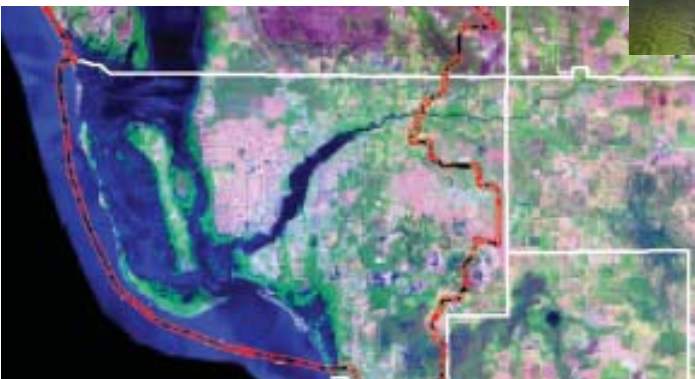


Cape Coral Canals

A Public Conference on Water Quality and Quantity

Saturday, March 25, 2006, Cape Coral High School



Draft Summary Report

May 2, 2006

Conference Sponsors



Johnson Engineering, Inc.

Charlotte Harbor National Estuary Program
Technical Report 06-3
Draft: May 16, 2006



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Fort Myers FL 33901
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www.CharlotteHarborNEP.org

The Charlotte Harbor National Estuary Program is a partnership of citizens, elected officials, resource managers and commercial and recreational resource users working to improve the water quality and ecological integrity of the greater Charlotte Harbor watershed. A cooperative decision-making process is used within the program to address diverse resource management concerns in the 4,400 square mile study area. Many of these partners also financially support the Program, which, in turn, affords the Program opportunities to fund projects such as this. The entities that have financially supported the program include the following:

U.S. Environmental Protection Agency
Southwest Florida Water Management District
South Florida Water Management District
Florida Department of Environmental Protection
Florida Coastal Zone Management Program
Peace River/Manasota Regional Water Supply Authority
Polk, Sarasota, Manatee, Lee, Charlotte, DeSoto, and Hardee Counties
Cities of Sanibel, Cape Coral, Fort Myers, Punta Gorda, North Port, Venice,
Fort Myers Beach, and Winter Haven
and the Southwest Florida Regional Planning Council.

CAPE CORAL CANALS
A Public Conference on Water Quality and Quantity
March 25, 2006

Organized by
Charlotte Harbor National Estuary Program
City of Cape Coral Environmental Resources Division

Summary Report

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The following agencies, organizations and individuals worked to make this conference a success. They provided immeasurable assistance and resources that were critical to producing a professional and educational experience for the public who attended. Thank you all very much.

Sponsors:

Charlotte Harbor National Estuary Program, a partnership program of citizens, associations, agencies, businesses and others that work together to protect the natural environment from Venice to Estero Bay to Winter Haven. These local estuaries (where rivers meet the sea) were designated estuaries of “national significance” by the U.S. Congress in 1996. The program operates by committee to advocate for the estuaries by building consensus that is based on sound science. Committee members recognized early that you can’t protect the water unless you protect the land that drains into the water (watershed).

Environmental Resources Division of the City of Cape Coral whose mission is to monitor and improve Cape Coral’s terrestrial and aquatic environments and to provide environmental guidance for sustainable and responsible development through the cooperative uses of public education, habitat enhancement and other interdependent community and natural processes.

Johnson Engineering, Inc.

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Caloosahatchee River Citizens Association – Riverwatch
Cape Coral Friends of Wildlife
Charlotte Harbor National Estuary Program
City of Cape Coral Environmental Resources Division
Caloosahatchee River Citizens Association - Riverwatch
Lee County Extension Services Florida Yards & Neighborhoods
Florida Department of Environmental Protection Charlotte Harbor Aquatic Preserves
and Charlotte Harbor Preserves State Park
Friends of the Charlotte Harbor Aquatic Preserves
Johnson Engineering, Inc.
Lee County Extension Services Florida Yards & Neighborhoods
Lee County Natural Resources Division
Lee Soil & Water Conservation District Mobile Irrigation Lab
Sanibel-Captiva Conservation Foundation Marine Lab
Southern DataStream
Southwest Florida Watershed Council

Door Prize Donors:

All Native Garden Center
Cape Coral Eco Park - Four Mile Cove
Charlotte Harbor National Estuary Program
City of Cape Coral Environmental
Resources Division
Sanibel-Captiva Conservation Foundation
Native Plant Nursery
South Florida Water Management District
(SFWMD)
Scuba Quest
Venture Out Trading Company
Water 911
South Florida Water Management District
(SFWMD)
Origins

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Cape Coral Breeze
Cape TV
City of Cape Coral “On the
Move”
News-Press

Volunteers:

Cape Coral Garden Club
The Cape Coral High School
Key Club

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Introduction

With 400 miles of canals in 116 square miles and a rapidly growing population, water issues are on the minds of many in the City of Cape Coral. The Charlotte Harbor National Estuary Program, the City of Cape Coral, and Johnson Engineering, Inc. sponsored a free public conference to give individuals an opportunity to provide input and discussion on the issue of the health of Cape Coral's canals.

