DOCKETED

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Submitted On: 1/12/2017
Docket Number: 15-AFC-02

So You Want to Build in the Flood *PLAIN*

In recent documents, meetings and correspondence of this case, statements have been made that the project is located in the flood*PLAIN* and not the flood*WAY* of the Santa Clara River implying this is a more acceptable, and less problematic situation. Please review the attached and consider the very serious and significant dangers of building in the floodplain. Detailed references to any of the attached are available upon request.

Additional submitted attachment is included below.

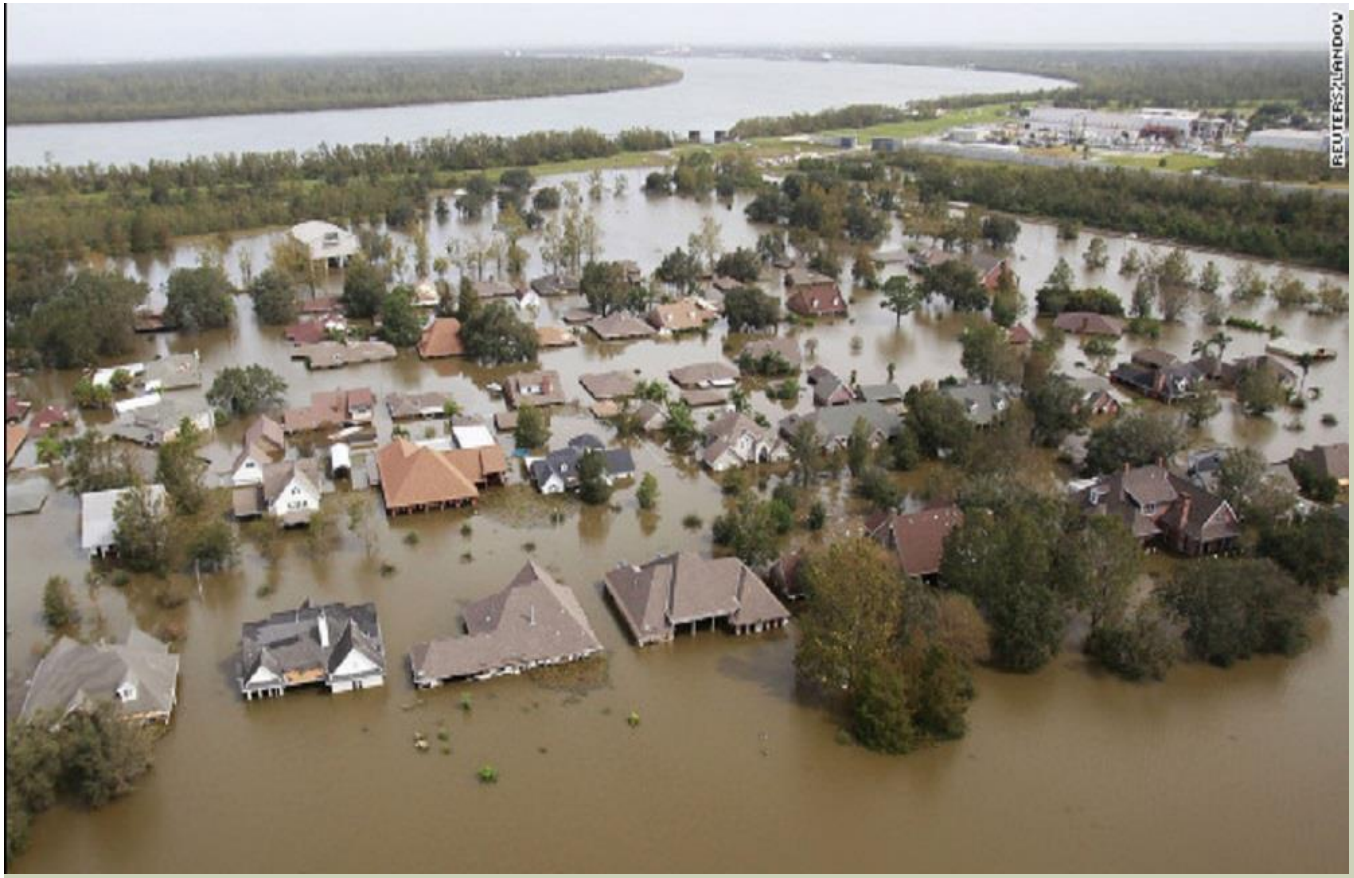
SO YOU WANT TO BUILD IN THE FLOODPLAIN?

