The project faces many challenges due to its urban and floodplain settings and must be designed and implemented in a manner that avoids impacts and possibly improves:

- The existing and previously restored wetlands,
- The flood protection along San Dieguito River,
- Scour conditions at multiple major transportation infrastructure, and
- The long term sediment delivery to the Beach.

The San Diego Association of Governments, the California Department of Transportation, the San Dieguito River Valley Joint Powers Authority, and the City of San Diego propose to:

- Create 50 acres of tidal wetlands to provide mitigation opportunity for I-5 widening
- Create 15 acres of brackish wetlands for El Camino Real Bridge widening
- Create 5 acres of riparian habitat
- Provide reserve wetlands for Southern California Edison

AdH Model Applications

- Predict tidal hydraulics for wetland design
- Predict flood hydraulics for floodplain impact assessment
- Predict residence time to assess impacts of proposed project to the overall tidal circulation efficiency
- Predict fluvial sediment transport to assess potential erosion impacts to the infrastructure and changes of sediment delivery to the Pacific Ocean

AdH Modeling Grid

Project Objectives

The AdH Model Applications

Project Status and Schedule

- Certified EIR in 11/2018
- Completed the 60% engineer design in 11/2018
- Select Caltrans Construction Management General Contractor by 2/2019
- Prepare final engineering design by 12/2019
- Award contract by 7/2020
- Start Construction 8/2020

Challenges

AdH Model Calibration Results

Comparison of Habitat Elevation Breaks (ft, NGVD29) at Existing Edison Marsh

<table>
<thead>
<tr>
<th>Habitat Type</th>
<th>Based on ESA 2013 Habitat Survey</th>
<th>AdH Predicted Inlet Dredged Condition</th>
<th>AdH Predicted Inlet Shoaled Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-High Marsh (Pickelweed)</td>
<td>+1.8 ~ +3.5</td>
<td>+1.9 ~ +3.8</td>
<td>+1.8 ~ +3.4</td>
</tr>
<tr>
<td>Low Marsh (Cordgrass)</td>
<td>+1.4 ~ +1.8</td>
<td>+1.3 ~ +1.9</td>
<td>+1.4 ~ +1.8</td>
</tr>
<tr>
<td>Mudflat</td>
<td>No Data</td>
<td>+0.6 ~ +1.3</td>
<td>+0.9 ~ +1.4</td>
</tr>
</tbody>
</table>

Note: The AdH predicted elevations are based on tidal inundation frequency of the existing condition.