Canal Current

A wave of information for Cape Coral's Canalwatch volunteers

Newsletter: 2nd Quarter 2010

Environmental News

July is "National Parks and Recreation Month"

In recognition of the National Parks and Recreation Month for July 2010 Cape Coral Parks and Recreation Department are hosting many special events and deals, all month long.

For special deals such as the free Florida Yards and Neighborhoods introductory class (16th) or free boat trailer parking at all Cape Coral public boat ramps (24th), please visit the Parks and Recreational web-site at capeparks.com. *"It starts in parks"*

Also, be sure to attend the summer native plant sale at Rotary Park on July 24th from 9 am to 1 pm. For more information contact Rotary Park at 549-4606.

Native Plant profile

Myrsine
Rapanea punctata

The myrsine is a versatile shrub that adapts well to varying soil types and levels of moisture. This evergreen reaches 15 to 20 feet in height and can be incorporated in a screening hedge along property lines or outside of pool cages. One of the additional benefits of this native species is that it is fast growing, and once established requires little attention.

The berries, that fruit usually during winter but sometimes as late as spring, attract birds, both residents and migratory.

The myrsine is found in many different environments throughout the Florida landscape, and would be a wonderful addition to the home landscape as well.

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Questions? Comments? Let us know!

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Oil Spill Information and Resources

The big water news of the last 78 days has been, of course, the oil gusher in the Gulf of Mexico. The Cape Coral Fire Department is the City's lead agency, and they are working with the County's Emergency Operations Center as well as state agencies and the US Coast Guard. We here in Environmental Resources are keeping a close eye on things as well.

Officials are predicting that, due to the patterns of surface currents in the Gulf, there's only a 10% chance of oil washing up on our shores. If it does reach us, it will be most likely be in the form of tar balls.

The FL Dept. of Environmental Protection has been working with Lee County Environmental Laboratory to obtain pre-impact water samples from our area. If oil does reach us, we will be able to compare the resulting conditions to this baseline data.

Mote Marine Lab has also been sending robotic vehicles that can detect oil (crude, weathered, and oil + dispersants) into the Gulf and as of now, none has been detected offshore of SW FL.[1]

If you find oil and believe it is related to this oil spill, report it by calling (877) 272-8335.

Report oiled wildlife to (866) 557-1401.

Oil is a hazardous material and should not be touched without proper training. City officials are working on bringing a 4-hour volunteer training course to residents so you will be able to assist with cleaning up tar balls if the need arises.

If you are interested in volunteering, you can sign up at www.volunteerflorida.org or call (866) 448-5816.

More information can be found at the following websites:

FL DEP Deepwater Horizon Response:
http://www.dep.state.fl.us/deepwaterhorizon/

BP's Oil Spill Response:
http://www.deepwaterhorizonresponse.com/

NOAA's response page and forecast maps:
http://response.restoration.noaa.gov/deepwaterhorizon/

Totals of oil collected:
http://www.bp.com/extendedsectiongenericarticle.do?categoryId=40&contentId=7061813