Prepared for:
California Energy Commission

Siting Case:
Mission Rock Energy Center

Prepared by:
Nina Danza, PE

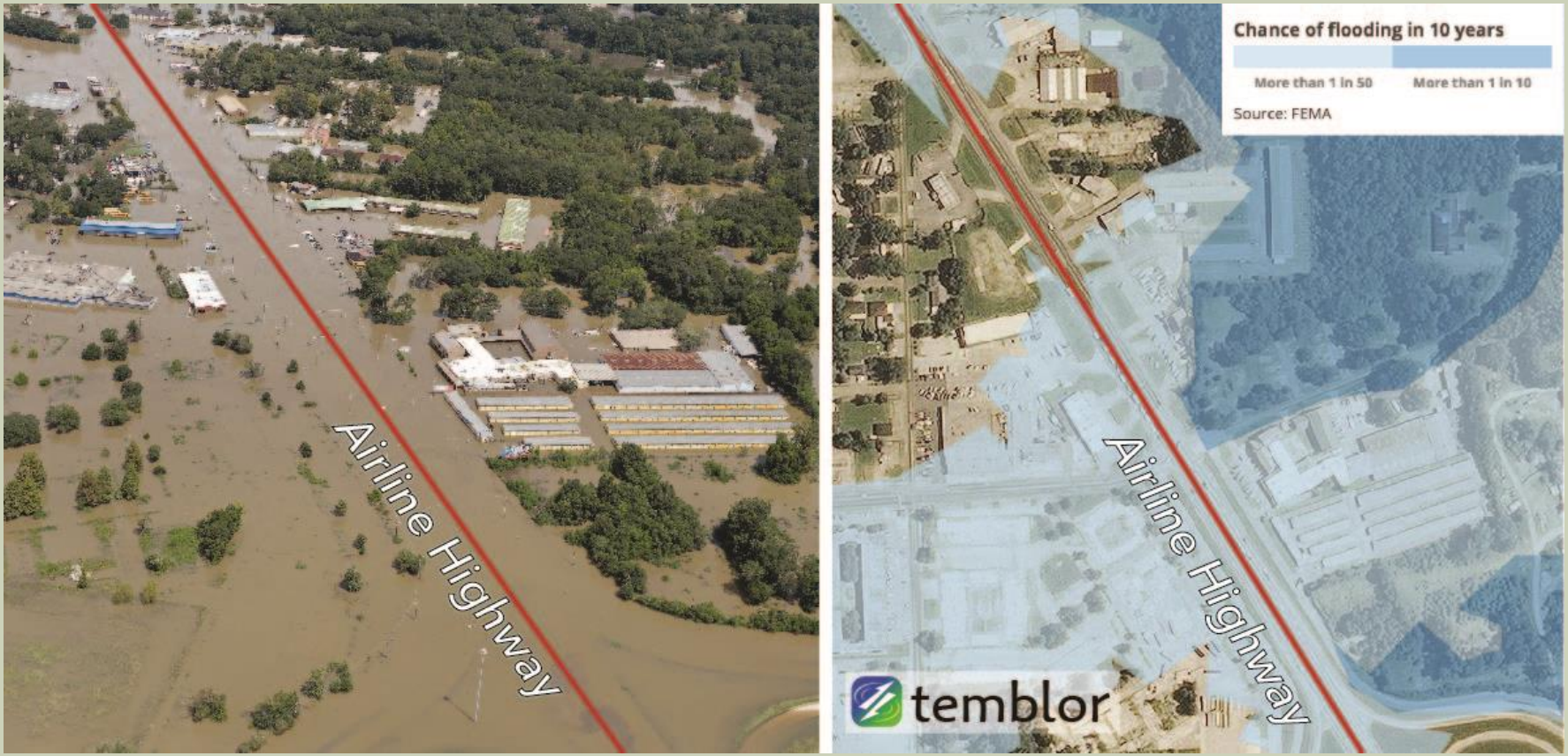
BATON ROUGE, LA 2016



FLOOD DAMAGES ARE ESCALATING

"Flood damage in the United States continues to escalate. From the early 1900s to the year 2007, flood damage increased six-fold, and now averages over $6 billion annually, even when Hurricanes Katrina, Rita, and Wilma (2005) are not included. This has occurred despite the investment of billions of dollars in structural flood control and the application of many other structural and non-structural measures over these many decades. Even in the face of increasing flood losses, we continue to intensify development, and to do so in a manner in which flood-prone or marginally protected structures suddenly become susceptible to damage because the actions of others in and around the floodplain and watershed have worsened the flood hazard." *Association of State Floodplain Managers*

