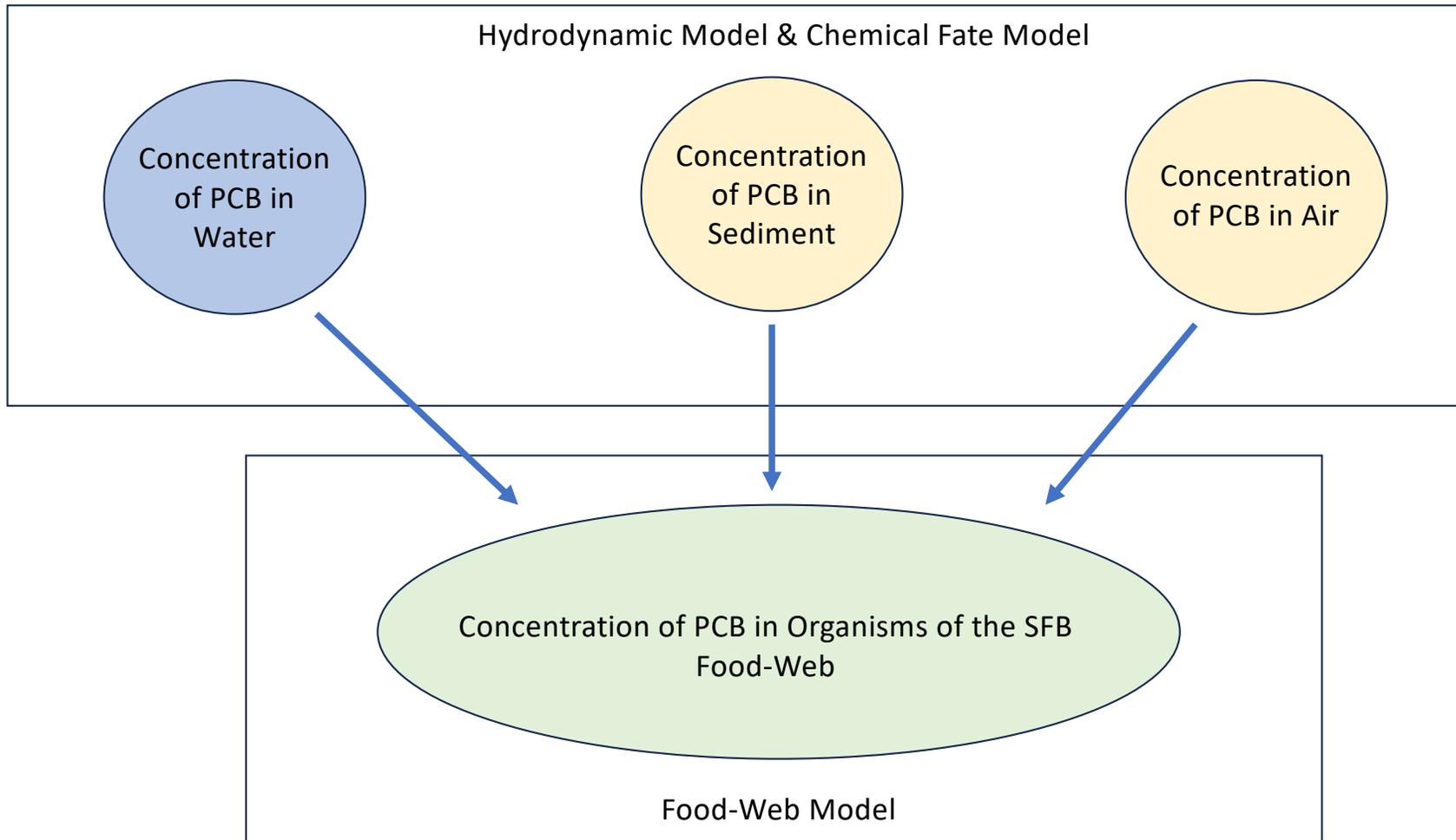# SFB PCB Food-Web Model

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Objective

Role of the Model

Inform on the development of water quality criteria

Assess Impact, Benefits, Risk Assessment of remediation and restoration efforts on local (e.g. PMU) & whole-Bay scales
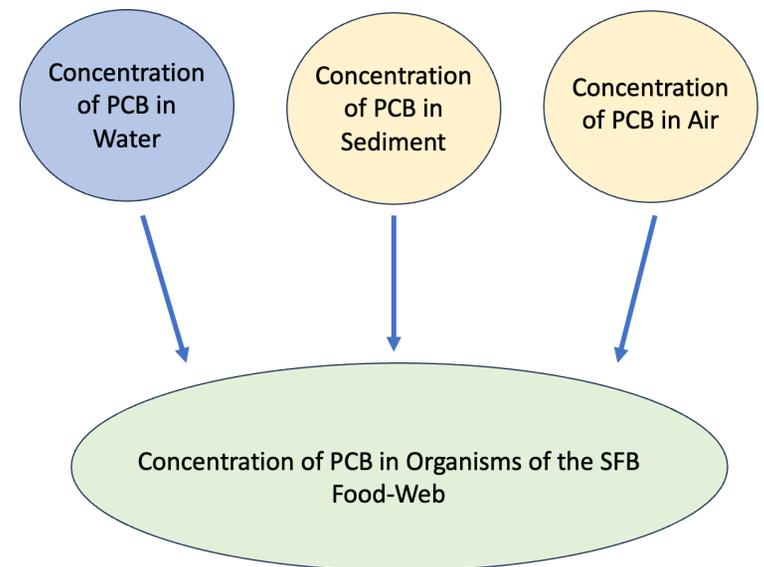
Assess impact of changes in SFB food-web on PCB concentrations in organisms of the SFB food-web (e.g. invasive species).

Source identification

Inform on the development of a TMDL

Use many years of monitoring data to improve insights on the fate of PCBs in SFB food-web that will be helpful for management.

Model can be used for other CECs as well.

SFB Food-Web Model

Mechanistic

Based on many years of study of the uptake and elimination of PCBs in water and air-breathing organisms including fish, marine mammals and birds

