

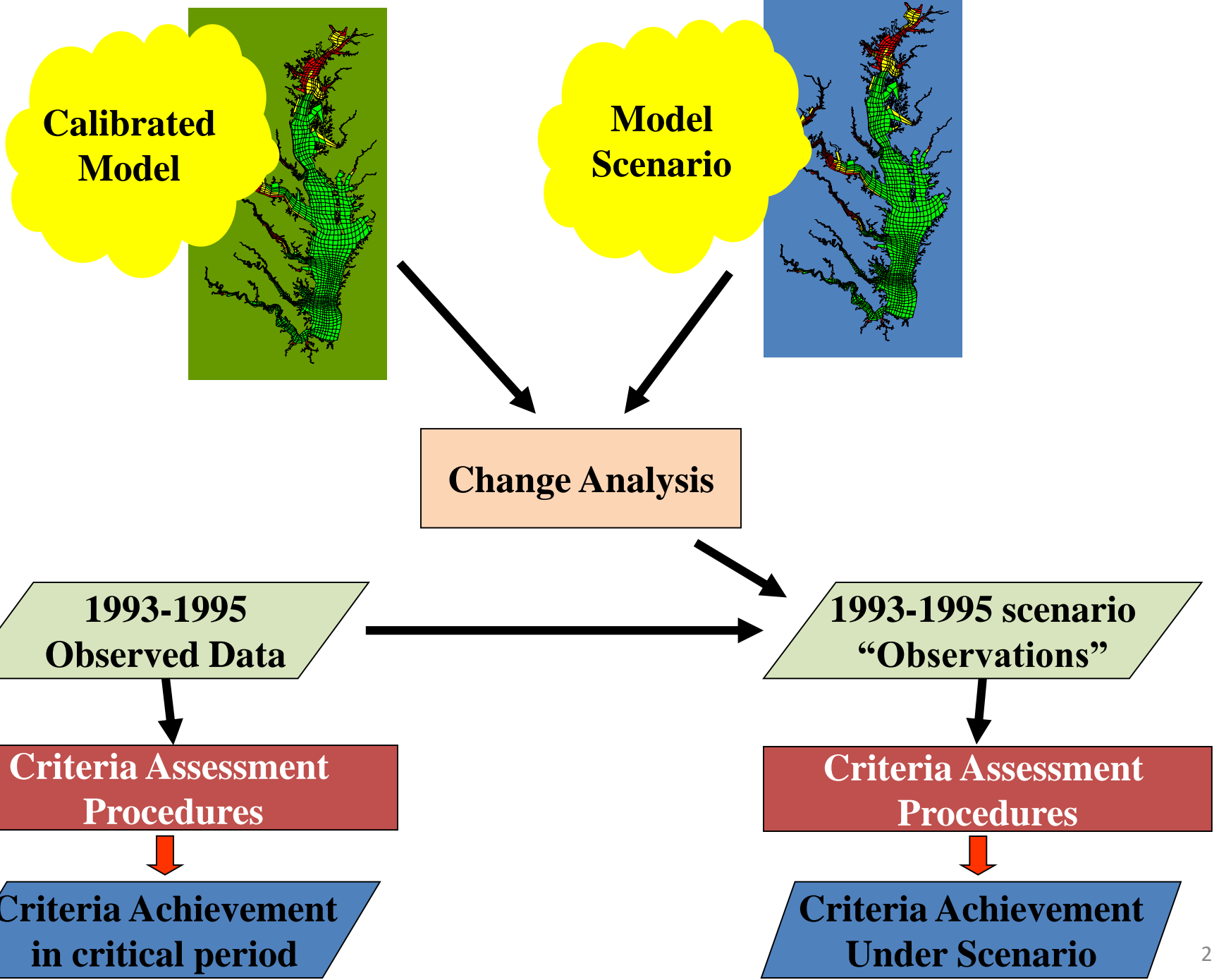
Criteria Assessment Procedure for Scenarios

