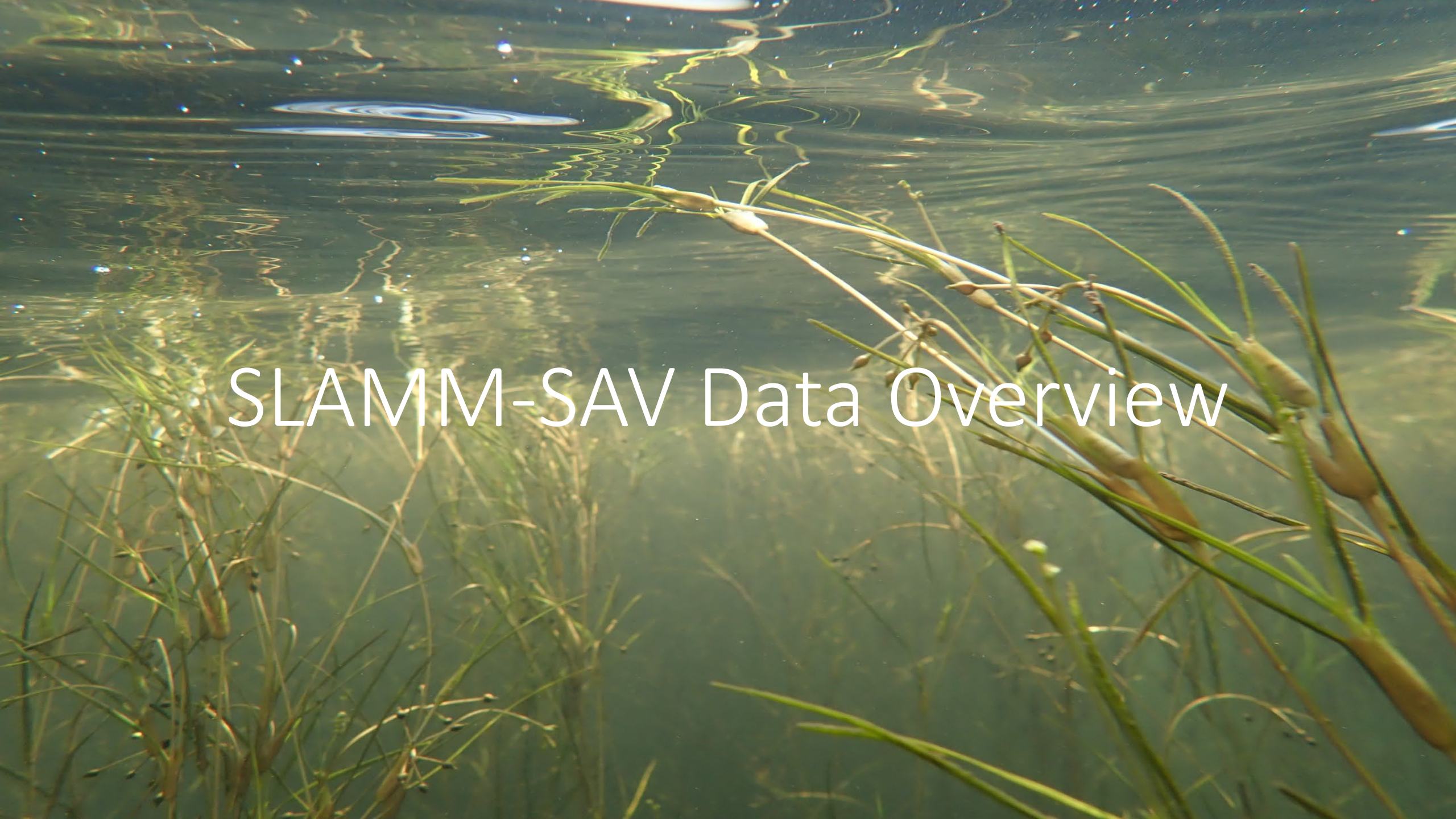
Sea Level Affecting Marshes Model (SLAMM) SAV Updates

Ecological Effects of Sea Level Rise Project

SAV Workgroup Meeting

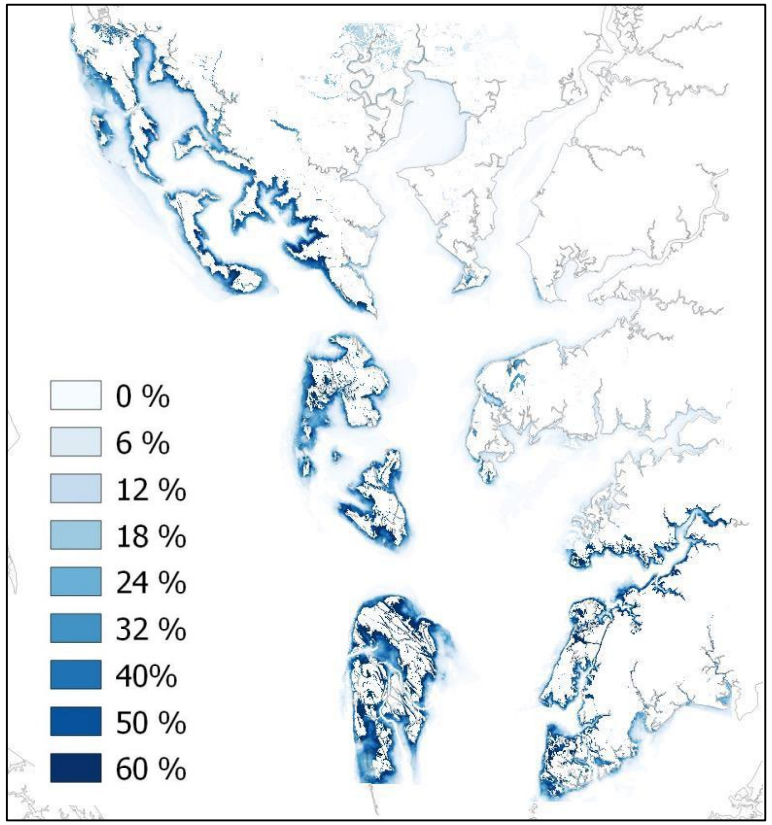
November 1, 2022

warren pinnacle consulting, inc.

