

# Florida Red Tide:

A Preliminary Assessment of Economic Impacts  
to the Tampa Bay Area and Florida



Tampa Bay Regional Planning Council  
November 5, 2018 Council Meeting  
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# What is Florida Red Tide?

- Harmful algal bloom caused by concentrations of microscopic algae (*Karenia brevis*).
- Not directly caused by human activity, but nutrient pollution of coastal waters can worsen and prolong its effects.
- Discolored water; massive fish kills; marine mammal, sea turtle, and sea bird mortalities; and respiratory irritants.
- Began in November 2017; impacting over 100 miles of Florida's coastline.

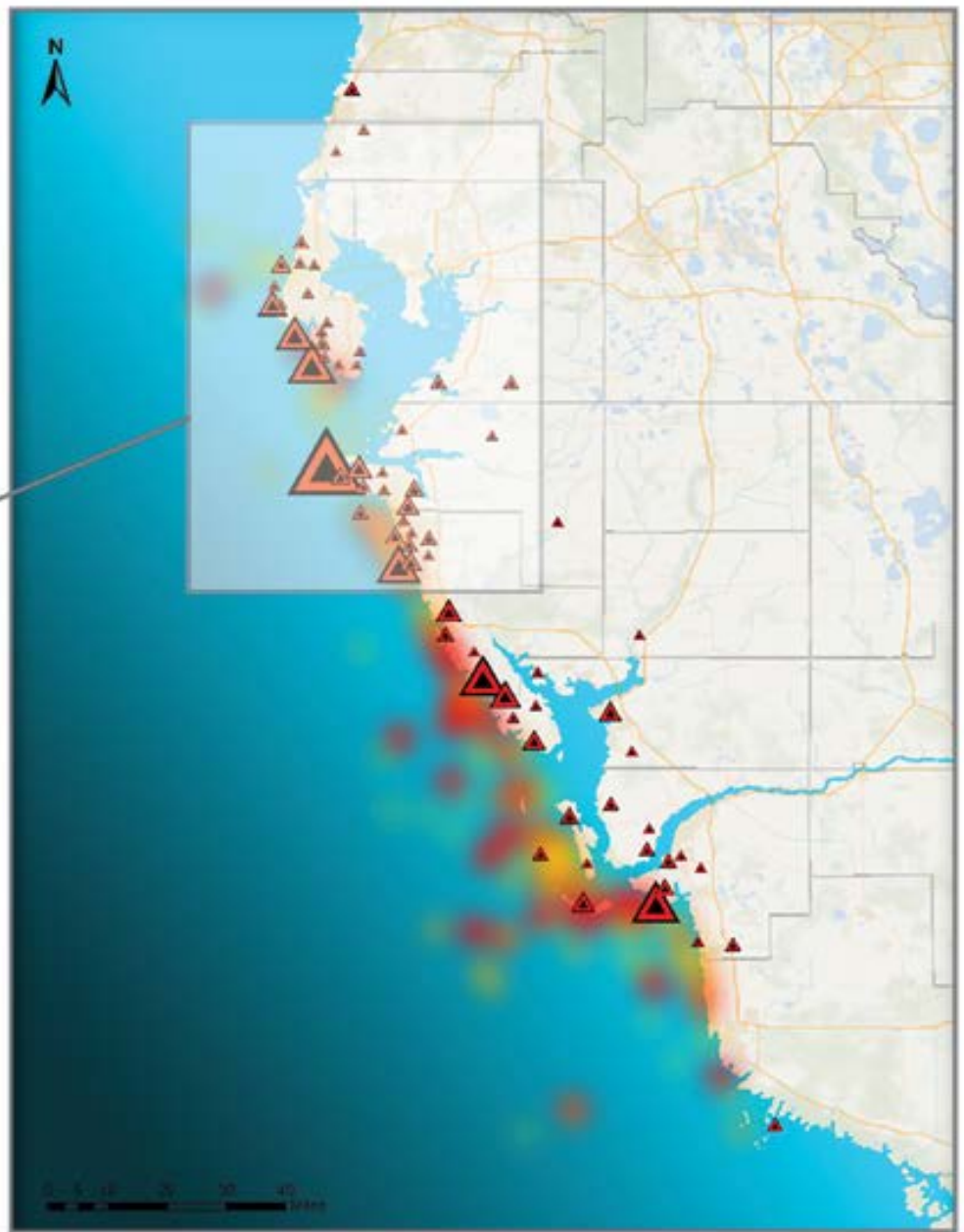
Captiva, FL – 8/3/18, ABC News



# Business Damage Assessment Survey

- **Survey Period**  
8/13/18 - 10/23/18
- **Survey Records**  
238 responses across 10 counties
- **Responding Counties**  
Bay, Charlotte, Collier, Hillsborough,  
Lee, Manatee, Miami-Dade, Pasco,  
Pinellas, and Sarasota
- **Survey Questions**  
[floridadisaster.biz/BusinessDamage  
Assessments](http://floridadisaster.biz/BusinessDamageAssessments)