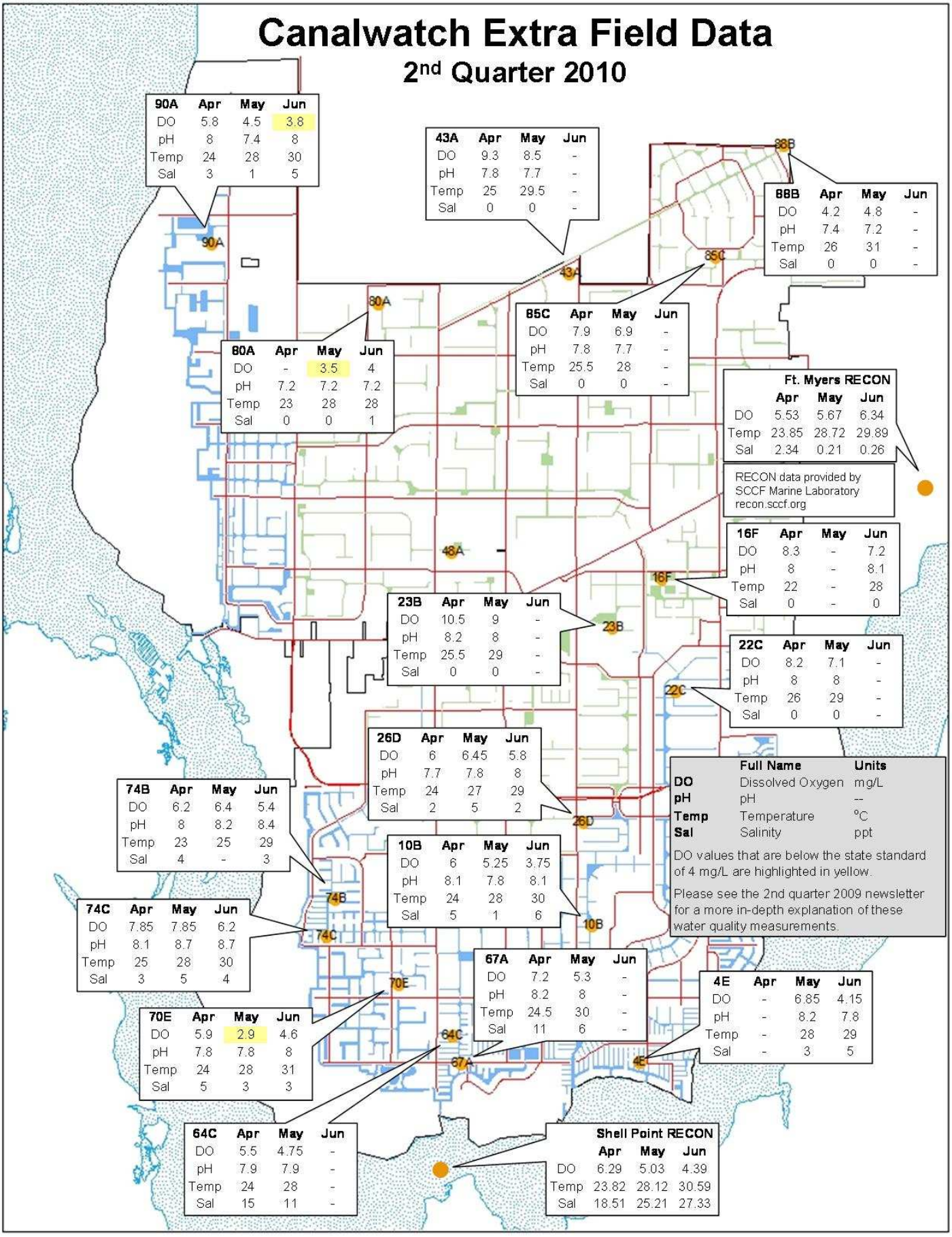
Totals of wildlife collected – dead/alive; visibly oiled/no visible oil; # released:
http://www.fws.gov/home/dhoilspill/collectionreports.html

Interactive maps:
http://map.floridadisaster.org/gator/
http://www.sunherald.com/722

[1] http://www.naplesnews.com/news/2010/jun/22/mote-underwater-robots-dont-find-any-trace-oil-low/

Canalwatch Extra Field Data

2nd Quarter 2010



90A	Apr	May	Jun
DO	5.8	4.5	3.8
pH	8	7.4	8
Temp	24	28	30
Sal	3	1	5

43A	Apr	May	Jun
DO	9.3	8.5	-
pH	7.8	7.7	-
Temp	25	29.5	-
Sal	0	0	-

88B	Apr	May	Jun
DO	4.2	4.8	-
pH	7.4	7.2	-
Temp	26	31	-
Sal	0	0	-

85C	Apr	May	Jun
DO	7.9	6.9	-
pH	7.8	7.7	-
Temp	25.5	28	-
Sal	0	0	-

80A	Apr	May	Jun
DO	-	3.5	4
pH	7.2	7.2	7.2
Temp	23	28	28
Sal	0	0	1

Ft. Myers RECON	Apr	May	Jun
DO	5.53	5.67	6.34
Temp	23.85	28.72	29.89
Sal	2.34	0.21	0.26

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

16F	Apr	May	Jun
DO	8.3	-	7.2
pH	8	-	8.1
Temp	22	-	28
Sal	0	-	0

23B	Apr	May	Jun
DO	10.5	9	-
pH	8.2	8	-
Temp	25.5	29	-
Sal	0	0	-

22C	Apr	May	Jun
DO	8.2	7.1	-
pH	8	8	-
Temp	26	29	-
Sal	0	0	-

26D	Apr	May	Jun
DO	6	6.45	5.8
pH	7.7	7.8	8
Temp	24	27	29
Sal	2	5	2

	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.

