Canal Current

A wave of information for Cape Coral's Canalwatch volunteers

Newsletter: 4th Quarter 2010

Environmental News

All About Manatees

The opportunity to see manatees at Manatee Park is greater now with the cooler weather settling in. Manatee Park, located off Palm Beach Blvd in Fort Myers, is now offering a free half hour program any day of the week all month long about the Florida Manatee. Appropriate for all ages, this program is a look into the biological and ecological nature of this threatened marine mammal. If you have visitors from out of town, or if you're looking for something to do with the kids or grandkids, Manatee Park is a local attraction not to be missed.

For more information please visit leeparks.org or call Nancy Kilmartin at 239-690-5030

Cape Coral has its share of manatee sightings, so please heed "idle speed" and "no wake" zones throughout the canals and surrounding waterways.

Inside This Issue:

Questions? Comments? Let us know!
(239)574-0785
Harry: hphillips@capecoral.net
Kim: kcressman@capecoral.net

Native Plant profile

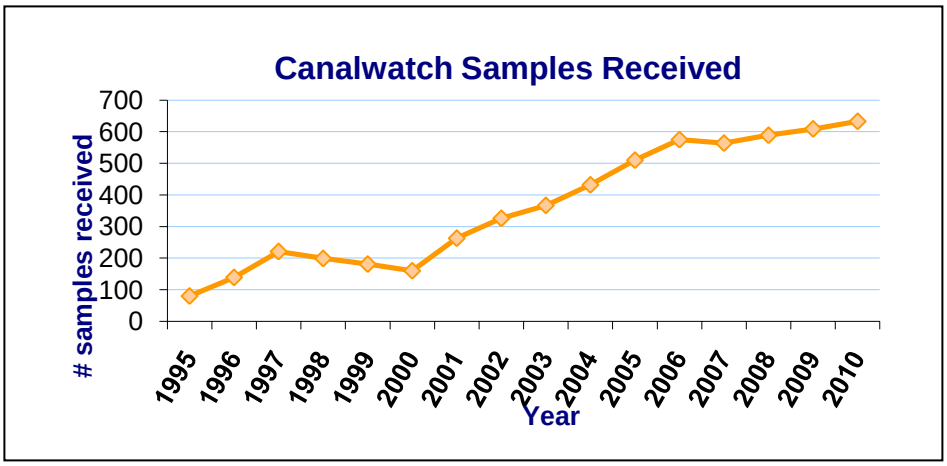
Coastal Plain Willow
Salix caroliniana

This small willow can be found in wet areas such as river and canal banks, but also in low lying areas around swamps and wetlands. Its native range includes much of the Southeast United States and Florida. The coastal plain willow prefers full sun and provides a very distinct green leaf color amongst other foliage, and much like other willows, it is deciduous. Seeds are a mass of silky threads that are distributed by the wind.

The coastal plain willow is a fast growing tree that will provide habitat for birds, but may be overly wild for tight areas in the yard. Using it as an accent tree amongst a hedge, with occasional pruning is the best application for this distinctive tree.

2010 Year in Review

- In 2010, we received 633 Canalwatch samples! This is an increase from 609 in 2009. Thank you for your participation!
- We trained 9 new volunteers this year. Welcome!
- There are currently 72 active stations.



Data Reports Available

We recently completed a couple of reports using Canalwatch data:

1. A 5-year analysis of nutrient concentrations at several sites from 2005-2009.
2. Maps of Chlorophyll results. Chlorophyll samples have been collected since March of 2010. The FL state standards for chlorophyll say that it should not exceed 11 ug/L in estuaries or 20 ug/L in freshwaters.

There are two ways to get these reports:

