Coastal Groundwater – Status and Trends

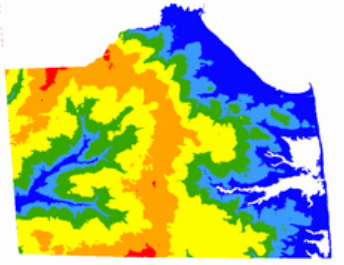
Lewes Water Workshop

Scott Andres, Delaware Geological Survey

https://www.dgs.udel.edu/

Peer reviewed and publically available data products

Digital Water-Table Data for Sussex County, Delaware (Digital Data Product No. 05-01)



Digital Water-Table Data for Sussex County, Delaware

Primary Data Category: Hydrogeology
Publication Date: Sep 2005
Update Status: Completed

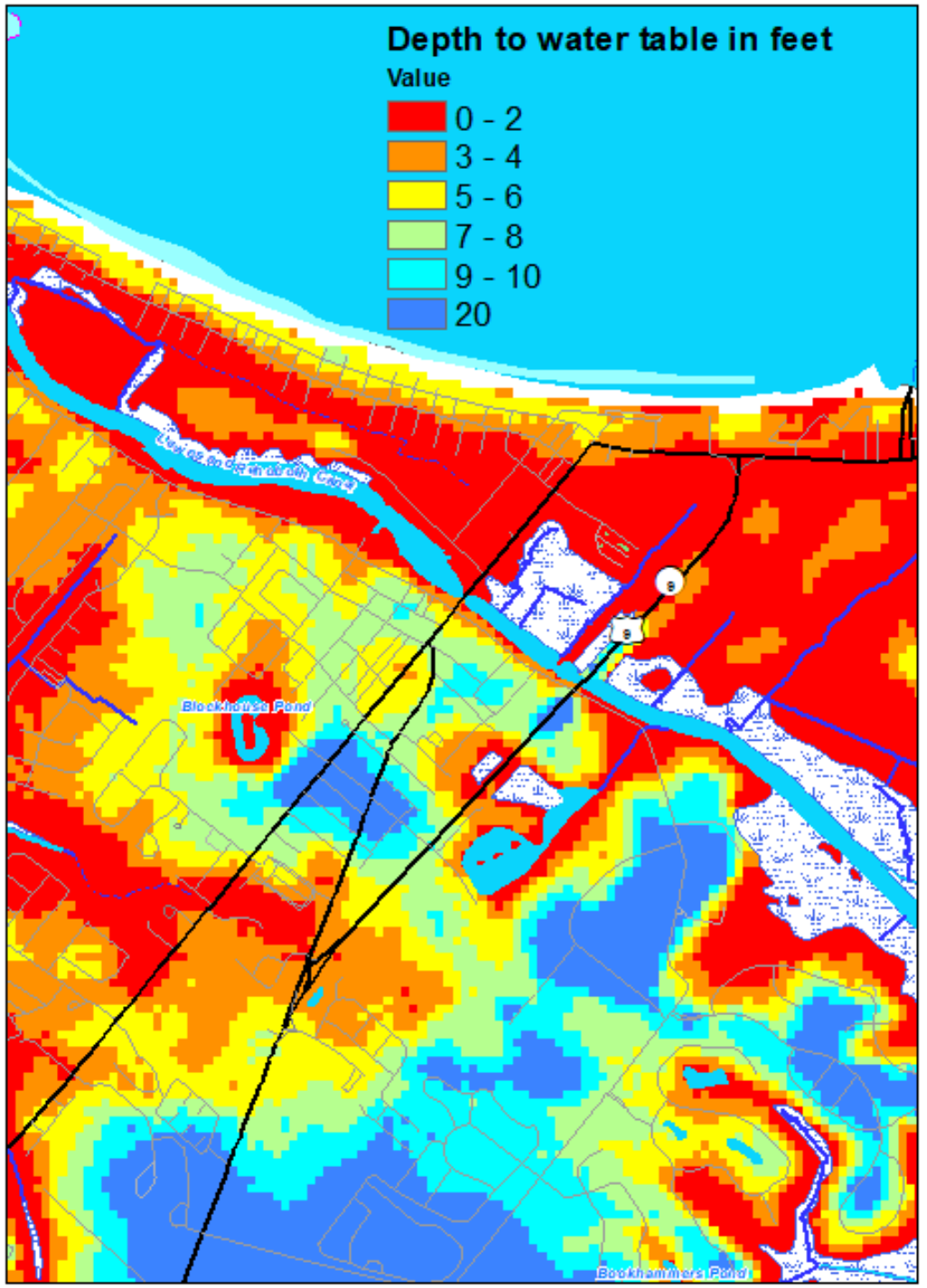
Summary

This digital product contains gridded estimates of water-table (wt) elevation and depth to water (dtw) under dry, normal, and wet conditions for Sussex County, Delaware. Files containing the point data used to create the grids are also included. This work is the final component of a larger effort to provide estimates of water-table elevations and depths to water for the Coastal Plain portion of Delaware. Mapping was supported by the Delaware Department of Natural Resources and Environmental Control and the Delaware Geological Survey. These grids were produced with the

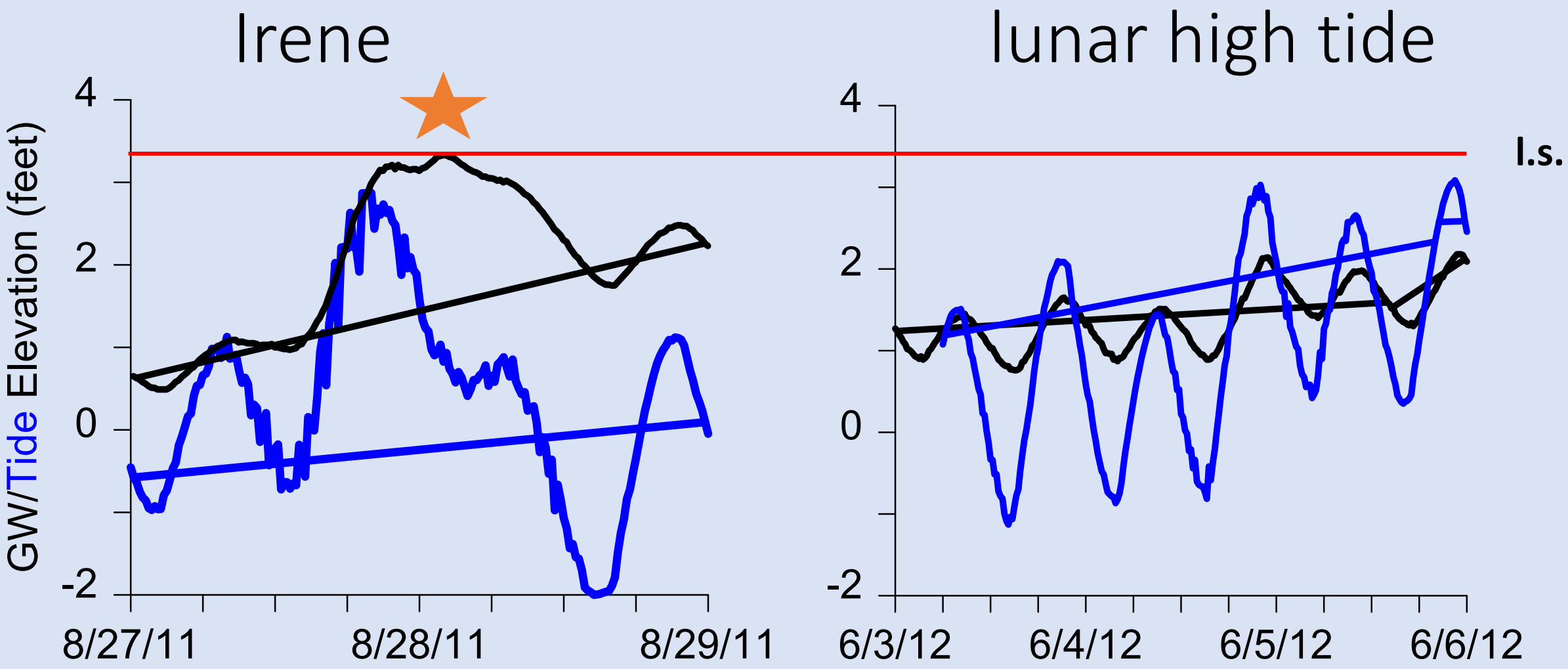
Water table is very shallow in Lewes area – planning issues for Lewes and residents

