

# Response Case Study: April 2014 Historic Flood Event

## NOAA's Regional Preparedness Training (NRPT)

*Natural Disaster Causing Technology  
Disasters in Mobile Bay Area*

Kimberly Albins  
Gulf of Mexico Regional Coordinator  
NOAA Marine Debris Program

June 8, 2016



Photo Credits: AL.com

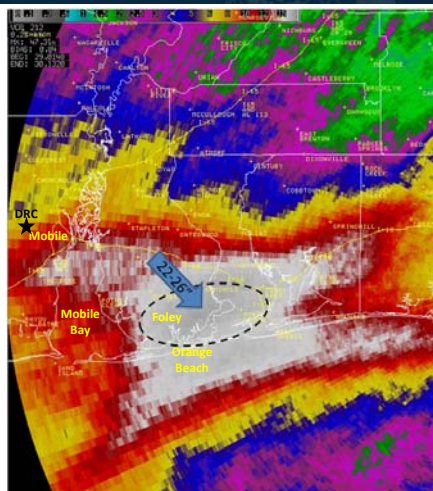
## Severe Weather April 29-30, 2014

<https://youtu.be/Qo2nr4pzOSo>



## Severe Weather April 29-30, 2014

- 20-26" of rain fell in Baldwin County, AL ahead of a slow moving cold front
- Fish River in Baldwin County swelled to record levels
- Surpassed flood stages set during Hurricane Danny 19 years ago



Two-day radar estimated rainfall totals from the National Weather Service

## Response and Recovery Timeline

- | April 28  | April 29-30  | May 1  |
|---|--|--|
| <ul style="list-style-type: none"> <li>• AL Governor declares State of Emergency in advance of S. Baldwin County flooding</li> <li>• Directs all state agencies to respond to communities that need help</li> </ul> | <ul style="list-style-type: none"> <li>• Storms in south AL</li> <li>• Local/state response</li> </ul> | <ul style="list-style-type: none"> <li>• AL Governor requests major disaster declaration be made by the President</li> </ul> |

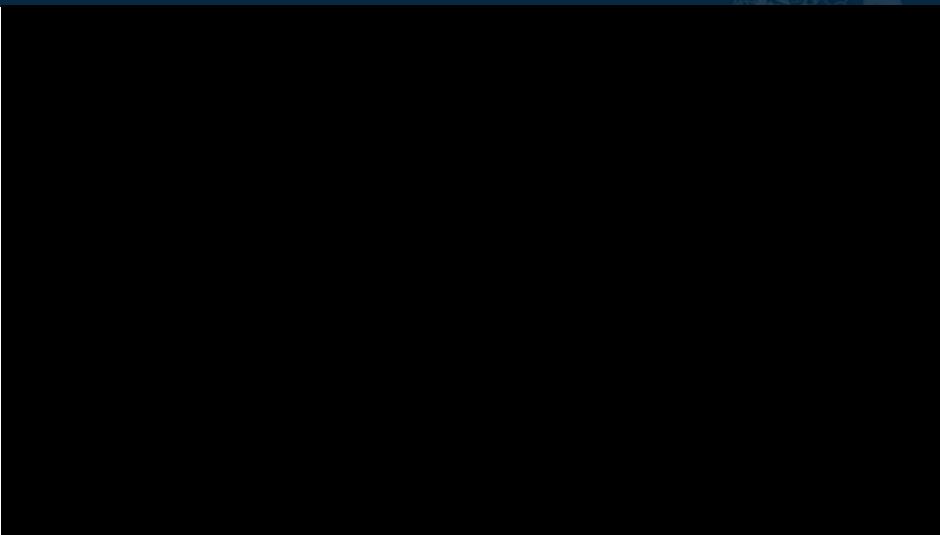


## Immediate Local/State Response

- Response led by municipalities (police/fire), county and state responders
- Fish River / Marlow Volunteer Fire Department led ~ 40 rescues during the flood
- Salvation Army feeding units deployed

