

Sonoma County Vineyard Technical Group Meeting August 18, 2011



Aquatic Weed Management in Vineyard Ponds

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Today's Talk

- The Problem: Aquatic Weeds
- The Objective
- The Solution
- Are We Making Progress?
- Questions

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The Objective

- Make the Pond...
 - Functional
 - Frost Protection
 - Irrigation
 - Presentable
 - Swimmable/Boatable
 - Provide Habitat
 - Legal

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The Objective

- Make the Pond...**Functional**
 - No clogged pumps
 - No plugged emitters
 - Maintain Capacity
 - Flood Protection
 - Water Quality

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The Objective

- Make the Pond...**Presentable**
 - Clarity
 - Odor
 - Maintain Capacity
 - Water Quality

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The Objective

- Make the Pond...**Swimmable/Boatable**
 - Clarity
 - Odor
 - "Yuck" Factor
 - Water Quality

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The Objective

- Make the Pond...**Provide Habitat**
 - Aquatic
 - Terrestrial
 - Amphibian

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The Objective

- Make the Pond...**Legal**
 - Water rights
 - Discharge
 - Water Quality

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The Solution:



- Sorry....It's a Process

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The Solution

- #1: Identify the Weeds
- #2: Establish Tolerable Thresholds
- #3: Manage the Weeds
- #4: Monitor the Weeds

Repeat #1-4 as Needed

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The Solution (con't)

- #1: Identify the Weeds
 - Eurasian Water Milfoil
 - Primrose
 - Sago Pond Weed
 - Duckweed/Milfoil
 - Algae
 - Cattails/Tules/Bulrush

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Source: Jack Clarke: UC
Cooperative Extension



Source: Blankinship &
Associates

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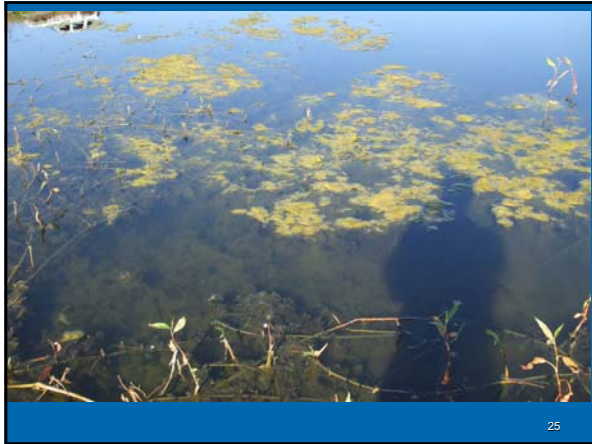
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The Solution (con't)

- #1: Identify the Weeds to Control
 - Eurasian Water Milfoil
 - Primrose
 - Sago Pond Weed
 - Duckweed/Milfoil
 - ~~Algae~~
 - ~~Cattails/Tules/Bulrush~~

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The Solution (con't)

- #2: Establish Thresholds for Tolerable Amounts of Weeds
 - In other words: "How Many Weeds Can You Stand?"
 - Example: No visible weeds near pump intake to prevent clogging

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The Solution (con't)

20 ft Wide "Low Weed Zone" **X** 20 ft Wide "No Weed Zone"

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The Solution (con't)

- #3: Manage the Weeds
 - Start the tool selection process
 - Mechanical
 - Biological
 - Chemical
 - Cultural

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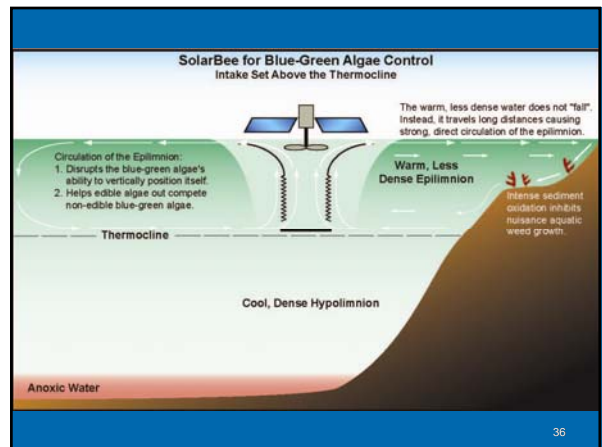
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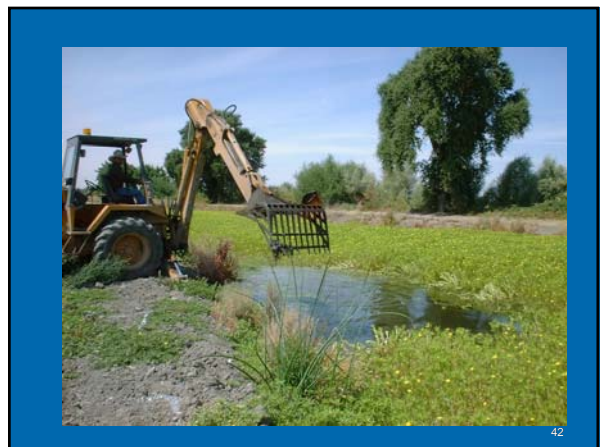