Water table will flood land surface during storms and high tides

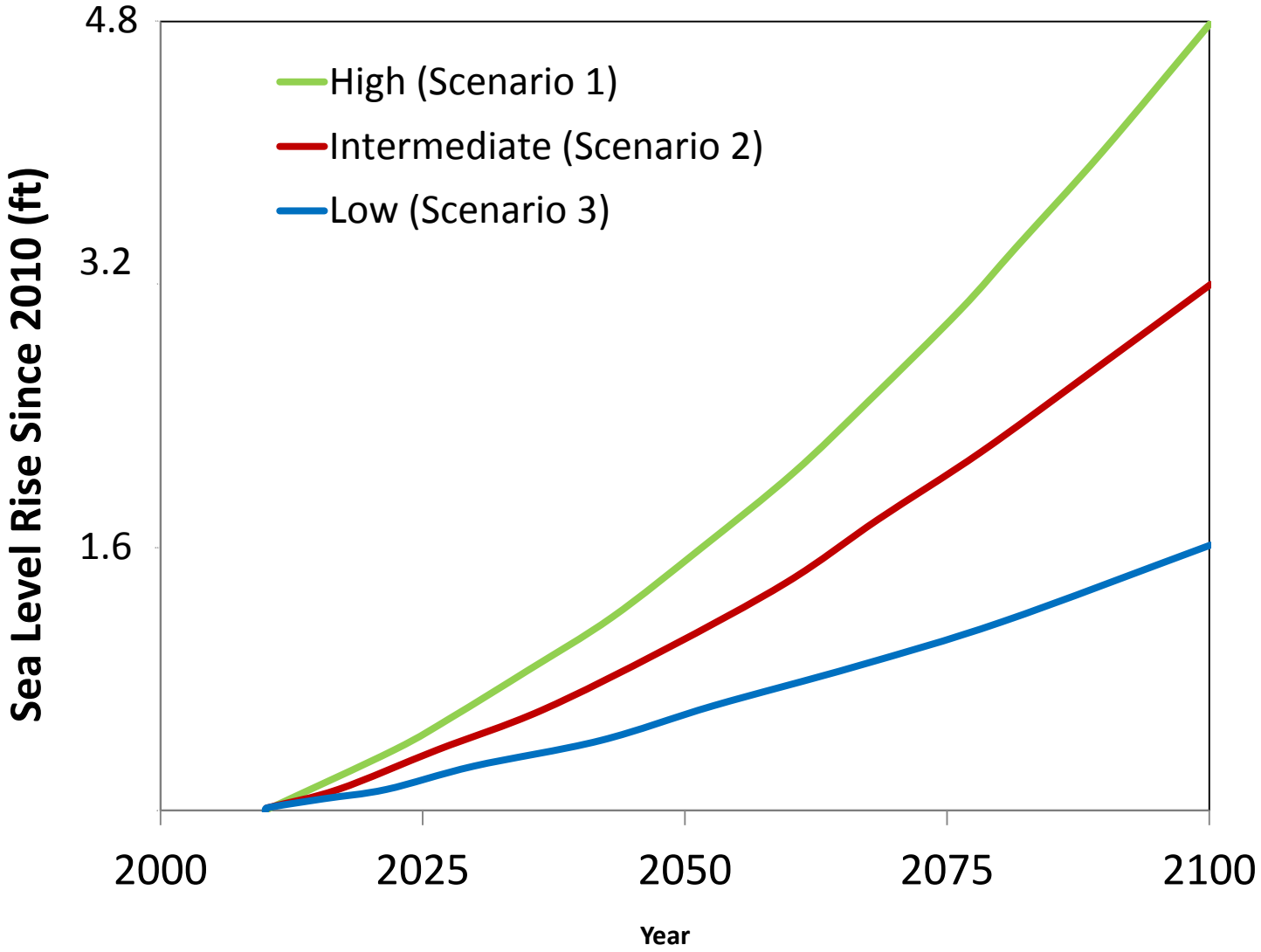
Sea level rise will decrease depth to water table