1. From the website – www.capecoral.net; put Canalwatch in the search box.
2. Request a hard copy by calling 574-0785.

Fertilizer Ordinance

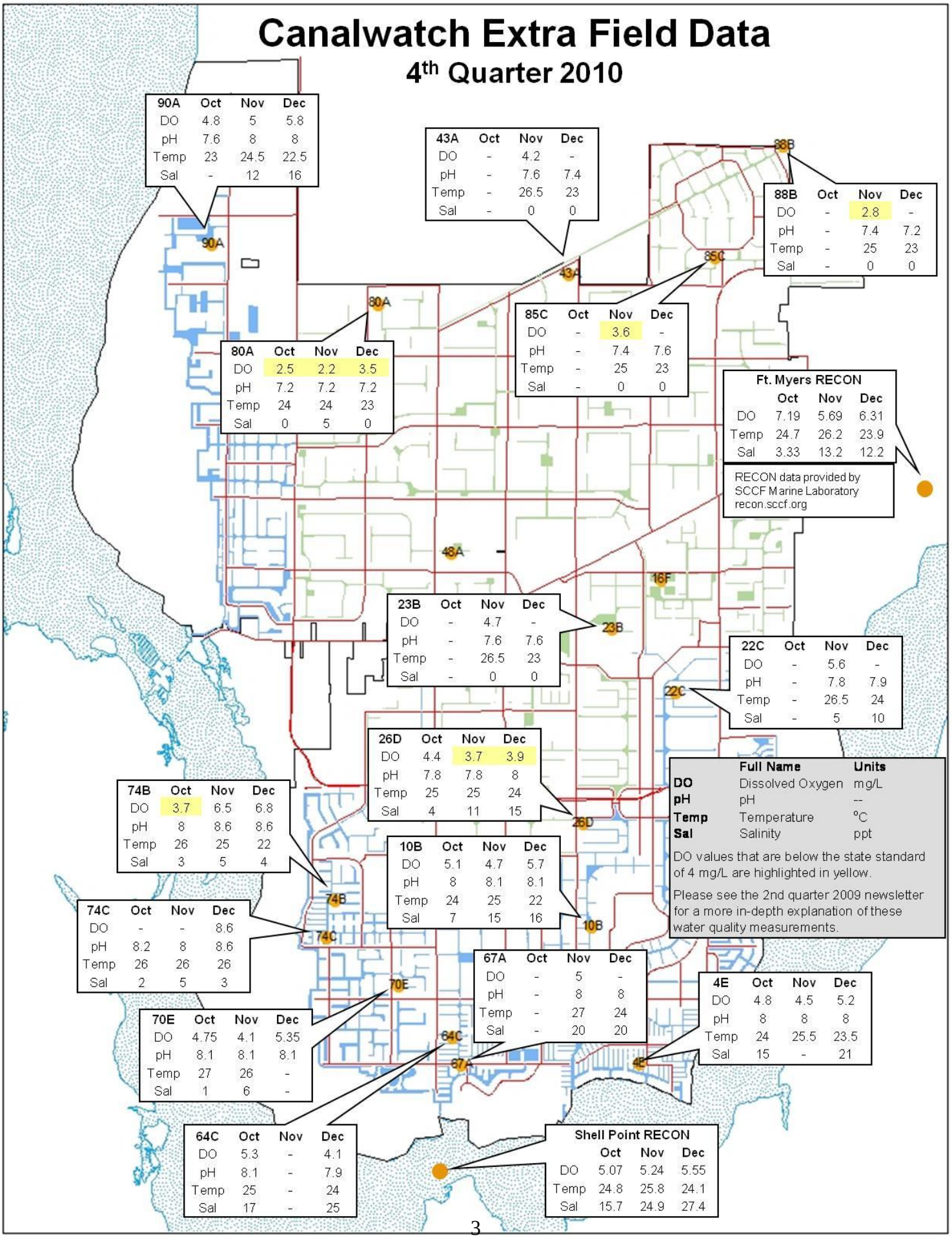
On November 29, 2010, the City of Cape Coral enacted an ordinance regulating the use of fertilizers in the City. For details, please see the website, www.capecoral.net, or call (239) 574-0745.

Farewell

After four years with the City, I'm moving to Mississippi to work at Grand Bay National Estuarine Research Reserve. I've learned a lot here. Thank you all for your interest, enthusiasm, and support along the way. Fishing line recycling and the Canal Cleanup will still continue, and Canalwatch is in good hands with Harry. It's been a pleasure working with you all, and I wish you the best in the future! *-Kim*

