



# Canal Current

A wave of information for Cape Coral's Canalwatch volunteers

Newsletter: 2<sup>nd</sup> Quarter 2022

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## Environmental News

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### **Florida Yards and Neighborhoods and Florida Friendly Landscape Programs**

Cape Coral's canals are undoubtedly the defining feature of the city. They provide waterfront access, recreational opportunities, (such as fishing and boating), flood control and stormwater mitigation. Because the health of Cape Coral's canals is vital to its residents, it's important to know that water quality is affected in part by what occurs on land. Accordingly, it's important for residents to practice good landscape maintenance.

2022 marked the 20-year anniversary of the City of Cape Coral partnering with the University of Florida/ Institute for Food and Agricultural Sciences (IFAS) and the Lee County Extension Office in educating homeowners and businesses on the Florida Yards and Neighborhoods (FYN) and the Florida Friendly Landscapes (FFL) programs. These programs not only provide instruction in maintaining a healthy, environmentally friendly yard, emphasizing how careless landscape practices can impair water quality, but also provides recognition to residents who follow these principles.

This program is a partnership of concerned citizens, members of landscape industry, University of Florida's Cooperative Extension Service, Florida's National Estuary Programs, Florida Sea Grant, and countless local and state environmental

agencies.

The overarching goal of the program focuses on residential landscapes since they are often adjacent or near waterbodies. Reducing the impacts of excess nutrients such as Nitrogen and Phosphorus, will help protect estuaries, rivers, lakes, and aquifers from the adverse effects of eutrophication.

The water quality connection between the waterways and residential landscapes is stormwater. As rain flows through yards and streets in route to the stormwater conveyance systems, the runoff collects fertilizers, pesticides, petroleum, pet waste, and debris. Unlike wastewater (water from households and businesses), stormwater receives little to no treatment, so these pollutants flow into any receiving waterbody.

In Cape Coral, residents do not have to live on a canal to impact the health of the ecosystem. All residential yards, driveways and roads are pathways to surrounding waterbodies via the stormwater conveyance systems. However, residents and business owners can make decisions that help preserve the health and aesthetics of Cape Coral's waterways and those that surround the city.

The FYN program provides principles on planning and maintaining your landscaping, with sound environmental science. Within each principle are actions the homeowner can take to make home

landscapes friendlier to the environment. FYN and FFL are goal-oriented programs. When a homeowner believes they have applied the nine principles to their yards and their maintenance routine, the yard can be “recognized”. Yard recognition includes a FYN sign to let neighbors know that your yard is not contributing to environmental harm.

For more information regarding Florida Yards and Neighborhood and Florida Friendly Landscape classes, please visit; [leegov.com/parks/extension](http://leegov.com/parks/extension) or call Rotary Park Environmental Center at (239) 549-4606. For available classes, the Cape Coral Parks and Recreation Program Guide can be found at [capeparks.com](http://capeparks.com).

### **The nine principles of the program are:**

#### **Right Plant Right Place**

Plants selected to suit a specific site will require minimal amounts of water, fertilizer, and pesticides.

#### **Water Efficiently**

Irrigate only when your lawn and landscape need water. Efficient watering is the key to a healthy Florida yard and conservation of limited resources.

#### **Fertilize Appropriately**

Less is often best. Over-utilization of fertilizers can be hazardous to your yard and the environment.

#### **Mulch**

Maintaining a three-inch layer of mulch will help retain soil moisture, prevent soil erosion, and suppress weeds.

#### **Attract Wildlife**

Plants in your yard that provide food, water and shelter can conserve Florida’s diverse wildlife.

#### **Control Yard Pests Responsibly**

Unwise use of pesticides can harm people, pets, beneficial organisms, and the environment.

#### **Recycle**

Grass clippings, leaves, and yard trimmings recycled on site provide nutrients to the soil and reduce horticultural material being sent to the landfill.

#### **Reduce Stormwater Runoff**

Water running off from your yard can carry pollutants such as debris, fertilizer and pesticides that can adversely impact water quality. Reducing runoff with rain barrels, rain gardens and pervious surfaces will help prevent pollution.

#### **Protect the Waterfront**

Waterfront property, whether on a canal, river, lake, pond or on the Gulf of Mexico, is very fragile and should be carefully protected to maintain freshwater and marine ecosystems. Those that reside directly on the waterfront have an extra responsibility to protect the common resource.