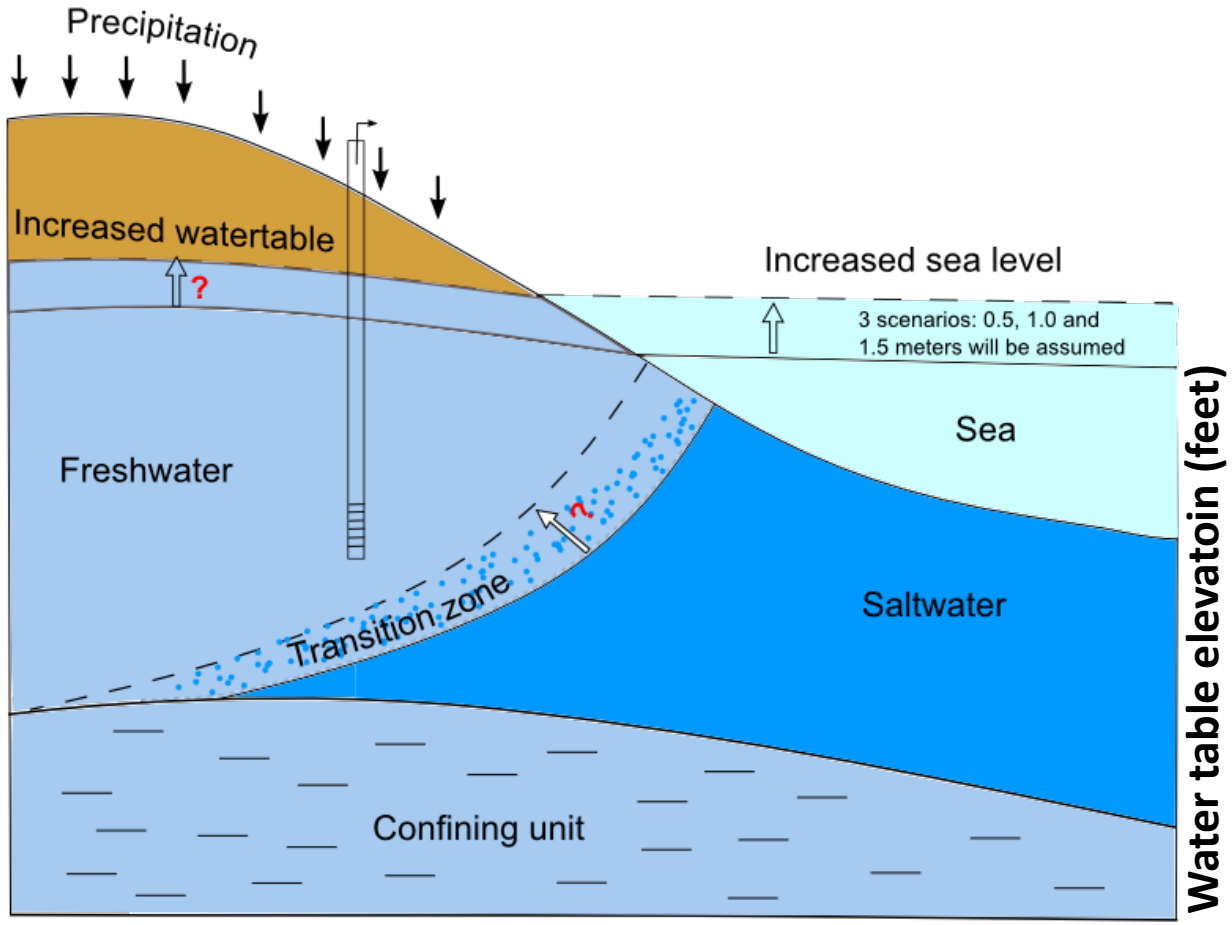
Storm & Tidal Flooding Field Data



Delaware Sea Level Rise Planning Scenarios