Canalwatch Extra Field Data

4th Quarter 2010



90A	Oct	Nov	Dec
DO	4.8	5	5.8
pH	7.6	8	8
Temp	23	24.5	22.5
Sal	-	12	16

43A	Oct	Nov	Dec
DO	-	4.2	-
pH	-	7.6	7.4
Temp	-	26.5	23
Sal	-	0	0

88B	Oct	Nov	Dec
DO	-	2.8	-
pH	-	7.4	7.2
Temp	-	25	23
Sal	-	0	0

85C	Oct	Nov	Dec
DO	-	3.6	-
pH	-	7.4	7.6
Temp	-	25	23
Sal	-	0	0

80A	Oct	Nov	Dec
DO	2.5	2.2	3.5
pH	7.2	7.2	7.2
Temp	24	24	23
Sal	0	5	0

Ft. Myers RECON	Oct	Nov	Dec
DO	7.19	5.69	6.31
Temp	24.7	26.2	23.9
Sal	3.33	13.2	12.2

RECON data provided by SCCF Marine Laboratory recon.sccf.org

23B	Oct	Nov	Dec
DO	-	4.7	-
pH	-	7.6	7.6
Temp	-	26.5	23
Sal	-	0	0

22C	Oct	Nov	Dec
DO	-	5.6	-
pH	-	7.8	7.9
Temp	-	26.5	24
Sal	-	5	10

26D	Oct	Nov	Dec
DO	4.4	3.7	3.9
pH	7.8	7.8	8
Temp	25	25	24
Sal	4	11	15

74B	Oct	Nov	Dec
DO	3.7	6.5	6.8
pH	8	8.6	8.6
Temp	26	25	22
Sal	3	5	4

10B	Oct	Nov	Dec
DO	5.1	4.7	5.7
pH	8	8.1	8.1
Temp	24	25	22
Sal	7	15	16

74C	Oct	Nov	Dec
DO	-	-	8.6
pH	8.2	8	8.6
Temp	26	26	26
Sal	2	5	3

67A	Oct	Nov	Dec
DO	-	5	-
pH	-	8	8
Temp	-	27	24
Sal	-	20	20

4E	Oct	Nov	Dec
DO	4.8	4.5	5.2
pH	8	8	8
Temp	24	25.5	23.5
Sal	15	-	21

70E	Oct	Nov	Dec
DO	4.75	4.1	5.35
pH	8.1	8.1	8.1
Temp	27	26	-
Sal	1	6	-

64C	Oct	Nov	Dec
DO	5.3	-	4.1
pH	8.1	-	7.9
Temp	25	-	24
Sal	17	-	25

Shell Point RECON	Oct	Nov	Dec
DO	5.07	5.24	5.55
Temp	24.8	25.8	24.1
Sal	15.7	24.9	27.4

	Full Name	Units
DO	Dissolved Oxygen	mg/L
pH	pH	--
Temp	Temperature	°C
Sal	Salinity	ppt

DO values that are below the state standard of 4 mg/L are highlighted in yellow.

Please see the 2nd quarter 2009 newsletter for a more in-depth explanation of these water quality measurements.

Canalwatch Lab Data, 4th quarter 2010

bd = below detection benchmark numbers: Marked data are in the highest 20% of values found by Hand et. al, 1988.