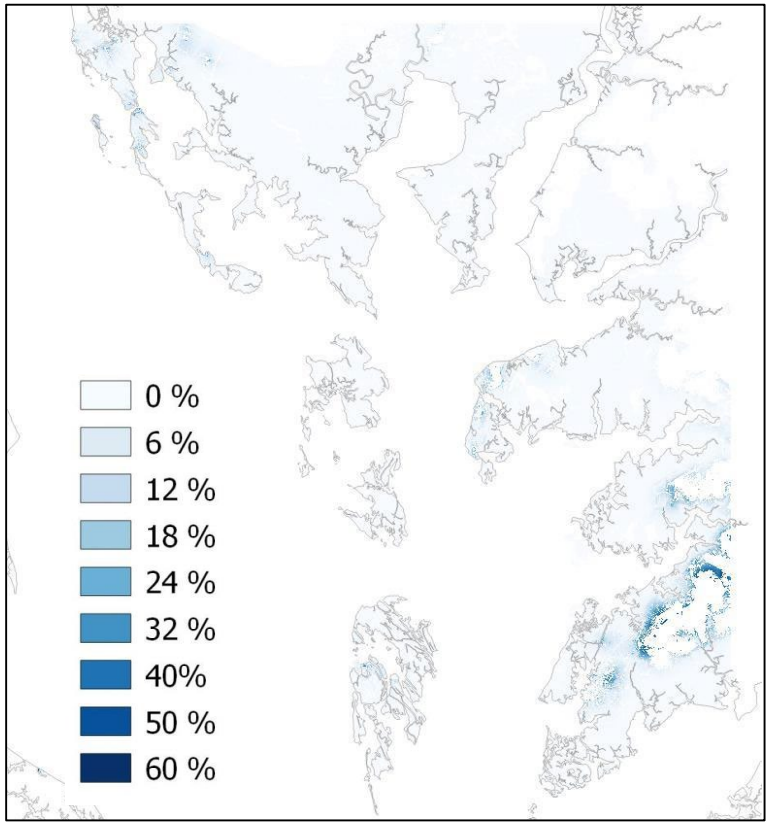


SLAMM-SAV Data Overview

SLAMM-SAV DATA



2010



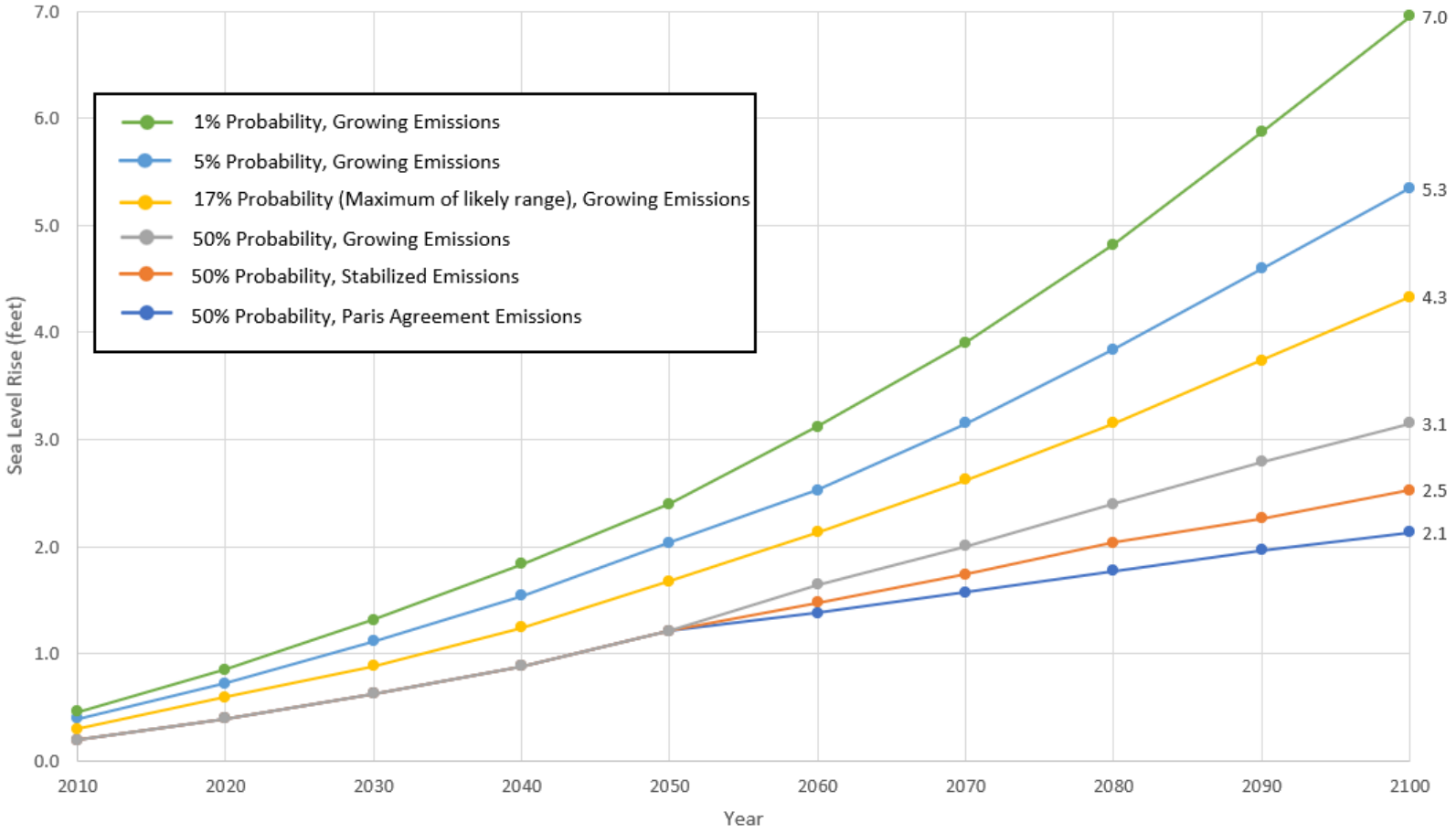
2100

SLR: 1% growing (7 ft)

Predict changes in distribution of SAV in response of SLR scenarios

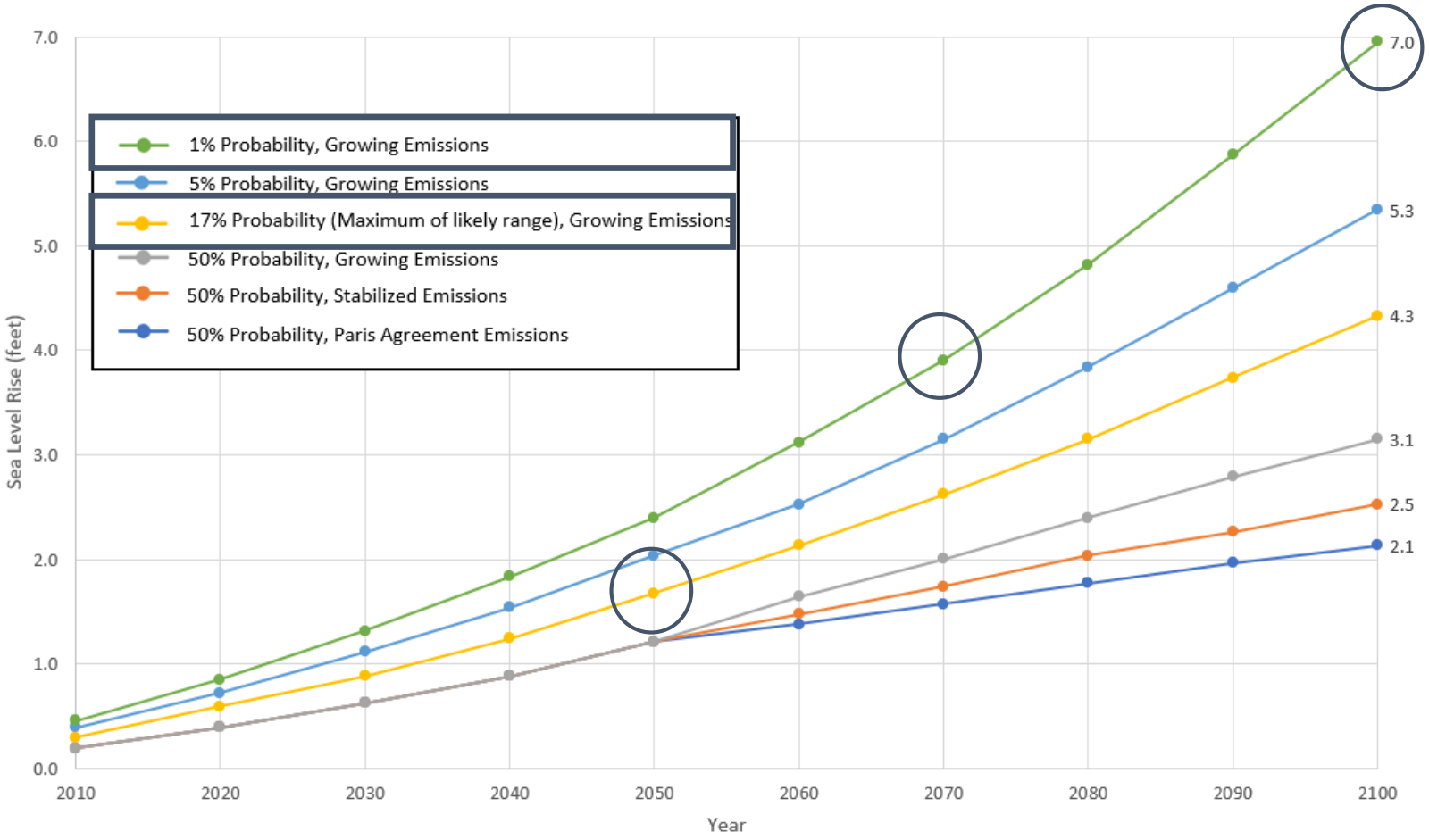
Percent likelihood of SAV presence

SLAMM-SAV DATA



- Emissions and likelihood scenarios that give a range of possible sea level rise conditions – from 2-7 ft by 2100 – to represent varying risk tolerances
- Relevant to the resilience planning for infrastructure and critical habitat

