<table>
<thead>
<tr>
<th><strong>DOCKETED</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Docket Number:</strong></td>
<td>15-AFC-02</td>
</tr>
<tr>
<td><strong>Project Title:</strong></td>
<td>Mission Rock Energy Center</td>
</tr>
<tr>
<td><strong>TN #:</strong></td>
<td>222665</td>
</tr>
<tr>
<td><strong>Document Title:</strong></td>
<td>Nina Danza Comments What Happens When You Build in the Floodplain</td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td>Presentation</td>
</tr>
<tr>
<td><strong>Filer:</strong></td>
<td>System</td>
</tr>
<tr>
<td><strong>Organization:</strong></td>
<td>Nina Danza</td>
</tr>
<tr>
<td><strong>Submitter Role:</strong></td>
<td>Public</td>
</tr>
<tr>
<td><strong>Submission Date:</strong></td>
<td>2/21/2018 9:00:15 PM</td>
</tr>
<tr>
<td><strong>Docketed Date:</strong></td>
<td>2/21/2018</td>
</tr>
</tbody>
</table>
What Happens When You Build in the Floodplain

Additional submitted attachment is included below.
WHAT HAPPENS WHEN YOU BUILD IN THE FLOODPLAIN?
HOUSTON 2017

THREE 500-YR FLOODS IN 10 YEARS
FLORIDA 2017

Jacksonville worst flooding in its 150 year history
Floods are not taking place as predicted by statistics. Flood Return Computations are inaccurate and do not reflect:

- Poor Past Rainfall Records
- Climate Change
- Lack of Site Specific Data
Baton Rouge, LA 2016

Flood damages are escalating
MISSOURI 2015

CLIMATE CHANGE MEANS MORE FREQUENT, GREATER INTENSITY STORMS
Floodplain maps are faulty.

“Without accurate floodplain identification and mapping processes, management, and oversight, FEMA cannot provide members of the public with a reliable rendering of their true flood vulnerability or ensure that NFIP rates reflect the real risk of flooding.”

“This review focuses on riverine flooding, which occurs in waterways subject to overbank flooding, flash floods, and urban drainage system flooding.”
"Congressional Budget Office estimated that overall, considering all expenditures and premium income, the [NFIP] program had an expected one-year shortfall of $1.4 billion.”

Excluding costs for mapping floodplains, mitigating flood risk, and making interest payments on debt accumulated from previous claims, CBO indicates NFIP is still $0.7 billion insolvent.
Unable to Keep Up With the Floods

The National Flood Insurance Program has been in the red since 2005, when Hurricane Katrina flooded New Orleans and it suddenly had to pay out $16.3 billion in claims.

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.

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.

Association of State Floodplain Managers [ASFPM]
FLOODING CAUSES HAZARDOUS CHEMICAL SPILLS

2015 Austin TX Oil and Chemical Plant Failure
FLOODING CAUSES UTILITY FAILURES

2015 St Louis Sewage Treatment Plant Failure
HOW DOES THIS APPLY TO MREC?
DO NOT USE LOCAL ORDINANCES FOR ADEQUATE FLOOD PROTECTION

SANTA PAULA AIRPORT FLOOD DAMAGE 2005
“ASFPM strongly believes the minimum NFIP floodplain regulations do not provide adequate long-term flood risk reduction for communities and that the benefits of flood risk reduction achieved by higher regulatory standards far outweighs the burden of administering them.”

Association of State Floodplain Managers [ASFPM]
“The nation must begin to break the costly cycle of encroachment, erosion-related damage, structural controls, further encroachment and so on.”

“The main purpose of this White Paper is to encourage state and local governments to begin mapping riverine erosion hazard areas in their communities.”

Association of State Floodplain Managers [ASFPM]
EROSION CONTROL PROPOSED DOWNSTREAM OF MREC

SANTA CLARA RIVER LEVEE REPAIR PROPOSED 8’ THICK X 35.8’ HIGH PAVED SIDE BANK

Figure 4.1 – Typical Cross Section of Alternative 1, Soil Cement for Design Flow (Sta. 270+00)
“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.”
LEARN FROM THE PAST
REALIZE THE FUTURE

DO NOT BUILD
IN THE FLOOD PLAIN