Performance of the New Orleans Flood Control System: Hurricane Katrina

http://www.noaanews.noaa.gov/stories2005/s2506.htm

Presented to the Senate Committee on Homeland Security and Governmental Affairs

November 2, 2005

Washington DC

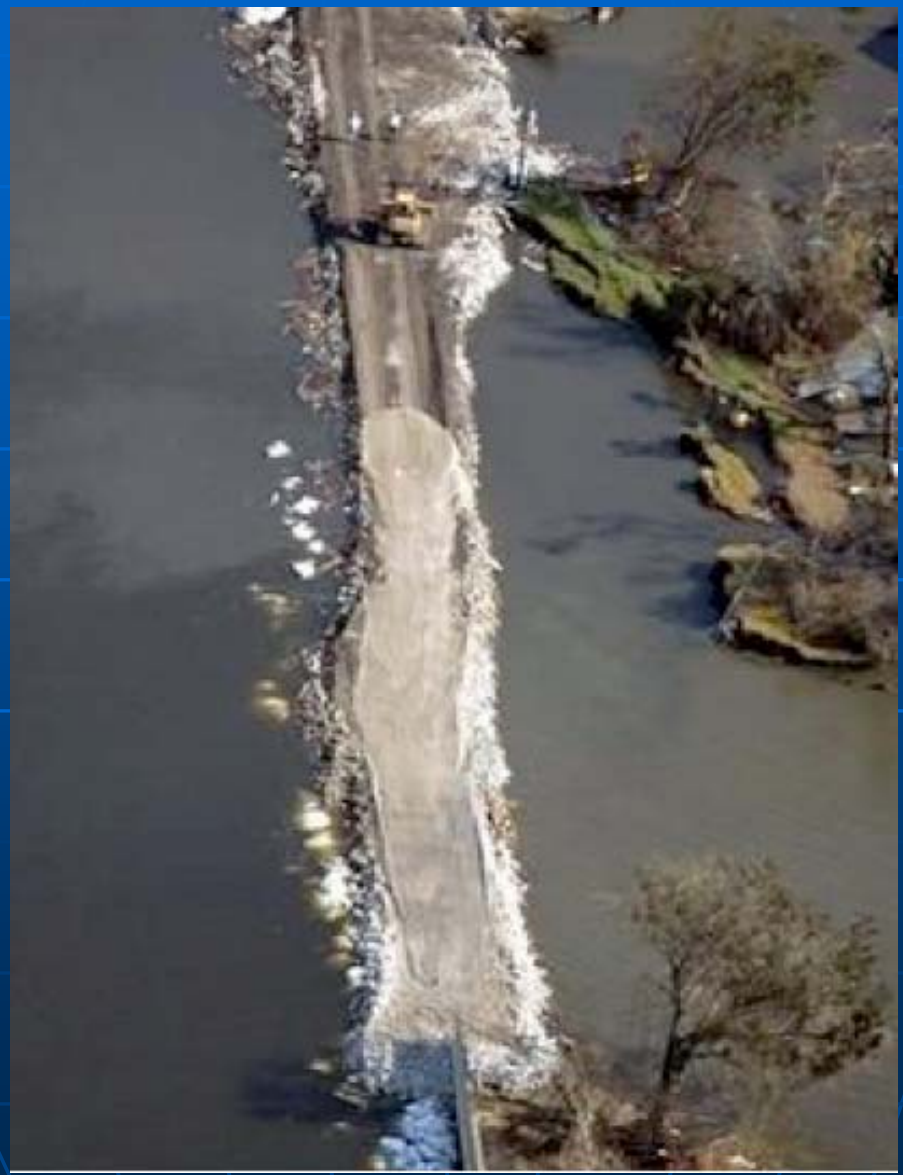
Levee Assessment Team

- ASCE (Geo-Institute & COPRI)
- NSF (UC Berkeley, CA DWR)