SLAMM-SAV DATA



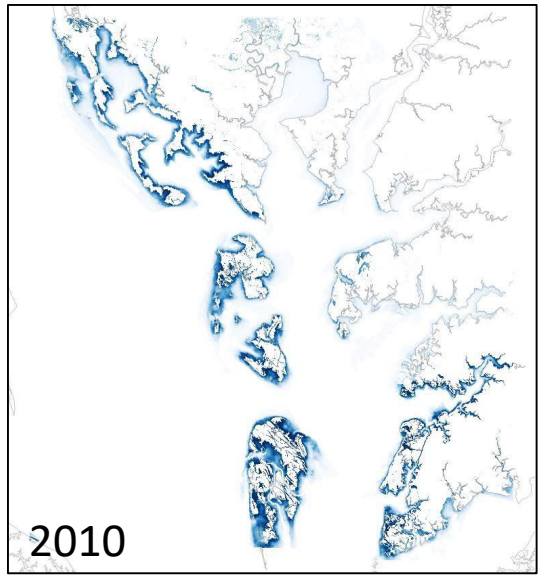
- Emissions and likelihood scenarios that give a range of possible sea level rise conditions – from 2-7 ft by 2100 – to represent varying risk tolerances
- Relevant to the resilience planning for infrastructure and critical habitat

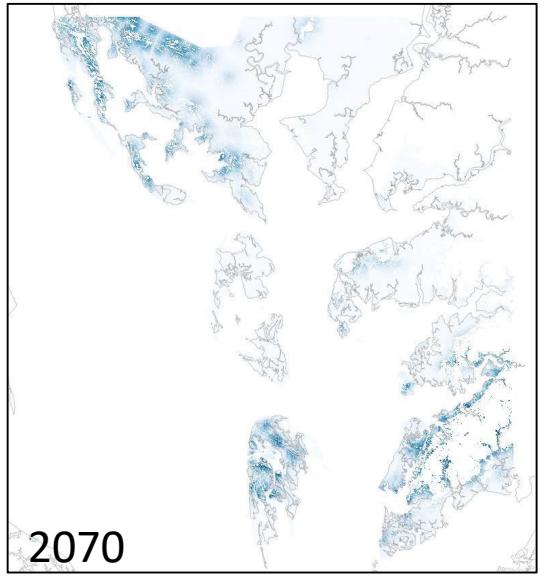
SLAMM-SAV DATA

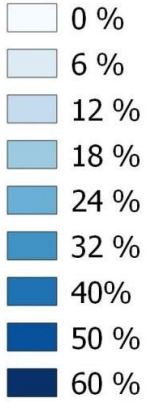
- Predict future SAV distribution for Choptank River & Tangier Sound
- For a number of timeframes and SLR scenarios:
  - 2050
  - 2070
  - 2100

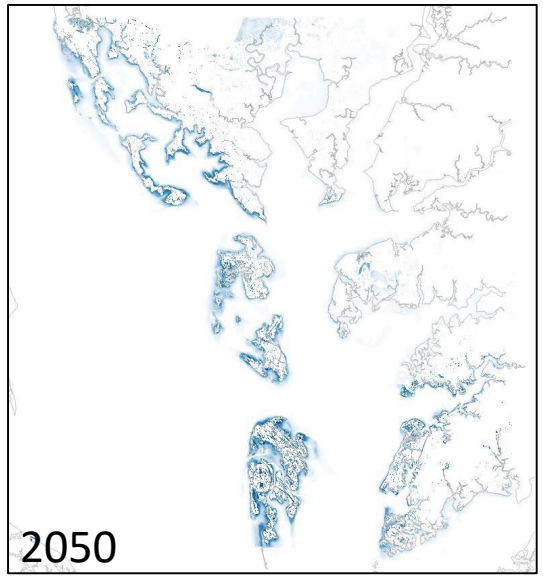
Year	Scenario Name	Probability	Emissions Pathway after 2050	Planning Relevance	SLR (ft)
2050	Upper Limit of Likely Range, Growing	17% probability SLR meets or exceeds estimated value	Growing Emissions (RCP8.5)	Habitat/Wildlife Conservation	1.6
2070	1% Growing	1% probability SLR meets or exceeds estimated value	Growing Emissions (RCP8.5)	Capital Infrastructure	4.7
2100	1% Growing	1% probability SLR meets or exceeds estimated value	Growing Emissions (RCP8.5)	Capital Infrastructure	7.0

