Canal Current

A wave of information for Cape Coral's Canalwatch volunteers

Newsletter: 1st Quarter 2020

Environmental News

Earth Day Celebrates 50 Years

In 1970 millions of Americans rallied for the protection of our planet. Championed by United States Senator Gaylord Nelson, the first Earth day was held on April 22, 1970. Many Americans took to the streets in cities around the nation, assembled on college campuses and stood united to protest rampant environmental depredation and demand new legislature to protect the environment.

The Environmental Protection Agency (EPA) was formed under the Nixon administration and many environmental laws were amended to hold more stringent rules, including Clean Air Act and the Clean Water Act. The Endangered Species Act was established shortly thereafter in 1973.

On April 22, 2020 Earth Day celebrated 50 years. While this year's events were largely small, or digital due to the CORVID-19 epidemic, citizens of Earth still did their part to protect their shared home. It can be something as simple as collecting trash in your neighborhood. We can all do our part. More information can be found at earthday.org

Questions? Comments? Let us know!

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Native Plant Profile

Chara spp.

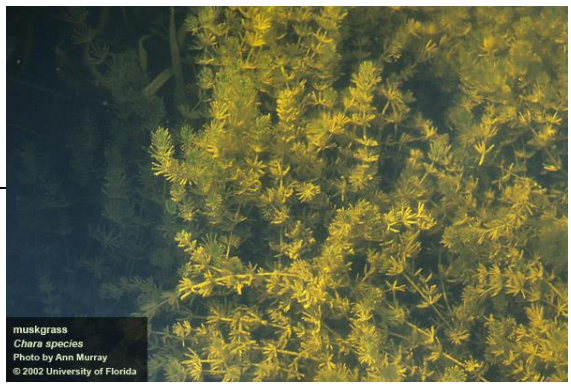
Muskgrass

Muskgrass is an aquatic weed that is classified as a macro-alga. However, its size and branching structure give it the appearance of a plant that would produce flowers and seeds.

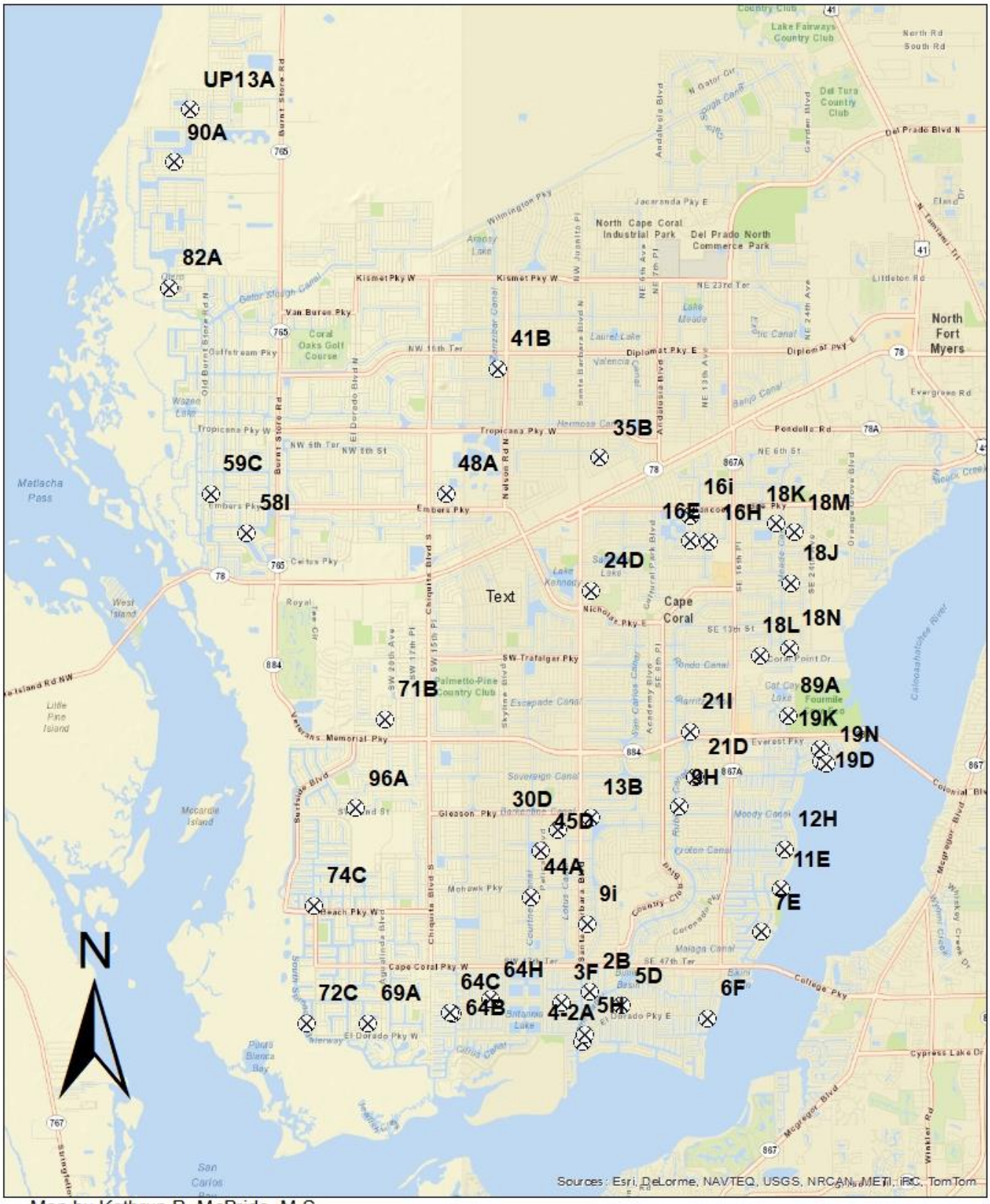
Native to Florida, muskgrass is comprised of several species. This aquatic weed is found attached to sediments of ponds, lakes, rivers and canals, and if in abundance, can create underwater meadows.