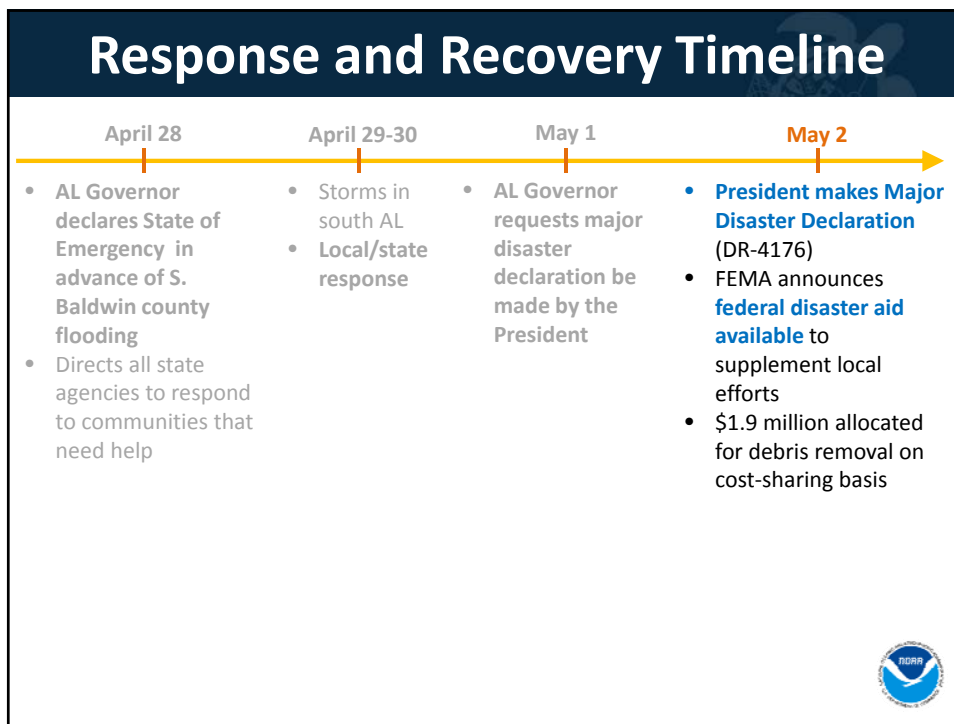


## Immediate Local/State Response



<https://youtu.be/y2D8yRMDXq4>





## Varied Storm Impacts

- One confirmed fatality
- More than 120 roads washed out, sinkholes
- Four animals drowned at Gulf Coast Zoo
- Homes flooded
- Debris in waterways