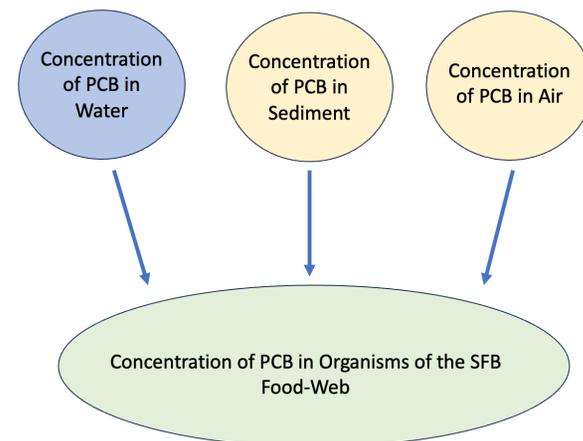Consistent/tested/calibrated with empirical data from SFB

Model output is presented in two formats: Expert format, User format

Excel spreadsheets for greater transparency & resilience

Emphasis on uncertainty analysis

Keep the model relatively simple

Peer Reviewed

Concentration of PCB in Water

Concentration of PCB in Sediment

Concentration of PCB in Air

Concentration of PCB in Organisms of the SFB Food-Web

What is new?

Site-Specific (PMU; intertidal; benthic estuaries/Mudflats) and Whole Bay

Include "new" concentration data and food-web knowledge

New data on the toxicity of PCBs in marine mammals and fish, species sensitivity distributions

New human consumption data

Improved Energy Balance

Include PCB activity to aid in source tracking

Concentration of PCB in Water

Concentration of PCB in Sediment

Concentration of PCB in Air

Concentration of PCB in Organisms of the SFB Food-Web