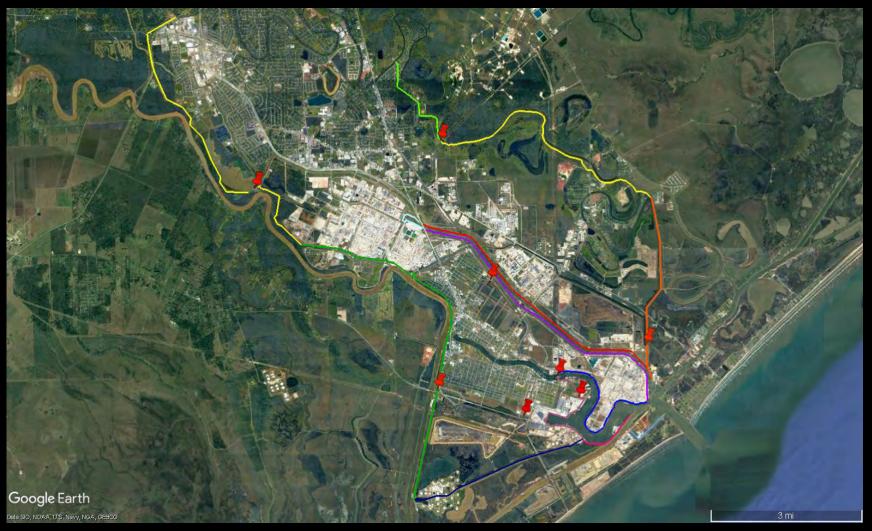


# SOME OBSERVATIONS ON OUR JOURNEY TO ACCREDITION



## FREEPORT HURRICANE LEVEE SYSTEM





#### **POST KARTINA CHANGES**

- 1. FEMA CFR 65.10 --- CERTIFICATION
- 2. USACE MORE ROBUST INSPECTIONS
- 3. USACE 408 PERMITTING REQUIRED



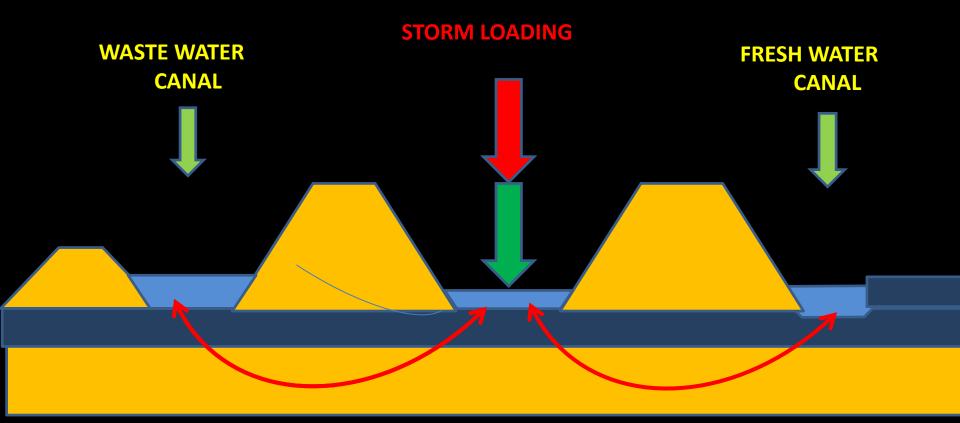
# **ISSUES**

- 1. COASTAL VS RIVERINE
- 2. STEADY-STATE VS TRANSIENT SEEPAGE
- 3. UNDER SEEPAGE
- 4. WAVE RUNUP MODELING
- 5. REALISTIC APPLICATION OF PL 84-99



# UNDERSEPAGE

#### **BARGE CANAL**



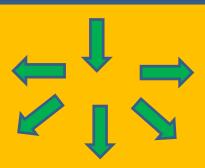


# **UNDERSEPAGE**

**DURING HURRICANE** 

WASTE WATER CANAL

FRESH WATER
CANAL



**MULTI--DIRECTIONAL** 

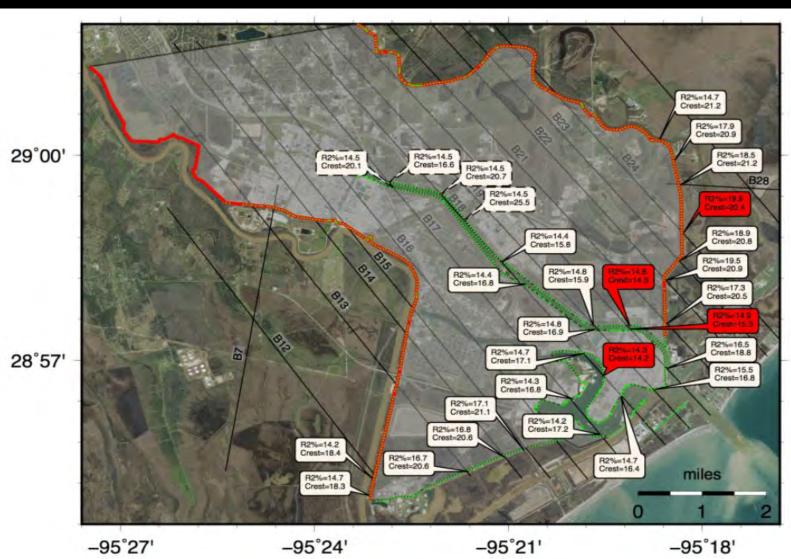


# **ISSUES**

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### **2D COULWAVE WAVE MODEL**





# **ISSUES**

- 1. COASTAL VS RIVERINE
- 2. STEADY-STATE VS TRANSIENT SEEPAGE
- 3. UNDER SEEPAGE
- 4. WAVE RUNUP MODELING
- 5. REALISTIC APPLICATION OF PL 84-99