The conference "*Cape Coral Canals: A Public Conference on Water Quality and Quantity*" was held on Saturday, March 25, 2006 at the Cape Coral High School. The planning committee used feedback from an on-line survey (Appendix A, 127 responses) to develop the agenda and topics for the conference, providing the public an opportunity for input from the onset. At least 100 Cape Coral residents attended the conference throughout the day and participated in several presentations and group discussions. This was the first such conference of its kind held in Cape Coral for the public and attendees agreed that this was a worthwhile, successful event.

The event was facilitated and organized into three topics that were addressed in sessions that included brief presentations by subject matter experts, facilitated small group discussions and verbal reports at the end of each session. The final session summarized the concerns and suggestions offered throughout the day as well as prioritizing them and assigning responsibility, where possible, for follow up action.

The topics presented were:

- ❖ The Nature of Cape Coral's Water
 - Dr. William Hammond, Florida Gulf Coast University
- ❖ Water Quality
 - Dr. Stephen Bortone, Sanibel-Captiva Conservation Foundation Marine Laboratory
- ❖ Water Quantity
 - Susan Sylvester, South Florida Water Management District

The conference also included an opportunity for the public to visit several exhibitors that were available through the day providing educational opportunities related to preserving and protecting the health of the environment in and around Cape Coral.

This report includes the actual input provided by each small group after each session and is listed in Appendix B.

This document serves as the final summary report which contains the group consensus and recommendations from the conference. It is to be forwarded to the proper committees and agencies and government officials for follow up attention.

Discussion Highlights and Summary

TOPIC #1: The Nature of Cape Coral's Water

Speaker: Dr. William Hammond, Florida Gulf Coast University

At the conclusion of Dr. Hammond's informative presentation on the history and life of Cape Coral's waters, participants divided into nine (9) small groups to identify common concerns, issues and suggestions.

Cited as concerns by the small groups in their verbal reports were:

- Growth planning concerns
- The impact of fertilizers, pesticides, exotic plants, and improper seawalls
- Enforcement issues
- The aging of the canals with little maintenance plans in place

Suggestions for improvement included:

- Public education and outreach to ensure that residents take ownership, understand the impacts of their behavior on the canals, and are educated as to appropriate actions to take.
- Expanding the Canalwatch and Florida Yards & Neighborhoods (FYN) programs was also suggested as part of the outreach plan
- Realistic growth planning
- Code changes
- Better enforcement of existing ordinances.
- Groups thought that the city and some of the homeowner's associations should take the lead and be examples to the residents.

TOPIC #2: Water Quality

Speaker: Dr. Stephen Bortone, Sanibel-Captiva Conservation Foundation Marine Laboratory

Participants continued in the small group format they formed in the first session and spent time discussing the information and recommendations that Dr. Bortone provided to them on the water quality of Cape Coral's canals.

In this session, the groups focused on recommendations and suggestions learned from Dr. Bortone's presentation and brought forward within their groups. These included the following:

- Education
- Developing a master canal plan

- The Nitrogen budget idea
- Landscape programs
- Talking with retail outlets to carry native plants
- Requiring new construction to comply with Florida Yards & Neighborhoods (FYN)
- Encouraging appropriate plantings by seawalls as recommended by Dr. Bortone.

TOPIC #3: Water Quantity

Speaker: Susan Sylvester, South Florida Water Management District

Ms. Sylvester targeted her presentation on the relationship of the different water sources, including Lake Okeechobee, in the southwest Florida area. The information gave participants a better understanding of the water quantity issues related to Cape Coral canals.

The small group participants voted to provide concerns and suggestions together in the large group setting in order to save time since similar trends were apparent after the previous two topics.

- Public education was the clear suggestion once again from the group and focused this time on educating people on the water sources and level and the effects of local systems and not just Lake Okeechobee.
- Another suggestion was to increase the staffing of the Cape Coral Environmental Resources Division.

FINAL SESSION: Prioritizing Concerns and Suggestions

The conference participants once again broke into small groups to consolidate their concerns and suggestions and assign responsibility for action and follow up where possible.

RECOMMENDATIONS

#1) Education and Marketing – Top Priority

- Public, Residents, Homeowners, Businesses
- Elected Officials and Planning Boards
- Teachers and Students
- Volunteer Groups

How?

Media/Public Relations campaign
Promote the Canals as our Best Asset and Cape Coral as an environmental area
Mail Outs – Tip Sheets in Utility Bills
Teacher education – pass along to students
Video Production
New Resident Materials
Presentations (today’s) to Elected Officials
Television Stories and Newspaper Articles
More Meetings Such as This – Make this a regular function
Have Environmental Canal Group hold a Quarterly Forum to discuss what is being done and follow up - Then present this information to Cape Coral City Council and to Cape Coral Engineering Group

Who?