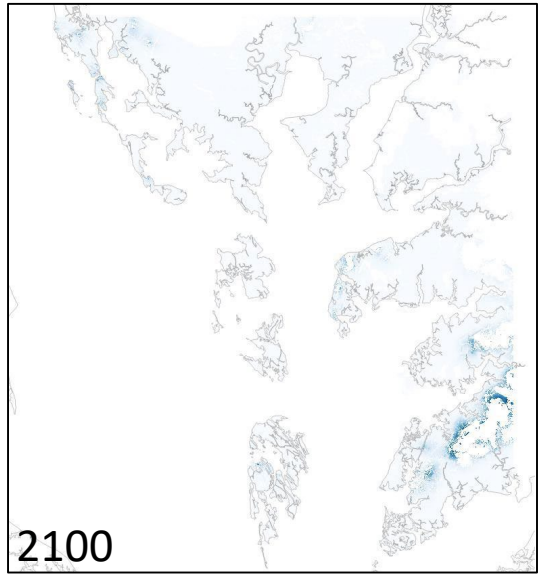
Model Results – Tangier full model



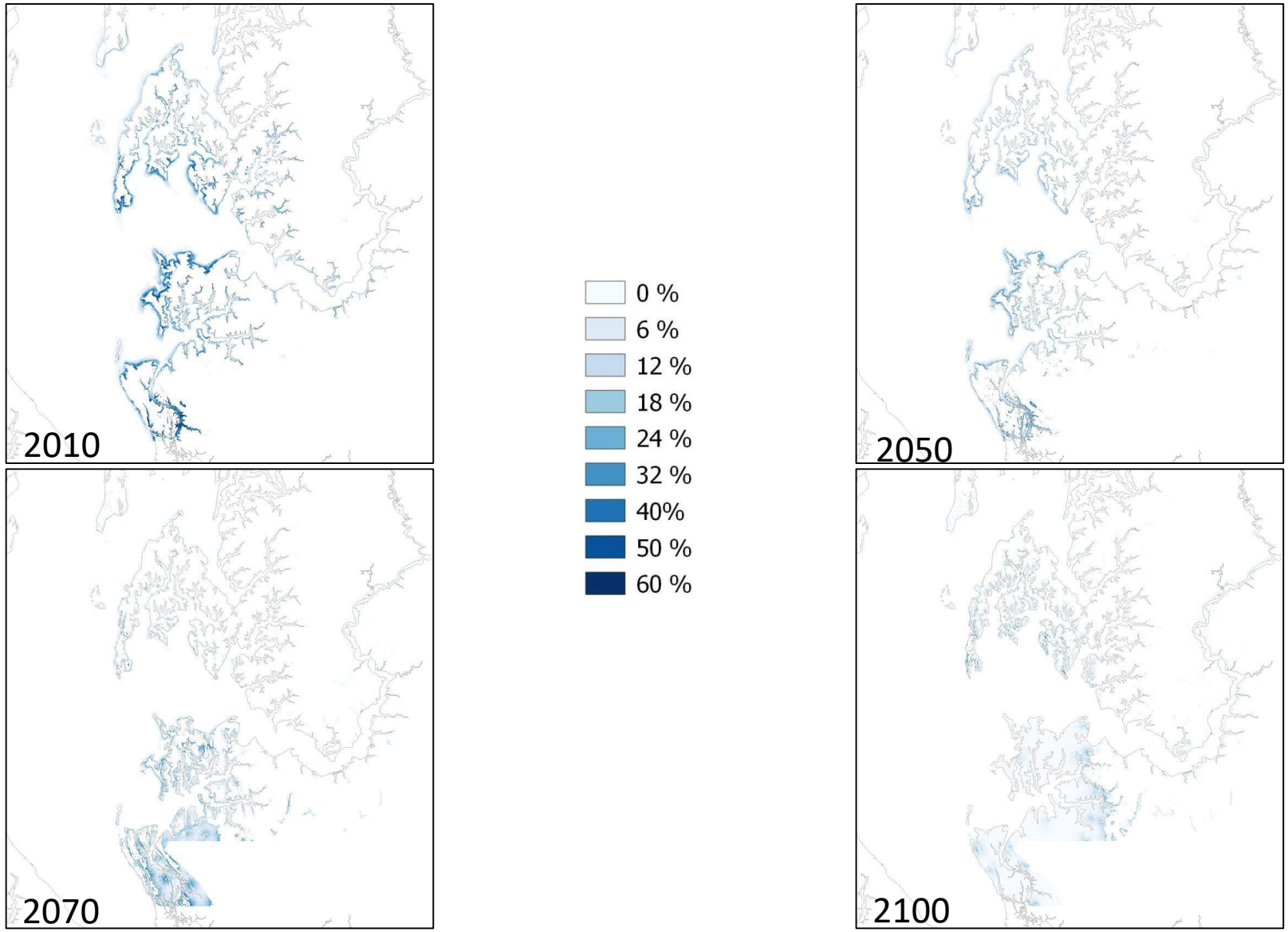




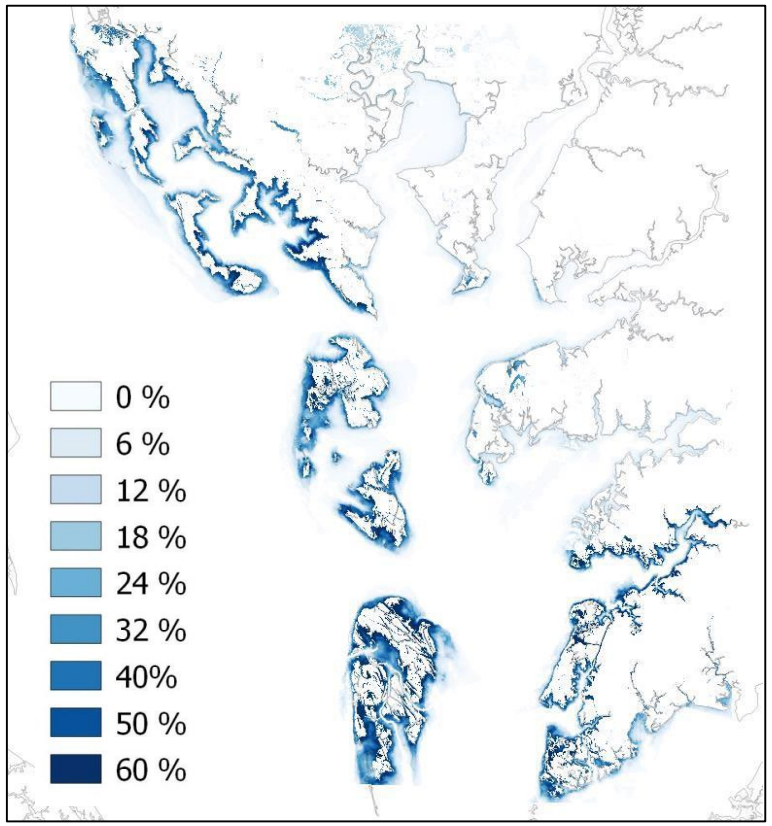




Model Results – Choptank full model



SLAMM-SAV DATA

