



TOWN OF LONGBOAT KEY

Town of Longboat Key

Red Tide Response



Red Tide Overview

In Florida, the species that causes most red tides is *Karenia brevis* (K. brevis). At high enough concentrations, red tide can discolor water a red or brown hue. Red tides can last as little as a few weeks or longer than a year. They can even subside and then reoccur. Many red tides produce toxic chemicals that can affect both marine organisms and humans. Wave action can break open K. brevis cells and release these toxins into the air, leading to respiratory irritation.

FWC reports on the current status of *Karenia brevis* blooms using tables, static maps, and interactive Google Earth maps.

<https://myfwc.com/research/redtide/statewide/>



Common Misconceptions

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“The smell of these dead fish is causing me respiratory irritation.”

There are three (3) different, pungent odor sources:

- K. Brevis present onshore winds *cause respiratory irritation*
- Dead Fish; *not the source for respiratory irritation*
- Sea Grass/Seaweed; *not the source for respiratory irritation*

“Removing the dead fish behind my house will eliminate the smell.”

- Depending on the magnitude of bloom, an overall smell can remain due to dead fish and K. Brevis prevalent in Gulf and Bay.
- During the 2018-2019 bloom, miles inland, the red tide odor(s) could be smelled and respiratory irritation noted.



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Preventative Measures

- Use of floating barriers to prevent fish from entering canals/boat basins.
 - Inexpensive solution; some use pool noodles
- No rules against property owners to bury dead sea life in front of own property beneath the surface.
 - Ensure proper depth to avoid re-exposure.
- We ask that you please do not make piles of fish on the beach as this seems like a helpful task, it complicates beach raking operations.





Independent Clearing Efforts

- If residents, associations, hotel/resort staff wish, they may collect dead sea life and dispose of the material in strong garbage bags for collection by Waste Management. It is suggested to triple or double bag the material.
- There are also no rules against burying dead sea life on the beaches. However, property owners must do so in front of their own property and must ensure proper depth to avoid re-exposure. Please do not create piles or mounds on the beach.



Town Clearing Efforts

- All clearing efforts are determined by daily assessments performed by the Town:
 - Dead sea life accumulations are based on two (2) parameters:
 - Concentrated Volumes and Lack of Movement
 - Favorable weather conditions, tidal action, wind speed/direction, and bloom conditions (Ex: Low winds, minimal chop, etc.)
- Note: *The safety of Town staff and equipment is top priority*



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General Assessment Levels

Heavy



Moderate



Mild



Photos taken from Siesta Key, 2018

Photos Obtained From:

http://www.mysuncoast.com/news/why-we-get-red-tide-blooms/article_937429a8-9722-11e8-8d40-0bd5194a0a9e

http://www.mysuncoast.com/news/video-live-look-at-red-tide-as-dead-fish-wash/article_495b4ce2-95c0-11e8-b805-ab582013ed03

<https://www.bradenton.com/news/local/article215966155.html>



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Dead Sea Life – Lack of Movement

- Dead sea life accumulations must meet moderate to heavy assessment levels which remain stationary after three-four tidal cycles to warrant the need to deploy.

APPROXIMATELY 10:00AM
AUGUST 21, 2018



APPROXIMATELY 2:00PM



*Canal
naturally
flushed out
the dead fish
through tidal
movements*

The top left of the slide features a circular logo for the Town of Longboat Key, which includes a map of the town and a person fishing. To the right of the logo is a photograph of a beach with tall grasses in the foreground and the ocean in the background. The title "Effective and Efficient Use of Resources" is displayed in white text on a dark blue background that spans the top right of the slide.