**Survey Records (z = 238)**

- ▲ Min = 1
- ▲ Max = 41

# Economic Impacts

- Direct Pinellas, Manatee, and Hillsborough damage to date: -\$2.8M
- Total Statewide damage to date: -\$130M
- Likely significant under-reporting (N=238)
- Using survey reported data on lost revenues and business damage, TBRPC modeled the loss of industry sales in REMI PI+

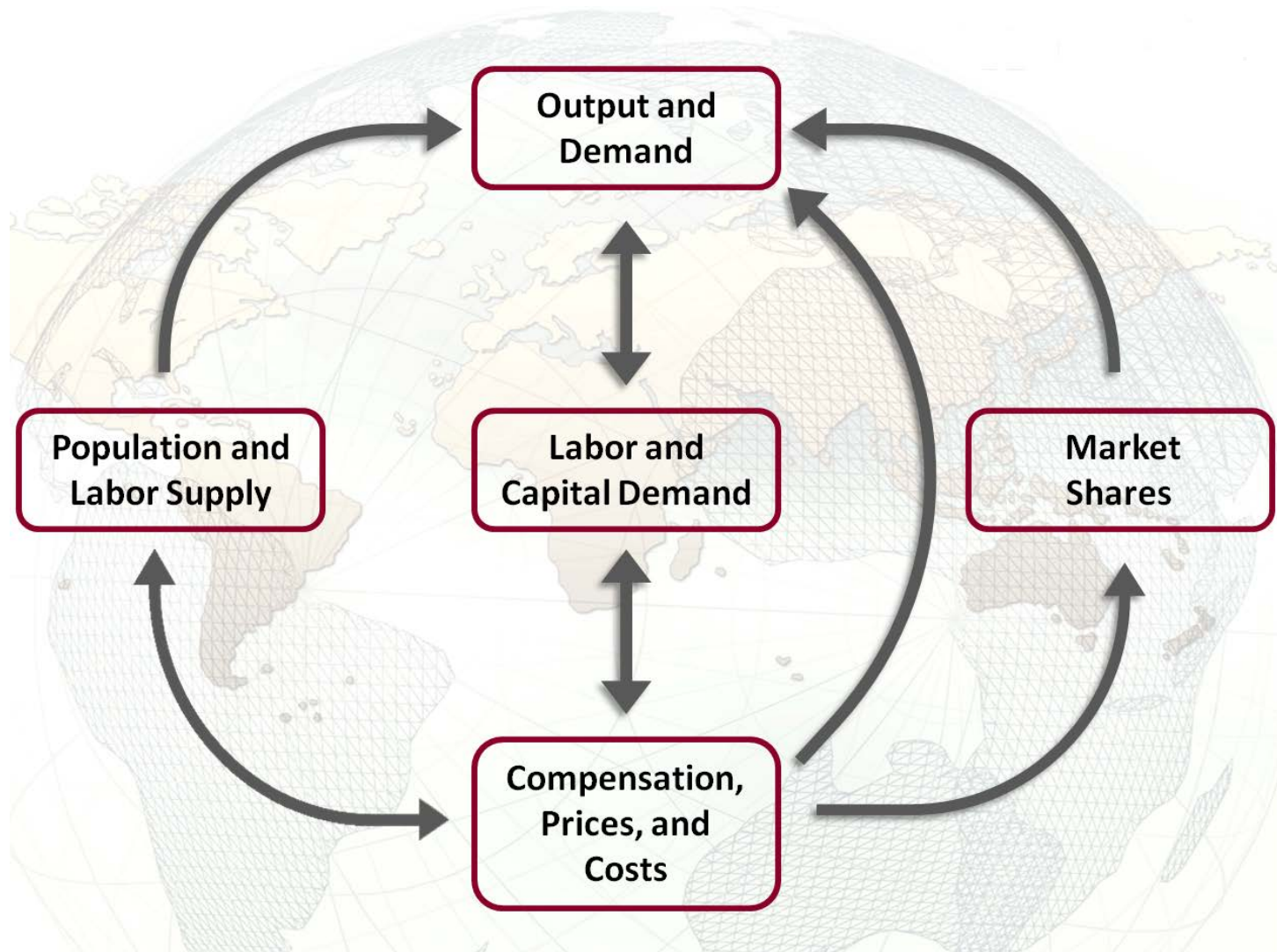


Madeira Beach – 9/10/18, ABC News



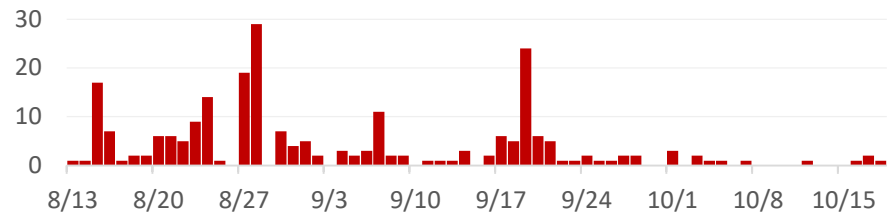
Sanibel – 8/8/18, National Geographic

# REMI Model Structure



# Statewide Impacts

<b>Statewide</b>	
Total Employment	-1,759
Personal Income	-\$65,530,000

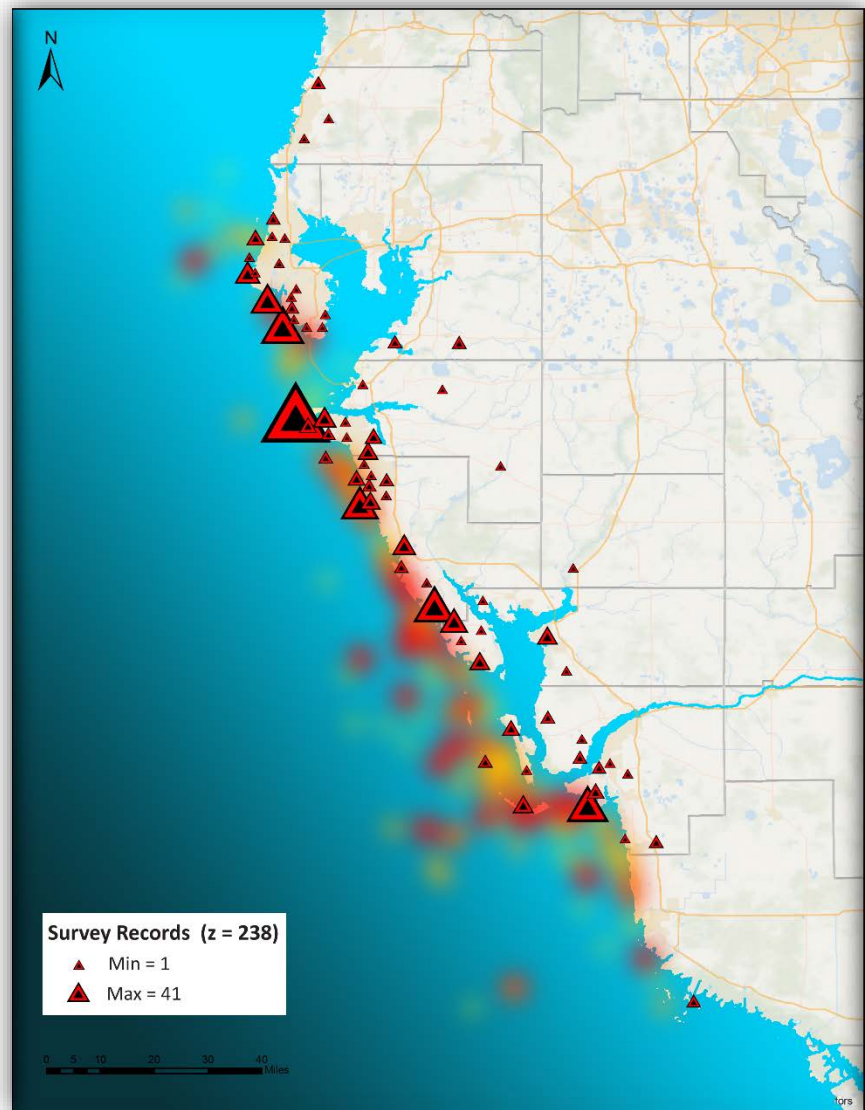


NEWS | WEATHER | TRAFFIC | ENTERTAINMENT | LOTTO | WATCH LIVE | + MORE