74B	Apr	May	Jun
DO	6.2	6.4	5.4
pH	8	8.2	8.4
Temp	23	25	29
Sal	4	-	3

10B	Apr	May	Jun
DO	6	5.25	3.75
pH	8.1	7.8	8.1
Temp	24	28	30
Sal	5	1	6

74C	Apr	May	Jun
DO	7.85	7.85	6.2
pH	8.1	8.7	8.7
Temp	25	28	30
Sal	3	5	4

67A	Apr	May	Jun
DO	7.2	5.3	-
pH	8.2	8	-
Temp	24.5	30	-
Sal	11	6	-

4E	Apr	May	Jun
DO	-	6.85	4.15
pH	-	8.2	7.8
Temp	-	28	29
Sal	-	3	5

70E	Apr	May	Jun
DO	5.9	2.9	4.6
pH	7.8	7.8	8
Temp	24	28	31
Sal	5	3	3

64C	Apr	May	Jun
DO	5.5	4.75	-
pH	7.9	7.9	-
Temp	24	28	-
Sal	15	11	-

Shell Point RECON	Apr	May	Jun
DO	6.29	5.03	4.39
Temp	23.82	28.12	30.59
Sal	18.51	25.21	27.33

Canalwatch Lab Data, 2nd quarter 2010

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

	April 2010						May 2010						June 2010						
	NO2	NO3	NH3	TKN	T-N	T-PO4	NO2	NO3	NH3	TKN	T-N	T-PO4	NO2	NO3	NH3	TKN	T-N	T-PO4	Avg
	<1.0	<1.0	none set		<2.0	<0.46	<1.0	<1.0	none set		<2.0	<0.46	<1.0	<1.0	none set		<2.0	<0.46	TSI
3F	bd	bd	bd	bd	bd	bd	bd	bd	bd	1	1.00	0.07	bd	bd	bd	1.2	1.20	0.09	40.68
3G	bd	bd	bd	1	1.00	bd	bd	bd	bd	0.9	0.90	0.08							49.99
4E							bd	bd	bd	1.5	1.50	0.11	bd	bd	bd	1.4	1.40	0.10	63.79
6F	bd	bd	bd	1	1.00	0.07	bd	bd	bd	1.3	1.30	0.12	bd	bd	bd	1.4	1.40	0.13	58.69
6G	bd	bd	bd	1.1	1.10	0.07													65.85
6H	bd	bd	bd	1	1.00	0.08	bd	bd	bd	1.2	1.20	0.12	bd	bd	bd	1.6	1.60	0.14	66.16
7B	bd	bd	bd	1	1.00	0.05	bd	0.08	bd	1.3	1.38	0.15	bd	bd	bd	1.7	1.70	0.13	87.93
10B	bd	bd	bd	1	1.00	bd	bd	bd	bd	0.8	0.80	0.07	bd	bd	bd	1.1	1.10	0.09	56.48
11D	bd	bd	bd	0.7	0.70	bd							bd	bd	bd	1.6	1.60	0.11	50.99
13A	bd	bd	bd	1.2	1.20	bd	bd	bd	bd	1.2	1.20	0.10	bd	bd	bd	1.7	1.70	0.14	67.49