Volunteer Groups, Professional Organizations, Agencies & Us!

Riverwatch
Cape Coral Construction Industry Association
Cape Coral Engineering Group
Coalition of Homeowners Association/Environmental Groups – Parks & Recreation, Environmental, Beautification
Retired Engineers in the Area

#2) Clean-Up Activities (Becomes Overall Part of Educational Activities)

- Expand those that already exist or begin others
- Involve schools, students, civic groups (i.e. Rotary)

How?

Coordinate efforts
Publicity
Approach groups and schools to be involved

Who?

Riverwatch
Lee County Hyacinth Control District (Enhancing shoreline)
Will help to address these issues

#3) Government Action

- Cape Coral Environmental Resources Division Expansion
- Stricter Ordinances targeted at canal quality (landscaping, native plants, nitrogen usage, pet waste and water conservation)
- Seawall specifications improvement and performance
- Growth Management Plan that takes Cape Coral Canal health into account
- Canal Master Plan

How?

Increase the Staffing of the Environmental Resources Division – only 4 currently which is not enough for a city the size of Cape Coral
Seek assistance from environmental experts and others to help draft new ordinances and specifications
Residents, voters to talk to elected officials about these issues and what can be done
Develop a master plan and let residents in on it
Greenscape Citizens Advisory Board and Other Environmental Boards

Who?

Elected Officials of the City of Cape Coral, Lee County and State
Residents to volunteer to serve on environmental boards
Environmental experts, such as the speakers today and other agency members to make recommendations to elected officials
Residents to let officials know what they expect to happen

#4) Set Examples – Reward Positive Actions

- City of Cape Coral
- Residents, Homeowners Association groups
- Cape Coral Construction Industry Association
- Those of Us Here Today

How?

Give incentives
Individually lead by example
Best “green” awards (CCCIA)

More Florida Friendly landscaping opportunities
Demonstration Sites
Median Landscaping with native plants – i.e. Cape Coral Harbor

Who?

City of Cape Coral
Homeowner's Association groups
Cape Coral Construction Industry Association
Realtor Groups
Each of us here today – we must talk to our neighbors, spread the word

#5) Other Actions/Recommendations

- Check on whether there are negative impacts of raising the water levels in North Cape Coral
- Investigate the idea of a water filtration park/marsh complete with an educational nature center
- Emulate “Sustainable Sarasota” efforts
- Have % of real estate sales used to fund environmental projects
- Reduce water use
- Ask big box stores (Lowe's, Home Depot, etc) to carry Florida friendly plants and less exotic species that have a negative environmental impact
- Commit to using environmentally friendly products in daily life

Conclusion

This conference was attended by Cape Coral's residents and the discussions and subsequent recommendations that emerged were cohesive and clear. Those attending were hoping to see more of a presence from elected officials and others that need to be involved in the Cape Coral canal solutions. Everyone at the conference agreed that public education, as well as the education of elected officials was paramount to protecting the health of Cape Coral's canal system. Additionally, educating students now will help to promote the long term health of the canals as these young people mature and become the future stewards of the environment.

Participants also agreed that all Cape Coral citizens must do their part in the education process by volunteering, attending meetings, talking to officials, neighbors, and big box stores as well as leading by example in their own daily habits. One-on-one communication between neighbors and friends is something everyone can do to ensure that we are spreading the word and developing a community awareness of the issues and opportunities to improve and protect the canal system of Cape Coral. Establishing clear responsibility for action and follow up attention was important to the group rather than just assuming "everyone" would take ownership.

Groups like Riverwatch, Cape Coral's Environmental Resources Division, Charlotte Harbor National Estuary Program, the Cape Coral Construction Industry Association and others, all of which were represented today, were willing to volunteer to take action and provide guidance and follow through.

Sustaining the momentum started by this conference was of critical concern to many who attended. The majority agreed there is an urgent need for more forums of this type as well as other regular opportunities to communicate and discuss the protection of one of Cape Coral signature assets – its canals.

APPENDIX A: RESULTS FROM SURVEY DEVELOPED TO ASSIST IN CONFERENCE PLANNING (127 respondents)

- 1.** Please indicate your perception to the general water quality of the water body nearest you. Please do not include weather (too hot, cold, rainy, etc) as a quality factor.

Choice	Bar Graph	Response	%
Beautiful, No Problems		3	3%
Minor Problems		28	26%
Slight Use Impairment		27	25%
Substantial Impairment		48	44%
Use Totally Impaired		3	3%

- 2.** Has water quality in Cape Coral canals and lakes changed?

Choice	Bar Graph	Response	%
Better		0	0%
No Change		8	7%
Worse		85	78%
Don't Know		16	15%

- 3.** Has water clarity in Cape Coral canals and lakes changed?