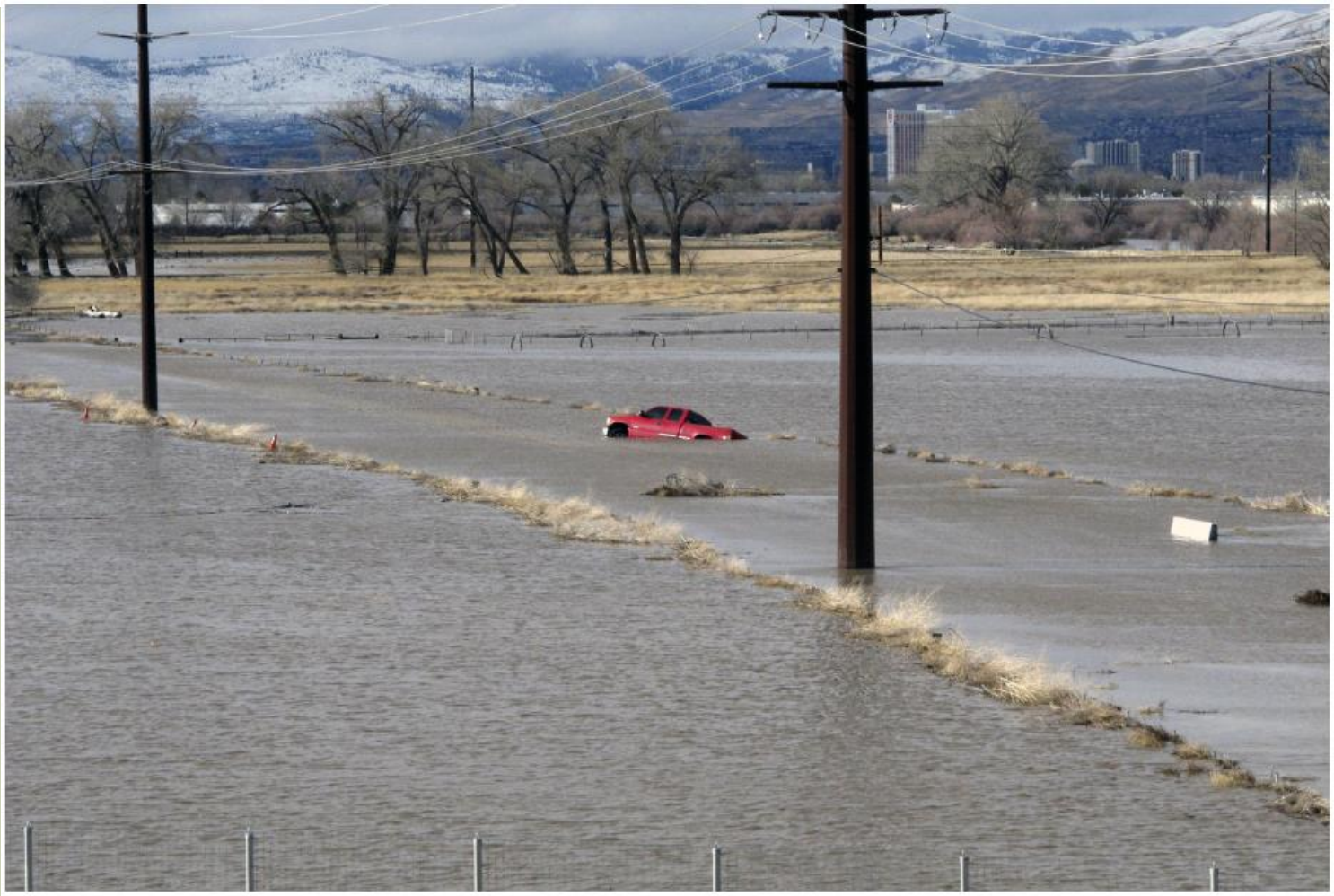
BATON ROUGE, LA 2016



Accurately Predicted Storms? "*Airline Highway in Baton Rouge, the flood surpassed even the 0.2% per year (2% per decade) flood zone as designated by FEMA*"