	October 2010						November 2010						December 2010						
	Secchi (inches)	NO_3 <1.0	NH_3 none set	TKN	T-N <2.0	$T\text{-}PO_4$ <0.46	Secchi (inches)	NO_3 <1.0	NH_3 none set	TKN	T-N <2.0	$T\text{-}PO_4$ <0.46	Secchi (inches)	NO_3 <1.0	NH_3 none set	TKN	T-N <2.0	$T\text{-}PO_4$ <0.46	Avg TSI
3F	73 b	bd	bd	0.1	0.10	0.07		bd	bd	0.1	0.10	0.06	76 b	0.22	0.1	0.1	0.32	0.08	18.11
4E	38	bd	bd	0.5	0.50	0.09	50	bd	bd	0.30	0.30	0.07	53 b	0.28	0.10	0.10	0.38	0.03	45.01
6F	36.5	bd	bd	0.70	0.70	0.11	47	bd	bd	0.4	0.40	0.09	36	0.17	0.1	0.5	0.67	0.05	52.94
6H	25	bd	bd	0.5	0.50	0.12	-	-	-	-	-	-	-	-	-	-	-	-	57.95
7B	36	bd	bd	0.5	0.50	0.08	52 b	bd	bd	0.3	0.30	0.08	55 b	0.28	bd	bd	0.28	0.03	38.48
7C	58 b	bd	bd	0.4	0.40	0.07	52 b	bd	bd	0.2	0.20	0.08	55 b	0.32	bd	0.4	0.72	0.03	36.39
10B	48	bd	bd	0.30	0.30	0.05	53 b	bd	bd	0.3	0.30	0.04	51	0.28	bd	0.1	0.38	bd	37.87
11D	48 b	bd	bd	0.6	0.60	0.08	53 b	-	-	-	-	-	55 b	0.26	bd	0.5	0.76	0.03	46.80
15D	40	bd	bd	0.6	0.60	0.09	40 b	bd	bd	0.1	0.10	0.05	38.5 b	0.23	bd	0.10	0.33	bd	29.18
15E	33 b	0.06	bd	0.6	0.66	0.09	35.5 b	bd	bd	0.3	0.30	0.08	40 b	bd	bd	0.5	0.50	bd	34.79
16E	23 b	bd	bd	0.50	0.50	0.03	14.5 b	bd	bd	0.60	0.60	0.02	17.5 b	bd	0.2	0.6	0.60	0.06	45.66
16F	15 b	bd	bd	0.6	0.60	0.02	12 b	bd	bd	0.6	0.60	bd	-	-	-	-	-	-	33.02
16G	56	bd	bd	0.6	0.60	0.03	38	bd	bd	0.7	0.70	0.04	36.25	bd	bd	0.6	0.60	bd	48.72
17B	-	-	-	-	-	-	30.5	bd	bd	0.80	0.80	0.04	-	-	-	-	-	-	59.28
18G	32	bd	bd	0.8	0.80	0.04	26.5	bd	bd	1	1.00	0.05	28.75	bd	bd	0.6	0.60	bd	56.34
18H	-	-	-	-	-	-	-	-	-	-	-	-		bd	bd	0.4	0.40	bd	24.43
19D	25	bd	bd	0.80	0.80	0.10	39 b	bd	bd	0.6	0.60	0.09	42 b	0.06	bd	0.3	0.36	0.06	48.09
21D	27 b	bd	bd	0.6	0.60	0.06	31 b	bd	bd	0.5	0.50	0.08	34 b	bd	bd	0.4	0.40	0.05	43.99
21F	-	-	-	-	-	-	77 b	bd	bd	0.7	0.70	0.08	84 b	bd	bd	0.3	0.30	0.03	43.73
22C	-	-	-	-	-	-	30 b	bd	bd	1.5	1.50	0.07	24 b	bd	0.1	0.7	0.70	0.03	54.62
23B	-	-	-	-	-	-	38 b	0.19	bd	1.9	2.09	0.03	40 b	0.12	0.10	0.90	1.02	bd	34.65
26C	22	bd	bd	0.5	0.50	0.03	-	-	-	-	-	-	-	-	-	-	-	-	60.51
26D	32	bd	bd	2.3	2.30	0.10	40	bd	bd	1.7	1.70	0.06	31	bd	0.1	1	1.00	bd	58.16
26F	-	-	-	-	-	-	52 b	bd	bd	0.40	0.40	0.04	52	bd	bd	0.2	0.20	bd	41.01
28D	26	0.08	bd	1.3	1.38	0.04	30	0.19	bd	1.30	1.49	0.08	27	0.11	0.20	1.30	1.41	bd	58.34
30A	36	bd	bd	0.6	0.60	0.06	4	bd	bd	0.36	0.36	0.04	61	0.06	bd	0.2	0.26	bd	58.76
35A	48 b	0.05	bd	0.6	0.65	bd	34 b	0.10	bd	0.5	0.60	0.02	-	-	-	-	-	-	33.02
35B	44.5 b	0.05	bd	0.7	0.75	0.03	-	-	-	-	-	-	-	-	-	-	-	-	47.58
41A	25 b	0.05	bd	0.5	0.55	bd	19 b	0.14	bd	0.6	0.74	bd	20 b	0.15	bd	0.40	0.55	bd	24.43
43A	-	-	-	-	-	-	27 b	0.08	bd	1.2	1.28	0.07	30 b	0.12	0.10	0.90	1.02	bd	42.59
45D	32	bd	bd	0.80	0.80	0.04	28	bd	bd	1.00	1.00	0.05		bd	0.1	0.4	0.40	0.04	55.10
48A	59	bd	bd	0.5	0.50	bd	60 b	bd	bd	0.7	0.70	0.02	61 b	0.06	0.1	0.1	0.16	bd	31.85
51A		bd	bd	0.70	0.70	0.12		bd	bd	0.5	0.50	0.03		bd	bd	0.40	0.40	0.02	43.37
52B	70 b	0.06	bd	0.60	0.66	0.02	57	0.05	bd	0.8	0.85	0.03	58	0.09	0.20	0.9	0.99	bd	40.86
55B	30	bd	bd	0.7	0.70	0.06	43 b	bd	bd	0.8	0.80	0.05	-	-	-	-	-	-	56.86