Choice	Bar Graph	Response	%
Clearer		0	0%
No Change		6	6%
More Turbid/Not as Clear		91	83%
Don't Know		12	11%

- 4.** Please tell us about you. Check all that apply.

	Yes	No
Do you live on a canal or lake in Cape Coral?	82%	18%
Do you live in Cape Coral full time?	91%	9%
Do you know what an aquifer is?	96%	4%
Do you know what a watershed is?	85%	15%
Are you aware of the water restrictions, rules and regulations?	98%	2%
Do you know if your yard includes native vegetation?	87%	13%
Do you know if your yard includes exotic vegetation?	66%	34%
Do you know what a Florida Friendly landscape is?	81%	19%
Have you removed exotic vegetation from your yard?	51%	49%
Is there mulch in the garden areas of your yard?	71%	29%
Do you recycle?	95%	5%
Do you prevent stormwater from running off your yard?	39%	61%
Do have you have a native buffer zone along your waterway?	9%	91%
Do you know the purpose of a swale?	90%	10%
Do you use trees to shade your yard and AC system?	63%	37%
Can you name at least five different types of wildlife in your yard?	65%	35%
Do you use a rainbarrel or cistern?	5%	95%

Do you pick up pet waste?	66%	34%
Do you use pesticides to manage yard pests?	71%	29%
Do you irrigate your yard more often than twice a week?	2%	98%
Do you irrigate your yard twice a week?	80%	20%
Do you irrigate your yard once a week?	5%	95%
Do you never or rarely irrigate your yard?	20%	80%
Do your down spouts and gutters drain into the lawn?	88%	12%
Do you clean up oil and chemical spills on your driveway?	92%	8%
Do you try to conserve water?	96%	4%
Is your driveway and walkway larger than average?	21%	79%
Do you substitute turf grass with native plants?	23%	77%
Do you pick up trash from the canals?	80%	20%
Do you enjoy the outdoors kayaking, bird watching, etc.?	91%	9%
Are there enough boat ramps and canoe/kayak access points along Cape Coral's waterways?	33%	67%

5. Check all the categories that describe you.

Choice	Bar Graph	Response	%
Homeowner		110	45%
Boater		77	31%
Developer		2	1%
Environmentalist		31	13%
Educator		11	4%
Other		14	6%

6. What do you think about the following with

- 1 = I Don't Know.
- 2 = Causes No Problems.
- 3 = Causes Slight Use Impairment.
- 4 = Causes Substantial Use Impairment.
- 5 = Major Problem, Allows No Use.

	1	2	3	4	5
Algal Scums	17%	2%	19%	43%	19%
Aquatic Weeds	14%	11%	21%	40%	14%
Turbidity (from sediments and erosion)	14%	5%	37%	36%	7%
Boaters/Personal Watercraft (congestion, safety, noise)	9%	29%	38%	17%	7%
Poor Fishing	24%	6%	22%	28%	21%
Bacteria	24%	1%	19%	38%	19%
Dense Housing	5%	11%	35%	30%	19%
New House Construction	3%	12%	38%	25%	21%
Construction in Mostly Developed Area	6%	18%	46%	18%	13%
Dredging	21%	37%	28%	10%	5%
Trash and Litter	2%	8%	34%	30%	25%
Pest Wildlife (raccoons, ducks, etc.)	9%	56%	25%	9%	0%
Pest Exotic Wildlife (Nile monitor lizards, etc.)	14%	17%	20%	28%	21%

Noise from neighbors, traffic, etc. except boating	4%	30%	48%	10%	9%
Swimmers Itch	43%	17%	17%	6%	18%
Red Tide	7%	3%	10%	27%	54%
Too Many Rules and Regulations	9%	33%	31%	15%	13%
Water Level (too high, too low)	15%	17%	37%	13%	17%

7. What programs are you aware of and actively participate in?

- 1 = never heard of this program.**
- 2 = don't care to know more.**
- 3 = heard of this program but never participated.**
- 4 = would like to know more about this program.**
- 5 = participate in this program**

	1	2	3	4	5
Adopt-A-Canal	42%	4%	38%	13%	3%
Babcock Preservation Partnership	21%	13%	55%	5%	6%
Boating Club	19%	17%	34%	10%	19%
Cape Coral Friends of Wildlife	28%	12%	46%	8%	7%
Cape Coral New Residents Club	11%	17%	43%	1%	29%
Cape Coral Sailing Club	22%	28%	41%	3%	6%
Canalwatch	25%	9%	37%	19%	11%
Charlotte Harbor National Estuary Program	32%	11%	30%	19%	8%
Conservation 20/20	43%	11%	29%	13%	5%
CROW	31%	7%	50%	8%	4%
Ding Darling Wildlife Society	14%	6%	68%	8%	5%
Florida Exotic Pest Plant Council	41%	16%	33%	7%	4%
Florida Native Plant Society	25%	15%	42%	12%	6%
Friends of the Charlotte Harbor Aquatic Preserves	41%	16%	31%	6%	6%
Gardening Club of Cape Coral	31%	11%	50%	5%	4%
National Audubon Society	9%	12%	68%	4%	8%
National Gardening Association	36%	9%	51%	2%	2%
National Wildlife Federation	13%	13%	59%	6%	10%
Native Plant Society	33%	12%	41%	9%	6%
Pondwatch	48%	16%	29%	7%	0%
Save the Manatee Club	8%	38%	41%	5%	9%
Sierra Club	15%	25%	52%	1%	7%