http://temblor.net/earthquake-insights/louisiana-floods-1124/

TRUCKEE RIVER, NV 2017

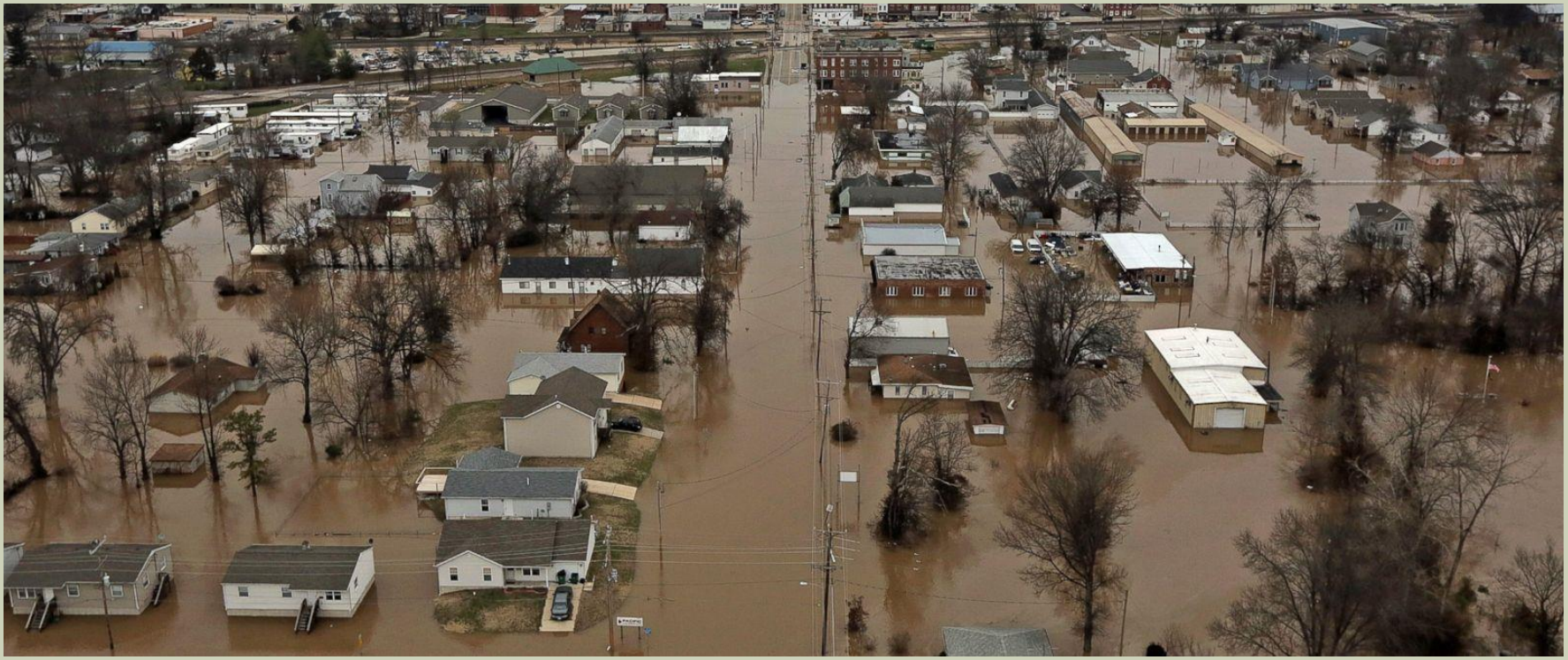


MORE FLOODPLAINS REGULARLY INUNDATED

CLIMATE CHANGE IS HERE

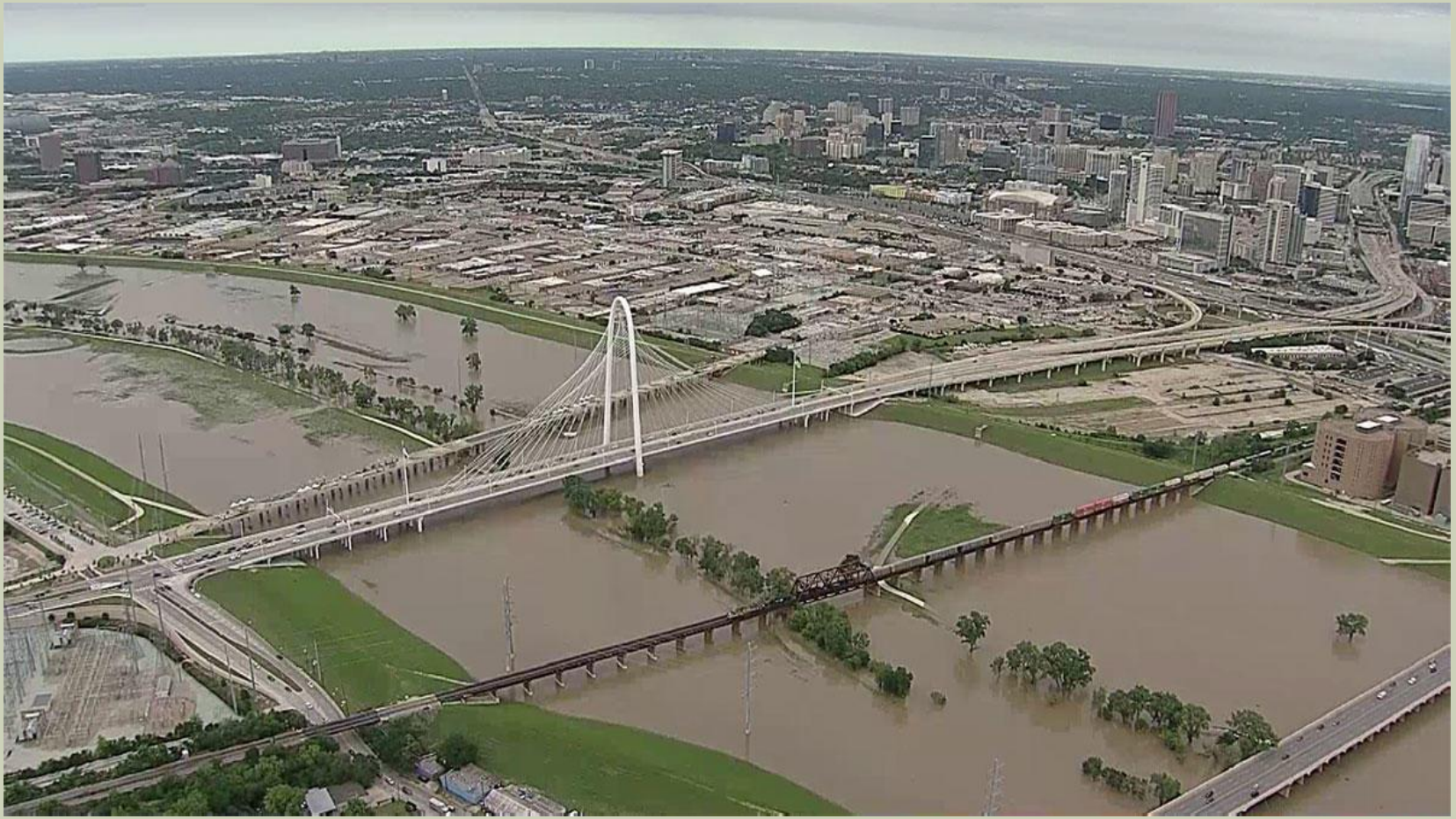
- Larger rain events in shorter time period
- Longer drier drought
- Sea level rise and low elevation inundation

