Canal Current

A wave of information for Cape Coral's Canalwatch volunteers

Newsletter: 4th Quarter 2017

Environmental News

Earth Day Native Plant Sale A Huge Success

There are many reasons to plant Florida native plants in the home landscape. Native plants tend to be conditioned to our seasonal rain patterns, soil conditions, are beneficial to wildlife such as birds and butterflies, and above all it helps maintain Florida's natural heritage. Throughout the year, Cape Coral's Rotary Park Environmental Center hosts a native plant sale. The most recent one occurred on Earth Day weekend. This plant sale proved to be a huge success. The plant sale generated over $7000 in sales, in a matter of just 5 hours. This is not just a huge success for the native nurseries that provided the plants, but a success for the environment.

Making a commitment to planting a few native plants a year in home landscapes, benefits the environment and ensures the flora of the real Florida is not lost.

The next native plant sale will be on July 28th, 2018. For more information regarding native plants or home landscape programs highlighting Florida native and Florida friendly plant species, please visit: http://www.floridayards.org/

Native Plant profile

Trumpet Creeper *Campsis radicans*

Often found in south-eastern forests, and wetlands the trumpet creeper grows tall with support or can function as a ground cover. It climbs by way of aerial rootlets, and can be trained up a trellis or used along fences. The stunning trumpet bell shaped flowers of this vine will attract Ruby-throated Hummingbirds. The trumpet creeper is fairly drought tolerant, can tolerate a variety of soil conditions enjoys full sun. Blooms appear in May and last throughout the summer. The reddish flowers attract bees and butterflies as well. Cultivars of the trumpet creeper may include orange and yellow flowers.

Trumpet creeper (photo Florida Atlas of Vascular Plants)

Questions? Comments? Let us know!
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Great Turn out to Clean up the Cape
Earth Day Trash Bash 2018

This year's Great American Cleanup took place on Saturday April 21, 2018. This was the 20th anniversary for Keep Lee County Beautiful, Inc. hosting the event. In Cape Coral, there were three sites that volunteers took the charge on:

Rotary Park (5505 Rose Garden Rd)

Jaycee Park (4215 SE 20th Pl)

Burnt Store Boat Ramp (230 Burnt Store Rd)

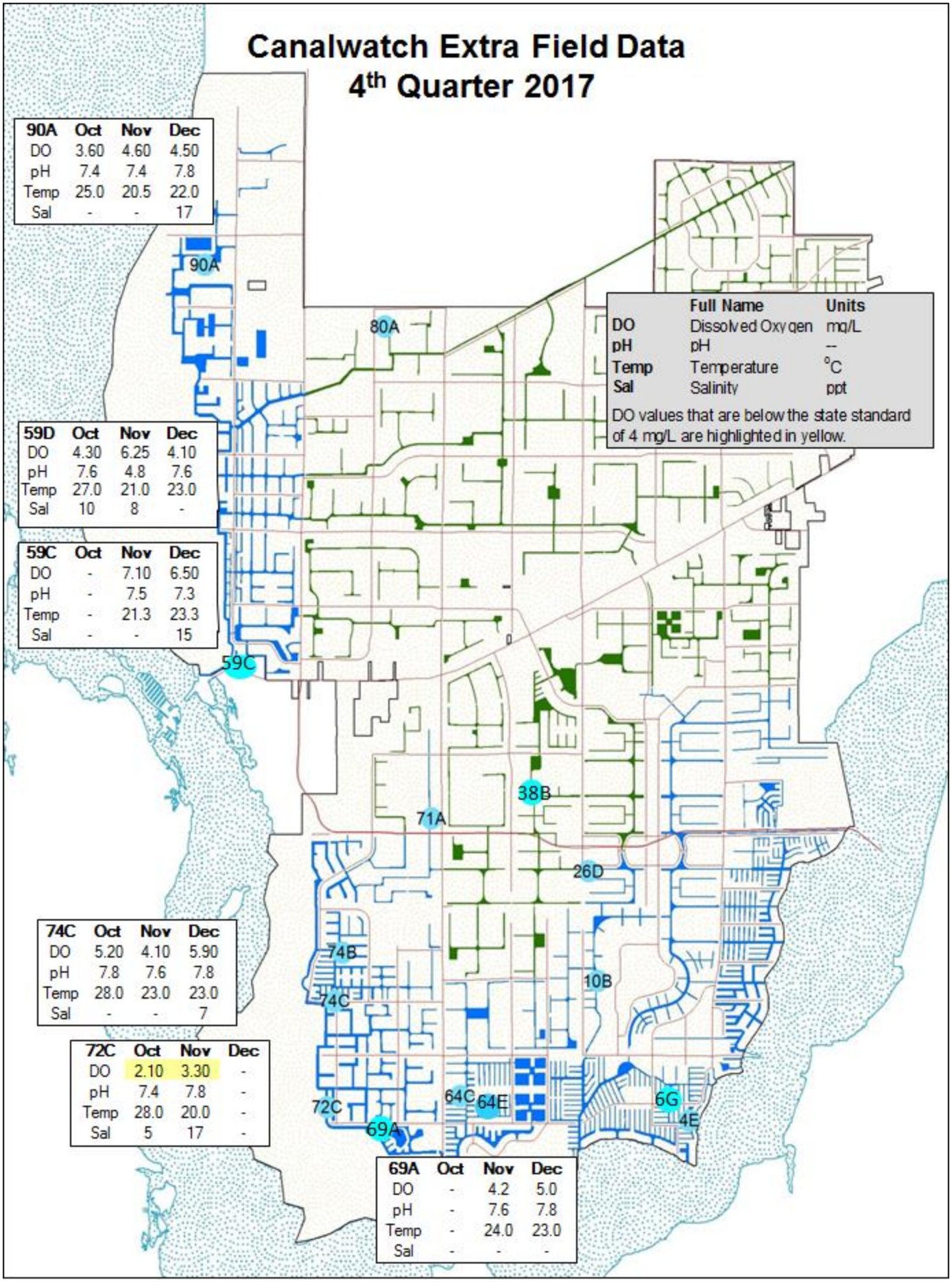
Cape Coral residents enjoy a waterfront lifestyle, so this was a great opportunity to make Cape Coral a better place to live, work and play. Canalwatch members understand the canals of Cape Coral can unfortunately accumulate debris. The canals serve as stormwater treatment and as the stormwater moves over land, it accumulates and conveys litter and debris. Eventually depositing them into the canal waterways. For those of you who take on litter and trash pick-up every day; we are grateful for your efforts. It has been our experience that cigarette butts, fishing line, even large items like bicycles are some of the nuisance trash that spoils the canals. The Great American Cleanup was a great opportunity to pull together the community and provide a wonderful service.

