



Waterfront Living *Guide*



A Brief History of Cape Coral's Canal Waterways



The city of Cape Coral was first founded in 1957 by two brothers, Jack and Leonard Rosen. They formed the Gulf American Land Corporation and began planning for their 115-square-mile property. In 1958 they began construction for a master-planned community, including the canals that would become the signature feature of the city. Gulf American invested \$12 million in earth-moving equipment, and their construction company would employ 760 men working in shifts up to 20 hours per day to prepare the land for building. Canals were dug out with dredges, and the earth was used to build up the land to the required elevation of 5'6" above sea level. By 1963 more than 160 miles had been completed. As Cape Coral grew, particularly after the completion of the Cape Coral Bridge in 1964, which made traveling between Cape Coral and Fort Myers suddenly fast and easy, the canal system also grew. Today, the city boasts over 400 miles of waterways that have established Cape Coral as one of the most unique waterfront communities in the United States.

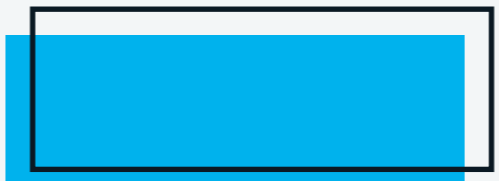
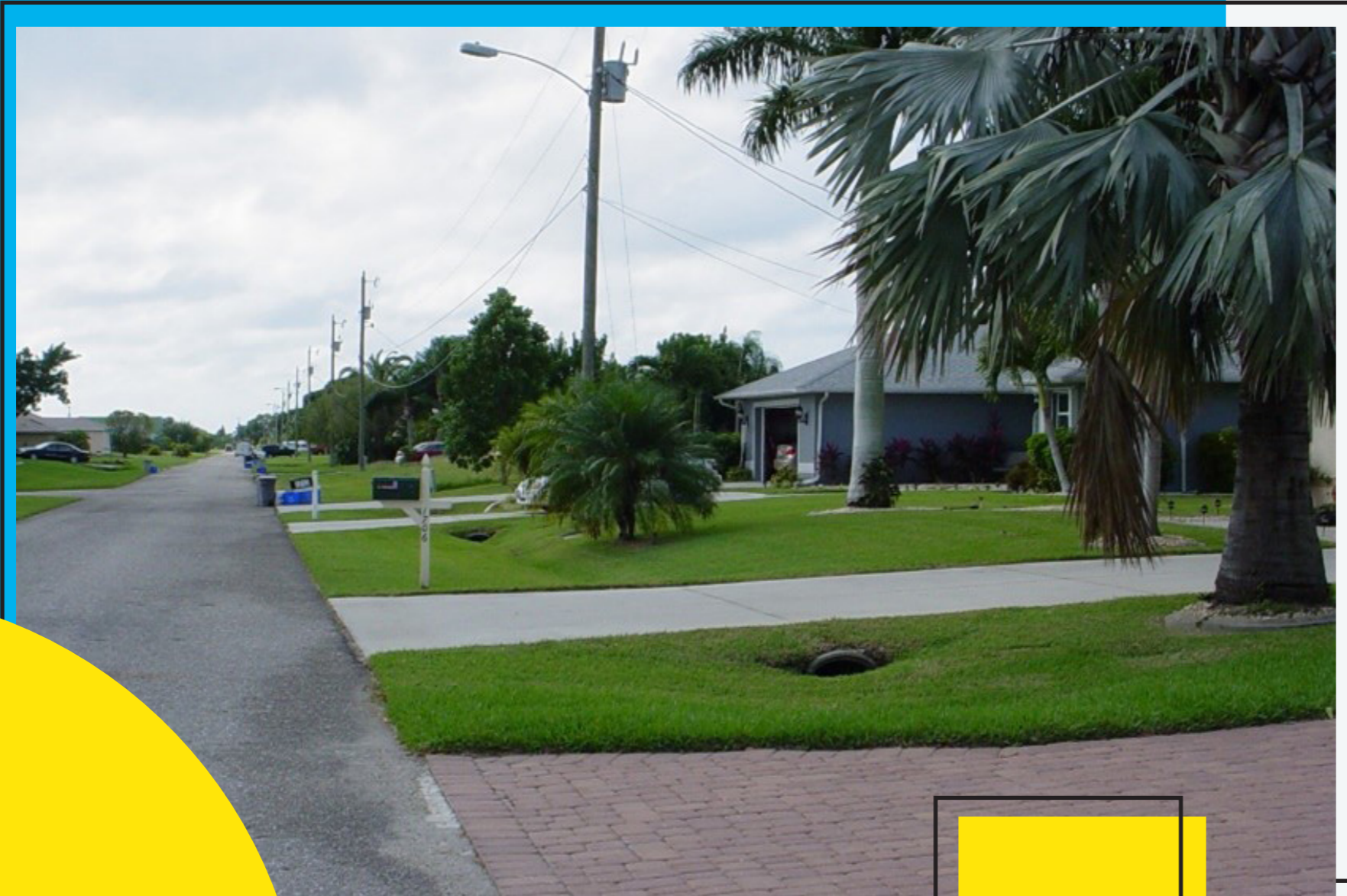


