Canal Current

A wave of information for Cape Coral's Canalwatch volunteers

Newsletter: 1st Quarter 2016

Environmental News

Northwest Cape Coral's Trash Bash Celebrates 20 years!

This year marks the 20th anniversary of the Northwest Cape Coral Neighborhood Association's Trash Bash. On April 23rd the trash clean up event was held at the Burnt Store Boat Ramp and volunteers were welcome to clean up the canals, streets and surrounding properties in the Northwest area. Keep Lee County Beautiful again partnered with the Northwest Cape Coral Neighborhood Association to provide materials and assist in organizing the event.

This year XX volunteers helped pick up XX pounds of trash.

After the event, lunch was provided to all the participants as an appreciation for their hard work and commitment to the community. Also this year, live music was provided by the band, *Strange Arrangement*, keeping the event festive.

For more information regarding future clean up events in Lee County please visit KLCB.org

For more information on the Northwest Cape Coral Neighborhood Association clean up events please visit nwcape.com.

Native Plant profile

Wild Petunia
Ruellia caroliniensis

It is unsure why the non-native Mexican petunia (*Ruellia simplex*) has become a popular perennial in the home landscape versus the native variety. Perhaps its ubiquitous reputation, found in many nurseries, leaves home gardeners no alternative.

Ruellia caroliniensis is native to the Southeast United States and has some subtle differences over the Central American cultivar. Unlike the non-native species, the native petunia is a low growing (1-2 feet) wildflower that does well in full sun to part shade. Its native habitat is open hardwood hammocks and pine woodlands, and is just at home as an understory plant or plant bed ground cover in the home landscape.

Both the non-native and the native share a comparable tubular bloom of pale blue to lavender flowers which often attract nectar seeking butterflies. Additionally, wild petunia is a host plant for the white peacock and common buckeye butterflies. Selecting *R. Caroliniensis* over the non-native is especially beneficial to the environment.

Wild Petunia
(Photo courtesy of Florida Atlas of Vascular Plants)

Inside This Issue:

Questions? Comments? Let us know!

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Rain Barrels for the Home Garden

Rain Barrels and cisterns are an age old method in collecting and containing rainfall. This stored water can then be used to irrigate small garden plots, vegetable gardens, or used to fill up watering cans for watering outdoor as well as indoor potted plants.

Rain barrels have once again become a popular addition to a home's landscape watering needs and classes are offered twice a year during the Rotary Park Native Plant Sales in April and again in July.

The value of having a rain barrel extends beyond its capacity for storing rainwater. This sustainable method for harvesting rainwater lessens the impact of stormwater runoff. Stormwater runoff that flows over landscapes and cityscapes can contain pollutants such as fertilizers, pesticides and automotive fluids such as oil or fuels. By retaining a portion of rainfall in barrels and cisterns, less of these pollutants will enter the storm sewer system and into Cape Coral's canal waterways.

During a rain barrel workshop, the homeowner learns of the many possibilities a rain barrel has to a home garden. All the necessary materials and installation instructions will be given out. Once assembled the homeowner can attach the barrels to their roofline gutter downspout.

After only one or two rain events, the barrel will be full and ready to use. Simply attach a garden hose and benefit from free irrigation water.

Rain Barrel Workshop

The class fee includes a preassembled rain barrel and is held on the same day as the annual native plant sale. Advance registration & payment is required. (16+ years)

COST: $45 per barrel (Rec Code 345162-01)