MISSOURI 2015



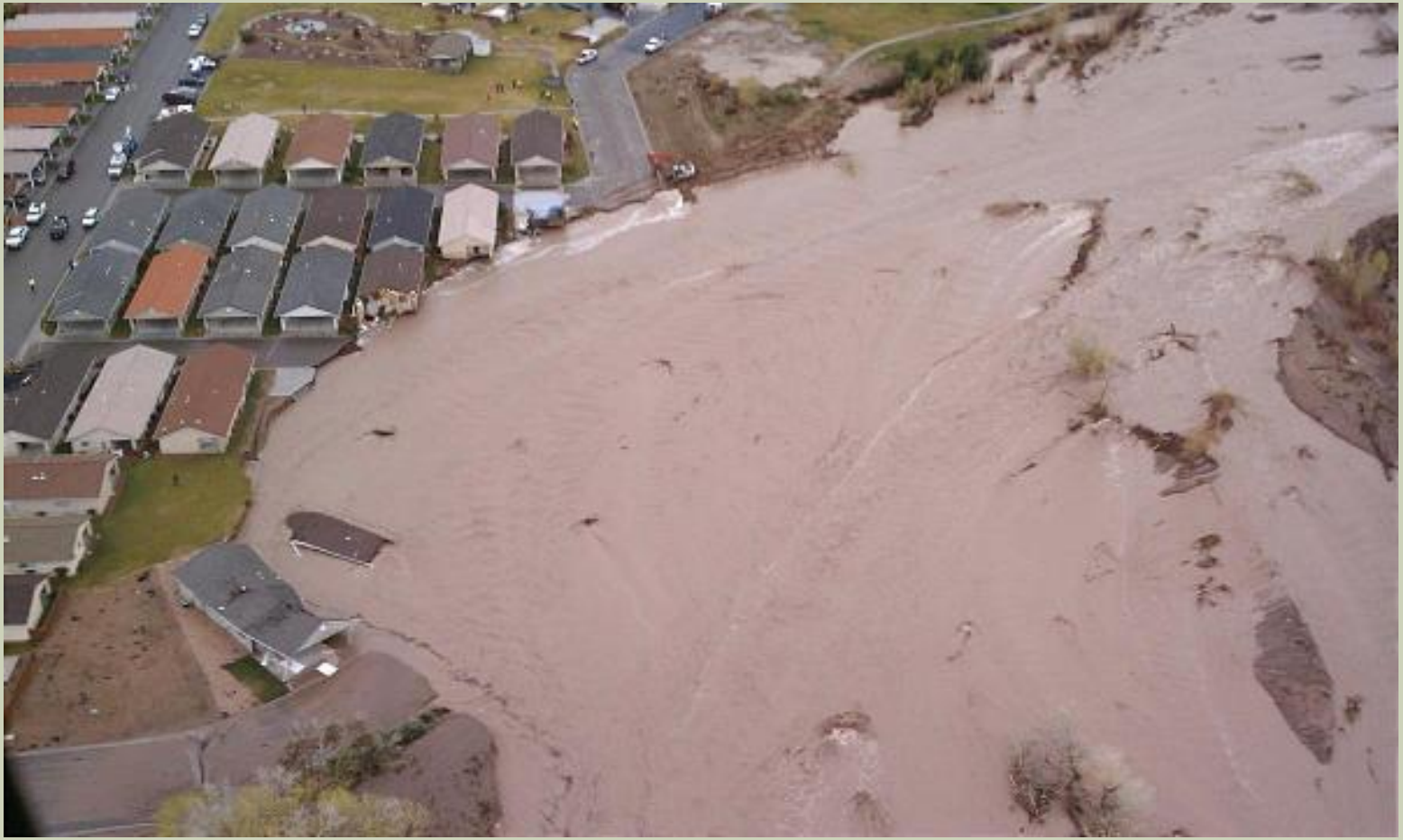
CLIMATE CHANGE MEANS MORE FREQUENT, GREATER INTENSITY STORMS

DALLAS 2015



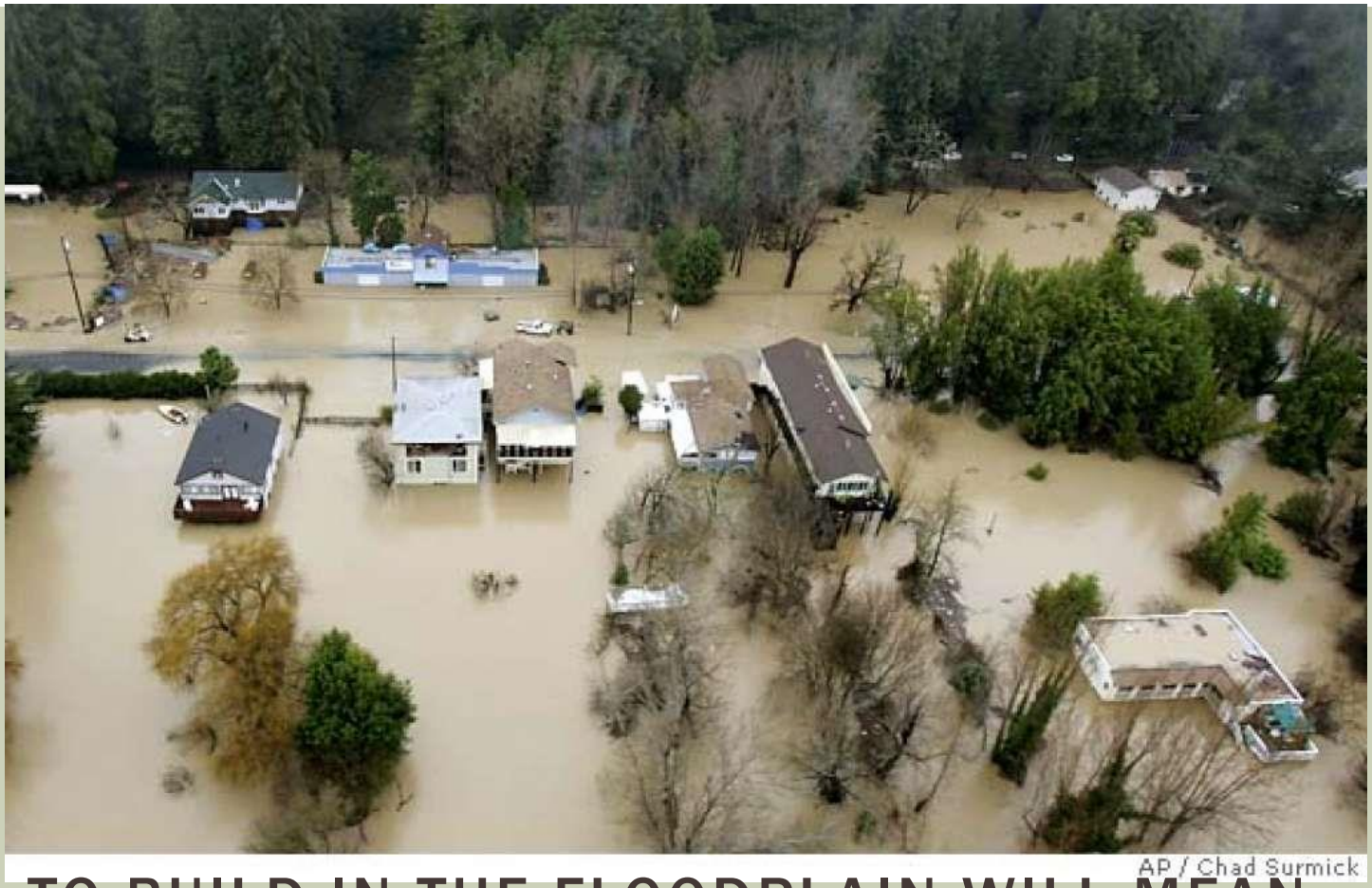
FLOODING IN NEW UNPREDICTED LOCATIONS

UTAH 2010



CURRENT DESIGN STANDARDS FAIL

GUERNEVILLE 2006



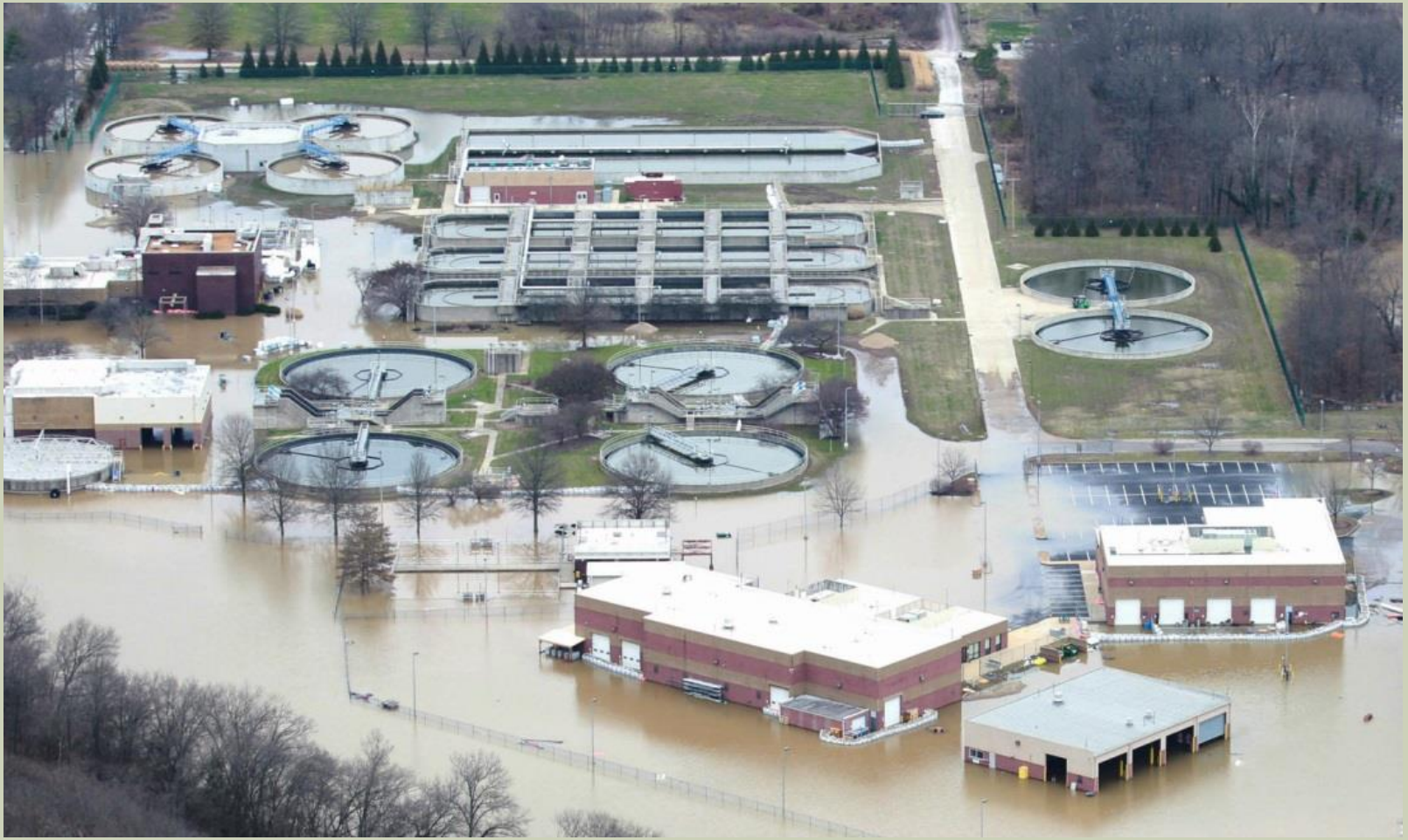
AP / Chad Surmick

TO BUILD IN THE FLOODPLAIN WILL MEAN REPEATING HISTORY

FLOODING MEANS HAZARDOUS CHEMICAL SPILLS

2015 Austin TX Oil and Chemical Plant Failure