Image courtesy of Cape Coral Historical Museum



What is Stormwater Runoff?

When rain falls on impervious surfaces, it flows to nearby stormwater conveyance systems. This is known as stormwater runoff. Stormwater runoff can pick up and carry pollution such as trash, oil, grease, sediments, and pet waste into waterbodies. Soluble chemicals such as fertilizers and pesticides can also become stormwater pollutants. Cape Coral's canal waterways also serve as flood control for its residents. The 300 linear miles of freshwater canals collect stormwater runoff from the urban and suburban landscapes and retain it for gradual transfer to the tidal canals. In those areas of the city that contain the network of saltwater canals, stormwater runoff goes directly to the tide.

Building on the Waterfront

Seawall Alternative and the “Back Ten Feet”

Seawalls are not required for properties on freshwater canals. The littoral (shoreline) zone provided by an alternative enhances habitat for fish and wading birds and helps to filter out nutrients and toxins from stormwater runoff. The ten feet above the waterline is a critical area that provides a buffer for our waterways. This area is also restricted from fertilizer use during the dates specified by the City’s Fertilizer Ordinance. A strip of low-maintenance plantings will help eliminate the need for fertilizer and prevent grass clippings from entering the water. There are many kinds of aesthetically pleasing plants that can be used along shorelines. The City has put together a littoral plant guide for use by residents (https://files1.revize.com/revize/capecoralfl/departement/public_works/docs/Littoral_Plant_Guide.pdf). Seawall alternatives and plant selections can also be found at Lake Kennedy Park.

Mangroves

Mangroves are coastal trees that are important for fisheries and the stabilization of saltwater shorelines. Their prop roots provide shelter



for small animals and the development of game fish. Floating seeds, or propagules, can start growing in rip-rap along a seawall. These can be maintained up to 6 feet without a permit. Mangroves exceeding 10 feet tall will require a permit. A professional mangrove trimming

service is recommended. Removal of mangroves is not allowed without a permit. Contact the Florida Department of Environmental Protection (see contacts) for more information regarding mangrove trimming for residential properties.

Rip Rap and Artificial Habitats

Rip Rap is an assemblage of large rocks placed along the shoreline of a property. It offers shoreline stabilization, habitats for aquatic plants and animals as well as wave energy absorption. The rip rap stabilizes shorelines by keeping sediment in place during periods of rain and moderates flow from the current. Crevasses offer shelter for fish, crabs, worms, etc., and allow footing for marine or aquatic plants. Rip rap is ideal for habitat, but it also stabilizes the seawall by dissipating wave action.

What to Expect Living on the Waterfront

Wildlife

Waterfowl and Shorebirds

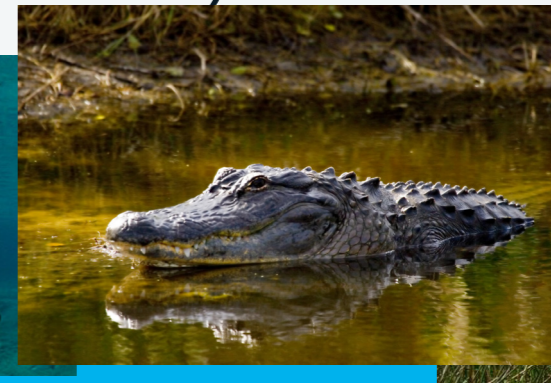
Our canals provide excellent areas to observe many birds such as herons, egrets, ospreys, eagles, and ducks. Anhinga and double-crested cormorants can often be seen diving for fish or perched, drying their wings along the water.

