Canal Current

A wave of information for Cape Coral's Canalwatch volunteers

Newsletter: 1st Quarter 2014

Environmental News

Thanks for another Great Year

We would like to take this opportunity to again thank all the volunteers for their dedication, hard work and support for the Canalwatch program during the 2013 year. It was a pleasure seeing most of you at the 14th Annual Canalwatch Volunteer Appreciation BBQ.

Katie and I are looking forward to another successful year with all of you. A special thank you to the new volunteers that became part of our team this past year and a very special thanks to those of you that continue to be a part of the effort throughout the years, and we would also like to recognize a few exceptional members.

These dedicated folks have been members since the earliest days of Canalwatch. In 1995 Jean Shields joined the program. Beryl and Prudence McGuire have been members since 1996 and Iris and Al Rizzi have been a part of the program since 2000. We would like to extend a very special thank you for your commitment and enthusiasm to the Canalwatch Program while donating your time for the effort.

Inside This Issue:

Questions? Comments? Let us know!

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Native Plant profile

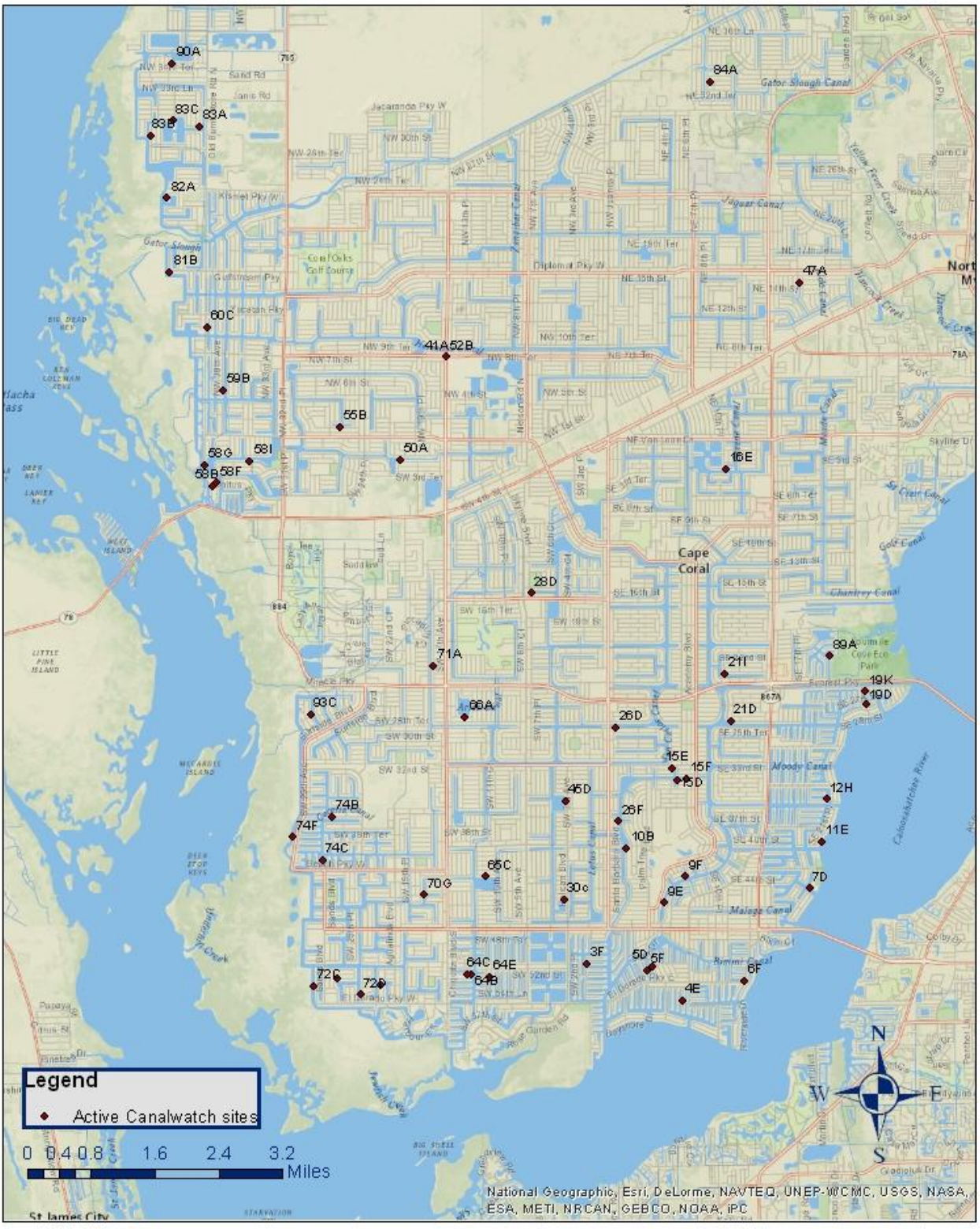
Sea Oats
Uniola paniculata

A familiar site on Florida's natural beaches is clumps of sea oats. Sea oats are a member of the grass family and are often found stabilizing dunes well out of the reach of high tide. Sea oats do exceptionally well in these sandy, well drained soils and are able to tolerate salt and windy conditions. Sea oats are often used to establish dunes in restoration projects because of these attributes.

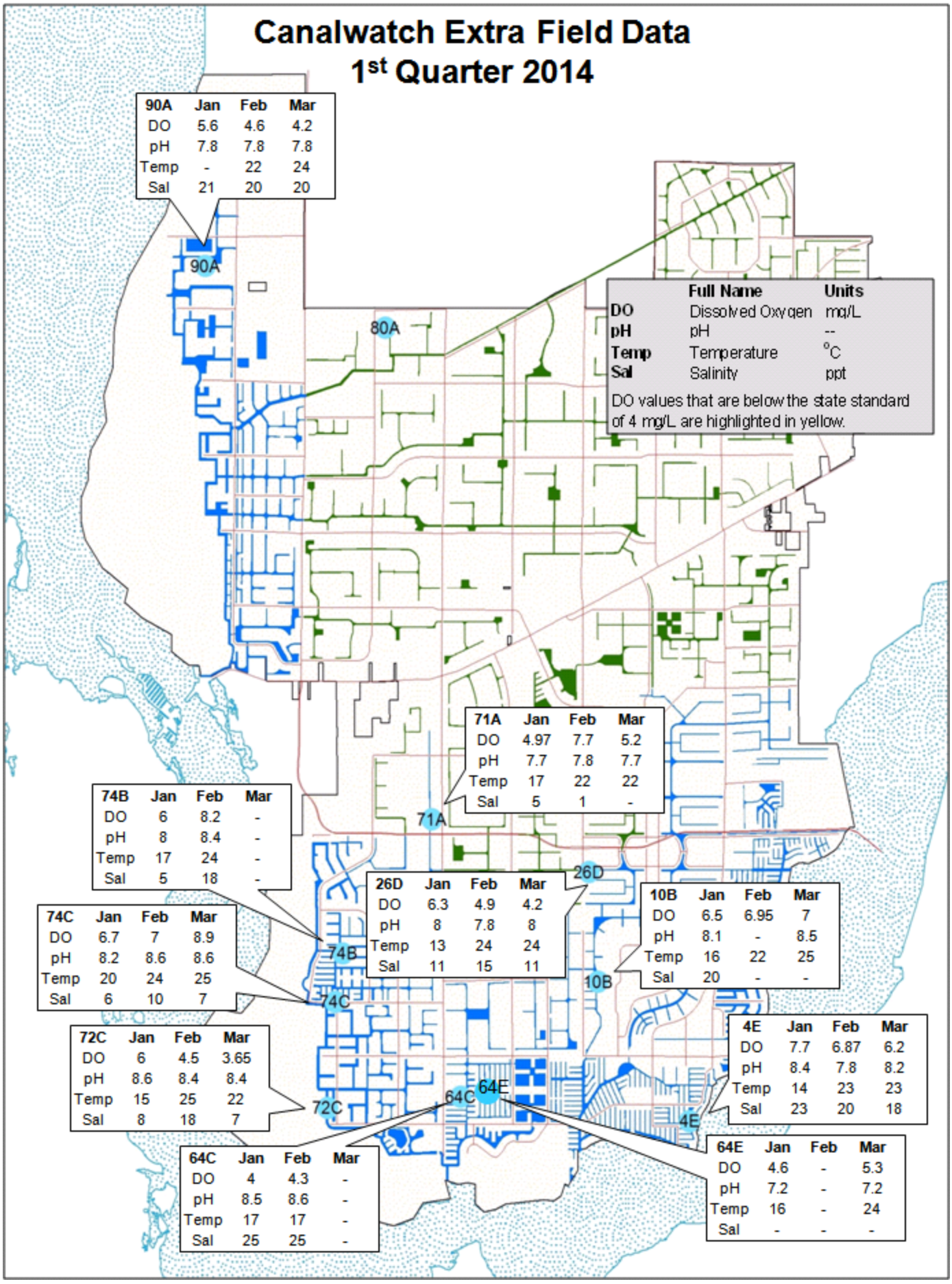
Because the back dunes are often areas of development on Florida's beaches and are become exceedingly rare, sea oats are protected under Florida and other South East coastal state laws. The plant's protected status is also attributed to its seeds stalks, finding use in home decorating as much as it is a part of habitat loss. Native nurseries often carry sea oats and sea oats often find a use as an ornamental grass in landscapes.

