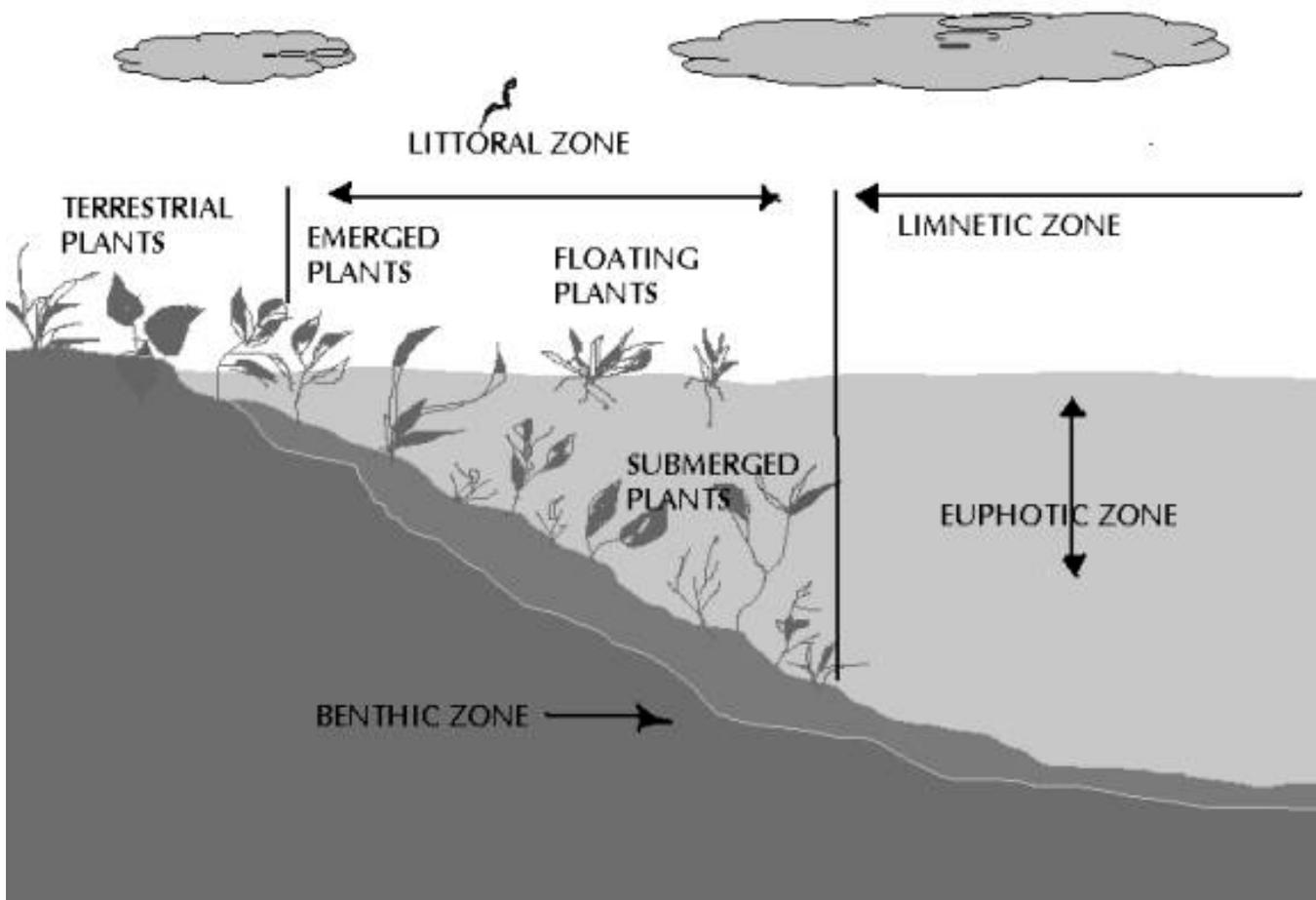




Big Cypress Basin Field Station Canal Maintenance Programs

Chris Doherty, Superintendent
Big Cypress Basin Board Meeting
Oct. 27, 2016

Canal Section



Control technologies for aquatic vegetation:

- Chemical Control
- Mechanical Control
- Biological Control

Mechanical Removal

ADVANTAGES

- Complete, immediate vegetation removal
- No herbicide residual
- Nutrients removed from canal
- Aesthetically pleasing
- No decaying vegetation to cause odors, oxygen depletion, and fish kills
- Environmentally benign to public

DISADVANTAGES

- Accessibility
- Disposal of vegetation
- Equipment is slow and expensive
- Vegetation fragments may spread to new areas
- Fish, turtles, frogs, and aquatic invertebrates associated with the vegetation may also be removed
- Can tear up the ground requiring sodding, grading...