Fish

Cape Coral is a great place to fish for popular freshwater species such as bass and bluegill. Exotic species such as tilapia or cichlids can also be caught with no bag limit. Other species found are channel catfish, many species of sunfish, and mosquito fish. The saltwater canals contain mullet, snook, sheepshead, mangrove snapper, and juvenile tarpon. Please check myfwc.com for updated fishing limits and regulations. Sharks and rays, including endangered smalltooth sawfish, also frequent the canal system (see contacts and resources to report sawfish sightings). Sawfish can become entangled easily by bungee cords used to hold boat canopies in place; please take extra care when handling the bungees and stow them securely before any storms. Learning to release a caught sawfish safely is important for residents on saltwater canals; please visit: <http://www.sawfishrecovery.org/handling-and-releasing-guidelines/>

Oysters, Barnacles and Crustaceans

Oysters and barnacles are animals that permanently attach themselves to hardened structures such as docks and seawalls. Oysters are bivalve shellfish (meaning they have two shells), while barnacles are crustaceans. Both species are filter feeders, which means they filter small particulates out of the water column to consume. Blue crabs can also be found in canals and can be predators and scavengers.



Marine Mammals

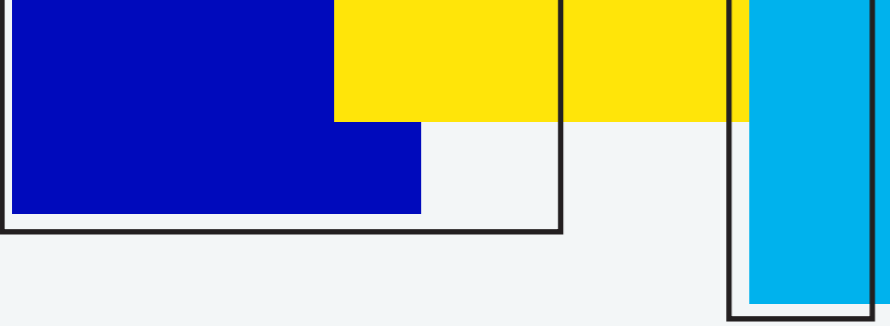
Manatees and dolphins can be present in saltwater canals all year long; however, they are spotted more often from October to March. During cooler months, they frequent canals to forage for food and keep warm. The leading cause of manatee deaths is collisions with boats. Indications to watch for include circular “boils” on the surface left by their tails, and dark, whiskery coconut shapes, which are their noses as they surface to breathe. Manatee warning signs are posted on many docks in Cape Coral, and there are several marked slow zones in the Caloosahatchee River. All areas within one-quarter mile of shore in the Caloosahatchee are slow zones.

Lizards

Cape Coral is also home to several species of non-native lizards, including veiled chameleons, green iguanas, spiny-tailed iguanas, and Nile monitors. Iguanas do not pose a safety threat to humans, are not aggressive, and often jump into the water when disturbed. The City of Cape Coral does not remove Green iguanas but can provide homeowners with tips to deter iguanas from coming onto their property. Cape Coral also has a large population of Nile monitors. These large non-native lizards are excellent swimmers and can be found along the southwest portion of Cape Coral canals. Nile monitors will also flee from humans, often jumping into the water when approached. While not a threat, Nile monitors may defend themselves if cornered by people or pets. Always keep pets on leashes to ensure their safety. The City of Cape Coral operates a trapping program for Nile monitors. If you see a Nile monitor, please call 239-574-0785 to report it to the trapping program.

Alligators

Alligators inhabit all of Florida, and the man-made canals of Cape Coral are no exception. Caution should always be exercised when walking along canal and pond banks, and all pets should be kept on a leash. Keep your distance if you see an alligator and never feed them. While it is best to learn to co-exist with alligators, nuisance alligators over 4 feet that pose a threat to people can be reported to FWC (see contacts and resources). Be aware relocation is not an option for alligators.



Algae

Algae is a general term that refers to a broad group of plant-like organisms. There are many types of algae found in Cape Coral. They occur in our canals, including fresh, brackish, and salt water. High levels of nutrients, particularly nitrogen and phosphorous, feed algae blooms. Many species of algae play important roles in the environment (e.g., providing food and shelter for wildlife), but some other species are considered harmful.