For the event, 788 volunteers assisted throughout Lee County. This event, spanning 36 sites, removed a total of 20,265 pounds of litter from Lee County (Keep Lee County Beautiful data). Numerous volunteers for the event assisted in Cape Coral including 60 from Trafalgar Middle School for the Jaycee Park site.

The Great American Cleanup is the nation's largest organized annual volunteer cleanup event. It encourages citizens to get involved in their own communities. Millions of volunteers nationwide take part in the Great American Cleanup each spring. Visit klcb.org or call them at 239-334-3488 for additional upcoming clean-ups.

Thanks to all those who helped clean-up Cape Coral for this year's Earth Day Trash Bash and thanks to those of who think every day is Earth Day.

Volunteers at Jaycee Park for the Earth Day Trash Bash (photo by Katie McBride).


Canalwatch Extra Field Data
4th Quarter 2017
90A Oct Nov Dec
DO 3.60 4.60 4.50
pH 7.4 7.4 7.8
Temp 25.0 20.5 22.0
Sal - - 17
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.
59D Oct Nov Dec
DO 4.30 6.25 4.10
pH 7.6 4.8 7.6
Temp 27.0 21.0 23.0
Sal 10 8 -
59C Oct Nov Dec
DO - 7.10 6.50
pH - 7.5 7.3
Temp - 21.3 23.3
Sal - - 15
59C
38B
71A
26D
74C Oct Nov Dec
DO 5.20 4.10 5.90
pH 7.8 7.6 7.8
Temp 28.0 23.0 23.0
Sal - - 7
74B
10B
74C
72C Oct Nov Dec
DO 2.10 3.30 -
pH 7.4 7.8 -
Temp 28.0 20.0 -
Sal 5 17 -
64C
64E
6G
4E
72C
69A
69A Oct Nov Dec
DO - 4.2 5.0
pH - 7.6 7.8
Temp - 24.0 23.0
Sal - - -

