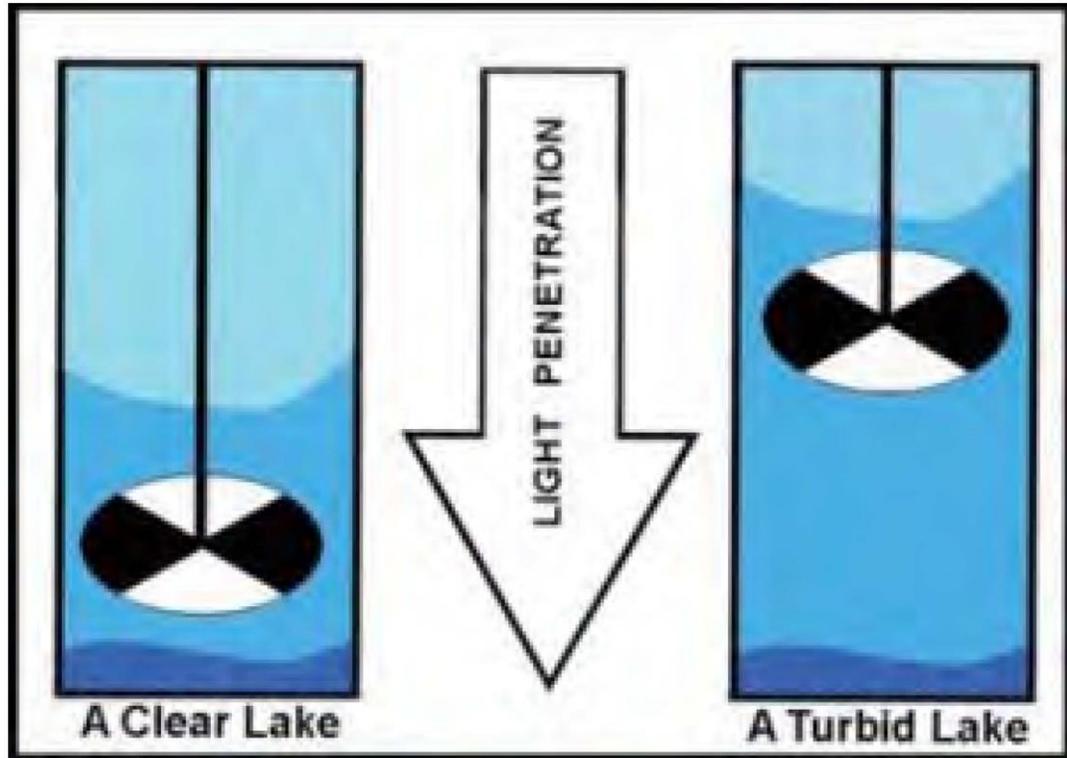
Orthophosphate Ortho-P

Phosphorous TP

Ammonium NH₄

Chlorophyll-a

Chemical analysis to be conducted.



Triploid Grass Carp - White Amur

- Florida Fish and Wildlife Conservation Commission determines the appropriate stocking rate for each waterbody when they issue the grass carp stocking permit.
- Desired 20 to 40 percent plant cover.











Bottom Diffused Aeration Systems



- Air compressor dispenses air through self-weighted tubing to air stations placed in the deeper portions of the lake bottom.
- Prevent thermal stratification.
- Oxygen is available throughout the water column.
- Oxygen on the pond bottom = beneficial bacteria.
- Bacteria aids in the organic breakdown, decreasing nutrients and associated foul odors and can lower algae growth.