Effective and Efficient Use of Resources

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- The Town of Longboat Key is unique in that our current clearing effort practices exceed the level of service compared to surrounding jurisdictions, as no other neighboring communities deploy for canal clearing efforts. It is also important to note the Town performs clearing efforts for the entire stretch of the gulfside, not just public beach accesses, as neighboring jurisdictions do.
- Town Public Works manages in-house resources to maximize effectiveness of clearing while continuing to support current job duties.
- Staff supporting clearing efforts are removed from the following areas:
 - Parks and Streets Maintenance
 - Facilities Maintenance
 - Vegetation Trimming, Mowing & Debris Removal
 - Trash Receptacle Collection Service
 - Etc.



Town Required Resources for Clearing

Required Resources for Canal Clearing Efforts:

- Staff:** 4 to 5 person team*
- Equipment:** Town boat, fuel, backhoe, dump truck, nets, bags, boots, respirator masks, rubber gloves, etc.
- Staging Area:** Access to waterfront open space on Town property or vacant lot to offload bags from boat into dump truck
- Note:** All collections are performed manually; nets, bags, etc.

Required Resources for Gulfside Clearing Efforts:

- Staff:** 3 to 4 person team*
- Equipment:** Tractor, beach rake, loader, dump truck(s)
- Hired Services:** Private beach raker (smooth ruts)
- Staging Area:** Access to beach via public beach accesses or private property to transfer contents to dump truck(s)
- Time:** Typically takes 4-5 business days to complete all 10 miles

*Public Works maintenance personnel = 7 staff members reassigned from day to day responsibilities as needed

Clearing Efforts

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- The Town does not clear dead sea life from:
 - Large bodies of water (Bayous, Gulf of Mexico, Sarasota Bay)
 - Longshore parallel areas
 - Mangrove and mangrove fringe areas, low draft areas





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Clearing Efforts Cont.

- The Town does not clear dead sea life from:
 - Under nor around docks, boat lifts, boats, etc.
 - Doing so poses potential damage to private property and may pose threat to the safety of staff and equipment





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Clearing Efforts Cont..

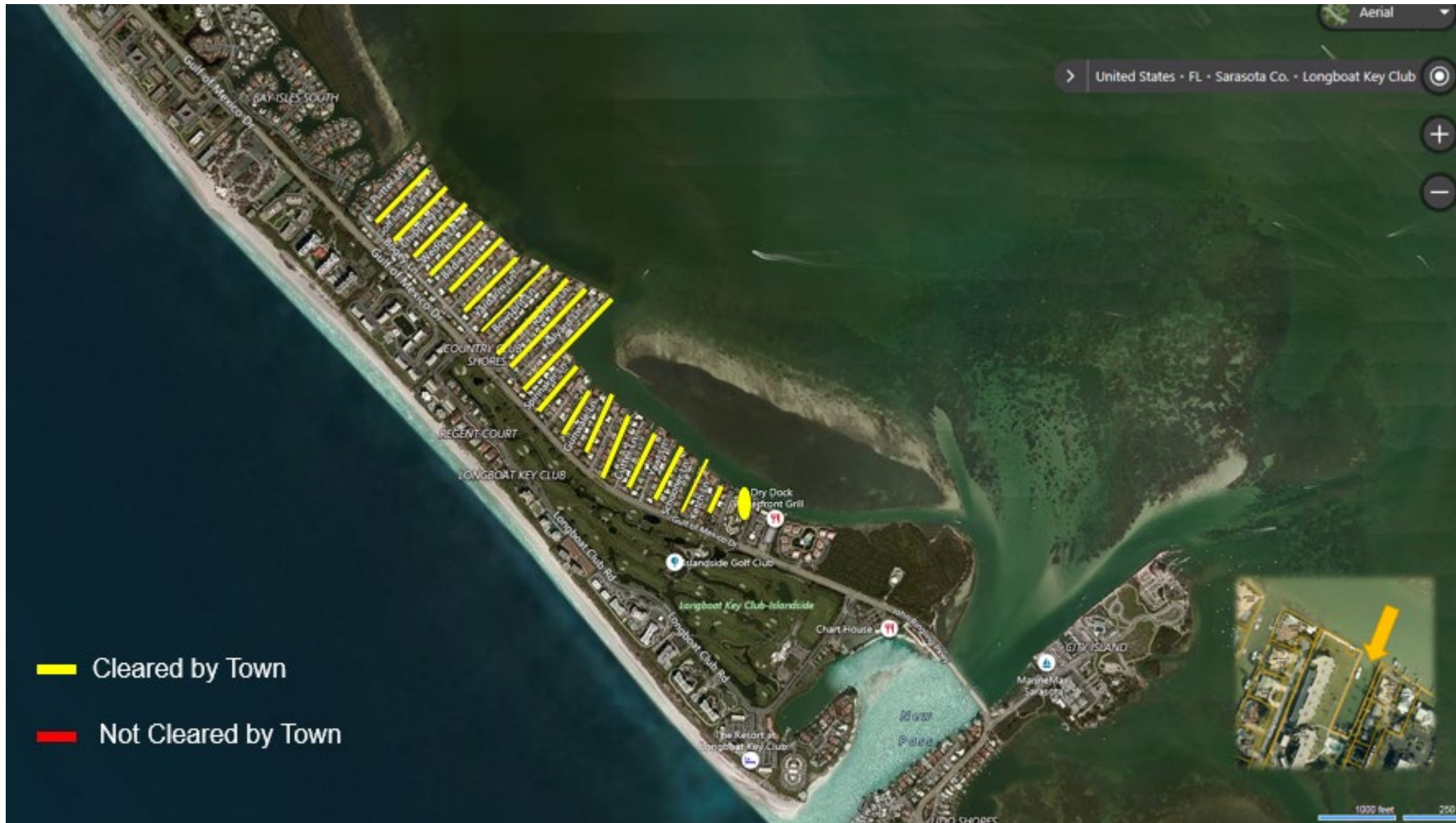
- The Town does not clear sea grasses nor sea weed