Blue-Green Algae Issues

Cyanobacteria, commonly known as Blue-green algae, is a type of algae found naturally in the environment. Blue-green algae can be found all over the world and occur in Florida's freshwater and brackish habitats, such as lakes, rivers, and estuaries. Some blue-green algae can produce toxins that can contribute to environmental problems and affect public health. Over time, these toxins are diluted and eventually break down and disappear. Non-toxic blooms can also harm the environment by depleting oxygen levels in the water column and reducing the amount of light that reaches submerged plants. Florida residents can report blue-green algal blooms to the Florida Department of Environmental Protection (see contacts and resources).



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Aquatic Vegetation

Our canals have both submerged and emergent aquatic plants. Submerged vegetation such as tape grass (*Vallisneria Americana*) grows underwater in the sediment. The emergent vegetation includes cattails, spatterdock, and others. Both types of vegetation are habitats and food for aquatic creatures. They are important for water quality as they filter nutrients from runoff. Excess growth can be treated by Lee County Hyacinth Control District (LCHCD) with herbicides and/or removed mechanically. Removal of aquatic vegetation may affect water clarity due to the nutrient load (the amount of fertilizers or other nutrients entering a waterbody). As a result, algae will become the dominant plant. Due to the benefits these plants provide, herbicide treatments will be provided for navigational and exotic removal purposes only. Please contact LCHCD directly to report excessive vegetation growth and discuss aquatic vegetation removal options (see contacts and resources).

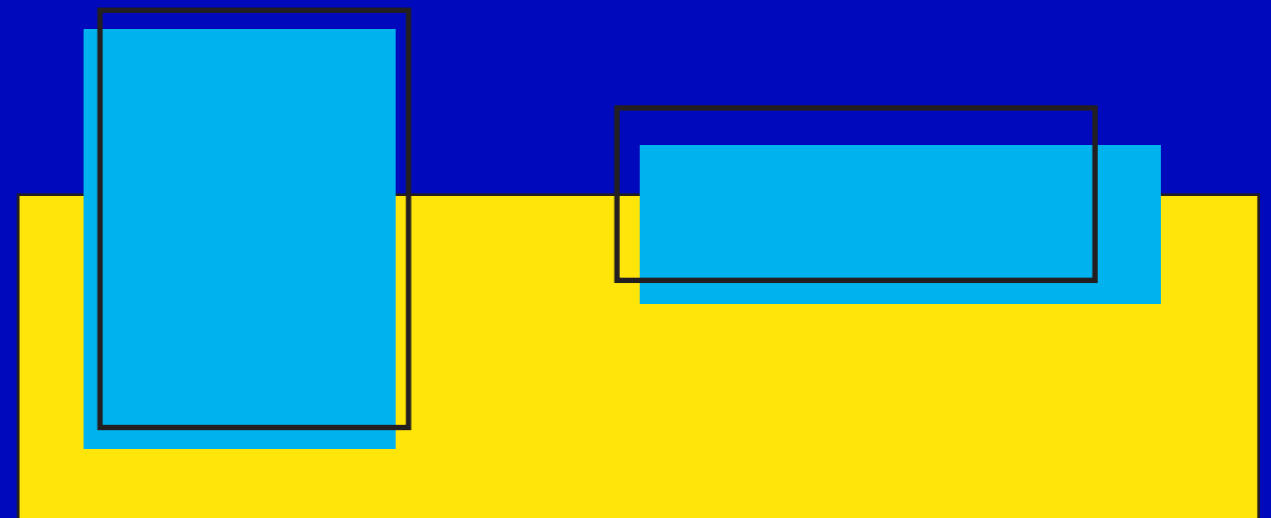


Promoting Florida Friendly Practices and Water Quality

Protecting the Waterfront



Living on the waterfront offers amenities that can add quality and value to the property. It also presents responsibilities to homeowners who value these shared resources. When living on the waterfront, it is important to observe sound environmental practices. Some practices to consider; It is important to keep horticultural material, such as grass clippings and tree trimmings, from entering the waterbody. These materials can be unsightly and add excess nutrients as they break down. Observing a no-spray zone 10 to 15 feet away from any waterbody will ensure chemicals such as fertilizer, pesticides, or herbicides won't run off into the water when it rains. If boat maintenance is required, be sure to pull the watercraft out of the water to ensure that no oils or chemicals enter the waterbody. Living on the waterfront is an investment, do your part to protect this asset and resource.





Fertilizer and Pesticide/Florida Friendly Landscapes (FYN)

The environmental health and appearance of Cape Coral's canals are dependent on the quality of the water that drains from the landscape. Water quality can be improved by implementing environmentally friendly landscaping and maintenance techniques. There are nine basic principles that, if implemented properly, are designed to reduce the adverse impacts on water quality. Cape Coral residents are invited to attend a Florida Friendly Landscape class offered by Lee County to learn more.