Leading experts in geotechnical engineering, hydraulics, and systems

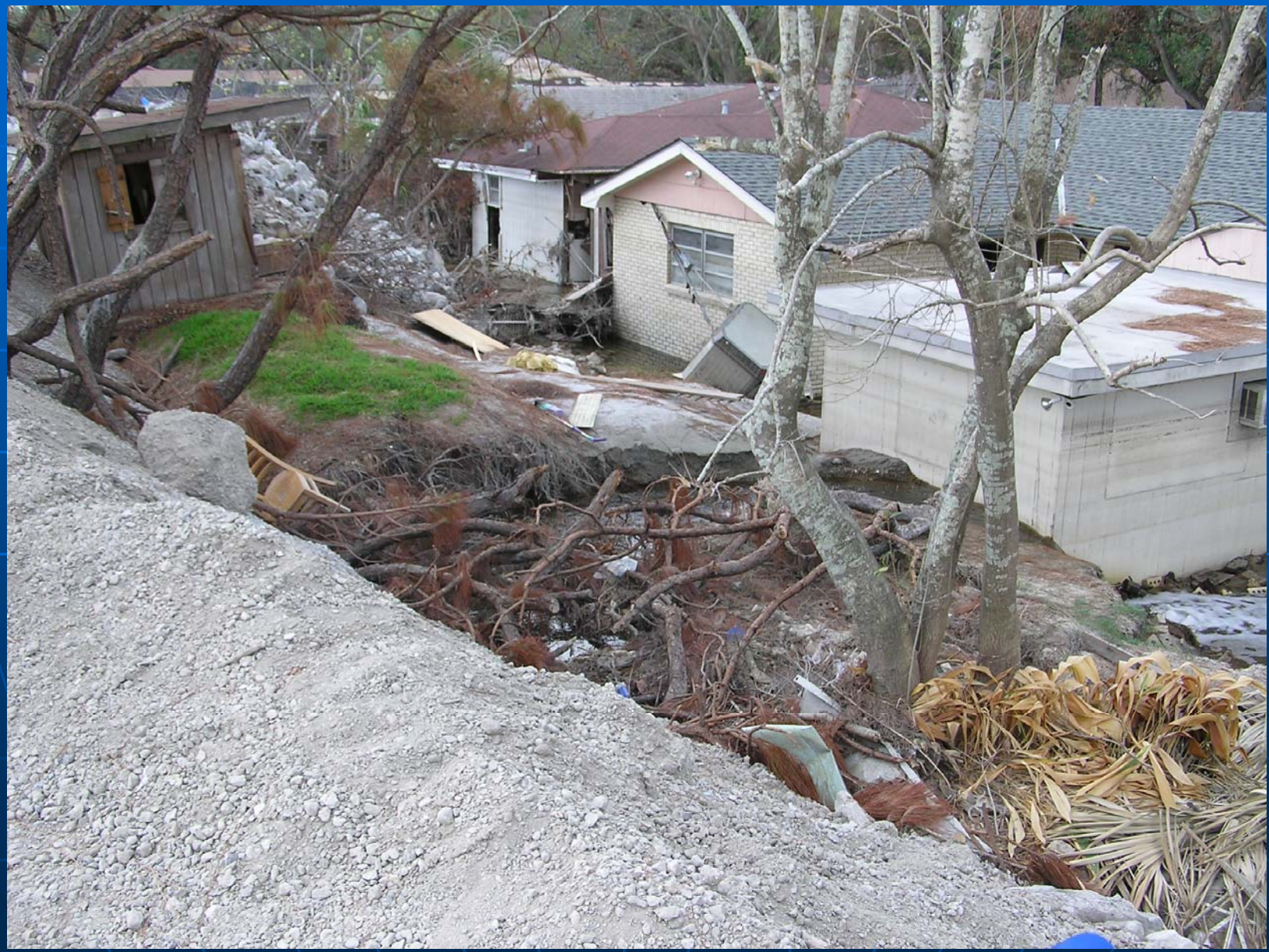
17th Street Canal

17th Street Canal



17th Street Canal

London Avenue Canal, North Breach



London Avenue Canal, North Breach

London Avenue Canal, North