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#### **Questions? Comments? Let us know!**

(239) 574-0742

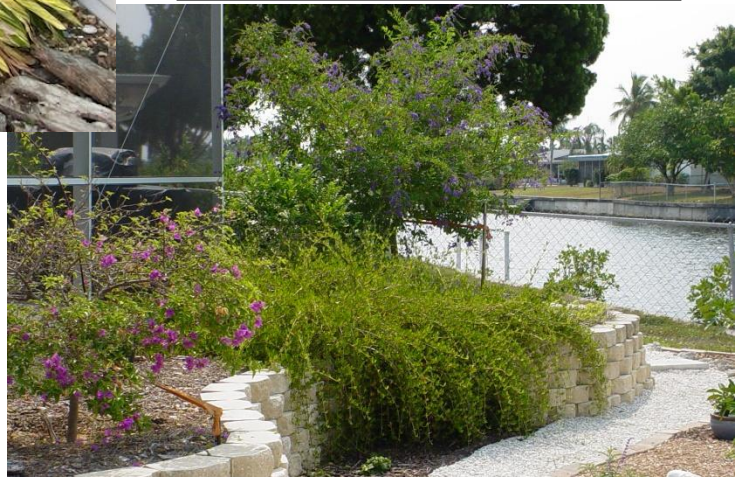
Harry: [hphillips@capecoral.gov](mailto:hphillips@capecoral.gov)



Above: A Cape Coral Home with a recognized Florida Friendly Landscaping



Clockwise from left: Creating different heights and textures by using a variety of plants; eliminating turf grass and adding pervious material to protect the waterfront; using the “vertical landscape” by placing orchids or bromeliads within existing trees. Adding color or appeal to tree trunks.



	bd = below detection						benchmark numbers: Marked data are in the highest 20% of values found by Hand et. al, 1988.												
	April 2022						May 2022						June 2022						
	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	0.8	0.90	0.05							0.05	0.05	0.1	0.4	0.4	0.10	34.07
4-2A	0.05	0.05	0.05	0.6	0.70	0.06													52.87
5D	0.05	0.05	0.05	0.5	0.60	0.05	0.05	0.10	0.2	0.6	0.7	0.05	0.05	0.05	0.1	0.5	0.5	0.10	51.29
5H							0.05	0.10	0.1	0.4	0.5	0.05							48.94
5I	0.05	0.05	0.05	0.6	0.70	0.05							0.05	0.05	0.1	0.4	0.4	0.10	56.08
6F	0.05	0.05	0.05	0.9	0.90	0.05	0.05	0.05	0.2	0.8	0.8	0.10	0.05	0.05	0.1	0.5	0.5	0.10	50.1
7E	0.05	0.05	0.05	0.7	0.81	0.05	0.05	0.10	0.1	0.7	0.8	0.05	0.05	0.05	0.05	0.5	0.5	0.10	45.69
9H	0.05	0.05	0.05	0.8	0.93	0.05	0.05	0.05	0.1	0.7	0.7	0.05	0.05	0.05	0.2	0.5	0.5	0.10	49.59
12H							0.05	0.05	0.1	0.7	0.7	0.10	0.05	0.05	0.05	0.4	0.4	0.10	46.17
13B	0.05	0.05	0.05	0.7	0.83	0.05	0.05	0.10	0.05	0.7	0.8	0.05	0.05	0.05	0.2	0.5	0.5	0.14	53.32
15G							0.05	0.10	0.1	0.6	0.7	0.05	0.05	0.11	0.3	0.6	0.7	0.10	54.92
16E	0.05	0.05	0.05	0.5	0.50	0.05	0.05	0.05	0.1	0.7	0.7	0.05	0.05	0.05	0.3	0.5	0.5	0.05	60.59
16I	0.05	0.05	0.05	0.7	0.70	0.05							0.05	0.05	0.2	0.9	0.9	0.05	61.25
18K							0.05	0.05	0.1	0.8	0.8	0.05							61.87
18L	0.05	0.22	0.05	0.9	1.12	0.05	0.05	0.10	0.1	0.8	0.9	0.10							57.88
18M	0.05	0.05	0.05	0.8	0.80	0.05	0.05	0.05	0.1	0.6	0.6	0.05	0.05	0.05	0.1	0.7	0.7	0.05	57.69
19D	0.05	0.06	0.05	0.8	0.95	0.05	0.05	0.05	0.05	0.8	0.8	0.10	0.05	0.05	0.4	0.7	0.7	0.10	62.95
21D	0.05	0.05	0.05	0.8	0.92	0.05	0.05	0.05	0.05	0.8	0.8	0.05	0.05	0.05	0.05	0.5	0.5	0.10	51.82
21I	0.05	0.06	0.05	1.0	1.16	0.05	0.05	0.12	0.05	0.6	0.72	0.05	0.05	0.12	0.2	0.9	1.0	0.12	56.85
24D	0.05	0.05	0.05	0.7	0.80	0.05							0.05	0.05	0.2	0.6	0.6	0.05	56.43
30D	0.05	0.05	0.025	0.6	0.60	0.05	0.05	0.10	0.05	0.4	0.5	0.05	0.05	0.05	0.2	0.4	0.4	0.05	43.09
41B	0.05	0.05	0.025	1.0	1.00	0.05	0.05	0.05	0.1	0.9	0.9	0.05	0.05	0.05	0.1	0.9	0.9	0.05	56.35