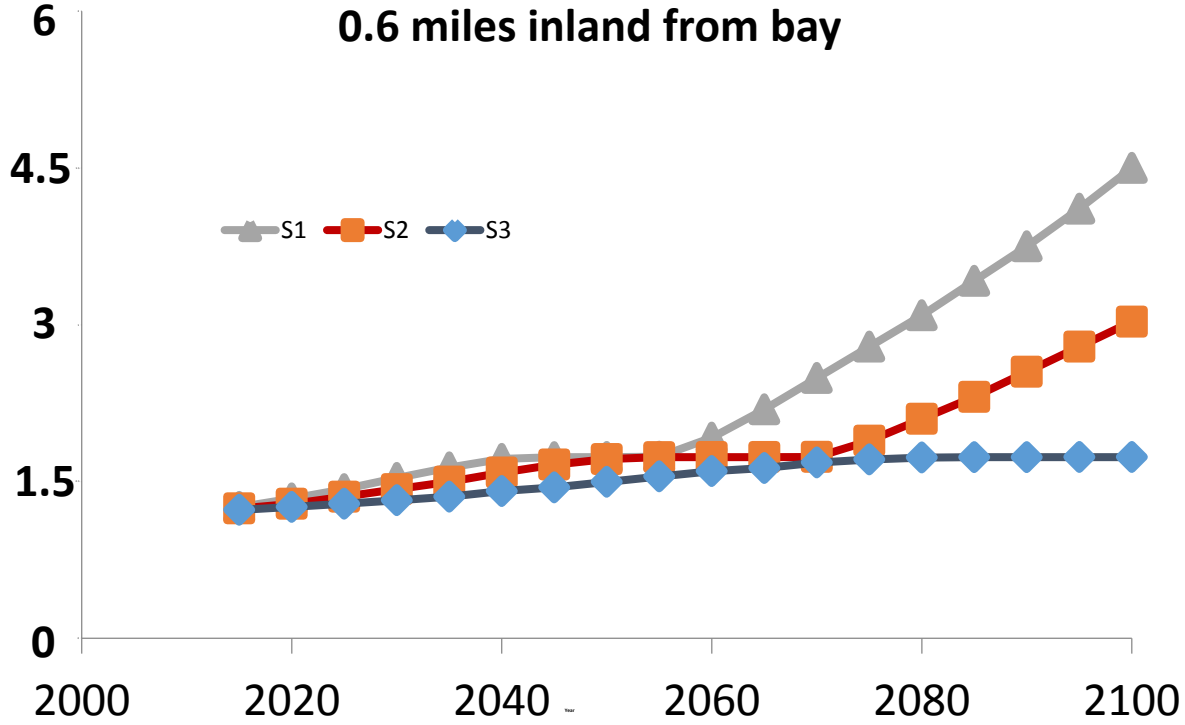


Sea level rise (SLR) and water table rise (WTR)
will impact many aspects of life along the coast