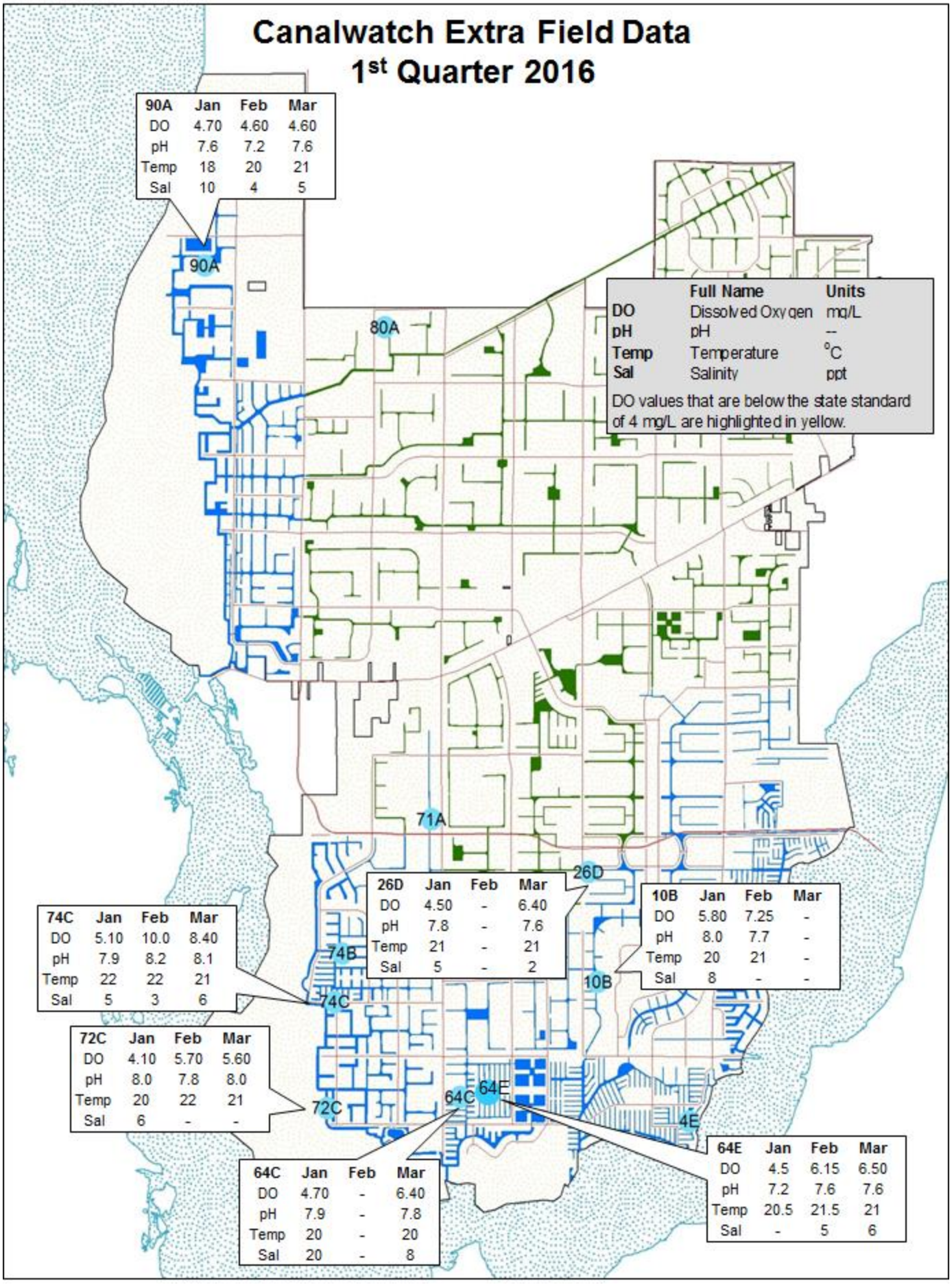
WHEN: Saturday, April 16th and July 23rd from 9:00am – 12:00pm

WHERE: Rotary Park Environmental Center
5505 Rose Garden Road
Cape Coral, Florida 33914

To register or obtain more information:
call (239) 549-4606,
email rotaryparkinfo@capecoral.net or
online atwww.CapeParks.com