15D	bd	bd	bd	1	1.00	bd	bd	bd	bd	1	1.00	0.06	bd	bd	bd	1.5	1.50	0.12	57.36
15E	bd	bd	0.1	0.6	0.60	bd	bd	0.05	bd	1.1	1.15	0.07	bd	bd	bd	1.6	1.60	0.14	64.26
16E	bd	bd	bd	0.7	0.70	bd	bd	bd	bd	0.8	0.80	bd	bd	bd	bd	1.1	1.10	0.03	55.63
16F	bd	bd	bd	0.5	0.50	bd							bd	bd	bd	1.1	1.10	bd	36.38
17B	bd	bd	bd	0.5	0.50	bd							bd	bd	bd	1.5	1.50	0.03	55.42
18G	bd	bd	bd	0.6	0.60	bd	bd	bd	bd	1.5	1.50	0.05	bd	bd	bd	1.6	1.60	0.04	59.45
19D	bd	bd	bd	1.1	1.10	0.07							bd	bd	bd	1.6	1.60	0.11	70.31
21D	bd	bd	bd	1.1	1.10	0.05	bd	bd	bd	1.5	1.50	0.10	bd	bd	bd	1.5	1.50	0.12	67.05
21F	bd	bd	bd	0.7	0.70	0.06													59.78
22C	bd	bd	bd	0.8	0.80	0.05	bd	bd	0.1	3.3	3.30	0.09							59.14
23B	bd	bd	bd	1.3	1.30	bd	bd	0.24	0.2	2	2.24	bd							41.47
26C	bd	bd	bd	1.4	1.40	bd	bd	bd	bd	0.6	0.60	bd	bd	bd	bd	0.8	0.80	0.03	61.34
26D	bd	bd	0.1	0.5	0.50	0.05	bd	bd	bd	1.1	1.10	0.11	bd	bd	bd	2.7	2.70	0.09	66.01
26F	bd	bd	bd	1.8	1.80	bd	bd	bd	bd	0.8	0.80	0.06							56.15
28D	bd	bd	bd	0.8	0.80	bd							bd	bd	bd	1.3	1.30	0.04	51.59
30A							bd	bd	bd	0.6	0.60	bd	bd	bd	bd	1.5	1.50	0.07	51.10
34A													bd	bd	bd	1.1	1.10	0.04	54.05
35A	bd	bd	bd	1.5	1.50	bd	bd	bd	bd	0.6	0.60	bd	bd	bd	bd	1	1.00	0.07	59.50
35B	bd	bd	bd	0.3	0.30	bd	bd	bd	bd	0.8	0.80	bd							39.73
41A	bd	bd	bd	0.3	0.30	bd	bd	bd	bd	0.9	0.90	bd	bd	bd	bd	0.7	0.70	bd	32.69
43A	bd	bd	bd	0.2	0.20	bd	bd	0.11	bd	2.2	2.31	bd							32.80
45D	bd	bd	bd	1.3	1.30	bd	bd	bd	bd	0.5	0.50	bd	bd	bd	bd	0.8	0.80	0.03	49.10
48A	bd	bd	bd	0.5	0.50	bd	bd	bd	bd	0.3	0.30	bd							42.57