Clearing Locations Example 1

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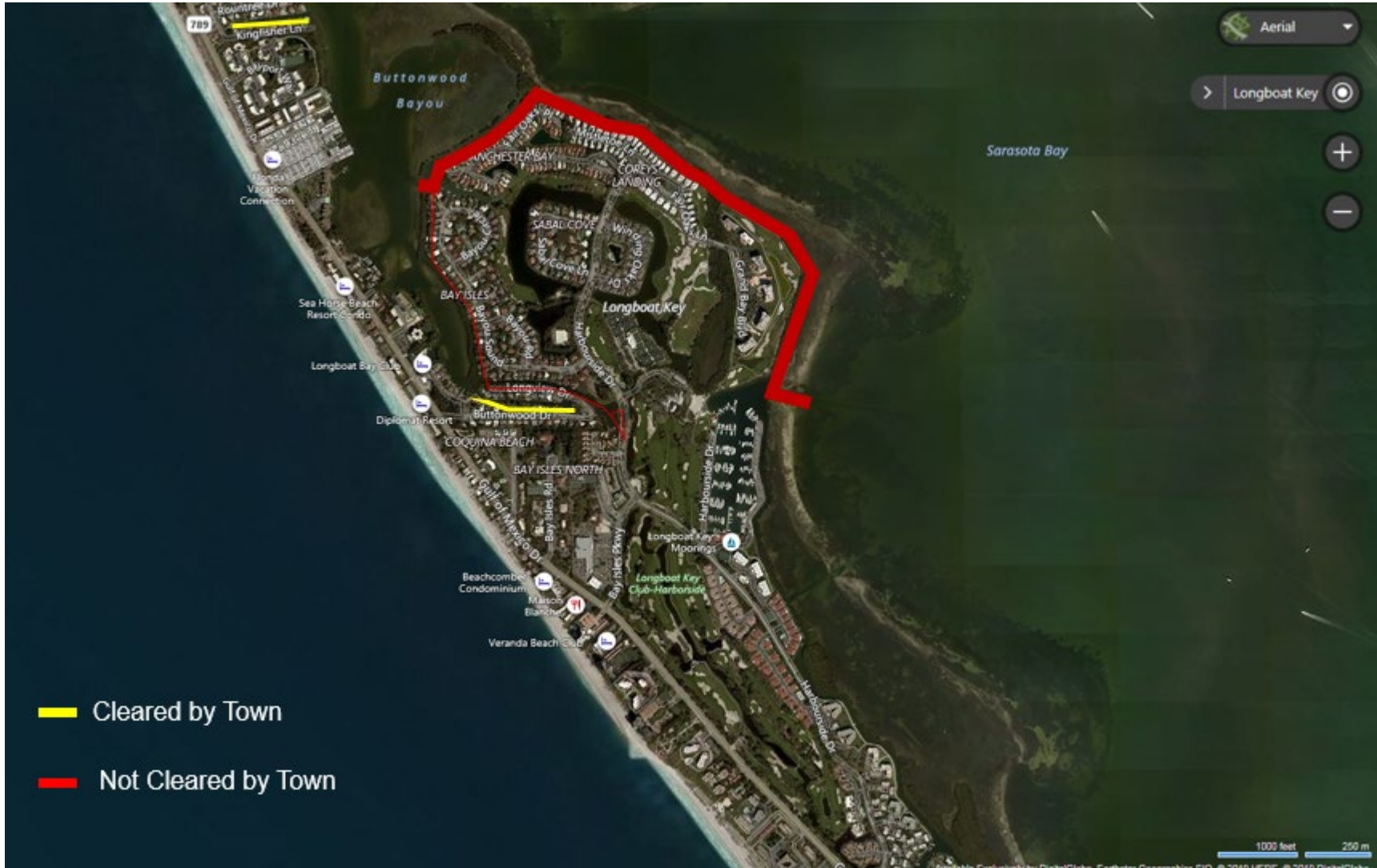
— Cleared by Town