57A	46.5 b	0.06	bd	0.5	0.56	0.02	47 b	0.11	bd	0.6	0.71	bd	47 b	0.07	bd	0.3	0.37	bd	29.93
58B	-	-	-	-	-	-	-	-	-	-	-	-	36.43	bd	0.1	0.2	0.20	0.02	46.53
58E	-	-	-	-	-	-	65 b	bd	bd	0.3	0.30	0.03	-	-	-	-	-	-	38.51
58F	37.5 b	bd	bd	0.4	0.40	0.03	39 b	bd	0.1	0.6	0.60	0.05	40 b	bd	0.3	0.2	0.20	bd	38.59
58G	51	bd	bd	0.4	0.40	0.03	-	-	-	-	-	-	56 b	bd	0.1	0.1	0.10	bd	32.11
58I	50	bd	bd	0.5	0.50	0.03	89	bd	bd	0.5	0.50	0.05	87	bd	0.1	0.1	0.1	bd	38.98
59B	47	bd	bd	0.30	0.30	0.02	71	bd	bd	0.5	0.50	0.05	56	bd	0.1	bd	bd	bd	37.69
64B	59 b	bd	bd	0.20	0.20	0.10	79 b	0.05	bd	0.10	0.15	0.07	82 b	0.07	bd	bd	bd	0.05	17.63
64C	96 b	bd	bd	0.1	0.10	0.08	-	-	-	-	-	-	103 b	0.11	bd	bd	0.11	0.02	11.36
65B	13 b	0.05	bd	0.5	0.55	0.09	38 b	0.06	bd	0.3	0.36	0.08	21	0.09	0.1	0.1	0.19	0.04	43.64
66A	-	-	-	-	-	-	-	-	-	-	-	-	27 b	bd	bd	0.8	0.80	bd	24.43
67A	-	-	-	-	-	-	72 b	0.06	bd	1.4	1.46	0.08	66 b	0.11	0.2	0.4	0.51	0.05	55.91
67C	52	bd	bd	0.1	0.10	0.07	68	bd	bd	0.2	0.20	0.07	88	bd	bd	bd	bd	0.02	27.06
69A	-	-	-	-	-	-	37.25 b	bd	bd	0.7	0.70	0.05	39.25 b	bd	0.1	0.4	0.40	0.05	51.65
70E	40	bd	bd	0.3	0.30	0.06	38	bd	bd	1.1	1.10	0.08	34	bd	bd	0.3	0.30	bd	50.99
70F	-	-	-	-	-	-	-	-	-	-	-	-	37.5	bd	bd	0.4	0.40	0.08	49.66
72A	66	bd	bd	0.4	0.40	0.06	61	bd	bd	0.6	0.60	0.04	52	bd	bd	0.2	0.20	bd	42.20
74B	35	bd	bd	0.7	0.70	0.07	33.5	bd	bd	0.7	0.70	0.04	33.5	bd	bd	0.6	0.60	bd	52.69
74C	33	bd	bd	0.50	0.50	0.06	36	bd	bd	0.60	0.60	0.04	46	bd	bd	0.5	0.50	bd	49.68
74D	28	bd	bd	0.5	0.50	0.05	30	bd	bd	0.7	0.70	0.05	39	bd	bd	0.7	0.70	bd	53.84
80A	102 b	bd	bd	0.4	0.40	bd	104	bd	bd	0.4	0.40	bd	89 b	bd	bd	bd	bd	bd	20.80
82A	-	-	-	-	-	-	42	bd	0.1	0.6	0.60	0.03	48	bd	0.1	0.9	0.90	bd	45.48
83A	50.5	bd	bd	0.50	0.50	0.03	50	bd	0.1	0.5	0.50	0.03	61.5	bd	bd	0.4	0.40	bd	43.92
85C	-	-	-	-	-	-	69 b	bd	bd	1.3	1.30	bd	70 b	0.09	bd	0.9	0.99	bd	24.43
88B	-	-	-	-	-	-	48	0.05	bd	1.1	1.15	0.03	60	0.14	bd	1.2	1.34	0.02	45.90
90A	42	bd	bd	0.6	0.60	0.02	45	bd	bd	0.9	0.90	0.03	42	bd	0.10	0.5	0.50	0.02	49.73
91A	60 b	bd	bd	0.6	0.60	bd	60 b	bd	bd	0.5	0.50	bd	59 b	0.08	bd	0.5	0.58	bd	24.43
91B	34.5 b	bd	bd	0.6	0.60	bd	30.75 b	bd	bd	0.4	0.40	bd	28.5 b	0.08	bd	0.6	0.68	bd	24.43
93B	39	bd	bd	0.3	0.30	0.03	33	bd	bd	0.8	0.80	0.04	45	bd	bd	0.3	0.30	0.02	53.75
97A	51 b	bd	bd	0.9	0.90	0.03	41 b	bd	bd	0.7	0.70	0.03	37 b	0.05	bd	0.6	0.65	bd	45.88
	Secchi	**NO_3**	**NH_3**	**TKN**	**T-N**	**T-PO_4**	**Secchi**	**NO_3**	**NH_3**	**TKN**	**T-N**	**T-PO_4**	**Secchi**	**NO_3**	**NH_3**	**TKN**	**T-N**	**T-PO_4**	**TSI**
Median		**0.06**	**#NUM!**	**0.50**	**0.55**	**0.06**		**0.08**	**0.10**	**0.60**	**0.60**	**0.05**		**0.11**	**0.10**	**0.40**	**0.40**	**0.03**	**43.73**
Max		**0.08**	**0.00**	**2.30**	**2.30**	**0.12**		**0.19**	**0.10**	**1.90**	**2.09**	**0.09**		**0.32**	**0.30**	**1.30**	**1.41**	**0.08**	**60.51**