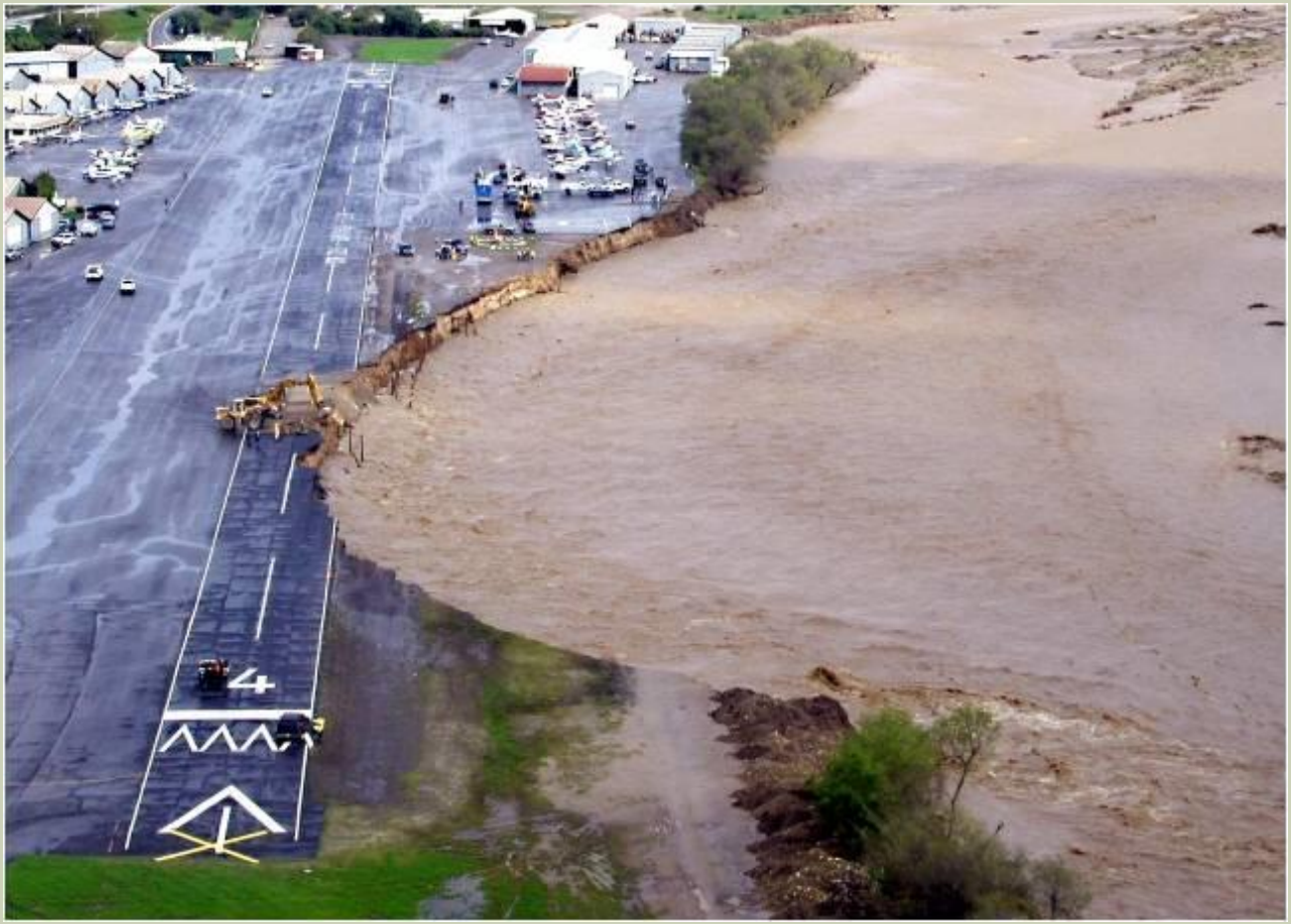
FLOODING MEANS UTILITY FAILURES



2015 St Louis Sewage Treatment Plant Failure

WHAT ABOUT THE FLOODPLAIN OF THE SANTA CLARA RIVER?

SANTA PAULA 2005



Airport Runway Failure - Built on Fill

GEOMORPHIC ASSESSMENT OF THE SANTA CLARA RIVER WATERSHED
APRIL 2011

- "The river and its tributaries experience high annual flow variability, multi-year droughts, and extreme seasonal flooding, which together result in a highly dynamic alluvial [erosion/sediment transport] system."

- "During the rainy season, flows can increase, peak, and subside rapidly in response to high intensity rainfall (the term "flashy" is commonly used to describe this characteristic), with the potential for severe flooding under saturated or near-saturated watershed conditions."

- "The majority of sediment transport throughout the SCR occurs during very short periods of time…25% of the total sediment discharge out of the entire SCR watershed for the period 1928–2000 occurred in four days."

Prepared for and Approved by: Army Corps of Engineers, Ventura County Watershed Protection District, Los Angeles County Dept of Public Works
http://www.ladpw.org/wmd/scr/docs/SCR_Geomorph%20Synthesis_SWS_2011_FINAL.pdf

BUILD IN THE FLOODPLAIN?

- Site WILL be flooded and damaged
- Climate change is amplifying storms
- Erosion of fill has already occurred not far upstream
- Sediment transport may be severe
- Hazardous and chemical material release

DON'T REPEAT HISTORY