Across from Breach

London Avenue Canal, North

Across from Breach

London Avenue Canal, North

Across from Breach

London Avenue Canal, North
Across from Breach

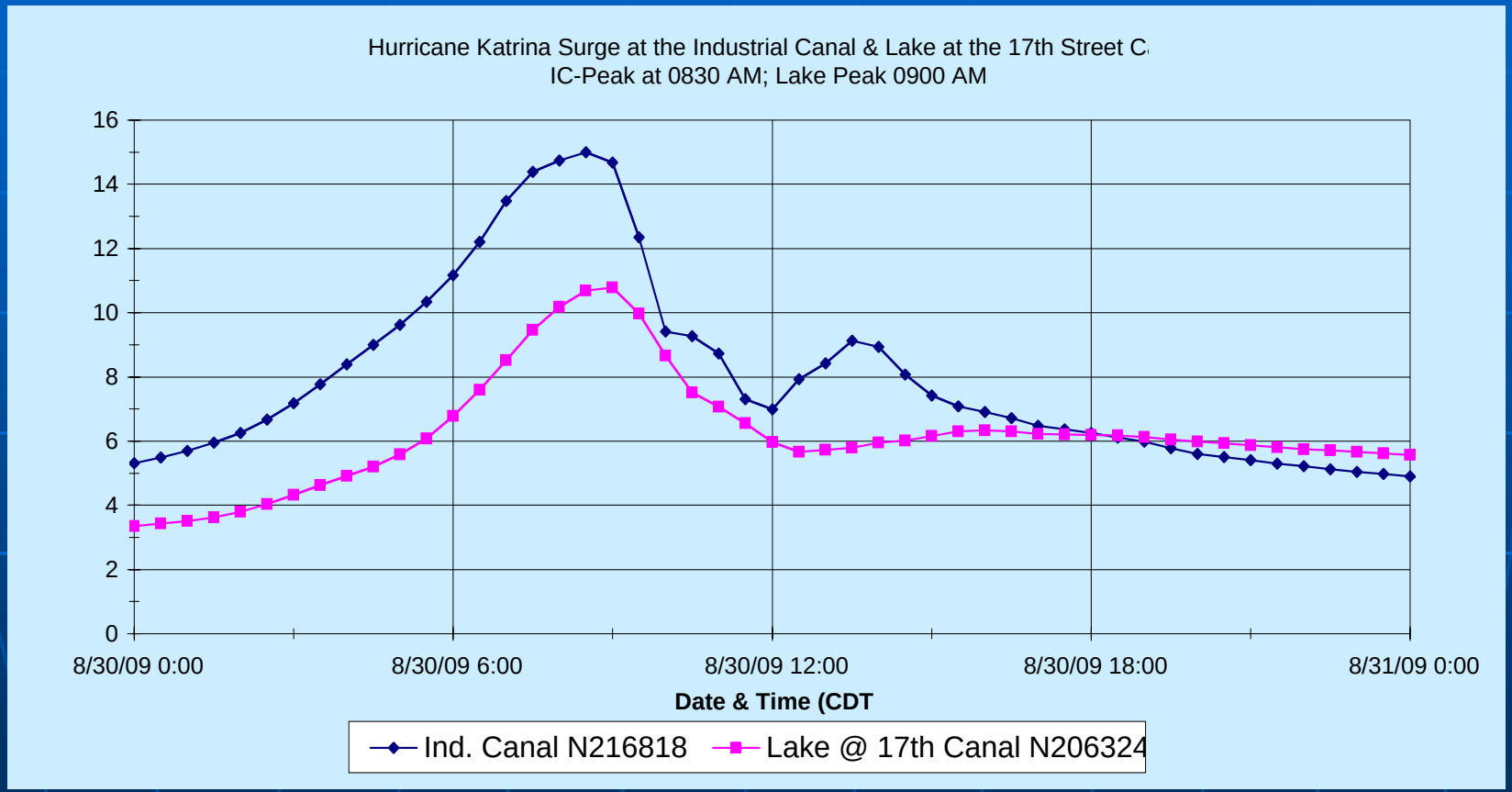
Heave

Boils

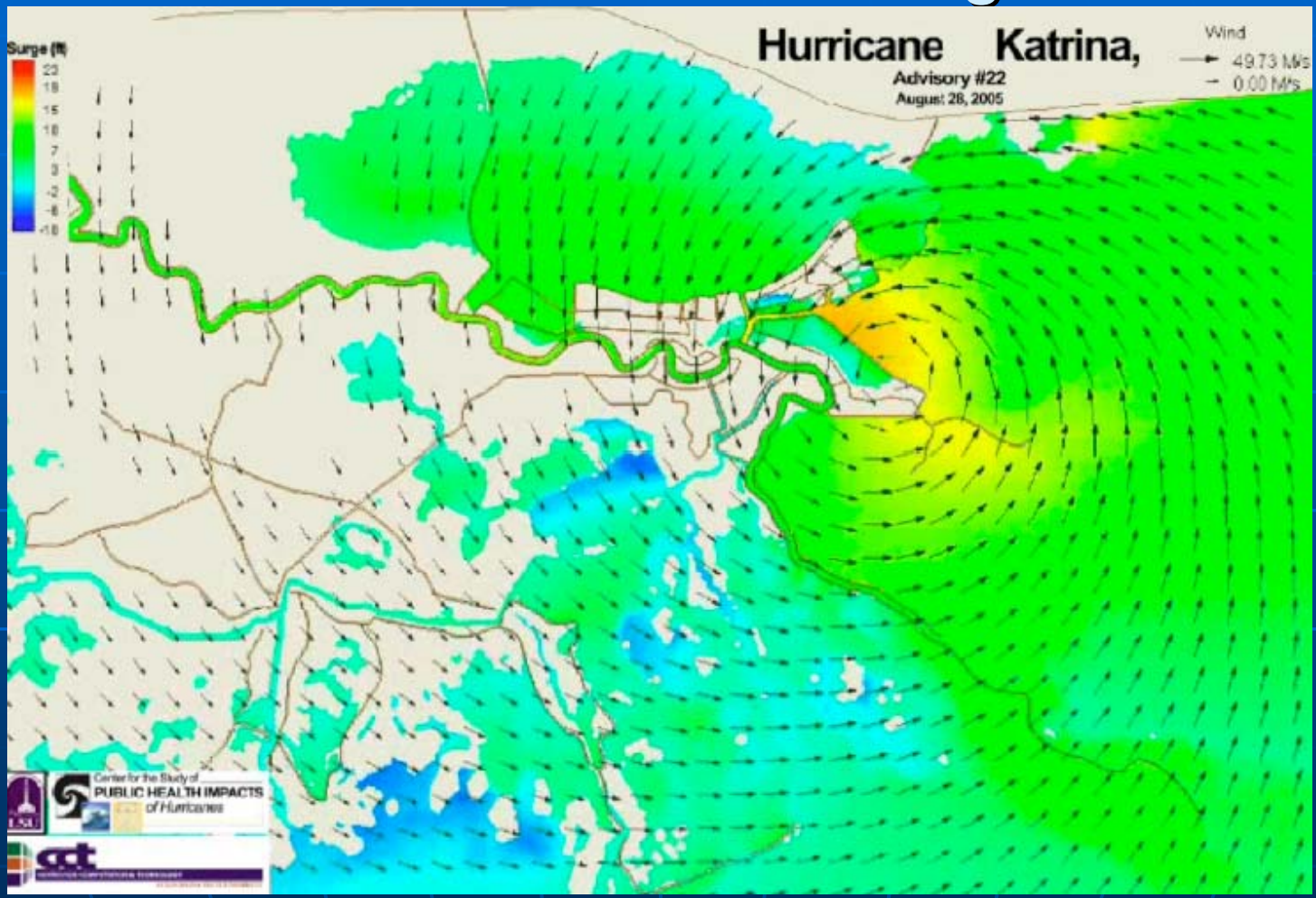
London Avenue Canal, South Breach