8. The planning committee will consider any additional comments or feedback you wish to provide.

The canals should have higher salinity.

I have lived on a cape canal for 20 years and have viewed the continual degeneration of the water quality. Some of it is directly related to the increase in population along our fresh and saltwater canals, other is the continual reduction of open everglade lands and draining of the land to make room for housing development. A good percentage of the cause of degeneration is the bilge discharge from boats, dirty two cycle engines, unregulated live aboards, and the disregard for environ. Future.

Most interested in: 1. estuary water quantity/quality needs 2. Status of spreader canals 3. spreader canal repairs 4. use of freshwater canal water for irrigation & ASR

I have a really bad problem with some kind of water bug that comes out of the water by the thousands and cover my house and restrict outside use this happens 6 or 8 times a year.

Never seen the canals so empty of life and so dirty.

Since moving here in 1999, I see a dramatic decrease in the clarity of the water behind my home. (Sailboat access). The water remains clean however. There is absolutely no underwater vegetation available for fish etc. in my canal and I have been unable to locate a source of plants to try and add these vital oxygenating plants.

the lake run off is the major problem in our area to fish, sea grass, oysters, clams all sea life and water quality

the water in CC is horrible, I don't drink or cook with city water but use only purified water I purchase, in 7 years living on a canal that water quality has gotten so much worse and I blame Lake O and the water mgrs. when will someone sue them for breaking environmental laws. if it does not improve soon we are considering leaving the area permanently. the cape coral government should be ashamed; they are more concerned with growth, developers, than preserving the city's way of life. shame!!

Quality of my well water decreasing with new construction and new pools. New owners need to be made aware of watering restrictions.

The freshwater canal depth should not be lowered in the Cape to supply irrigation water to residents further south. This lessens enjoyment of kayaking, the freshwater system, and property values and is unfair. The developed areas should get incentives on property taxes to go native and new construction should demand it by increasing percentages over the next 6 years. Make it illegal to plant Carrotwood, Chinese Tallow, and other pest trees and ornamentals in the Cape, subject to fine & removal

The canals are in the most deplorable condition I have seen in the 17 years as a resident here.

To much trash from new construction blowing in canals.

I think we must do more about releases from Lake Okeechobee. We also need to find a way to relieve traffic at the Chiquita Lock.

How about the city following it's own water restrictions? I'm not talking about how many days; I'm talking about watering mid-day!

Nile Monitor Lizards need to be eradicated before they damage more of the local wildlife.

Stop huge water releases from lake "O" and stop upland water from over filling lake "O" It seems that those up land areas don't retain their own waters and enjoy passing it down to us thus causing many problems this area

I have lived on the Spreader since 2001 and have witnessed water degradation. The water had a much higher salinity level and was much clearer in 2001. The algae slime is awful. In 2002, CC dammed up some areas to keep water in the canals longer before it goes into the PI Sound they said. I attribute most of the problem to these dams, as the water cannot flow freely as it did, thus cannot flush nor replace the salt. CC is slowly killing the canals with

these dams & they have to go. Call me.

The water ways are too restrictive with the boat locks and lifts. the lifts should be opened with a canal and the lock removed to allow the waters to flow freely. this will add in the natural cleansing and replenishment of the waters, allow more fish to enter and reduce the backlog of boaters who try to get out. the cost and maintenance of the lock would be non-existent

I work in all over Lee Co and every where you see lawn watering violations..... but in the Cape with dual water we get ticketed... maybe time to move out...

The most critical problem seems to revolve around the excessive fresh water discharge from lake "O".

Lawn services blow the yard waste into the canals and cause silt build-up and feed algae blooms from the lake.

The Caloosahatchee river is dead. which is because of Big Sugar damning the lake O and lee County Filling in The mouth of the river with Spoil Islands for Roads on the Sanibel Causeway.

The Lake O releases have dirtied the water in the lake.

please enforce the water restrictions in Cape Coral!!!! We ran out of water of water once and they still keep on building with the water shortage and people not caring. We would appreciate the help very much. I also would like to see red tide problem taken care of very soon for the sake of the creatures who need that water for survival, not just tourism. Please also help do what we can to save the manatee.