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STAC

06/11/2019

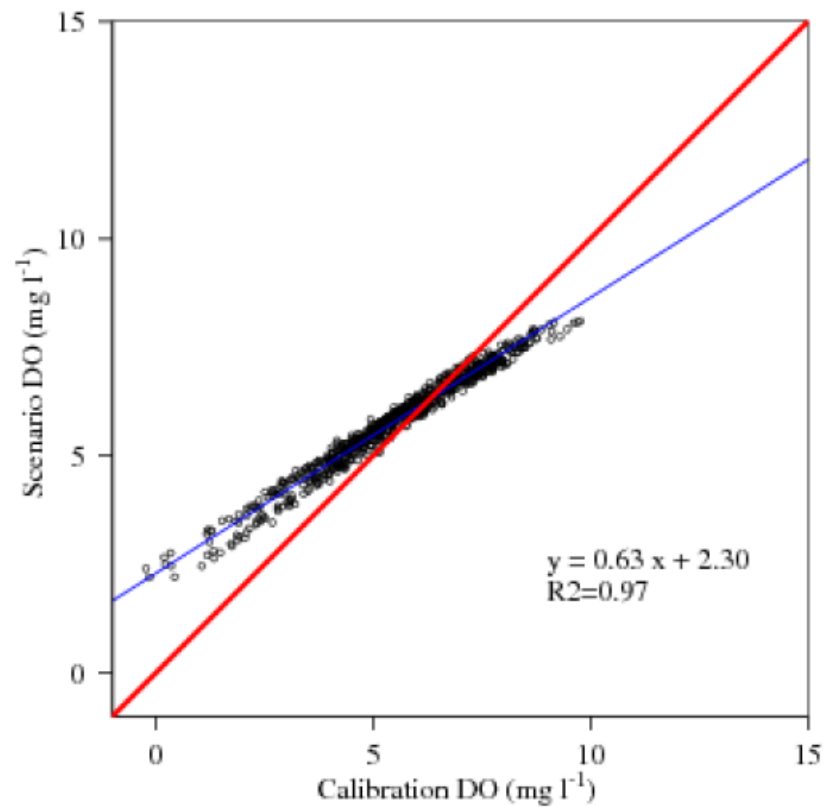
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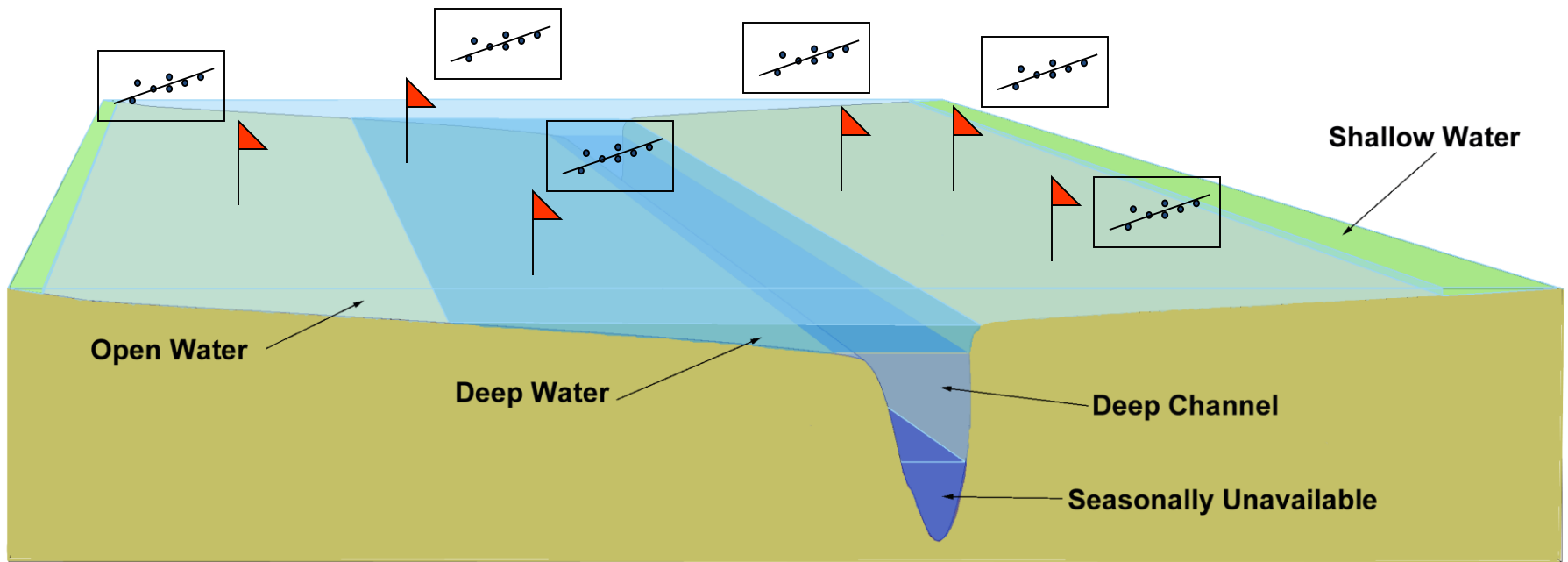
Regression methods for criteria assessment