Apply fertilizers and pesticides sparingly, according to the label. These materials can easily wash into the canal, leading to problems. Before discarding pesticide and fertilizer containers, rinse them thoroughly and use the rinse on plants. Follow fertilizer restrictions in the City's ordinance.

https://www.capecoral.gov/department/public_works/fertilizer_ordinance.php

Reclaimed water contains nutrients such as nitrogen, phosphorus, and potassium. This should be considered when determining how much fertilizer is needed

for your property. Commercial businesses must use trained applicators when applying fertilizer to their property. Please reference <https://gibmp-prod.ifas.ufl.edu/certified> for an up-to-date list of certified professionals.



Dumping Horticultural waste such as lawn and plant clippings into a canal is illegal. It will decompose, reduce oxygen, and release nutrients. Horticultural waste should be used as compost or placed for curbside pickup. Leave grass clippings on the lawn for nutrient value and consider using mulch or compost as alternatives to commercial fertilizers. In addition to providing nutrients, these materials also retain moisture around roots, so there is less need for irrigation. Choose plants that do not generally need fertilizers or pesticides. Native species tend to be easier to care for than exotic ones. Plant selection information can be found at: <https://ffl.ifas.ufl.edu/plants/>.



Grass clippings in canal

Irrigation

Over-irrigating turf grass contributes to increased nutrient run-off to Cape Coral's canals. To estimate the amount of water going on lawns, place 5-10 containers (3"-6" in diameter) in irrigation areas. Irrigate for 15 minutes and measure the water depth in each container. Determine the average water depth (sum of depth divided by number of containers). Multiply by four to determine the irrigation rate per hour. Grass needs 1/2 inch of water once or twice a week. It is good practice to check the timers and sprinkler heads often for damage to avoid flooding and excessive run-off. Learn your lawn's needs by attending a Florida Friendly Landscape class.



Rain Barrels

Rain barrels are used to collect and harvest rainwater for use in water landscapes, gardens, or indoor plants. In addition to providing a free source of water, rain barrels also help limit the amount of stormwater runoff that flows into Cape Coral's canals, reducing the number of nutrients and pollutants that reach the canals. Rain barrels are a great way to conserve water and can help supplement irrigation water during the dry season. The water collected in rain barrels can be used anytime, and its use is not subject to watering restrictions. The City of Cape Coral offers Rain Barrel Workshops where participants can learn how to make and install rain barrels (contact Rotary Park in contacts and resources).



Vehicle and vessel maintenance

Perform regular maintenance on boat motors to keep them in good working order and to prevent fuel leakage. Never empty bilges into canals, only empty holding tanks at designated pump-out stations. Do not spill or overfill the fuel tank. If boating in seagrass areas, go slowly or pole along with the motor raised.

Wash cars in sodded areas instead of driveways to reduce soapy runoff. This also helps to irrigate lawns. Repair any oil leaks immediately for your safety as well as for the environment. Never dump anything into our waterways or soil; take it to recycling stations.

Used oil collection sites in Cape Coral

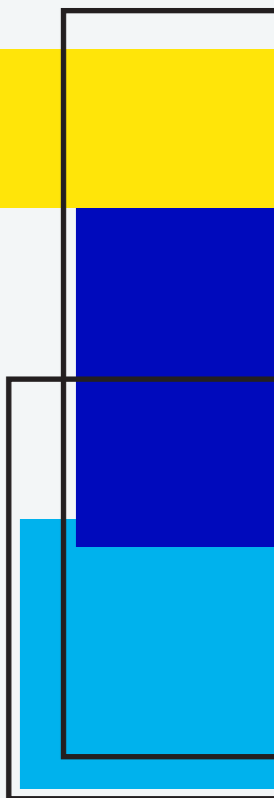
- Advance Auto Parts
- AutoZone Auto Parts
- Wal-Mart Tire & Lube Center

Pet Waste

You are responsible for cleaning up after your pets not just as a courtesy to others but also to protect the environment and health of our waterways. Regularly collect pet waste in your yard, don't let it remain or get washed into canals. Pet waste is high in bacteria which can be harmful to water quality.