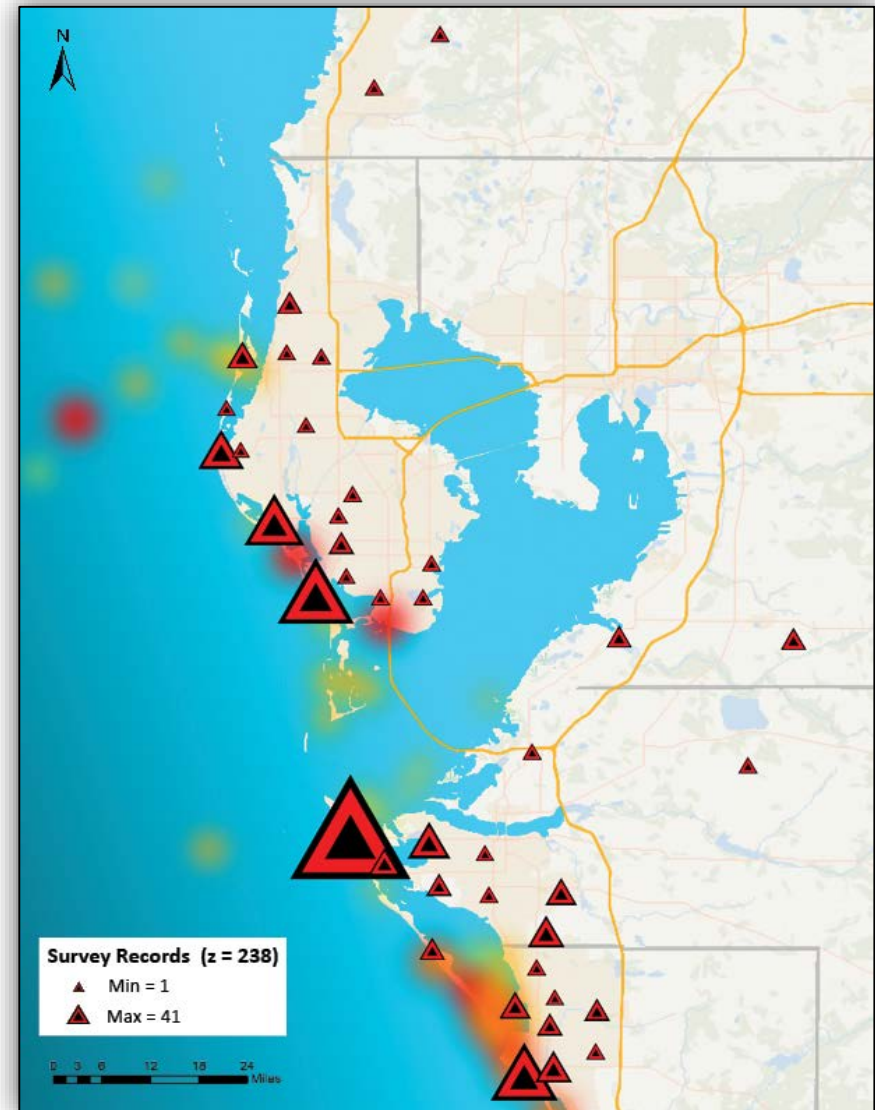
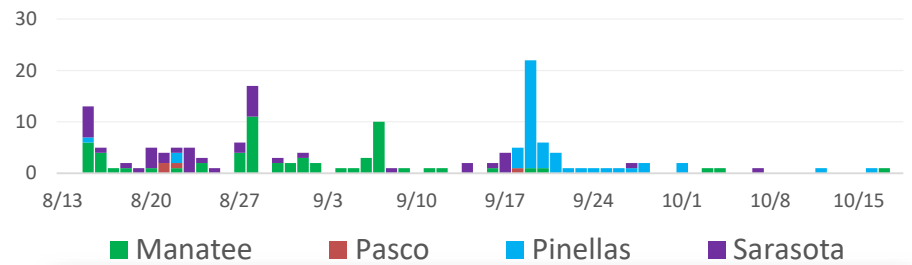
Dead fish litter the beach in Indianalantic, victims of a second Florida red tide-related fish kill. (Krystel Knowles, Spectrum News)

## RED TIDE: AS BREVARD COUNTY BEACHES DEAL WITH THOUSANDS OF DEAD FISH, A PLEA FOR HELP



# Tampa Bay Region

<b>Pinellas</b>	
Total Employment	-46
Personal Income	-\$1,900,000
<b>Pasco</b>	
Total Employment	-6
Personal Income	-\$579,000
<b>Hillsborough</b>	
Total Employment	-41
Personal Income	-\$2,197,000
<b>Manatee</b>	
Total Employment	-44
Personal Income	-\$3,329,000
<b>Tampa Bay</b>	
Total Employment	-137
Personal Income	-\$8,005,000





# Take Aways

- Survey is informative but under-reporting may be significant. Does not include hospitalizations or lost work due to illness.

<b>Tampa Bay</b>	Through 10/23/18
Total Employment	-137
Personal Income	-\$8 Mil.
<b>Statewide</b>	
Total Employment	-1,759
Personal Income	-\$65 Mil.

# Next Steps

- Bridge Loan Program applications are accepted through December 3, 2018
- TBRPC hopes to collect a last round of data and publish a final report in early 2019
- Questions?



# Resources



- Florida Fish & Wildlife Conservation Commission
  - Current status and forecasts of *k. brevis* blooms
    - [myfwc.com/redtidestatus](http://myfwc.com/redtidestatus)
- Disaster Assistance
  - Florida Small Business Development Center Network
    - [floridadisasterloan.org](http://floridadisasterloan.org)