Least Squares regression

WIP2 vs Calibration



One regression for each point and each month



Quantile Mapping vs CBP Method

Quantile Mapping

- Calculate bias of model
 - Using quantile bias adjustment
- Adjust model
- Assess bias-corrected model scenarios

CBP Method

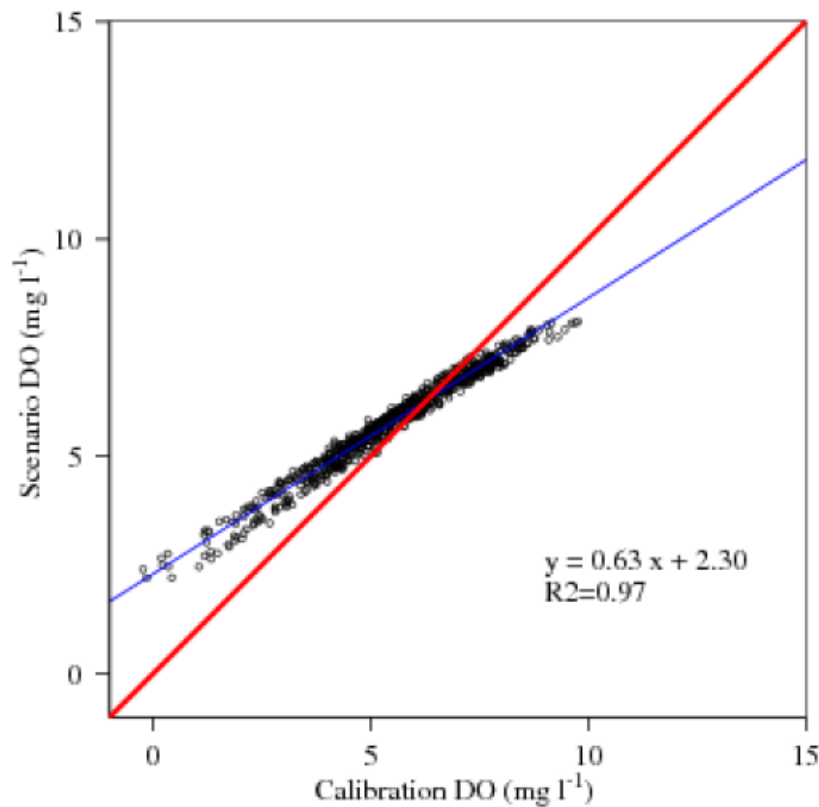
- Calculate scenario change of model
 - Using regression
- Adjust data
- Assess scenario-adjusted data

- Avoids effect of change in data density
- True measure of TMDL attainment will be sparse data

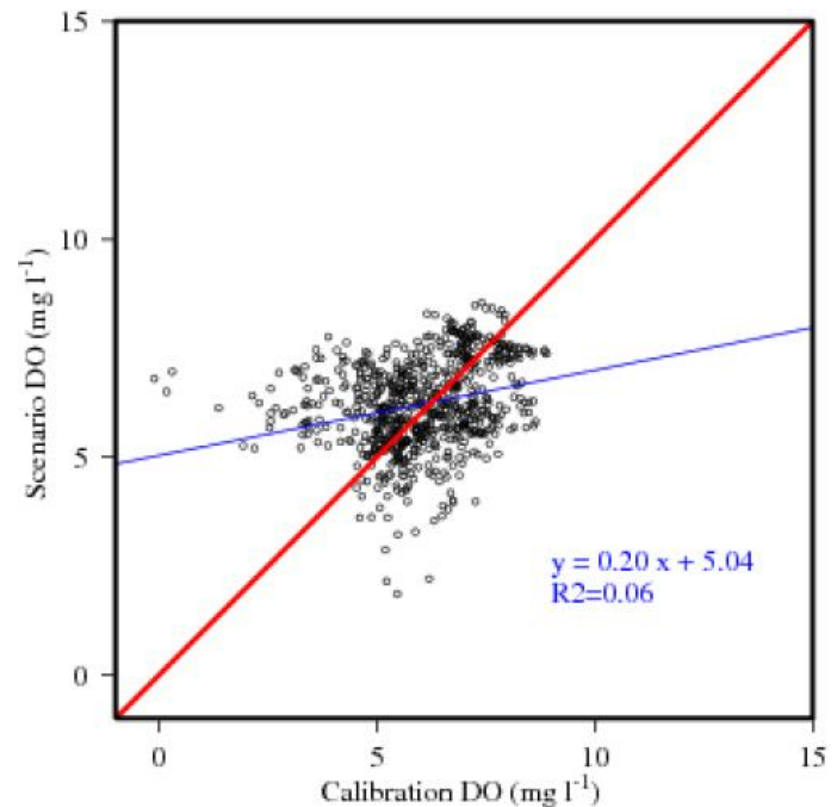
Regression methods for criteria assessment