Chemical Removal

ADVANTAGES

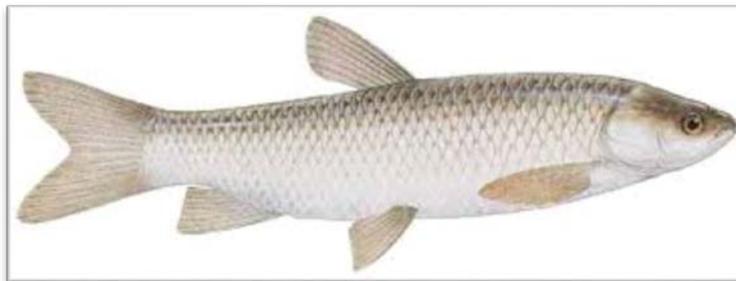
- Relatively easy to use
- Broad spectrum activity
- Fairly quick kill of target weeds
- Most herbicides effective for spot treatments
- Less expensive and labor intensive than hand removal & mechanical control
- Gives longer control than hand removal & mechanical control

DISADVANTAGES

- Accessibility
- May damage desirable vegetation
- Limited contact time due to flow
- Off-target movement of chemicals
- Localized oxygen depletion may occur
- Nutrient release from dying/decaying weeds
- Herbicide persistence and toxicity problems
- Damaged weeds may root elsewhere

Biological Control

- Introduce Triploid Grass Carp in Airport Road Canal (Vanderbilt Beach Road to Pine Ridge Road)
- Late winter/early spring so fish can acclimate to water
- Report back with progress



Tree Plan – current ROW



Curry Canal – at 24th Street NW facing south



Curry Canal – at 24th Street NW facing north

Tree Plan – work in progress



Golden Gate Canal between GG#6 & GG#7



Golden Gate Canal between GG#6 & GG#7

Tree Plan - finished product



Golden Gate Canal ROW heading east from Immokalee Road

ROW Tree Maintenance



Sep. 20, 2016 – GG Canal ROW at 13th St. SW



Jun. 12, 2013 – I-75 Canal ROW Maintenance

Tree Plan

The tree plan represents the reclamation of our ROW and annual maintenance post tree removals.

Fiscal Year	Canal Section	Budget	Maintenance
FY 17	Faka Union Canal north of I-75	\$97,541	
FY 18	Miller Canal (C1 Connector to Miller #2)	\$423,000	\$50,000
FY 19	Golden Gate Canal (GG#3 to 13 th Street SW)	\$549,000	\$50,000
FY 20	Golden Gate Canal (13 th Street SW to GG#4)	\$450,000	\$50,000
FY 21	Faka Union Canal (FU#3 to FU #4)	\$662,000	\$50,000
FY 22	Faka Union Canal (FU#4 to FU #5) & Miller Canal (MIL#3 to C1 Connector)	\$612,000	\$50,000

Plan goes out to 2033 if we stay on pace with an overall estimate totaling \$9,000,000



Vegetation & Tree Budget

	FY 17	FY 18 Request	Difference
Contract	\$301,817	\$290,000	(\$11,817)
Chemicals	\$499,412	\$280,000	(\$219,412)
Tree Management	\$97,541	\$423,000	\$325,459
TOTAL	\$898,770	\$993,000	\$94,230

Future for BCB Vegetation



- Program best mix of mechanical and chemical treatments
 - Do a canal section with harvester/work boat
 - Follow up with a chemical treatment (2-3 weeks after)
 - Due to conditions this method is not feasible on every canal
- Utilize biological control where it makes sense
- Proper funding for contractual work and chemicals

Big Cypress Basin Field Station Operations

Questions?



9-19-2016 – veg removal COCO #3