Sea Oats used in beach restoration Photo by R. Alan Shadow
USDA NRCS East Texas Plant Material Center

Canalwatch Stations 2014



Canalwatch Extra Field Data
1st Quarter 2014



90A	Jan	Feb	Mar
DO	5.6	4.6	4.2
pH	7.8	7.8	7.8
Temp	-	22	24
Sal	21	20	20

	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	Jan	Feb	Mar
DO	4.97	7.7	5.2
pH	7.7	7.8	7.7
Temp	17	22	22
Sal	5	1	-

74B	Jan	Feb	Mar
DO	6	8.2	-
pH	8	8.4	-
Temp	17	24	-
Sal	5	18	-

26D	Jan	Feb	Mar
DO	6.3	4.9	4.2
pH	8	7.8	8
Temp	13	24	24
Sal	11	15	11

10B	Jan	Feb	Mar
DO	6.5	6.95	7
pH	8.1	-	8.5
Temp	16	22	25
Sal	20	-	-

74C	Jan	Feb	Mar
DO	6.7	7	8.9
pH	8.2	8.6	8.6
Temp	20	24	25
Sal	6	10	7

4E	Jan	Feb	Mar
DO	7.7	6.87	6.2
pH	8.4	7.8	8.2
Temp	14	23	23
Sal	23	20	18

72C	Jan	Feb	Mar
DO	6	4.5	3.65
pH	8.6	8.4	8.4
Temp	15	25	22
Sal	8	18	7

64C	Jan	Feb	Mar
DO	4	4.3	-
pH	8.5	8.6	-
Temp	17	17	-
Sal	25	25	-

64E	Jan	Feb	Mar
DO	4.6	-	5.3
pH	7.2	-	7.2
Temp	16	-	24
Sal	-	-	-

bd = below detection

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

	Janurary 2014						February 2014						March 2014						
	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
3E	0.03	0.03	0.05	1.0	1.0	0.04	0.03	0.03	0.05	0.9	0.9	0.03	0.03	0.03	0.05	0.9	0.9	0.03	48.98
4F	0.03	0.03	0.05	1.0	1.0	0.06	0.03	0.03	0.05	1.1	1.1	0.04	0.03	0.03	0.05	1.1	1.1	0.05	55.46
6F	0.03	0.03	0.05	1.1	1.1	0.05	0.03	0.03	0.05	1.1	1.1	0.04	0.03	0.03	0.05	1.0	1.0	0.05	55.12
7D	0.03	0.09	0.05	1.0	1.09	0.07	0.03	0.03	0.05	1.1	1.1	0.05	0.03	0.03	0.05	1.0	1.0	0.07	57.32
9E	0.03	0.03	0.05	0.8	0.8	0.04	0.03	0.03	0.05	1.1	1.1	0.04	0.03	0.03	0.05	1.2	1.2	0.03	59.61
10B	0.03	0.05	0.05	0.8	0.85	0.04	0.03	0.03	0.05	1.1	1.1	0.03	0.03	0.03	0.05	1.0	1.0	0.06	51.08