Least Squares regression has been used for the TMDL, but climate change scenarios lack correlation with the calibration case

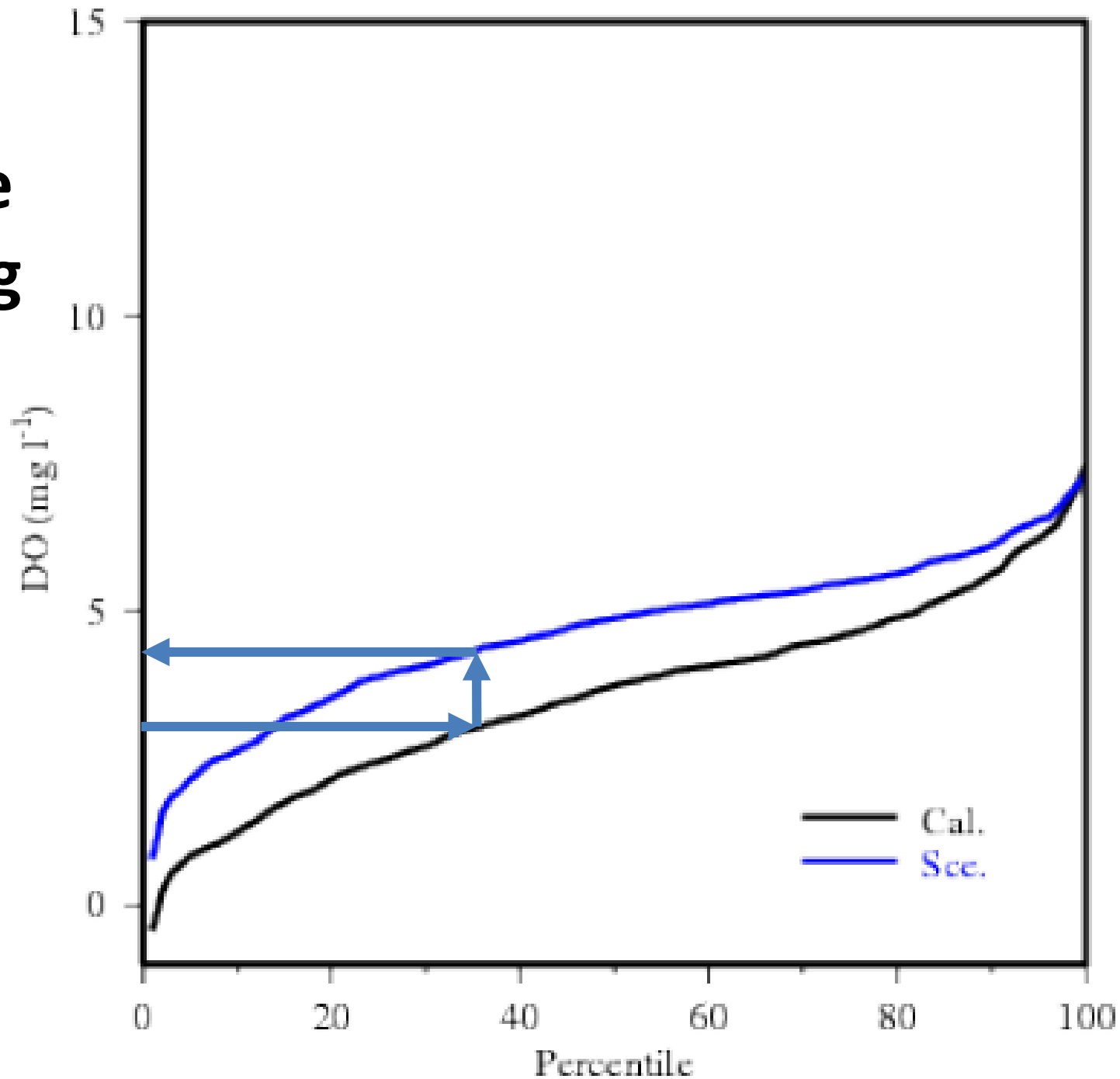
WIP2 vs Calibration

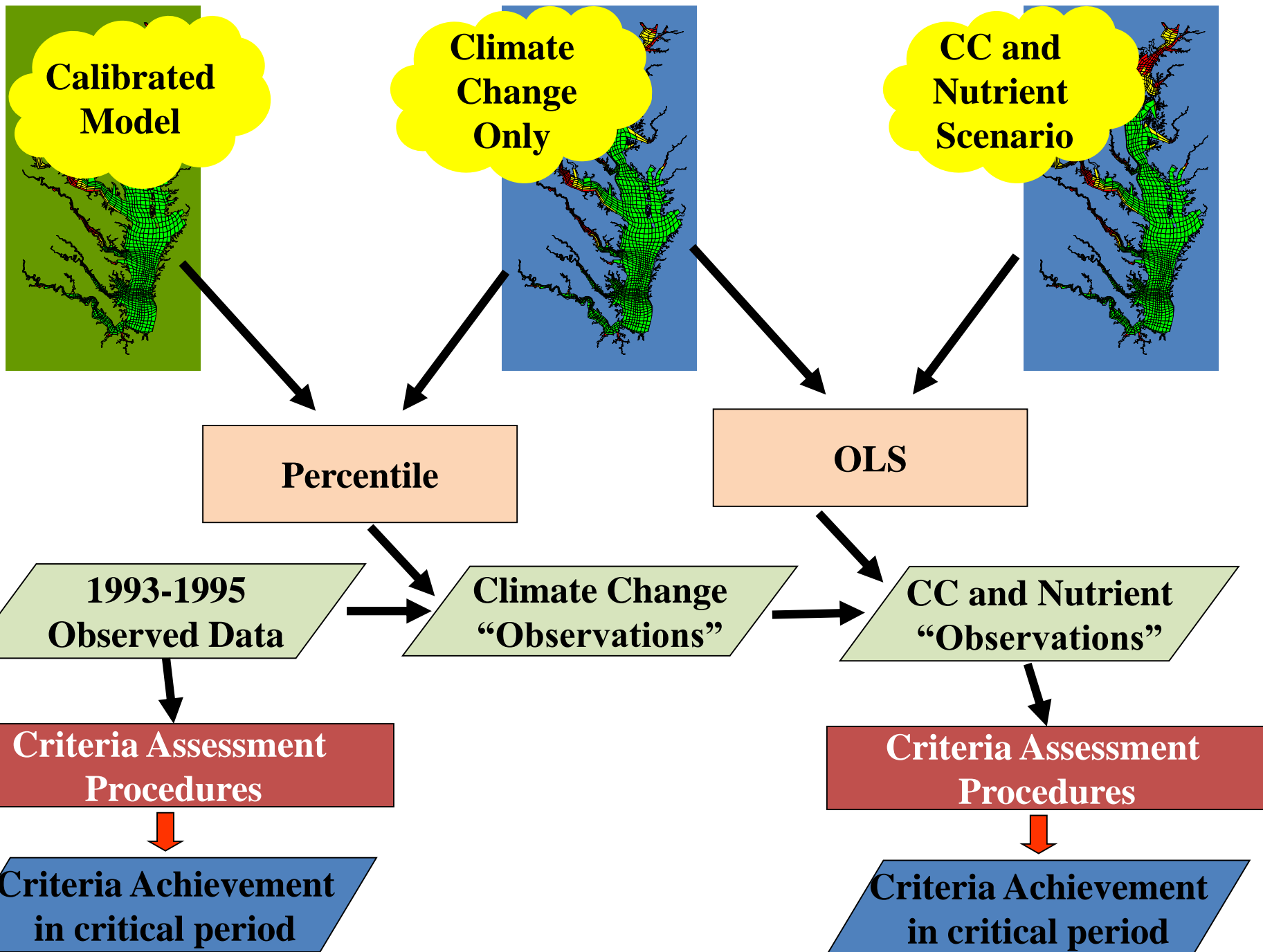


Climate WIP versus calibration