Muskgrass is named because of its strong garlic odor when handled.

While an abundance of muskgrass may seem unappealing in a freshwater canal, it does provide habitat for numerous macro invertebrates. These invertebrates are a food source for fish and other wildlife. It also provides food for many species of ducks that can feed on it directly.

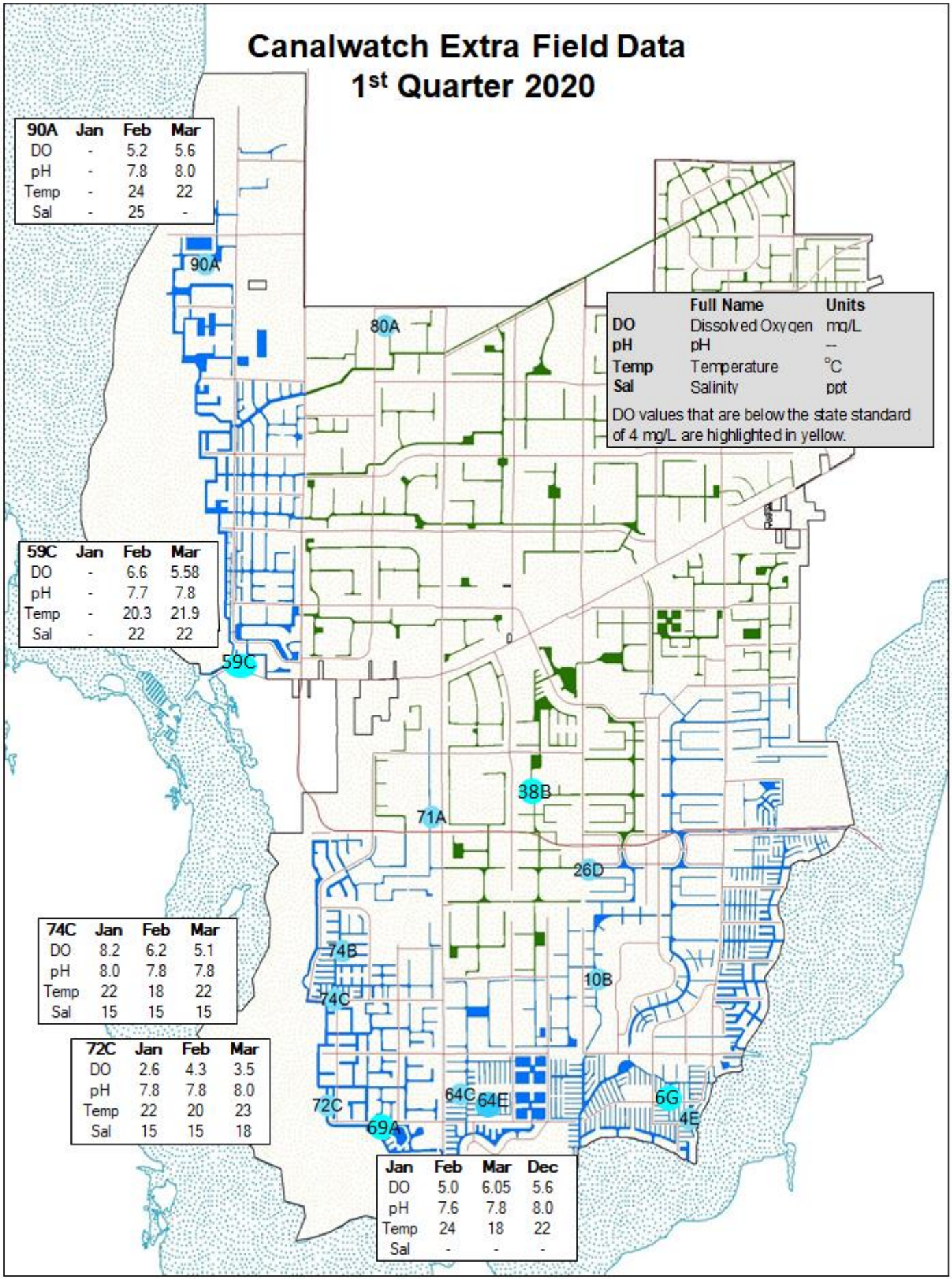


Current Cape Coral Canalwatch Stations



Map by Kathryn R. McBride, M.S.
Enivronmental Resources Division of
Public Works, City of Cape Coral

0 0.475 0.95 1.9 2.85 3.8
Miles


Canalwatch Extra Field Data
1st Quarter 2020
90A Jan Feb Mar
DO - 5.2 5.6
pH - 7.8 8.0
Temp - 24 22
Sal - 25 -
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.
59C Jan Feb Mar
DO - 6.6 5.58
pH - 7.7 7.8
Temp - 20.3 21.9
Sal - 22 22
59C
38B
71A
26D
74C Jan Feb Mar
DO 8.2 6.2 5.1
pH 8.0 7.8 7.8
Temp 22 18 22
Sal 15 15 15
74B
10B
74C
72C Jan Feb Mar
DO 2.6 4.3 3.5
pH 7.8 7.8 8.0
Temp 22 20 23
Sal 15 15 18
64C
64E
6G
4E
72C
69A
Jan Feb Mar Dec
DO 5.0 6.05 5.6
pH 7.6 7.8 8.0
Temp 24 18 22
Sal - - -

	bd = below detection				benchmark numbers: Marked data are in the highest 20% of values found by Hand et. al, 1988.														
	Janurary 2020						February 2020						March 2020						
	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
2B	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.1	0.5	0.5	0.05	42.15
3F	0.05	0.05	0.2	0.05	0.1	0.1	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.1	0.4	0.4	0.05	31.36
4-2A							0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.1	0.3	0.3	0.05	35.61
5D	0.05	0.05	0.1	0.05	0.1	0.1	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.1	0.4	0.4	0.05	33.42
5H							0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.1	0.3	0.3	0.05	38.26