— Not Cleared by Town



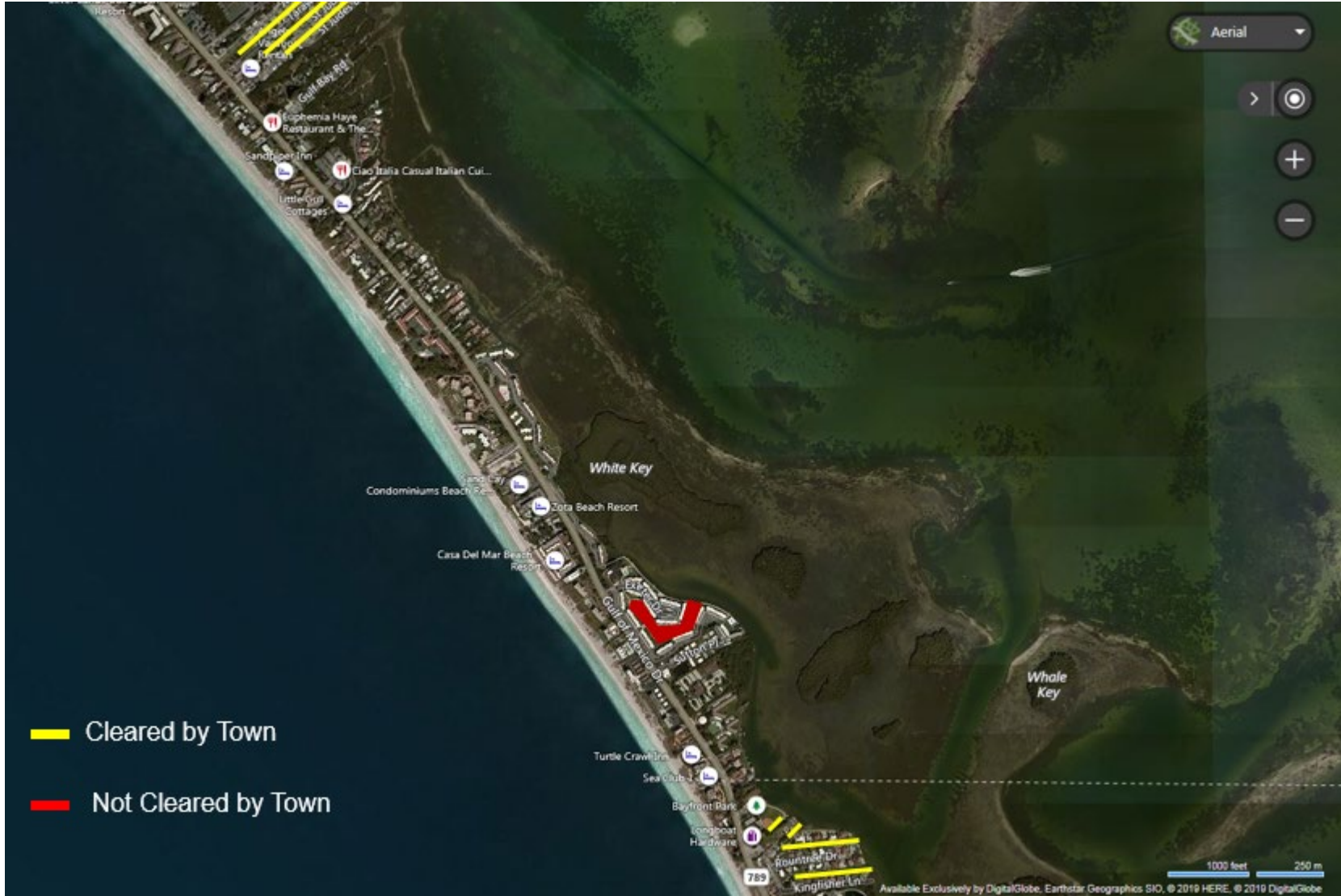
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Clearing Locations Example 2