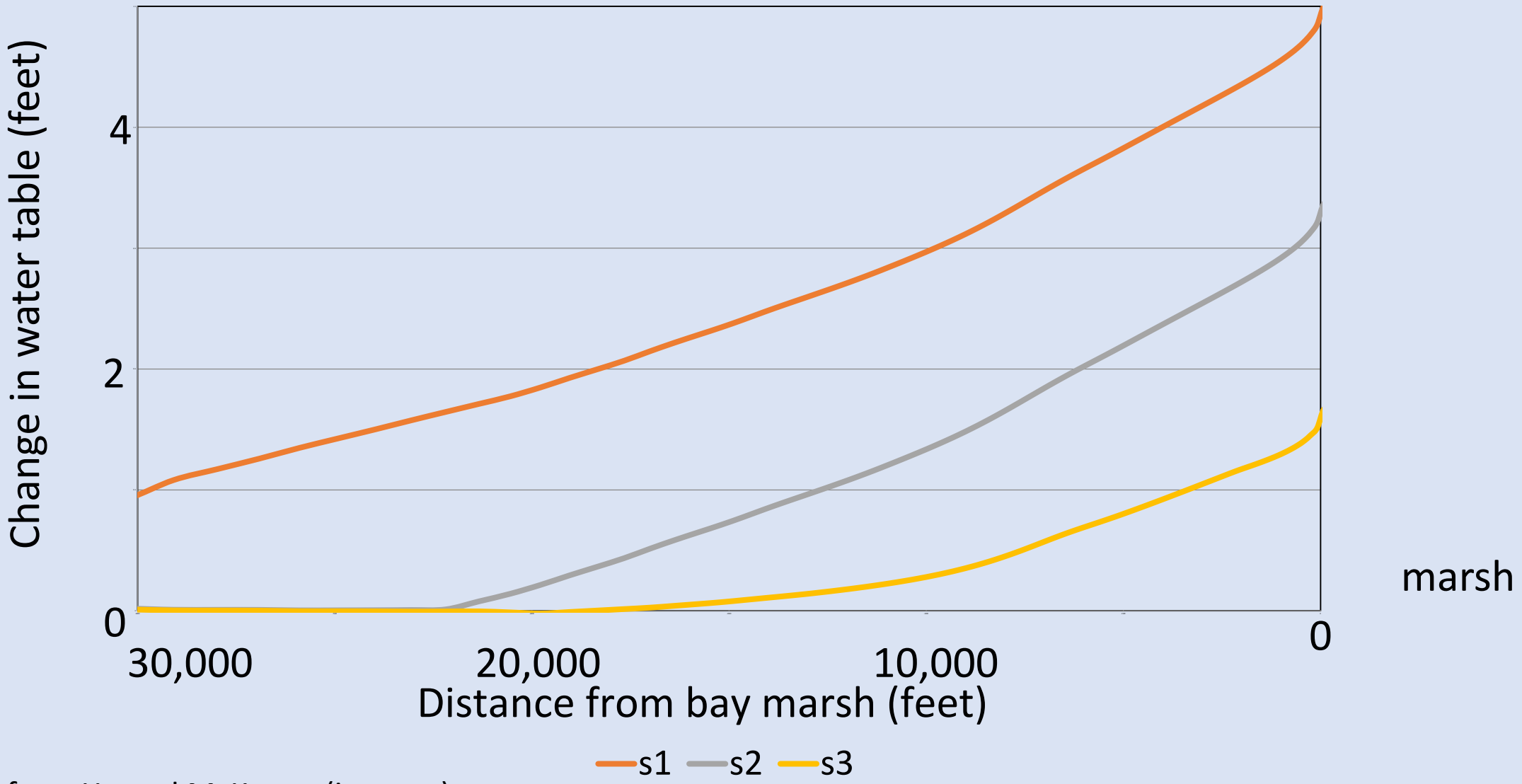
2010 - 2100 Sea Level and Water Table rise in feet

SLR	WTR
1.5	0.6
3	1.6
4.5	3.1



Adapted from He and McKenna (in press)

Water table rise Year 2100



Adapted from He and McKenna (in press)

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