Dog waste in retention pond



Contacts and Resources

Topic	Organization	Website or email	Phone
Cape Coral residential issues	311, formally the Citizen's Action Center	https://www.capecoral.gov/department/clerk/citizen_s_action_center.php	Just Dial 311
Cape Coral environmental questions, water quality, Nile monitor reports	Cape Coral's Environmental Resources Division	https://www.capecoral.gov/department/public_works/environmental_resources_division.php	574-0785
Cape Coral fuel or oil spill	Cape Coral Fire Department	https://www.capecoralfire.com/	574-3223
Cape Coral code issues and complaints	Cape Coral Code Compliance	https://www.capecoral.gov/department/community_development/code_compliance_division_staff.php	574-0613
Cape Coral park events, FYN, and environmental education	Cape Coral Parks and Recreation Department	www.capecoralsparks.com	573-3128 Rotary Park, 549-4606
Cape Coral marine issues, boat speeding, dumping, etc.	Cape Coral Marine Police	www.capecops.com/boating	574-3223
Blue-green algae, water quality, mangrove trimming, and other environmental issues	Florida Department of Environmental Protection	https://floridadep.gov/ or https://www.surveygizmo.com/s3/3444948/Algal-Bloom-Reporting-Form	813-470-5700
Fish consumption, air quality, beach water quality	Florida Department of Health	www.floridahealth.gov/	850-245-4444
Management and/or reduction of hazardous wastes in Lee County	Lee County Natural Resources Pollution Prevention	www.leegov.com/naturalresources/pollution-prevention	533-8821
Harming of wildlife or any wildlife violations	Florida Fish and Wildlife Commission	https://myfwc.com/	Wildlife alert contact: 1-888-404-FWCC
Nuisance alligator			Nuisance Alligator Hotline: 866-392-4286
Sawfish sightings			1-844-4SAWFISH
Manatee issues			1-800-404-3922
Invasive species			Exotic Species Hotline: 888-IVE-GOT1
Fish kill, more than one dead fish			1-800-636-0511
Cape Coral burrowing owl issues and information	Cape Coral Friends of Wildlife	https://ccfriendsofwildlife.org	980-2593
Injured or sick wildlife	Clinic for the Rehabilitation of Wildlife (CROW) - Wildlife Hospital	www.crowclinic.org/ or email info@crowclinic.org	472-3644
Mosquito control and aquatic plant removal in Lee County	Lee County Mosquito/Hyacinth Control	https://lchcd.org/	694-2174
Trash pickup	WastePro	https://www.wasteprousa.com/office/cape-coral/	337-0800
Household hazardous waste, such as paint and chemicals	Lee County Household Chemical Waste Facility	https://www.leegov.com/naturalresources/pollution-prevention/household-hazardous-waste	533-8000

Illicit Dumping

A discharge of industrial wastewater to a storm sewer is "illicit" because it would ordinarily require a permit under the Clean Water Act. Identifying and removing illicit connections is a measure for reducing stormwater pollution. In extreme cases of illegal dumping, legal action is necessary. Only let rain down the drain.

Some of the potential negative effects are:

- Illegal waste disposal in non-permitted areas, such as a yard, stream, canal bank, or roadways
- Trash or other floating debris in swales or our waterways
- Spills of oil or other petroleum products, pesticides, or other contaminants
- Sewer or lift station overflows
- Wastewater connections to any storm drain system

Fishing Line Recycling

The City of Cape Coral participates in the Monofilament Recycling and Recovery Program (MRRP), allowing residents to recycle their used fishing line in large white PVC recycling bins at boat launches and waterfront parks. These bins are a safe place to dispose of broken or used fishing lines. The line is recycled into new tackle equipment. ERD offers free mini recycling bins at Rotary Park and City Hall. The containers can be kept on boats, in cars, or tackle boxes and later emptied into the PVC bins.

Septic Tanks and the Utilities Expansion Project

Septic systems require occasional maintenance to function properly. Inspect septic systems regularly and avoid using garbage disposals as food products can clog tanks. Ensure that trees are planted at a safe distance from drain fields so that the roots do not damage the system. Do not flush or pour chemicals down drains and toilets; all household drains lead to the septic system. Utilizing water efficiently by using water-efficient appliances, dual flush toilets, and low-flow showerheads will reduce the amount of water entering the system. This will benefit the drain field and provide years of service, improving its performance. As the City continues to grow, the need to deliver water, sewer, irrigation, and storm drains to new areas grows with it. The City is focused on shifting all areas from septic to sewer to improve overall water quality.



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