Rain barrel art contest at
Tampa Museum of Science and Industry

Rain barrel attached to home downspout


Canalwatch Extra Field Data
1st Quarter 2016
90A Jan Feb Mar
DO 4.70 4.60 4.60
pH 7.6 7.2 7.6
Temp 18 20 21
Sal 10 4 5
90A
80A
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.
71A
26D
26D Jan Feb Mar
DO 4.50 - 6.40
pH 7.8 - 7.6
Temp 21 - 21
Sal 5 - 2
10B Jan Feb Mar
DO 5.80 7.25 -
pH 8.0 7.7 -
Temp 20 21 -
Sal 8 - -
10B
74C Jan Feb Mar
DO 5.10 10.0 8.40
pH 7.9 8.2 8.1
Temp 22 22 21
Sal 5 3 6
74B
74C
72C Jan Feb Mar
DO 4.10 5.70 5.60
pH 8.0 7.8 8.0
Temp 20 22 21
Sal 6 - -
72C
64C
64E
4E
64C Jan Feb Mar
DO 4.70 - 6.40
pH 7.9 - 7.8
Temp 20 - 20
Sal 20 - 8
64E Jan Feb Mar
DO 4.5 6.15 6.50
pH 7.2 7.6 7.6
Temp 20.5 21.5 21
Sal - 5 6

	bd = below detection				benchmark numbers: Marked data are in the highest 20% of values found by Hand et. al, 1988.													
	January 2016						February 2016						March 2016					
	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	0.6	0.6	0.06	bd	bd	bd	0.4	0.4	0.02	bd	bd	bd	0.8	0.8	0.07	53.30
5D	bd	0.16	bd	1.2	1.36	0.06							bd	bd	bd	0.7	0.70	0.06	59.08
6F	bd	bd	bd	0.6	0.6	0.09	bd	0.07	bd	0.7	0.77	0.04	bd	bd	bd	0.6	0.60	0.09	48.99
6G													bd	bd	bd	0.8	0.8	0.10	51.58
9F							bd	0.14	bd	0.8	0.94	0.06							55.48
10B	bd	0.08	bd	0.5	0.58	0.05	bd	bd	bd	0.4	0.4	0.02							62.67
11E	bd	0.19	bd	0.7	0.89	0.04	bd	bd	bd	0.7	0.7	0.05	bd	0.11	bd	0.9	1.0	0.09	55.51
12H	bd	0.11	bd	0.9	1.01	0.10	bd	0.07	bd	0.6	0.67	0.05	bd	0.09	0.1	0.8	0.89	0.08	56.69
15E	bd	0.11	bd	0.6	0.71	0.05	bd	0.00	bd	0.6	0.6	0.07	bd	bd	bd	0.4	0.4	0.05	52.73
15F	bd	0.08	bd	0.5	0.58	0.04							bd	bd	bd	0.3	0.3	0.06	57.76
16E	bd	bd	bd	0.7	0.7	0.03	bd	bd	bd	0.4	0.4	0.01	bd	bd	bd	0.5	0.5	0.04	45.57
19D	bd	0.17	bd	1.1	1.27	0.13	bd	0.00	bd	0.6	0.6	0.04	bd	bd	bd	1	1.00	0.09	60.21
19K	bd	0.17	bd	0.8	0.97	0.10	bd	bd	bd	0.8	0.85	0.08	bd	bd	bd	0.8	0.8	0.08	71.21
21D	bd	0.15	bd	0.6	0.75	0.07	bd	bd	bd	0.4	0.4	0.01	bd	bd	bd	0.5	0.5	0.05	44.86
26D	bd	0.07	bd	0.6	0.67	0.03							bd	bd	bd	1	1.0	0.03	45.67
28D	bd	0.08	bd	0.3	0.38	0.02	bd	bd	bd	0.4	0.4	0.01	bd	bd	bd	0.4	0.4	0.03	34.29
38B	bd	bd	bd	0.6	0.6	0.03	bd	bd	bd	0.6	0.6	0.01	bd	bd	bd	0.3	0.3	0.03	46.04
41A	bd	0.12	bd	0.5	0.62	0.01	bd	bd	bd	0.4	0.4	0.01	bd	bd	bd	0.4	0.4	0.01	24.43
41B	bd	0.06	bd	1.2	1.26	0.03	bd	bd	bd	0.3	0.3	0.01							36.58
45D	bd	bd	bd	0.4	0.45	0.02	bd	bd	bd	0.4	0.4	0.01	bd	0.06	bd	0.4	0.5	0.02	47.12
48A							bd	bd	bd	0.4	0.4	0.01	bd	bd	bd	0.3	0.3	0.01	39.41
52B	bd	0.15	0.1	0.6	0.75	0.01	bd	bd	bd	0.6	0.6	0.04	bd	bd	bd	0.3	0.3	0.01	35.91
52I							bd	bd	bd	0.4	0.4	0.03							41.68
58B													bd	bd	bd	0.4	0.4	0.02	48.37
58I	bd	bd	0.2	1.1	1.15	0.10							bd	bd	bd	0.4	0.4	0.04	50.61
58J													bd	bd	bd	0.7	0.7	0.03	52.13