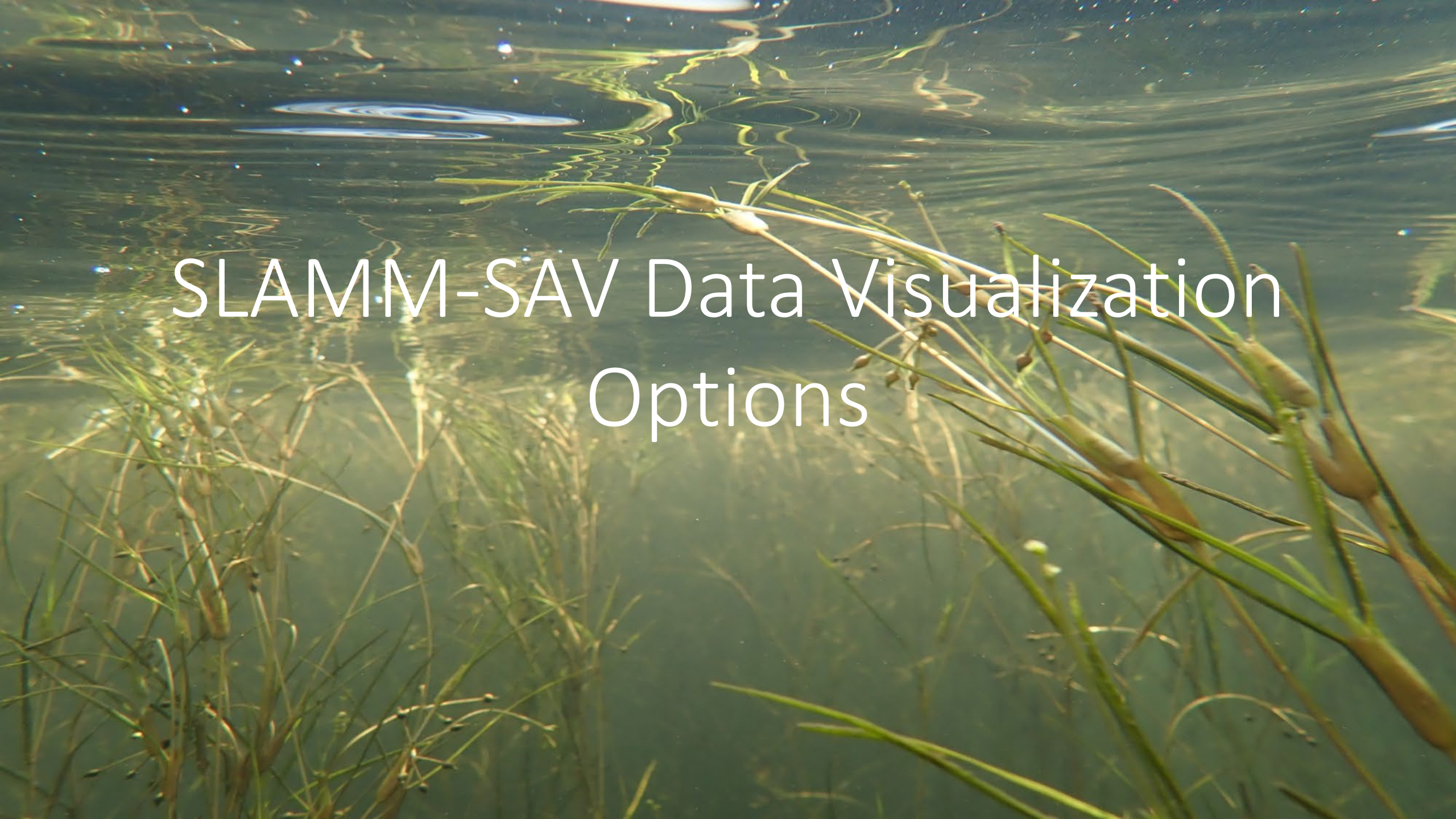


% Likelihood

Presence

Predict changes in distribution of SAV in response of SLR scenarios

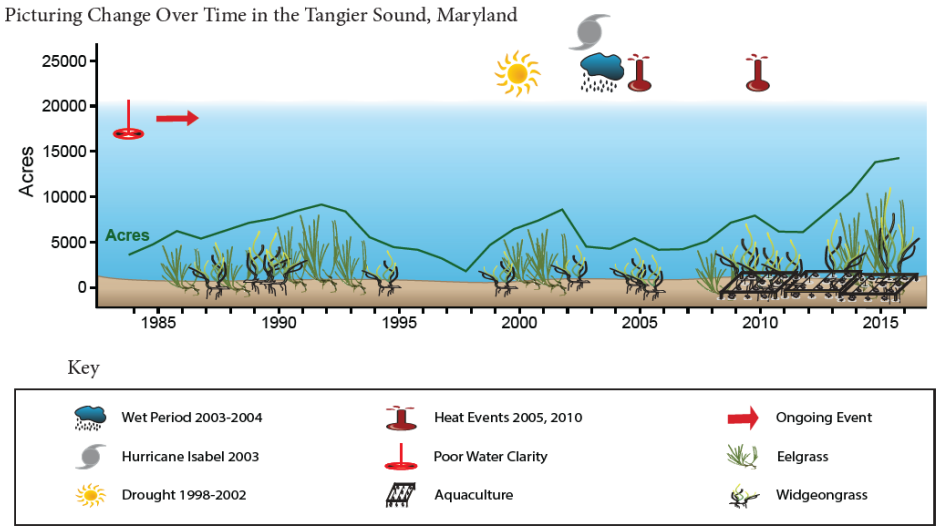
Reclassified to reflect binomial response (presence/absence)