	bd = below detection				benchmark numbers: Marked data are in the highest 20% of values found by Hand et. al, 1988.													
	October 2017						November 2017						December 2017					
	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	0.025	0.23	0.2	0.5	0.5	0.15	0.025	0.20	0.05	0.2	0.2	0.10	0.025	0.15	0.05	0.2	0.2	0.05	49.13
5D													0.03	0.05	0.05	0.7	0.7	0.06	NA
6F	0.025	0.03	0.05	0.7	0.7	0.19	0.025	0.025	0.05	0.3	0.3	0.13	0.03	0.10	0.05	0.5	0.5	0.07	45.64
7E	0.1	0.31	0.1	0.7	0.7	0.23	0.025	0.24	0.05	0.4	0.4	0.13							51.65
10C	0.025	0.17	0.1	0.9	0.9	0.10	0.025	0.14	0.05	0.1	0.1	0.06	0.03	0.11	0.05	0.2	0.2	0.03	40.45
11E	0.07	0.32	0.05	0.3	0.3	0.20	0.025	0.23	0.05	0.8	0.8	0.12	0.03	0.19	0.05	0.5	0.5	0.08	50.12
12H							0.025	0.24	0.05	0.4	0.4	0.14							55.15
16E	0.025	0.03	0.05	0.4	0.4	0.02	0.025	0.03	0.05	0.1	0.1	0.02	0.03	0.03	0.05	0.3	0.3	0.01	23.95
16H	0.025	0.03	0.05	0.3	0.3	0.05	0.025	0.025	0.05	0.1	0.1	0.03	0.03	0.03	0.1	0.2	0.2	0.02	29.08
18J	0.025	0.03	0.05	0.2	0.2	0.21	0.025	0.025	0.05	0.05	0.1	0.04	0.03	0.03	0.05	0.1	0.1	0.01	43.50
18K							0.025	0.025	0.05	0.2	0.2	0.04	0.03	0.03	0.05	0.3	0.3	0.02	24.13
18L	0.025	0.03	0.1	0.9	0.9	0.24	0.025	0.025	0.05	0.4	0.4	0.13	0.03	0.08	0.05	0.6	0.6	0.06	56.29
18M													0.03	0.03	0.05	0.1	0.1	0.01	NA
19D	0.025	0.13	0.1	0.9	0.9	0.12	0.025	0.09	0.05	0.2	0.2	0.12	0.03	0.03	0.05	0.5	0.5	0.05	58.09
19K							0.025	0.12	0.05	0.4	0.4	0.03	0.03	0.03	0.05	0.6	0.6	0.05	55.27
21D	0.025	0.08	0.1	1.1	1.1	0.01	0.025	0.03	0.05	0.1	0.1	0.13	0.03	0.03	0.05	0.4	0.4	0.03	17.42
23C							0.025	0.03	0.05	0.05	0.1	0.07							NA
28D	0.025	0.03	0.05	0.4	0.4	0.03	0.025	0.03	0.05	0.7	0.7	0.02	0.03	0.03	0.05	0.3	0.3	0.01	43.84
31C							0.025	0.13	0.05	0.2	0.2	0.03							NA
38B	0.025	0.03	0.05	0.3	0.3	0.02							0.03	0.03	0.05	0.3	0.3	0.01	44.09
41A							0.025	0.03	0.05	0.9	0.9	0.03	0.03	0.03	0.05	0.4	0.4	0.01	44.86
41B	0.025	0.03	0.05	0.3	0.3	0.02	0.025	0.03	0.05	0.2	0.2	0.01	0.03	0.03	0.05	0.3	0.3	0.02	40.48
45D	0.025	0.03	0.05	0.05	0.1	0.02	0.025	0.03	0.05	0.1	0.1	0.02	0.03	0.03	0.05	0.1	0.1	0.01	27.67
48A	0.025	0.03	0.05	0.3	0.3	0.02	0.025	0.025	0.05	0.3	0.3	0.05	0.03	0.05	0.05	0.5	0.5	0.02	33.45
52B							0.025	0.03	0.05	0.1	0.1	0.02	0.03	0.03	0.05	0.2	0.2	0.01	21.05
58I	0.025	0.03	0.05	0.2	0.2	0.01	0.025	0.025	0.05	0.1	0.1	0.04							35.39
58J							0.025	0.025	0.05	0.1	0.1	0.04	0.03	0.03	0.05	0.2	0.2	0.03	27.74
59C							0.025	0.025	0.05	0.7	0.7	0.03	0.03	0.03	0.05	0.3	0.3	0.05	55.21