London Avenue Canal, South Breach

Modelled Storm Surge Heights

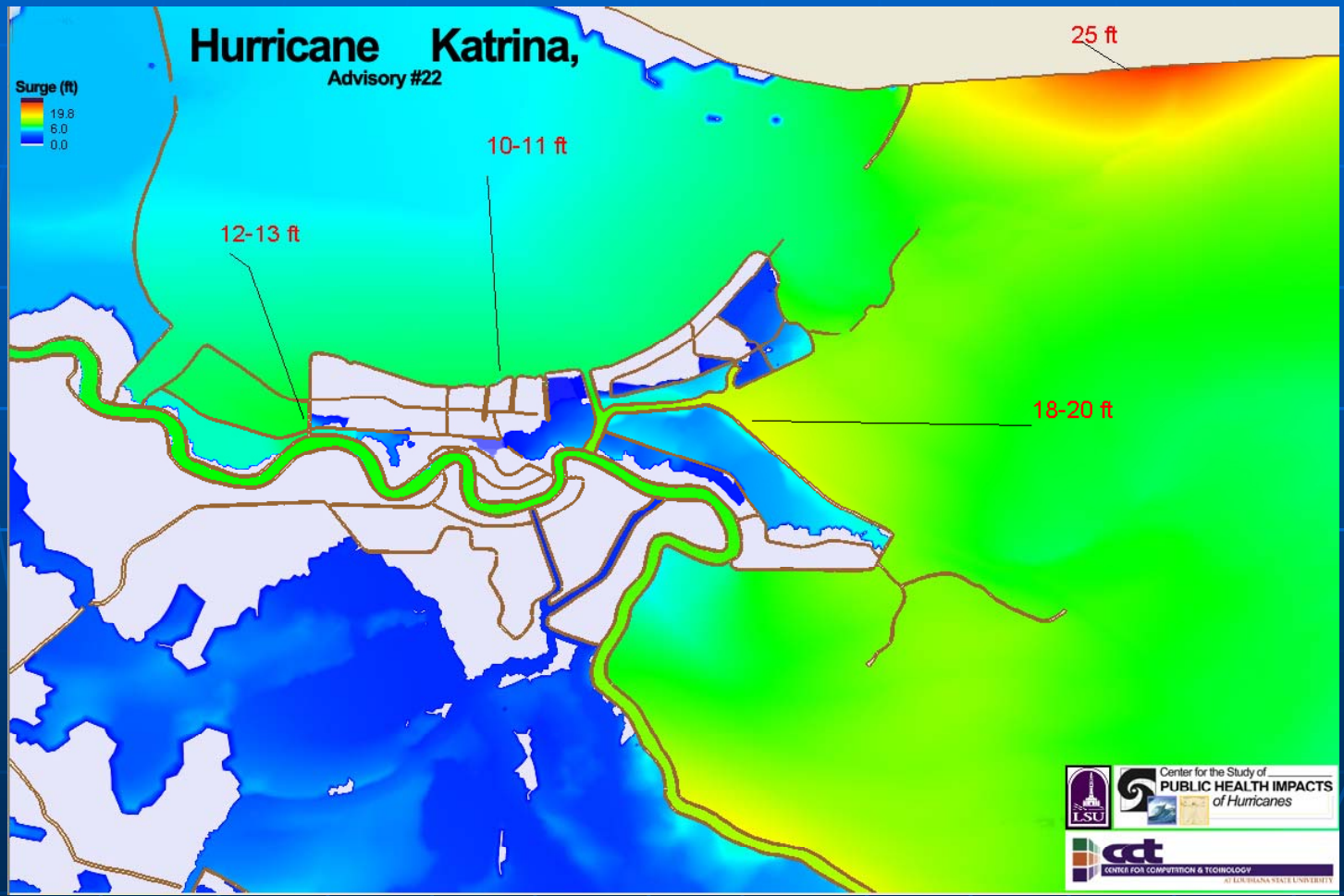


Modeled Storm Surge



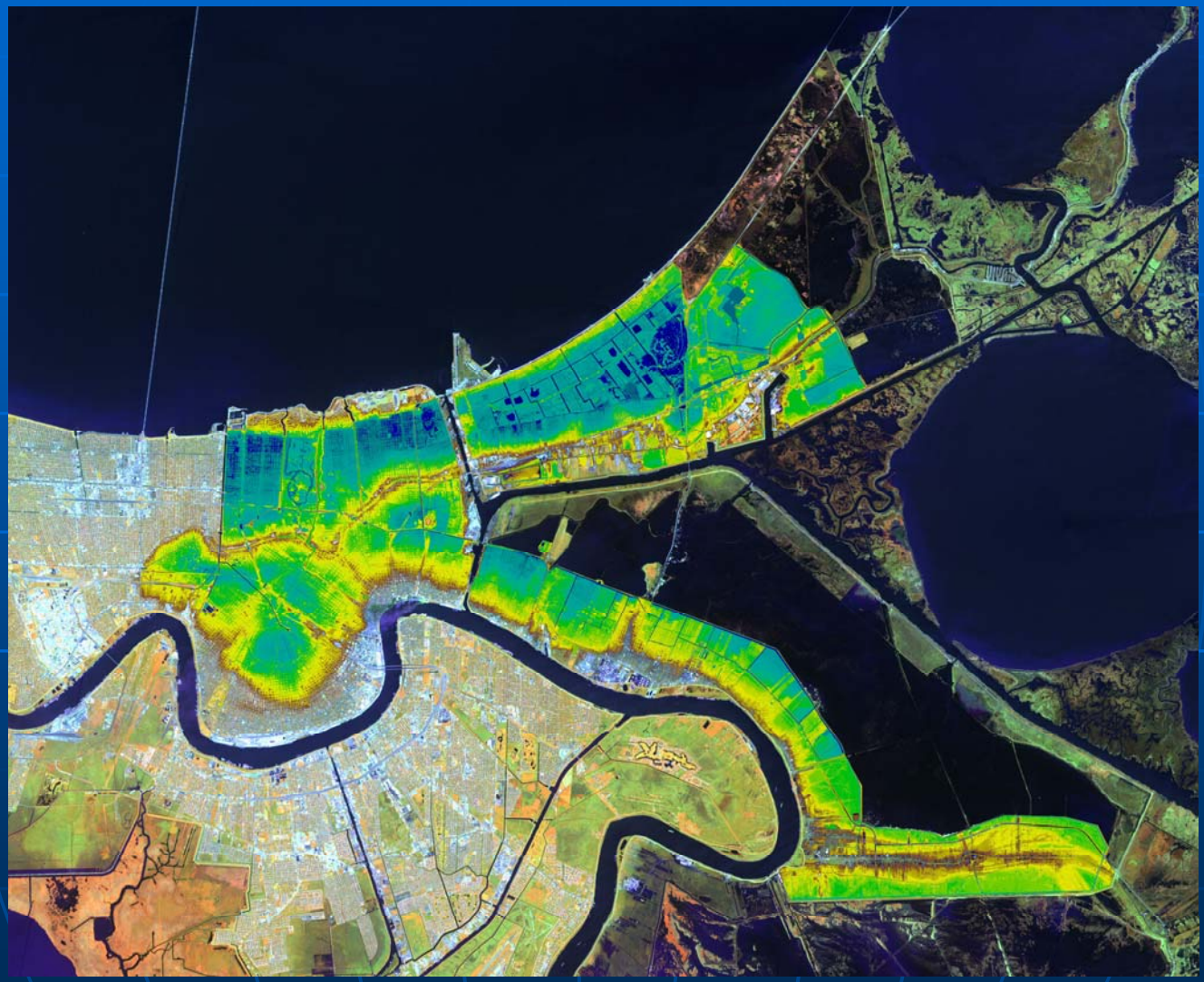
Courtesy LSU Hurricane Center

Modelled Storm Surge



Courtesy LSU Hurricane Center

Levee Breaches



Embankment Overtopping

Overtopped Embankment (Sand Core)

Overtopped Embankment (Sand Core)

Embankment Successes

Inner Harbor Navigation Channel
(Industrial Canal)

Inner Harbor Navigation Channel
Lower 9th Ward

Lower 9th Ward

Inner Harbor Navigation Channel

Back Scour at Lower 9th Ward

MRGO, North Bank (New Orleans East):
Overtopping Back Scour

MRGO, North Bank (New Orleans East):
Floodwall Overtopping Failure

Common Transition Problems

Common Transition Failures

Common Transition Failures

Common Transition Failures

Complex Transitions