11E	0.03	0.06	0.05	1.0	1.06	0.09	0.03	0.03	0.05	1.4	1.4	0.07	0.03	0.03	0.05	1.0	1.0	0.03	54.95
15D	0.03	0.05	0.05	0.6	0.65	0.04	0.03	0.03	0.05	1.1	1.1	0.05	0.03	0.03	0.05	1.0	1.0	0.03	52.08
15E	0.03	0.06	0.05	1.0	1.06	0.06	0.03	0.03	0.05	0.7	0.7	0.03	0.03	0.03	0.05	1.1	1.1	0.03	52.50
16E	0.03	0.03	0.05	0.7	0.7	0.03	0.03	0.03	0.05	0.5	0.5	0.03	0.03	0.03	0.05	0.7	0.7	0.03	45.22
19D	0.03	0.07	0.05	1.0	1.07	0.07	0.03	0.03	0.05	1.1	1.1	0.05	0.03	0.03	0.05	1.2	1.2	0.03	52.19
19K	0.03	0.06	0.05	0.9	0.96	0.07	0.03	0.03	0.05	1.1	1.1	0.04	0.03	0.03	0.05	1.3	1.3	0.03	52.84
21D	0.03	0.03	0.05	0.8	0.8	0.06	0.03	0.03	0.05	1.4	1.4	0.06	0.03	0.03	0.05	1.1	1.1	0.03	52.12
26D	0.03	0.10	0.05	0.9	1.00	0.04	0.03	0.03	0.05	0.6	0.6	0.04	0.03	0.03	0.05	1.8	1.8	0.05	52.38
26F	0.03	0.03	0.05	0.7	0.7	0.04	0.03	0.03	0.05	0.9	0.9	0.02							43.45
28D							0.03	0.03	0.05	0.4	0.4	0.03	0.03	0.03	0.05	0.6	0.6	0.03	47.27
30C							0.03	0.03	0.05	0.7	0.7	0.02	0.03	0.03	0.05	0.8	0.8	0.08	47.33
41A	0.03	0.10	0.05	0.5	0.60	0.01							0.03	0.03	0.05	0.5	0.5	0.04	35.33
45D							0.03	0.03	0.05	0.3	0.3	0.03	0.03	0.03	0.05	0.5	0.5	0.03	52.94
48A	0.03	0.03	0.05	0.5	0.5	0.02							0.03	0.03	0.05	0.8	0.8	0.01	44.86
52B	0.03	0.09	0.05	0.8	0.89	0.01							0.03	0.03	0.05	1.2	1.2	0.01	24.43
58F							0.03	0.03	0.05	1.3	1.3	0.06	0.03	0.03	0.05	1.0	1.0	0.01	42.06
58G							0.03	0.03	0.05	1.1	1.1	0.03	0.03	0.03	0.05	1.1	1.1	0.02	41.09
58I	0.03	0.03	0.05	1.4	1.4	0.07	0.03	0.03	0.05	1.2	1.2	0.03	0.03	0.03	0.05	1.1	1.1	0.03	49.06
59B	0.03	0.03	0.05	1.3	1.3	0.06	0.03	0.03	0.05	1.0	1.0	0.02	0.03	0.03	0.05	0.8	0.8	0.01	41.65
60C							0.03	0.03	0.05	0.9	0.9	0.02							40.03
64B	0.03	0.05	0.05	0.7	0.75	0.05							0.03	0.03	0.05	0.8	0.8	0.04	51.61