6F	0.05	0.05	0.1	0.05	0.1	0.1	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.1	0.3	0.3	0.05	40.74
7E	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.1	0.4	0.4	0.10	24.29
9H	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.1	0.4	0.4	0.05	34.36
9I	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.1	0.9	0.9	0.05	34.54
11E	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.1	0.1	0.1	0.10	24.95
12H							0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.1	0.5	0.5	0.05	43.69
13B							0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.1	0.5	0.5	0.05	47.94
16E	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.1	0.1	0.1	0.05	0.05	0.05	0.1	0.6	0.6	0.05	31.94
16H													0.05	0.05	0.1	0.7	0.7	0.05	51.65
16I	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.1	0.3	0.3	0.05	27.21
18J	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.1	0.6	0.6	0.05	36.45
18K							0.05	0.05	0.1	0.2	0.2	0.05	0.05	0.05	0.1	0.5	0.5	0.05	48.30
18L	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.1	0.6	0.6	0.10	35.51
18M	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.1	0.2	0.2	0.05							31.60
18N							0.05	0.05	0.05	0.3	0.3	0.05	0.05	0.05	0.1	1.9	1.9	0.10	49.40
19D	0.05	0.05	0.05	0.05	0.1	0.2	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.1	0.5	0.5	0.10	35.53
19K	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.1	0.4	0.4	0.10	36.08
19N							0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.1	0.6	0.6	0.10	42.48
21D	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.1	0.1	0.1	0.10	29.51
21I	0.05	0.05	0.1	0.05	0.1	0.3	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.1	0.7	0.7	0.15	39.07
24D							0.05	0.05	0.05	0.4	0.4	0.05	0.05	0.05	0.1	0.8	0.8	0.05	45.41
30D	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.1	0.5	0.5	0.05	42.15