44A	0.05	0.05	0.05	0.6	0.60	0.05	0.05	0.10	0.1	0.5	0.6	0.05	0.05	0.05	0.2	0.5	0.5	0.05	52.31	
45D	0.05	0.05	0.025	0.7	0.70	0.05	0.05	0.05	0.05	0.6	0.6	0.05	0.05	0.05	0.1	0.5	0.5	0.05	54.55	
48A							0.05	0.05	0.1	0.5	0.5	0.05	0.05	0.05	0.1	0.7	0.7	0.05	51.79	
58I	0.05	0.05	0.025	0.6	0.60	0.05	0.05	0.05	0.1	0.4	0.4	0.05	0.05	0.05	0.1	0.5	0.5	0.05	44.52	
64H	0.05	0.05	0.025	0.4	0.4	0.05	0.05	0.05	0.1	0.4	0.4	0.05	0.05	0.05	0.2	0.3	0.3	0.10	44.82	
70H														0.05	0.05	0.1	1.5	1.5	0.12	55.69
72C	0.05	0.05	0.025	0.7	0.7	0.05	0.05	0.05	0.05	0.4	0.4	0.10	0.05	0.05	0.2	0.6	0.6	0.10	53.21	
74C	0.05	0.05	0.025	0.6	0.6	0.05	0.05	0.05	0.1	0.5	0.5	0.10	0.05	0.05	0.1	0.6	0.6	0.10	45.62	
82A	0.05	0.05	0.025	0.5	0.5	0.05	0.05	0.05	0.3	0.6	0.6	0.05	0.05	0.05	0.1	0.5	0.5	0.05	61.08	
96A	0.05	0.05	0.025	0.6	0.6	0.05	0.05	0.05	0.05	0.7	0.7	0.05	0.05	0.05	0.1	0.5	0.5	0.05	53.22	
<b>Median</b>	<b>0.05</b>	<b>0.05</b>	<b>0.05</b>	<b>0.70</b>	<b>0.70</b>	<b>0.05</b>	<b>0.05</b>	<b>0.10</b>	<b>0.60</b>	<b>0.70</b>	<b>0.05</b>	<b>0.05</b>	<b>0.05</b>	<b>0.10</b>	<b>0.50</b>	<b>0.50</b>	<b>0.10</b>	<b>0.10</b>	<b>53.22</b>	
<b>Max</b>	<b>0.22</b>	<b>0.05</b>	<b>1.00</b>	<b>1.16</b>	<b>0.06</b>	<b>0.12</b>	<b>0.30</b>	<b>0.90</b>	<b>0.90</b>	<b>0.10</b>	<b>0.12</b>	<b>0.40</b>	<b>1.50</b>	<b>1.50</b>	<b>0.14</b>	<b>0.14</b>	<b>0.14</b>	<b>0.14</b>	<b>62.95</b>	

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)	TP04 = Total Phosphate	

All nutrient concentrations shown in mg/L

TSI = Trophic State Index, a quick indicator of canal health. 27 sites this quarter scored as GOOD (<60). Five sites scored FAIR (60-70), and zero scored POOR (>70). Very little rainfall reported for 1st quarter 2022 and this has been demonstrated by many of the freshwater canals becoming depleted due to irrigation water use. However, with so few rain events, water clarity has been exceptional. With the beginning of the wetter months in late May into June, water clarity decreased.

For up-to-date City of Cape Environmental Resources Division water quality data visit [https://www.capecoral.net/departments/public\\_works/quarterly\\_water\\_quality\\_reports.php](https://www.capecoral.net/departments/public_works/quarterly_water_quality_reports.php)

## Upcoming Events and Classes

### Florida Friendly Landscaping Class

March 25<sup>th</sup> 10am-12pm

Info at:

<https://www.eventbrite.com/e/basics-of-florida-friendly-gardening-2023-registration-479492875097?aff=ebdssbdestsearch>

### Burrowing Owl Festival

February 25<sup>th</sup> 9-4pm

Info at:

[ccfriendsofwildlife.org](http://ccfriendsofwildlife.org)

### Butterfly Garden Design

March 3<sup>rd</sup> 1-3pm

More info at: Rotary Park Environmental Center 239-549-4606

### Florida Friendly Landscape Yard Tours

March 4<sup>th</sup> 9-12pm

More info at: Rotary Park Environmental Center 239-549-4606



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