64C	0.03	0.06	0.05	0.9	0.96	0.05	0.03	0.03	0.05	1.1	1.1	0.03							49.82
64E	0.03	0.03	0.05	1.0	1.0	0.05							0.03	0.03	0.05	1.1	1.1	0.04	56.57
65C	0.03	0.05	0.05	0.8	0.85	0.05	0.03	0.03	0.05	1.0	1.0	0.03	0.03	0.03	0.05	0.6	0.6	0.01	40.95
66A	0.03	0.03	0.05	1.1	1.1	0.07	0.03	0.03	0.05	0.5	0.5	0.04	0.03	0.03	0.05	0.6	0.6	0.01	35.33
69A							0.03	0.03	0.05	0.9	0.9	0.05	0.03	0.03	0.05	1.3	1.3	0.01	45.94
71A	0.03	0.08	0.05	0.7	0.78	0.03	0.03	0.03	0.05	0.4	0.4	0.05							49.77
72A	0.03	0.03	0.05	0.9	0.9	0.06	0.03	0.03	0.05	0.9	0.9	0.05	0.03	0.03	0.05	0.7	0.7	0.03	51.99
72C	0.03	0.03	0.05	0.8	0.8	0.05							0.03	0.03	0.05	0.9	0.9	0.04	57.41
72D													0.03	0.03	0.05	0.7	0.7	0.01	39.24
74B	0.03	0.03	0.05	1.1	1.1	0.06	0.03	0.03	0.05	0.9	0.9	0.05	0.03	0.03	0.05	1.0	1.0	0.05	59.12
74C	0.03	0.03	0.05	0.8	0.8	0.06	0.03	0.03	0.05	0.7	0.7	0.05	0.03	0.03	0.05	1.0	1.0	0.05	56.87
81B							0.03	0.03	0.05	1.0	1.0	0.03	0.03	0.03	0.05	1.0	1.0	0.03	44.86
82A	0.03	0.03	0.05	1.2	1.2	0.03	0.03	0.03	0.05	1.2	1.2	0.03	0.03	0.03	0.05	1.1	1.1	0.03	52.20
83A	0.03	0.03	0.05	1.0	1.0	0.03	0.03	0.03	0.05	1.0	1.0	0.01	0.03	0.03	0.05	1.0	1.0	0.02	42.21
89A	0.03	0.03	0.05	1.1	1.1	0.08	0.03	0.03	0.05	1.0	1.0	0.06	0.03	0.03	0.05	1.0	1.0	0.01	55.99
90A	0.03	0.03	0.05	2.0	2.0	0.04	0.03	0.03	0.05	1.4	1.4	0.02	0.03	0.03	0.05	1.8	1.8	0.02	44.20
Median		**0.03**	**0.05**	**0.90**	**0.98**	**0.05**		**bd**	**0.05**	**1.00**	**1.00**	**0.04**		**bd**	**0.05**	**1.00**	**1.00**	**0.03**	**49.82**
Max		**0.10**	**0.05**	**2.00**	**2.00**	**0.09**		**0.03**	**0.05**	**1.40**	**1.40**	**0.07**		**0.03**	**0.05**	**1.80**	**1.80**	**0.08**	**59.61**

NO2 = Nitrite (inorganic)	TKN = Total Kjeldahl Nitrogen (organic + NH4)
NO3 = Nitrate (inorganic)	TN = Total Nitrogen (inorganic + organic)
NH3 = Ammonia (inorganic)	TP04 = 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. 42 sites this quarter scored as GOOD (<60). The canals seem to be enduring despite the wet, mild winter this area has experienced. Summer is approaching fast and with it; frequent rain fall. The trend may increase trophic level with the influence of stormwater.

May

7th Canalwatch

2nd Guided tour of
Yellow Fever Creek
9:00 am – 11:00 am
Info: 549-4606

9th Guided Paddle of
Matlacha Pass
9:00 am-11:00 am
Info: 549-4606

16th Guided Paddle of
Four Mile Cove/ Eco Park
9:00 am-11:00 am
Info: 549-4606

16th Intro to Florida Friendly
Gardening 1:00 pm – 4:00 pm
Info: 549-4606

June

4th Canalwatch

7th Kids All American Fishing
Derby at the Yacht Club Pier
8:00 am – 11:00 am
Info: 574-0806

July

2nd Canalwatch

25th Intro to Florida Friendly
Gardening 6:00 pm – 9:00 pm
Info: 549-4606

26th Native Plant Sale
9:00 am – 2:00 pm
Rotary Park

26th Rain Barrel Workshop
9:00 am – 12:00 pm
Rotary Park
Info: 549-4606

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Environmental Resources
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