41B							0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.1	0.3	0.3	0.05	45.40
44A	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.2	0.2	0.05	0.05	0.05	0.1	0.3	0.3	0.05	31.78
45D							0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.1	0.3	0.3	0.05	32.16
48A	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.1	0.6	0.6	0.05	32.77
58I	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.1	0.5	0.5	0.05	29.94
59C							0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.1	0.8	0.8	0.05	36.67
64H	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.1	0.9	0.9	0.05	44.09
69A	0.05	0.05	0.2	0.1	0.1	0.2	0.05	0.05	0.05	0.7	0.7	0.05	0.05	0.05	0.1	0.3	0.3	0.10	38.71
71B	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.4	0.4	0.05	0.05	0.05	0.1	0.3	0.3	0.05	36.36
72C	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.3	0.3	0.05	0.05	0.05	0.1	0.4	0.4	0.05	36.12
74C	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.3	0.3	0.05	0.05	0.05	0.1	0.6	0.6	0.10	31.22
89A	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.2	0.2	0.05	0.05	0.05	0.1	0.9	0.9	0.10	38.90
90A							0.05	0.05	0.1	0.1	0.1	0.05	0.05	0.05	0.1	0.5	0.5	0.05	38.90
96A	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.4	0.4	0.05	0.05	0.05	0.1	0.5	0.5	0.05	41.75
UP13A	0.05	0.05	0.05	0.05	0.1	0.1													39.07
Median		**bd**	**0.05**	**0.05**	**0.05**	**0.10**		**bd**	**0.05**	**0.08**	**0.08**	**0.05**		**bd**	**0.05**	**0.50**	**0.50**	**0.05**	**36.41**
Max		**0.05**	**0.20**	**0.10**	**0.10**	**0.30**		**0.05**	**0.10**	**0.70**	**0.70**	**0.05**		**0.05**	**0.10**	**1.90**	**1.90**	**0.15**	**51.65**

NO2 = Nitrite (inorganic)	TKN = Total Kjeldahl Nitrogen (organic + NH4)
NO3 = Nitrate (inorganic)	TN = Total Nitrogen (inorganic + organic)
NH3 = Ammonia (inorganic)	TP04 = 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.

All nutrient concentrations shown in mg/L

TSI = Trophic State Index, a quick indicator of canal health. TSI = Trophic State Index, a quick indicator of canal health.
41 sites this quarter scored as GOOD (<60). zero sites scored FAIR (60-70), and zero scored POOR (>70).
First quarter 2020 water quality continued with the improving trend since fourth quarter 2019. Many canals continued to show excelent water clarity and increased salinities for the tidal areas during the dry season. All sites received "good" TSI values. This reflects that many sites recorded ideal Secchi disk values (such as greater than depth) for much of first quarter 2020.

Native Plant Sale and Rain Barrel Workshop July 25th, 2020

Bored in the house? Ready to plant some interesting plants or introduce some Florida natives to your home landscape? Have a need for collecting rainfall for irrigation?

The Summer Plant Sale will be held at Rotary Park Environmental Center located at 5505 Rose Garden Rd. From 9:00 am to 1:00 pm. This outdoor plant sale will have something for everyone including hundreds of native trees, shrubs, flowers, grasses, butterfly attracting plants and some tropical and edible plants.

Plant enthusiasts and experts will be available to answer questions and guide you to a plant that's right for your home landscape. It's best to come early for the best selection.

Virtual Rain Barrel Class

An age-old technology, rain barrels are an outstanding way to reduce stormwater runoff while collecting rainwater for irrigation.

The Rain Barrel Workshop is led by the Lee County Master Gardeners. During the hour-long session, you will learn how to make and install a rain barrel for home use. This online workshop is from 10:00 a.m. to 11:00 a.m. Advance registration and payment are required. Registration is limited due to the number of barrels that are available.

The cost to participate is $45 per barrel. This fee includes taking the class and a receiving a pre-assembled rain barrel.

A ZOOM MEETING CODE WILL BE SENT TO YOU. PICK UP ARRANGEMENTS WILL BE DISCUSSED DURING REGISTRATION.

For more information please call Rotary Park at 239-549-4606.

City of Cape Coral
Environmental Resources Division
C/O Canalwatch Volunteer Program
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