51A	bd	bd	bd	0.2	0.20	bd	bd	bd	bd	0.3	0.30	bd	bd	bd	bd	0.9	0.90	0.05	38.36
52B	bd	bd	bd	0.3	0.30	bd	bd	bd	bd	bd	bd	bd	bd	bd	bd	0.6	0.60	bd	22.30
57A	bd	bd	bd	0.2	0.20	bd							bd	bd	bd	0.5	0.50	bd	24.28
58B	bd	bd	bd	0.2	0.20	bd													36.78
58E							bd	bd	bd	0.8	0.80	bd	bd	bd	bd	1.4	1.40	0.03	47.57
58F	bd	bd	bd	0.8	0.80	bd	bd	bd	bd	1	1.00	bd	bd	bd	bd	1.5	1.50	0.04	45.94
58G	bd	bd	bd	1.2	1.20	bd	bd	bd	bd	1	1.00	bd	bd	bd	bd	1.2	1.20	0.05	52.05
58H	bd	bd	bd	1	1.00	bd	bd	bd	bd	1	1.00	bd	bd	bd	bd	1.5	1.5	0.05	49.68
58I	bd	bd	bd	0.9	0.90	bd	bd	bd	bd	0.6	0.60	bd	bd	bd	bd	1.3	1.30	0.03	45.19
59B	bd	bd	bd	0.9	0.90	bd	bd	bd	bd	0.8	0.80	bd	bd	bd	bd	0.8	0.80	bd	43.29
64B	bd	bd	bd	0.6	0.60	bd	bd	bd	bd	1	1.00	0.08	bd	bd	bd	1.1	1.10	0.08	47.23
64C	bd	bd	bd	0.9	0.90	bd	bd	bd	bd	0.7	0.70	0.06							46.19
66A	bd	bd	bd	1	1.00	bd							bd	bd	bd	0.4	0.40	0.02	46.39
67A	bd	0.48	bd	1	1.48	bd	bd	0.25	bd	2.7	2.95	0.11							52.56
67C	bd	bd	bd	3	3.00	bd													39.10
69A	bd	bd	bd	1.2	1.20	bd	bd	bd	bd	0.8	0.80	0.05							47.22
70E	bd	bd	bd	1.1	0.10	bd	bd	bd	bd	0.6	0.60	bd	bd	bd	bd	0.8	0.80	0.04	33.48
72A	bd	bd	bd	0.9	0.90	bd	bd	bd	bd	0.7	0.70	bd	bd	bd	bd	1	1.00	0.04	42.65
74B	bd	bd	bd	0.7	0.70	bd	bd	bd	bd	0.7	0.70	bd	bd	bd	bd	0.9	0.90	0.05	52.56
74C	bd	bd	bd	0.7	0.70	bd	bd	bd	bd	0.7	0.70	bd	bd	bd	bd	1.2	1.20	0.05	52.26
74D							bd	bd	bd	0.6	0.60	bd	bd	bd	bd	1	1.00	0.05	52.56
80A	bd	bd	bd	0.6	0.60	bd	bd	bd	bd	0.6	0.60	bd	bd	bd	bd	bd	bd	bd	33.33
82A	bd	bd	bd	0.3	0.30	bd	bd	0.07	bd	1.2	1.27	bd	bd	bd	bd	0.9	0.90	bd	42.37
83A	bd	bd	bd	1	1.00	bd	bd	bd	bd	0.9	0.90	0.05	bd	bd	bd	1	1.00	0.03	51.80
85C	bd	bd	0.1	0.9	0.90	bd	bd	bd	bd	1.2	1.20	bd							41.47
88B	bd	bd	bd	1.7	0.12	bd	bd	0.11	bd	2.2	2.31	0.10							50.17
90A	bd	bd	bd	2	0.09	bd	bd	bd	bd	0.8	0.80	bd	bd	bd	bd	0.9	0.90	0.02	42.06
91A	bd	bd	bd	0.9	0.90	bd	bd	bd	bd	0.6	0.60	bd	bd	bd	bd	0.5	0.50	bd	40.90
91B	bd	bd	bd	0.6	0.60	bd							bd	bd	bd	0.5	0.50	bd	34.06
Median		**0.48**	**0.10**	**0.90**	**0.85**	**0.06**		**0.11**	**0.15**	**0.90**	**0.90**	**0.08**				**1.10**	**1.10**	**0.05**	**50.08**
Max		**0.48**	**0.10**	**3.00**	**3.00**	**0.08**		**0.25**	**0.20**	**3.30**	**3.30**	**0.15**				**2.70**	**2.70**	**0.14**	**87.93**

NO2 = Nitrite (inorganic)	TKN = Total Kjeldahl Nitrogen (organic + NH4)	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.
NO3 = Nitrate (inorganic)	TN = Total Nitrogen (inorganic + organic)	
NH3 = Ammonia (inorganic)	TPO4 = Total Phosphate	

All nutrient concentrations shown in mg/L

TSI = Trophic State Index, a quick indicator of canal health.
52 sites this quarter scored as GOOD (<60). 8 sites scored FAIR (60-70), and two were POOR (>70).

The high TSI scores this quarter were due to poor water clarity, particularly in June. For example, secchi depth at site 7B in June was only 2 inches.

July

7th Canalwatch

16th Florida Yards
Neighborhoods
introductory course
6:00 to 9:00 pm @ Rotary Park
Info: 549-4606

24th plant sale at Rotary Park
Cape Coral
info: fnpscoccoloba.org

August

4th Canalwatch

September

1st Canalwatch

6th Labor Day

17th The Mangrove Gathering @
Eco-Café 7:30-10:00pm
Info: 432-2163

25th National Estuaries Day

City of Cape Coral
Environmental Resources
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Cape Coral, FL 33915-0027