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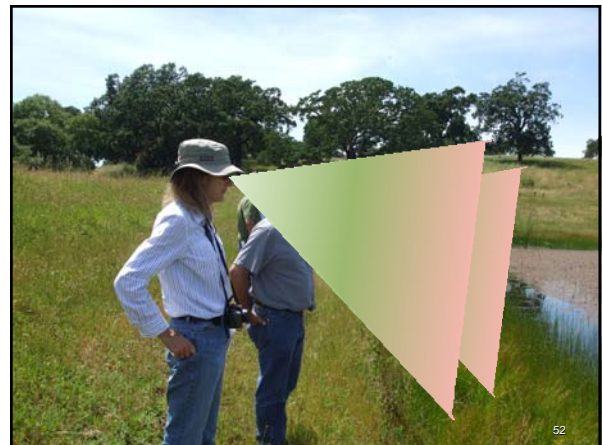
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The Solution (con't)

- Top Secret.....

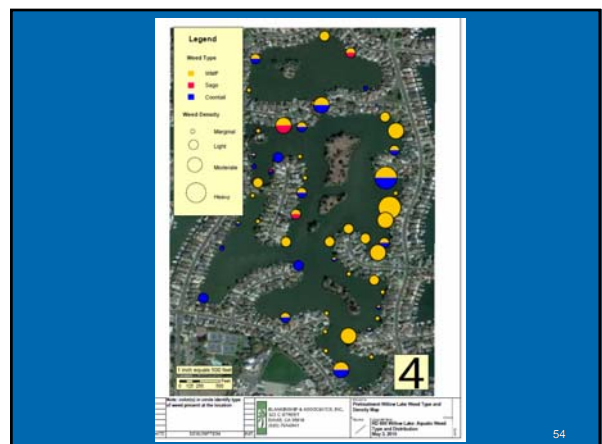
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The Solution (con't)

- #4: Monitor the Weeds
 - Dated Maps and Notes
 - Record of Activity

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The Solution

- #1: Identify the Weeds
- #2: Establish Tolerable Thresholds
- #3: Manage the Weeds
- #4: Monitor the Weeds

Repeat #1-4 as Needed

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The Objective

• Make the Pond...

-
-
-
-
- **Provide Habitat**
- **Legal**

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The Objective

• Make the Pond... **Provide Habitat**

- Aquatic
- Terrestrial
- Amphibian
- Stock

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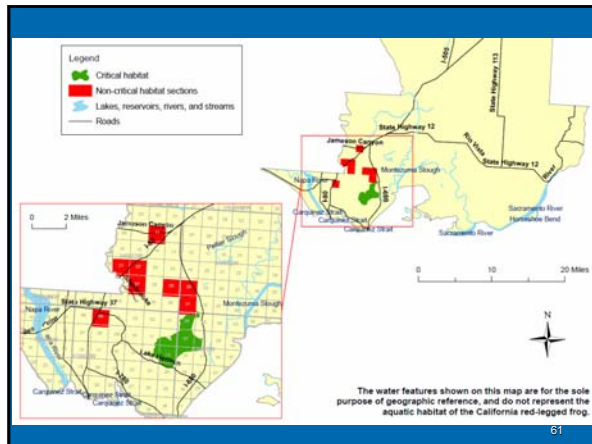
The Objective

• Make the Pond... **Legal**

- Water rights
- Discharge
- Endangered/Threatened Species

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Are We Making Progress?

- Regular Observation
- Track and Record
- Objectives Being Met?
- Have the Objectives Changed?
- Do Solutions Need to Change?

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Recap of Today's Talk

- The Problem: Aquatic Weeds
- The Objective
- The Solution
- Are We Making Progress?
- Questions

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Questions?

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