59C	bd	bd	bd	0.4	0.4	0.02	bd	0.00	bd	0.3	0.3	0.01	bd	bd	bd	0.2	0.20	0.01	37.44
59D	bd	0.06	0.1	1.0	1.06	0.06	bd	bd	bd	0.4	0.4	0.01	bd	bd	bd	0.3	0.3	0.03	44.75
60C							bd	bd	bd	0.3	0.3	0.01	bd	bd	bd	0.2	0.2	0.01	38.69
64B	bd	0.10	bd	0.7	0.80	0.06							bd	0.16	bd	0.5	0.7	0.07	49.06
64C	bd	0.10	bd	0.3	0.40	0.06							bd	0.19	bd	0.5	0.7	0.07	44.93
64E	bd	0.13	bd	0.5	0.63	0.06	bd	0.22	bd	0.6	0.82	0.08	bd	0.18	bd	0.5	0.7	0.07	50.96
65C	bd	0.08	bd	0.5	0.58	0.06	bd	bd	bd	0.5	0.5	0.03	bd	0.15	bd	0.5	0.7	0.06	52.42
69A	bd	bd	bd	0.8	0.8	0.10	bd	bd	bd	0.8	0.8	0.14	bd	bd	bd	0.5	0.5	0.09	50.34
71B	bd	0.09	bd	0.4	0.49	0.01	bd	bd	bd	0.3	0.3	0.01	bd	bd	bd	0.1	0.10	0.01	23.38
72C	bd	bd	bd	0.7	0.7	0.06	bd	bd	bd	0.6	0.6	0.08	bd	bd	bd	0.4	0.4	0.06	54.80
74C	bd	bd	bd	0.8	0.8	0.09	bd	bd	bd	0.5	0.5	0.06	bd	bd	bd	0.3	0.30	0.05	45.64
82A	bd	bd	bd	0.5	0.5	0.02	bd	bd	bd	0.4	0.4	0.01	bd	bd	bd	0.2	0.20	0.01	38.72
83C	bd	bd	bd	0.5	0.5	0.01	bd	bd	bd	0.5	0.5	0.01	bd	bd	bd	0.2	0.2	0.01	35.49
89A	bd	0.10	bd	0.7	0.80	0.09	bd	0.10	bd	0.5	0.60	0.09	bd	0.06	bd	0.6	0.66	0.08	53.46
90A	bd	0.06	bd	1.1	1.16	0.03	bd	bd	bd	0.8	0.8	0.01	bd	bd	bd	0.6	0.6	0.01	41.62
Median		**0.10**	**bd**	**0.60**	**0.70**	**0.06**		**bd**	**bd**	**0.50**	**0.50**	**0.02**		**bd**	**bd**	**0.50**	**0.50**	**0.05**	**48.37**
Max		**0.19**	**0.20**	**1.20**	**1.36**	**0.13**		**0.22**	**0.00**	**0.80**	**0.94**	**0.14**		**0.19**	**0.10**	**1.00**	**1.01**	**0.10**	**71.21**

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

All nutrient concentrations shown in mg/L

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. 37 sites this quarter scored as GOOD (<60). 2 sites scored FAIR (60-70), and one scored POOR (>70).
The rainfall for this quarter has been ample because of a very exceptionally wet January. February and March demonstrated more typical amounts for this time of year. Water clarity has been affected by this above average rainfall, with many of the canal waterways thriving with microscopic algae. As summer approaches, and precipitation patterns again shift to wetter months, phytoplankton (microscopic algae) will continue to flourish.

City of Cape Coral
Environmental Resources
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