Secchi Depth, inches. b: disk visible on bottom.	TKN = Total Kjeldahl Nitrogen (organic + NH_4)
NO_3 = Nitrate (inorganic)	TN = Total Nitrogen (inorganic + organic)
NH_3 = Ammonia (inorganic)	TPO_4 = Total Phosphate

High levels of nutrients in our canals can indicate the presence of fertilizer runoff or effluent from wastewater or septic systems. Excessive nutrients can lead to nuisance plant growth and algal blooms.

TSI = Trophic State Index, a quick indicator of canal health.
63 sites this quarter scored as GOOD (<60). 1 site scored FAIR (60-70), and none were POOR (>70).

This is an improvement over last quarter and about the same as 4th quarter 2009.

All nutrient concentrations shown in mg/L

January

5th Canalwatch

5th Sunset Celebration
Yacht Club Pier 4-7pm

11th Friends of Wildlife
Meeting at Rotary Park
7-9pm info: 980-2593

15th Nature Tour of
Cape Coral, 8am-12pm
Tour begins at Rotary Park
Info: 549-4606

17th Martin Luther King
Holiday

All month long
All about Manatees
Manatee Park, Fort Myers

21st Florida Yards and
Neighborhoods intro class
1pm-4pm at Rotary Park
Info: 549-4606

February

2nd Canalwatch

2nd Sunset Celebration
Yacht Club Pier 4-7pm

8th Friends of Wildlife
Meeting at Rotary Park
7-9pm info: 980-2593

21st President's Day

26th Burrowing Owl Festival
10am – 4pm
Rotary Park

March

2nd Canalwatch

2nd Sunset Celebration
Yacht Club Pier 4-7pm

8th Friends of Wildlife
Meeting at Rotary Park
7-9pm info: 980-2593

19th Florida Friendly Yards Tour
9am-12pm, tour begins at Rotary Park
Info: 549-4606

20th Canal Cleanup
8am-12pm
Yacht Club Pavilion
Info: 574-0785

City of Cape Coral
Environmental Resources
P.O. BOX 150027
Cape Coral, FL 33915-0027