59D	0.025	0.03	0.05	0.3	0.3	0.04	0.025	0.025	0.05	0.2	0.2	0.05	0.03	0.03	0.05	0.1	0.1	0.04	47.92
64B	0.025	0.10	0.05	0.2	0.2	0.15	0.025	0.07	0.05	0.2	0.2	0.13	0.03	0.14	0.05	0.2	0.2	0.06	31.06
64F							0.025	0.03	0.05	0.1	0.1	0.12	0.03	0.22	0.3	0.3	0.3	0.11	22.53
65C	0.025	0.03	0.05	0.3	0.3	0.13	0.025	0.025	0.05	0.2	0.2	0.10	0.03	0.28	0.05	0.3	0.3	0.12	53.65
65E	0.025	0.03	0.05	0.2	0.2	0.13	0.025	0.05	0.05	0.1	0.1	0.11	0.03	0.26	0.05	0.3	0.3	0.11	38.04
66D							0.025	0.025	0.05	0.1	0.1	0.02	0.03	0.03	0.05	0.5	0.5	0.01	52.75
69A							0.025	0.05	0.05	0.1	0.1	0.17	0.03	0.03	0.05	0.5	0.5	0.08	29.92
69D	0.025	0.03	0.05	0.2	0.2	0.11	0.025	0.025	0.05	0.4	0.4	0.13	0.03	0.03	0.05	0.4	0.4	0.08	38.80
71B	0.025	0.05	0.1	0.4	0.4	0.13	0.025	0.025	0.05	0.5	0.5	0.08	0.03	0.03	0.05	0.6	0.6	0.03	54.88
72E	0.025	0.05	0.1	0.5	0.5	0.11	0.025	0.025	0.05	0.2	0.2	0.09	0.03	0.03	0.05	0.3	0.3	0.04	43.07
72E	0.025	0.05	0.2	0.6	0.6	0.06	0.025	0.05	0.05	0.5	0.5	0.09							48.69
74C							0.025	0.025	0.1	0.7	0.7	0.13	0.03	0.06	0.05	0.4	0.4	0.07	43.83
82A	0.025	0.03	0.1	0.4	0.4	0.01	0.025	0.025	0.05	0.6	0.6	0.03	0.03	0.03	0.05	0.2	0.2	0.01	52.60
83C	0.025	0.03	0.1	0.5	0.5	0.01	0.025	0.025	0.05	0.5	0.5	0.03	0.03	0.03	0.05	0.1	0.1	0.01	45.67
89A	0.025	0.03	0.05	0.5	0.5	0.18	0.025	0.025	0.05	0.4	0.4	0.15	0.03	0.03	0.05	0.5	0.5	0.11	58.71
90A	0.025	0.03	0.2	0.6	0.6	0.01	0.025	0.025	0.05	0.1	0.1	0.04	0.03	0.20	0.2	0.5	0.5	0.01	37.73
Median		**0.03**	**0.05**	**0.40**	**0.40**	**0.10**		**bd**	**0.05**	**0.20**	**0.20**	**0.06**		**bd**	**0.05**	**0.30**	**0.30**	**0.03**	**43.84**
Max		**0.32**	**0.20**	**1.10**	**1.10**	**0.24**		**0.24**	**0.10**	**0.90**	**0.90**	**0.17**		**0.28**	**0.30**	**0.70**	**0.70**	**0.12**	**58.71**

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.TSI = Trophic State Index, a quick indicator of canal health.
44 sites this quarter scored as GOOD (<60). zero sites scored FAIR (60-70), and zero scored POOR (>70). Four sites had insufficient data to report TSI.
Fourth quarter water quality has seen much improvement with the onset of the dry season. Hurricane Irma dumped plenty rainfall just before the end of the wet season. However, the lack of stormwater since then has made itself evident with low water levels in many of the freshwater basin areas. Watering restrictions are in effect during these dryer months.

Red tide, or harmful algal bloom, has been persistent off the west coast of Florida for the past few months. This occurs when a above-normal concentration of a marine dinoflagellate flourishes. Karenia brevis is the species that is most connected to red tide blooms in the Gulf of Mexico and the Florida coast.

Recent Goliath Grouper death caused by red tide. (Photo; Turtle Time Inc.)

Karenia brevis red tide produces a toxin that can harm marine organisms and if the red tide is near shore, can cause respiratory irritation in humans. For the organism, Karenia brevis, this toxic chemical is known as brevetoxins. The brevetoxins affect the central nervous system of fish, marine mammals, marine reptiles and shorebirds. Animals that do not get wildlife veterinary attention, can die. Near shore red tide blooms are particularly troublesome due to wave action breaking apart Karenia brevis, releasing toxins, this combined with the occurrence of dead fish on a beach, can exacerbate the respiratory issues associated with blooms. Karenia brevis toxins can also accumulate in shellfish such as oysters, mussels and clams. This can trigger Neurotoxic Shellfish Poisoning in people that have consumed the contaminated shellfish. For more information on red tide in Florida, please visit; http://myfwc.com/research/redtide/statewide/

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