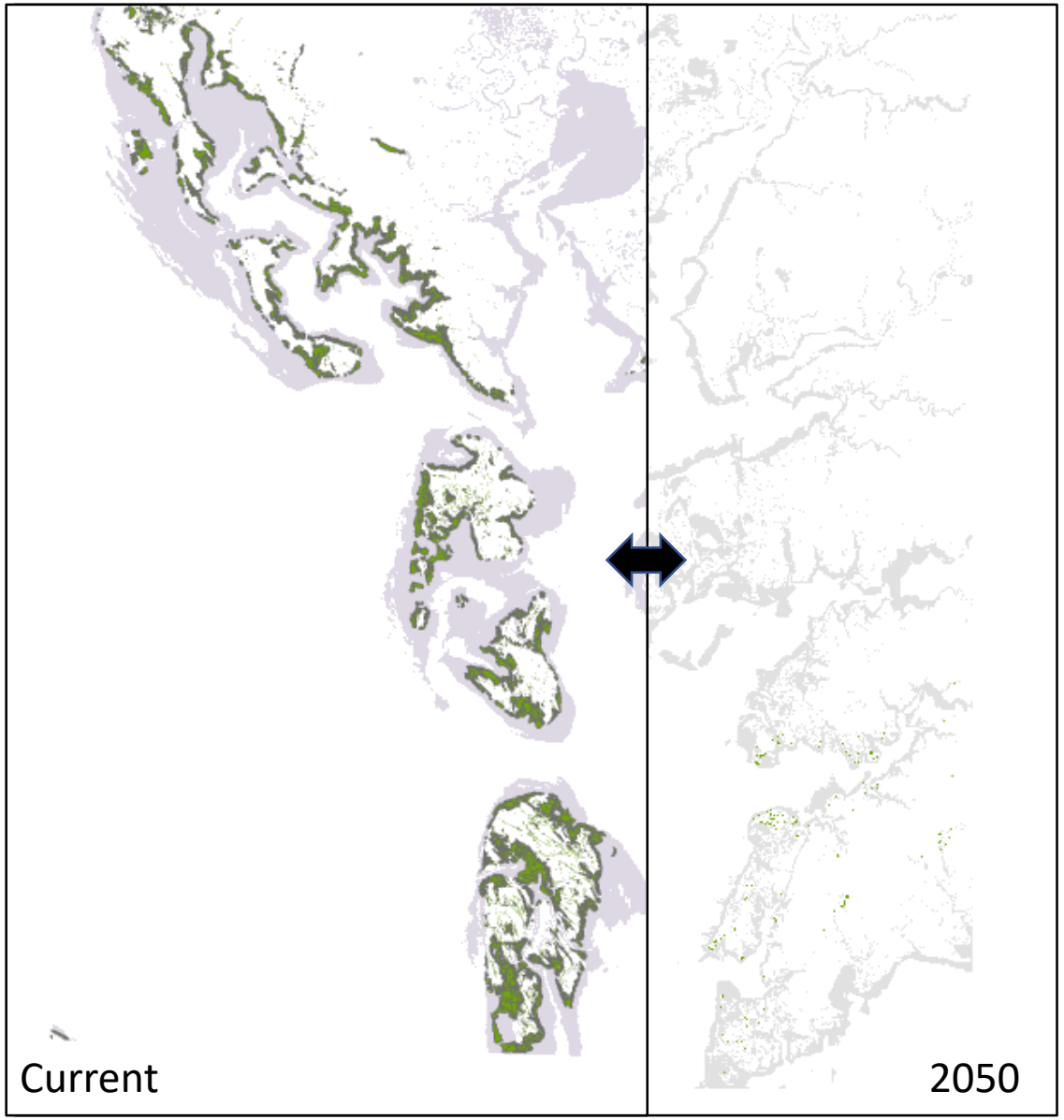


SLAMM-SAV Data Visualization Options

SAV Visualization Options

ESRI Story Maps



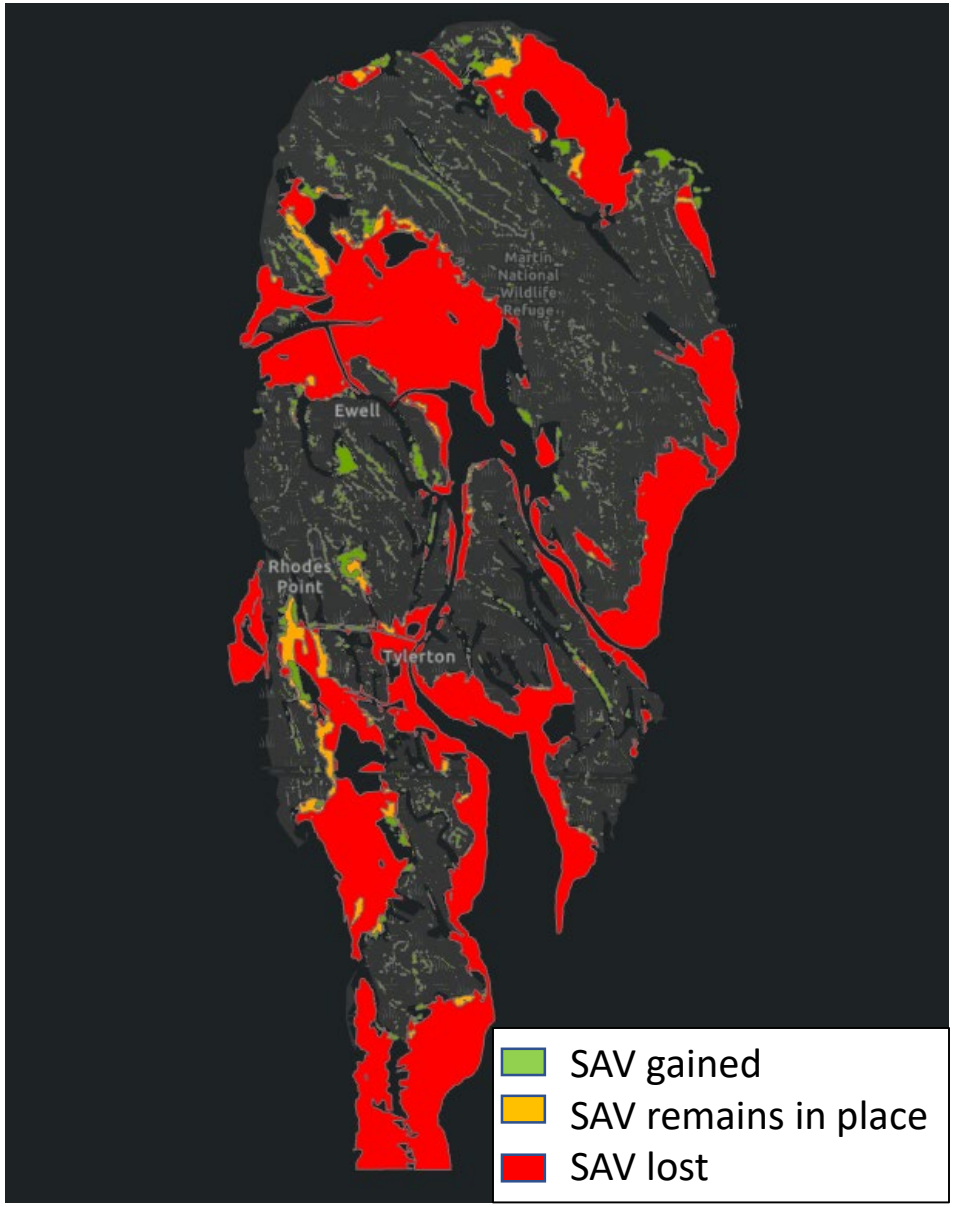


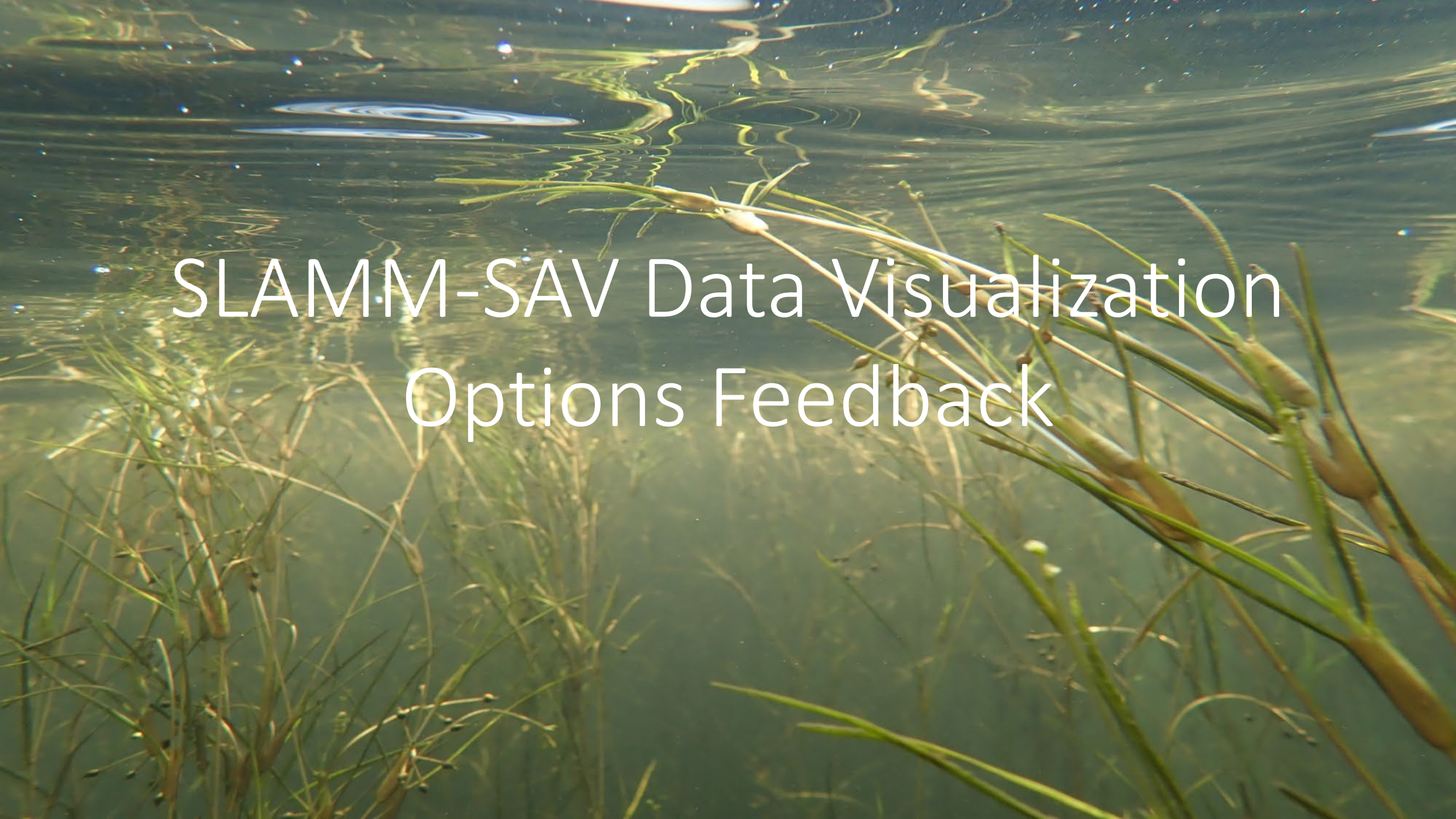
SAV Visualization Options

Option: Synthesize SLAMM data to show where SAV will be gained, lost, and remain

Decisions:

- Time period of change
  - 2050
  - 2070
  - 2100





SLAMM-SAV Data Visualization Options Feedback