

Mission:

To protect, promote & improve the health of all people in Florida through integrated state, county & community efforts.



Rick Scott
Governor

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Vision: To be the Healthiest State in the Nation

Facts about Fish Kills

Witnessing a fish kill can be startling and while there are many reasons a fish kill can occur most have natural causes. Increases in fish kills often occur during the spring and summer. While some fish kills are a result of human activity, the most common causes of fish kills are heavy rainfall, lake turnover, salinity changes in the water, algal blooms or toxic spills.

Causes:

Heavy Rainfall:

- Particularly from a hurricane or tropical storm may result in fish kills in local waters. Most post-storm fish kills are the result of low levels of dissolved oxygen (DO) in the water. Storms can wash large amounts of organic material into the water and decomposition of organic matter consumes oxygen. Additionally, during cloudy weather there is less available sunlight for photosynthesis, so dissolved oxygen is consumed faster than it is produced, resulting in large fish kills.

Lake Turnover:

- High winds can bring bottom sediments to the surface and sometimes release hydrogen sulfide. These sediments are rich in microorganisms that consume oxygen from the water, reducing the available oxygen for fish. Sometimes they also can have traces of hydrogen sulfide, which can be lethal to fish at high concentrations. Hydrogen sulfide can easily be recognized by its distinct odor, similar to a rotten egg.

Salinity Changes:

- Salinity levels can rapidly change as tidal storm surge enters freshwater systems or fresh floodwaters enter marine systems.

Algal Blooms:

- A bloom is the rapid growth of algae in nutrient-rich floodwaters. While algae produce oxygen during photosynthesis, it uses oxygen at night and can deplete oxygen levels quickly. Rapid die-off and decay of the bloom can also result in low DO. Some types of blue-green algae also known as cyanobacteria produce toxins. When this occurs the blue-green algal bloom is referred to as a Harmful Algal Bloom (HAB).

Toxic Spills:

- Storm-related damage to sewage plants, chemical storage areas, pipelines and other infrastructure can release hazardous materials into bodies of water that may affect local fish populations. During pollution spill cases, there may be other dead animals present (birds, turtles, frogs, etc.), and a visible film on the water's surface.

Health Concerns:

While eating fish can be a vital part of a healthy diet, there are health risks associated with consuming or having contact with fish, other seafood, and/or contaminated waters from a fish kill. Below are general precautionary measures:

- Do not eat, collect, or use fish, shrimp or crabs that were found dead or dying, from distressed areas or from locations where dead fish are present.
- Do not harvest or eat shellfish from waters that have been closed by the Florida Department of Agriculture and Consumer Services, or from areas where there are large numbers of distressed or dead fish.
- Do not harvest fish, shrimp or crabs that are acting erratically, have sores or ulcers, or that appear to be diseased.
- Do not swim or play in areas where distressed or dead fish are present. If you come in contact with the water, immediately wash exposed areas thoroughly with soap and clean water.
- Do not let pets swim in or drink from water in the area of a fish kill. If your pets come in contact with water, immediately wash their fur thoroughly with soap and clean water.
- Items that have come in contact with affected waters should be thoroughly washed with soap and clean water or disinfected with a bleach solution (mix in 1/4 cup of household bleach per one gallon of water and immerse for 15 minutes) prior to continuing their use.
- Contact your primary care physician if you believe you have become ill as a result of eating and swallowing or being exposed to fish or affected waters during a fish kill.

If you have other health questions or concerns about fish kills, please call your county health department. Locate your local county health department by visiting:

<http://www.floridahealth.gov/programs-and-services/county-health-departments/find-a-county-health-department/index.html>.

Reporting a Fish Kill:

The Fish and Wildlife Health Group at the Florida Fish and Wildlife Conservation Commission's (FWC) Fish and Wildlife Research Institute (FWRI) has a toll-free Fish Kill Hotline (1-800-636-0511) for reporting the locations of fish kills and/or diseased or abnormal fish. When reporting a fish kill, please note the following:

1. Date and time the incident was first noted
2. Species of fish
3. Current weather conditions
4. Water color abnormalities
5. Location (include GPS coordinates if possible)
6. Condition of the fish (include pictures if available)

Reports can also be submitted on the FWC website. If calling after hours or on the weekend, a biologist will return your call on the next business day.

FWRI Fish Kill Website: MyFWC.com/FishKill

If you see an unknown substance in a lake or water body and suspect the fish kill is the result of a toxic spill, call the Florida Division of Emergency Management's 24-hour State Watch Office at 1-850-413-9900 or 1-800-226-4329.

For more information, please contact your county health department or visit www.floridahealth.gov or www.FloridaDisaster.org.