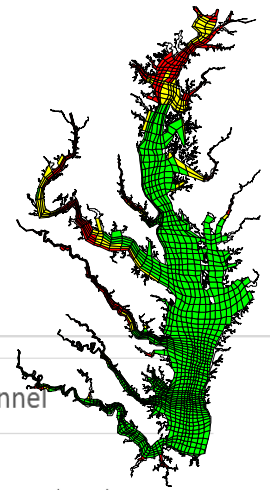


Quantile Mapping



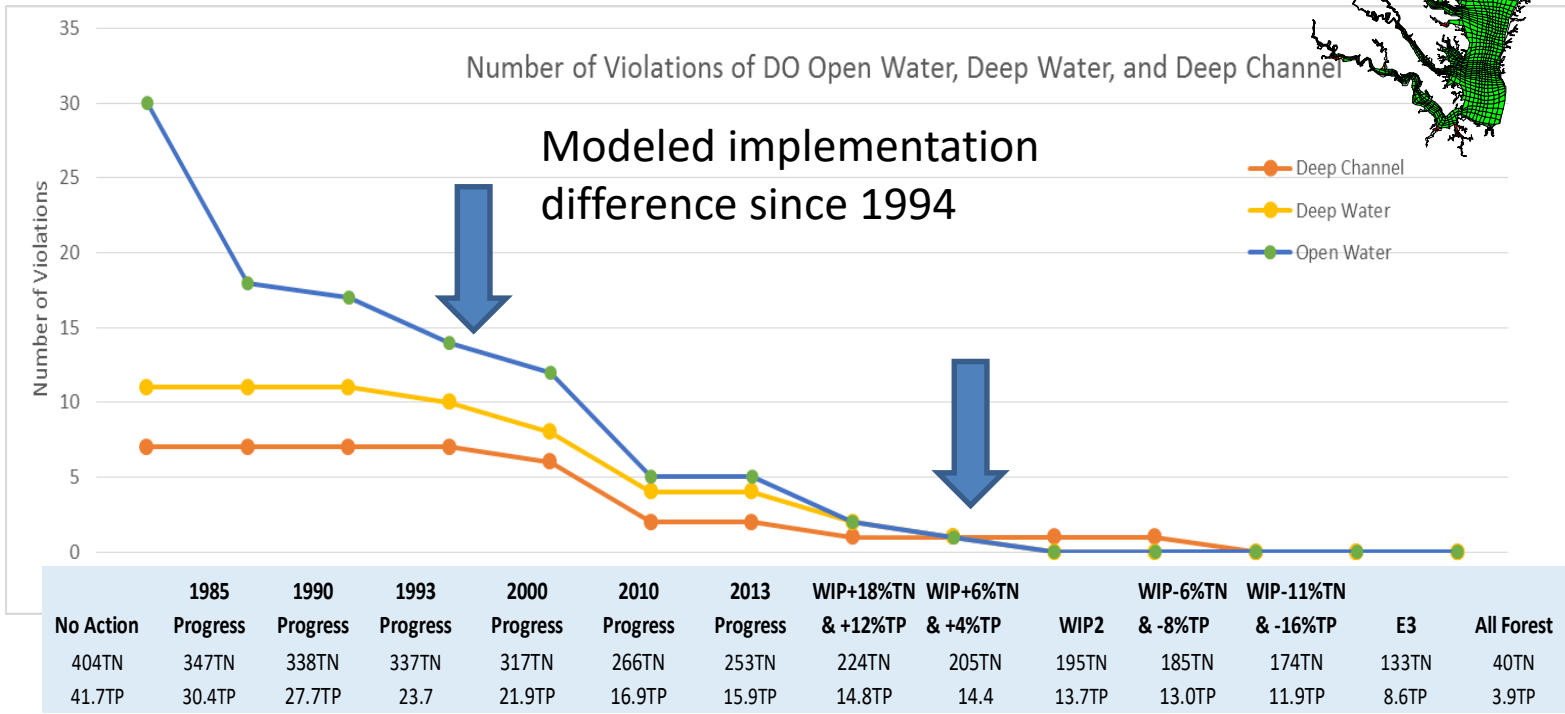
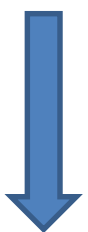


Allocated loads must result in achievement of the states' Bay water quality standards



Here's Where We Want to Get to

Fewer Violations



Reduced Loads

Three big questions

- Is the modeled oxygen attainment different from measured?
- What is happening with phosphorus?
- For how long should we ask the question “What is the necessary difference in BMP implementation between 1994 and attainment?”