Very concerned about the unappealing appearance of the water in the area. The canals and the river are appalling. I wouldn't stick my foot in that water.

build pipeline to utilize lake water for irrigation and fire suppression. control growth of building along river front and limit golf course development.

I live on a salt water (brackish) lake, Britannia. Right now the water is dark tea colored, relatively clear but this past summer and early fall it was covered with algae and we had a lot of duck weed. We are constantly pulling trash and large yard waste out of the lake. People fish off vacant lots (this I don't mind) and let trash blow into the lakes. Some folks trim trees, hedges and throw the waste into the lakes. Nearly every Lake O release decimates the fish. Crabs are no longer here.

There is a big problem with our canal water. I haven't been able to see the bottom in 3 years. It's black and ugly. Not nice to look at. This includes the Club area.

The weeds, algae, and other fresh water vegetation are getting into our canal system (salt water) from the water being dumped in the river from Lake Okeechobee. All this fresh water is why our canal water looks so dark and nasty. It is also the reason most boaters could not use the beaches this year because the water was too nasty to swim in. It is likely this fresh water is what is causing the red tide to bloom.

Make front loading washing machines a must for new construction, they save a lot of water but most people don't know about it. keep the water restrictions. recycling bins in parks, boat ramps...check speed limit from boats.

Construction permits should take into consideration the water conditions of Cape Coral. We drink bottles and filtered water. I would like to know if our water is really safe to drink and

how do I test it. We live in unit 74

If the city is serious about improving water quality, then why do city administrators drag their feet putting forward a landscaping ordinance that addresses canal water quality? Feature a canal photo contest, school contest, canal environthon etc. Have a separate conference track for the business community especially builders and developers.

Please cleanup the canals. Especially Courtney Canal, south of Gleason near Lake Mojave

I'm not sure of the value of the responses in Question 7. There should be a selection: "Do you support the work of?" I feel strongly that some of the organizations are detrimental to water quality, such as Save the Manatee Club.

Cape Coral, Sanibel, Captiva & Ft. Myers only place on Gulf Coast that the Rivers, canals and Gulf look like the East River in New York City. The Hudson River in NY is actually clearer. This is all from the release of water from Lake Okeechobee. 25 years down here and it gets dirtier every year. Used to be you could see the bottom on Sanibel and Captiva Beaches. NO MORE. It's such a shame. This was a paradise, but no longer.

If seawalls are required on Gulf Access canal lots I believe there is no reason why this should not also be a requirement for new home construction. I believe this helps preserve the values of property along the waters edge.

The fresh water releases from Lake O since last summer have virtually destroyed most aquatic life on the canals and river of Cape Coral. A solution to this 'major' problem must be found soon or the only living things in these waters will be the boaters on them!

The fresh water releases from Lake O since last summer have virtually destroyed most aquatic life on the canals and river of Cape Coral. A solution to this 'major' problem must be found soon or the only living things in these waters will be the boaters on them!

The drinking water in the City of Cape Coral is not drinkable.

We must strike a balance between fair use of resources and environmental concerns. Restrictions must be based on sound science whenever possible and not emotion or knee jerk reaction. The current Lake "O" level control practices followed by SFWMA are destroying habitat and fishing in the Caloosahatchee and Pine Island sound and may well be a contributor to RED TIDE. Tourism and residents' quality of life is being sacrificed to protect sugar growing - a crop we don't need and have to subsidize.

I was surprised that "Florida Yards/Neighborhoods was NOT listed under question #7 - it should be! I hope your conference teaches the FYN concepts to the public.

Until the swales in Cape Coral are restored, we will continue to pollute our canals.

While regulations help maintain things it should be remembered this is a boating community.... Other issues should not replace that primary one otherwise what brought us here is gone.

need to do more for the safety of the manatees. I need help for Sirenia Vista Park!!!! After the mangroves have been cut at the end of Bows canal!!!

Cape Coral needs to dredge the saltwater canals more often or at least keep residents up to date. The saltwater canals are NOT kept at the 5' mean low tide as they are suppose to be.

I have been here 6 years. I live on a canal in the SW Cape. In the past three years the water has dropped significantly and the color is a putrid brown. I can no longer see the bottom like I

use to when I first moved in. My well has run dry once already & I am afraid with all the new houses going it, it will again. I'm over 60yrs old & single. I can't afford the new city sewer & water. This is so unfair when I do my very best to use as little water as possible. Sincerely,
Linda Liker

Our direct access canal seems to be getting more debris.

Wish new homes would not be allowed to put in grass but be required to put in native plants and ground covers, as I have, to limit water use.

Red tide is linked to the Lake O releases, which is killing the manatees, ruining our water quality, and driving our tourists away. Why not contact Laura Combs and let her get involved? Look at all she has done to save the manatee. She had the power to change the boating speeds, I'm sure she would be able to stop the water releases from Lake O that are killing her Manatee.