Scenic Highway collapsed near Pensacola, Fla., al.com



Residents use canoe to access home  
Sharon Steinmann/ssteinmann@al.com



Photo credit: al.com


## Debris Removal from Waterways



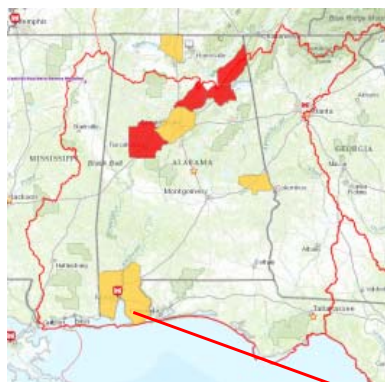
<https://youtu.be/FilktV-LeBA>

## Response and Recovery Timeline

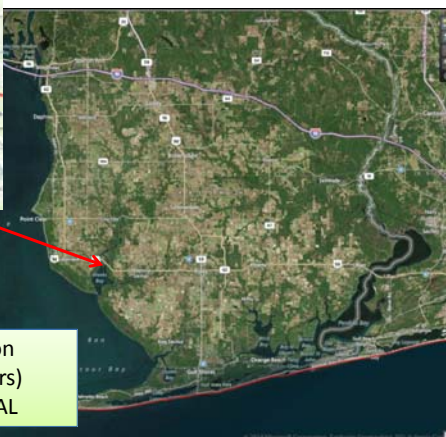
April 28	April 29-30	May 1	May 2
<ul style="list-style-type: none"> <li>• AL Governor declares State of Emergency in advance of S. Baldwin county flooding</li> <li>• Directs all state agencies to respond to communities that need help</li> </ul>	<ul style="list-style-type: none"> <li>• Storms in south AL</li> <li>• Local/state response</li> </ul>	<ul style="list-style-type: none"> <li>• AL Governor requests major disaster declaration be made by the President</li> </ul>	<ul style="list-style-type: none"> <li>• President makes Major Disaster Declaration (DR-4176)</li> <li>• FEMA announces federal disaster aid available to supplement local efforts</li> <li>• \$1.9 million allocated for debris removal on cost-sharing basis</li> </ul>
<p style="color: #e67e22; font-weight: bold;">June</p> <ul style="list-style-type: none"> <li>• Baldwin County rejects request from state to lead waterway debris removal</li> </ul>		<p style="color: #e67e22; font-weight: bold;">September</p> <ul style="list-style-type: none"> <li>• Waterway debris removal begins – led by state ADCNR (FEMA Applicant), FEMA Stafford Act funds, with USACE technical assistance</li> </ul>	



## Waterway Debris Response



- Alabama Department of Conservation and Natural Resources (ADCNR) led waterway debris response as FEMA applicant
- USACE provided FEMA technical assistance for debris removal



Waterway Debris Mission  
(Fish and Magnolia Rivers)  
FEMA Mission 4176DR-AL



## Flood Damage

### USACE Field Observations:

- Residents along Fish and Magnolia Rivers sustained extensive structural damage from flood waters.
- Debris, vessels and personal items redistributed throughout tributary.



## Waterway Debris Removal Operations



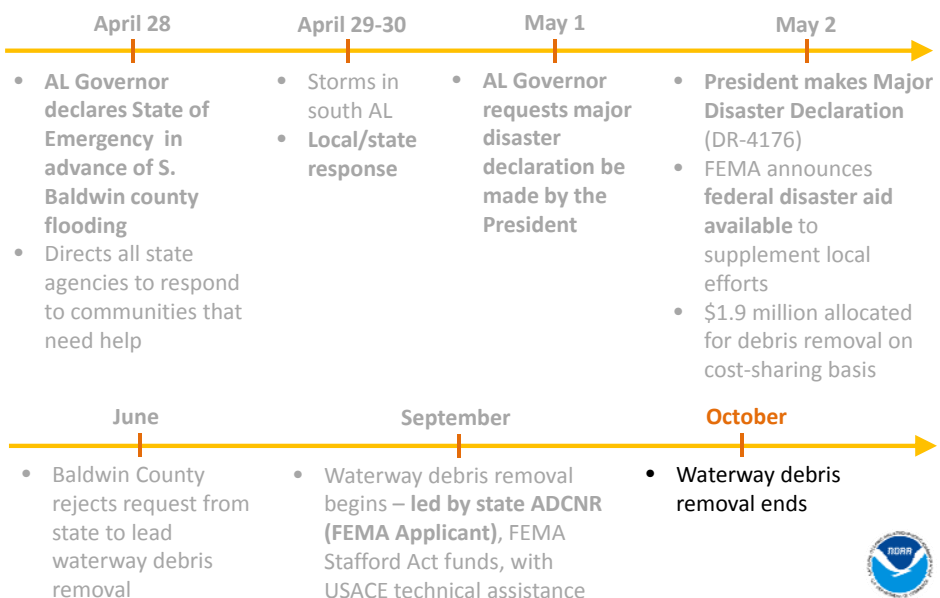
**Geographic Sectoring:** Work area cut into four zones and encompassed over 13 sq. miles of open water and 21 linear miles of waterways

**Eligibility:** Requirements were (1) Storm related, (2) Threat to safety, particularly navigation, (3) Impact in T&E habitat. Dredging and sediment removal not authorized.

**Removal:** Debris removed by self loader barge and taken to an extraction point, then loaded on truck and hauled to landfill.



## Response and Recovery Timeline



# Questions?