Clearing Locations Example 3

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- Specific Areas Historically Not Cleared by Town Staff
 - Bay Isles (all) including the Moorings
 - Island Court
 - Mobile Home Park
 - Twin Shores
 - Sutton Place
 - Longboat Harbor Condos
 - Windward Bay
 - 5054 GMD
 - Cedars Canal
 - Spanish Main
 - Cannons Marina
 - Wake Island area
 - Large body of water behind Whitney Beach Plaza



Overall Clearing Tiers

- Tier 1 - Red Tide Maintenance by Town Staff
 - Maintain areas within Town responsibility.
 - As explained, using in-house resources, minimize cost.
- Tier 2 - Red Tide Maintenance level overwhelms in-house resources
 - Contract labor (debris management contracts).
 - Make contracts available to private basin and marina areas, as available.
- Tier 3 - Massive overwhelming fish kill Town-wide
 - Emergency response: one massive, large scale clean-up using contract labor at any point during an event. (Compare/Contrast Disaster Clearing Ordinance 06-20)
 - Then continue clearing efforts as per established policy.



Additional Resources

- For Higher Level of Service or for Commercial/Private Basins:
 - Utilize Private In-House and/or Contracted Labor/Beach Raker services
 - Hiring Major Debris Management Contractors (Equipment)
 - Ex. DRC Emergency Services, LLC
- Local Fisherman
 - During the 2018-19 bloom, Manatee County provided a list of individuals/businesses via their website.
- Volunteer Efforts
 - Manatee County deployed dumpsters and distributed waste bags
 - Established “*Nets to Neighbors*” program
 - Town would consider similar approaches



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Cooperation and Looking Ahead

- Town can support all areas with a one-time emergency clearing should the entire island experience an overwhelming, high volume (heavy), stationary accumulation. Similar to Disaster Clearing Ordinance.
- Doing so would require contract/labor supplement
 - Factors in determining the need for such include:
 - Dead Sea Life Volume and Movement
 - Longevity of Bloom Conditions
 - Timing & Available Funding



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Thank you!

We appreciate your patience and understanding during any and all red tide events.