There is too much construction trash blowing into the canals in the NW area of the cape. I can see at least 100 pieces stuck to the trees by the canal just from my kitchen window. Please come up here and take a look around for yourself. It is horrible, an environmental disaster taking place before our eyes.

north spreader canal system is dysfunctional

I feel the canals in the sailboat access area should be dredged to 5' at mean low water and maintained to that depth. I also feel the dredging should take priority over canals that are not used by deeper draft boats. It is a hindrance to navigation and could cause injury aboard a boat that runs aground in the canal. Also seawalls that were damaged in the past hurricanes should be repaired or replaced BEFORE new ones are allowed to be built.

Salinity, shellfish, etc. in canals?

Canal depths seem to have been eroding across the system. Hopefully we still have the Core of Engineers dredging at regular (and not too lengthy) intervals.

We live in NW C.C. on a fresh water canal. In less than 2yrs. the canal water clarity has gone from clear to 80% cloudy (can barely see bottom in 3ft. of water). Trash in the canals is a major problem. As a suggestion, at neighborhood freshwater boat ramps, educational signage should be added to remind boaters of speed limits and to take trash & garbage home with them. Also, construction debris (i.e.: plastic wrap/shingle paper/etc. blow in and sink killing vegetation.

I don't understand the purpose of the weirs. why cant the canals be opened up to the gulf.

NOTE: Three comments that did not further the planning of the conference have been removed.

APPENDIX B: CONFERENCE DISCUSSION GROUP NOTES

SESSION 1: NATURE OF CAPE CORAL'S WATERS

Table 1

Public outreach awareness and enforcement
Overabundance of nutrients flowing into canals
Freshwater releases from Lake Okeechobee

Table 2

Florida xeriscape

- Landscape pressure
- Builders said required by city - minimum trees
- Don't know where to begin with landscape

Seawalls - must have

- Riprap and mangroves
- Freshwater seawalls/natural landscape, point for natural erosion

Southwest canals slime
City should lead by example

Table 3

Education before crisis

- City post water quality data, summary on website
- Landscaping practices
- Dredging, use vacant lots for improving natural environment

Reservoirs before losing freshwater to gulf from Gator Slough
Glover bight
Save our swales

Table 4

Conservation restrictions
Stricter enforcement, fees
Raise awareness, education
Long term water quality, pesticides/fertilizer, septic tank systems

Table 5

Plan and control growth, Plan before growth, now Profit before planning
Maintain what we have: Concerns water pollution – septic tanks, stormwater, herbicides
pesticides – need public education
Want to be on water but don't take care
Maintenance on what we have

SESSION 1 (continued)

Table 6

Canal maintenance and health – flow/silting/exotics/seawalls, drainage, water quality
Public education – residents take ownership – lawn impacts, Florida Yards & Neighborhoods (FYN), big box stores
Public usage, value landscape, use vacant lots for natural system, Home Owners Associations (HOA) take some responsibility, creating models in story form

Table 7

Middle age canals
Educate homeowners
Educate schools
Incentives for builders
Look at new technology to clean up canals

Table 8

Education, including city adoptions of FYN principles for all lands especially mediums
Less watering of lawns to 1 day/week maximum
Really plan growth

Table 9

Cheaper to prevent than fix
Water quality decreasing because of human input – boats, cars, lawn pesticides/fertilizers, pet wastes, etc.
Use more pervious surfaces, change code
Education – FYN, Canalwatch

SESSION 2: WATER QUALITY

Table 1

Educate: littoral and mangrove plants
Engineer a system to retain stormwater – filter at culvert, filter marsh each neighborhood
Nitrogen and fertilizer
Regulate products sold at building stores
Homestead exemption must pass FYN exemptions

SESSION 2 (continued)

Table 2

- Presentation on nitrogen budget to city council
- Canal master plan
- Reassess priorities, development after environment
- Plants by seawalls
- Decrease impervious surfaces
- Be sure that more people know about existing programs, such as FYN

Table 3

- Get elected officials to programs such as this
- Education, education, education
- Mail-outs with utility bills
- Landscape programs for seawalls
- Encourage large retail outlets to sell native plants without systemic insecticides
- Educate landscapers and lawn care companies
- Use native plants, decrease amount of fertilizer, herbicides, etc.
- Find ways to talk to those who aren't already 'in the choir,' including willingness to tell others about these concerns/suggestions

Table 4

- Habitat in canals for wildlife and birds
- Clean canal for boating and fishing – clarity, garbage, runoff, pet waste, lack of enforcement, too little/much water in canals etc.
- Incorporate info distributed through “new resident” programs/packages
- Spread the word to your friends, neighbors
- Take personal responsibility – plant natives,
- Develop incentives (tax credit, award, public acknowledgement) for those who are doing a good job

Table 5

- Get rid of exotic wildlife
- Get city leaders involved, talk with them
- Develop nitrogen budget
- Educate on how to use/reduce fertilizer, other FYN principles
- Plants along seawalls to provide habitat and reduce pollution

Table 6

- Teach nitrogen reduction
- Require new construction to implement FYN principles
- Plant both sides of seawalls to create buffer
- Everyone clean out your own canal

Reduce sod/increase mulch
Use native plants

Table 7

Establish nitrogen budget DO IT NOW
Have big box stores partner in environmental protection, such as native plants
Use city mailings to educate on environmental issues
Find sources of “fecal” matter and fix it!
Need to rally and market Cape Coral as environmentally pristine – “it’s our paradise, paradise lost”

Table 8

Where’s the local government – city, county – impose restrictions on impervious surfaces and enforce, developers use native plants
Limit nitrogen and phosphorus
Educate planning boards and elected officials

Table 9

Develop nitrogen budget, enforce, restrict sales of high nitrogen items, slow-release, how does Tampa do it?
Address agri-industry, toward organic use
Better control of chemicals, easier to read instructions on package
Incentives for native plants and planting on buffer zone
Can dead-end canals be fixed
“Adopt-A-Canal” program by neighborhoods, businesses, organizations, residents

Ideas for distribution of final report:

Get to schools/teachers
Send to state and federal elected officials

Concern – fix spreader canal causing seagrasses to die in NW Cape by boat lift

SESSION 3: WATER QUANTITY

Group suggestions

Raising water level of canals north of Pine Island during summer and allow slow release during winter
Regional education because water comes from basin, not just local
Educate public that Lake Okeechobee has basin too
Don’t point fingers at others; all problems aren’t result of others, such as Lake Okeechobee – we need to take ownership and fix problems
Hold agencies (people) responsible that collect taxes, impact fees and assessments
Elect board, rather than appoint, for those agencies responsible to manage concerns

Environmental resources office within city too small – at present, the City of Cape Corals Environmental Resources Division has only a 4 person office

FOURTH SESSION: Prioritizing Concerns and Suggestions to Protect the Health of Cape Coral’s Canals

Table 1

Educate elected officials: need to listen to experts, how do we get elected officials to listen to today’s results
Are there negatives to raising water levels in North Cape Coral?
Seawall: how to improve specifications with City and performance, mitigate negative aspects
Water filtration: filtration marsh/park for public with nature center

Who is responsible? If everyone owns it, no one owns it. Talk with officials; Cape Coral Construction Industry Association can lobby on behalf of landscaping. Find civil engineers or retired engineers who are motivated and willing; some group or agency willing to “own” it and who can do similar actions; We need to have rationale to provide to those who aren’t interested in changing; Cape Coral Engineering Group - meets monthly. Listed in New Resident Club newsletter.

Table 2

Education: **who is responsible?**

- Volunteer groups
- Schools: teachers (teach the teachers), students

Government: local, state, county, federal: everyone is responsible not just stakeholders
More canal owners involved
Video, educate those who manage it and on water quality sessions
Media: Television on local channel (info videos, summary of this meeting),
Work with realtor groups
Meet to continue to discuss; hold more meetings like this one
Chamber of commerces
New resident material (brief, concise)
Statewide campaign

Table 3

More buy-in by city government: attend meetings like this, stricter enforcement, sprinkler use
Residents need to see and understand master plan for build-out
More staff for ENVIRONMENTAL RESOURCES DIVISION considering size of city
Promote canals, best asset
Educate homeowners on issues, ordinances for native plants, incentives, lead by example
CCCCIA – offer best “green” awards

Environmental canal group to hold quarterly forum to discuss what they are doing, representative of forum present to city council and Cape Coral Engineering Group

What can residents of city do? Talk with neighbors, lead by example, talk with big box stores about concerns, don't buy items that aren't environmentally friendly, talk to councilman, reduce water use (showers, lawn, toilets)

Table 4

Greenscape Citizens Advisory Board(s)
Coalition of HOA/environmental groups: parks and recreation, environmental, landscape/beautification
Educate new resident orientation – New Citizen Guide
Massive PR campaign/blitz everyone: series of news articles
Tip sheet in utility bill
Educate planning boards first
Emulate Sustainable Sarasota
Residents of Cape Coral volunteer to serve on environmental boards that cover a larger geographic area

Who'll be responsible: Riverwatch is willing to bring existing groups together and initiate other actions, such as cleanups

Table 5

- Have percentage of real estate sales to fund environmental projects
- Involve schools, civic groups, nonprofit organizations in clean-up activities – expand those that already exist
- Demonstration sites
- Ad campaign to involve homeowners, talk about decrease in property value if quality of canals decreases
- Pick up after your dogs!

Who is responsible? Lee County Hyacinth Control District is looking at enhancing shoreline. Several sites for Florida Friendly yards exist and we need more
Cape Coral Harbor is redoing median, how about planting Florida friendly plants in medians?