

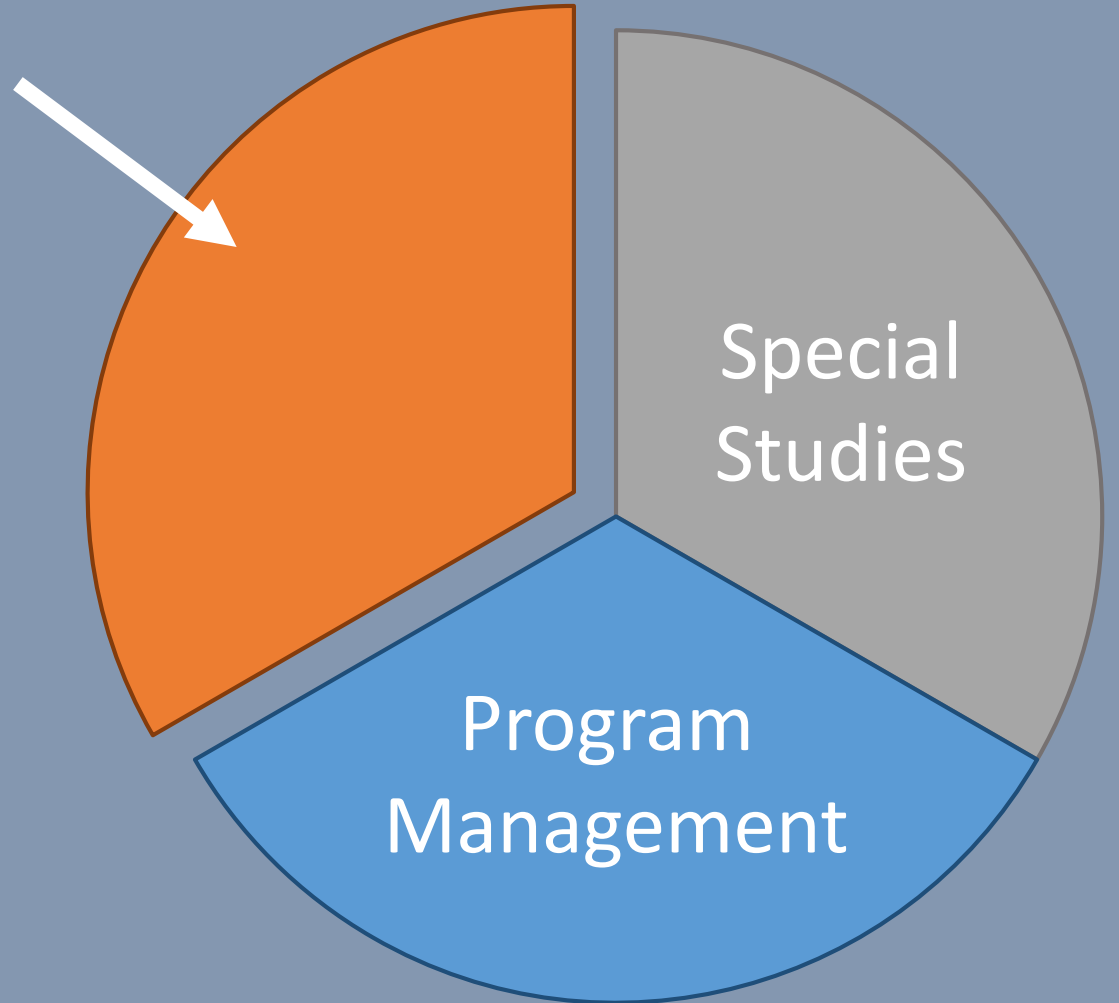
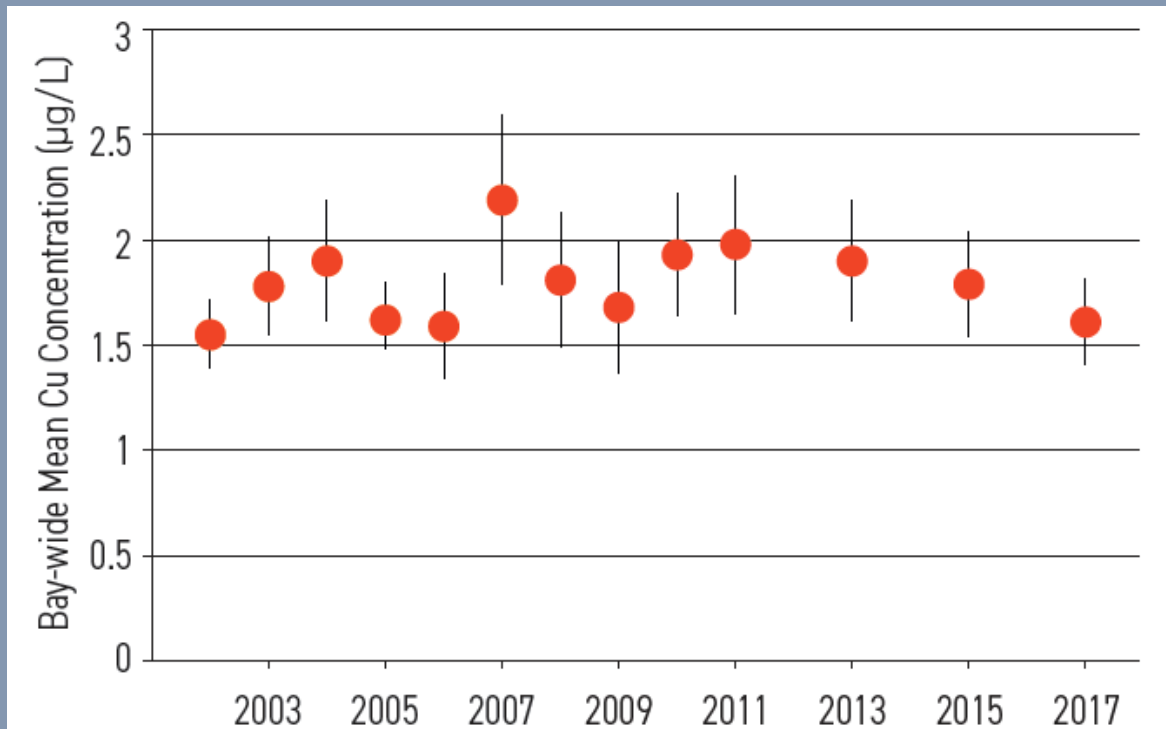
2022 RMP Annual Meeting

Adding CECs to the RMP
Status and Trends Program

Melissa Foley, Jay Davis, Rebecca Sutton, Don Yee

RMP Status and Trends Program

Status & Trends
30-40% of budget



RMP S&T Program – Management Questions

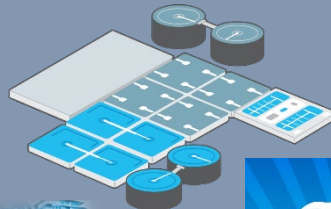
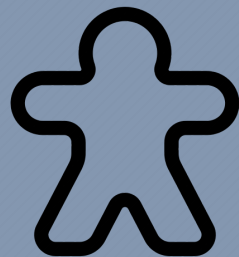
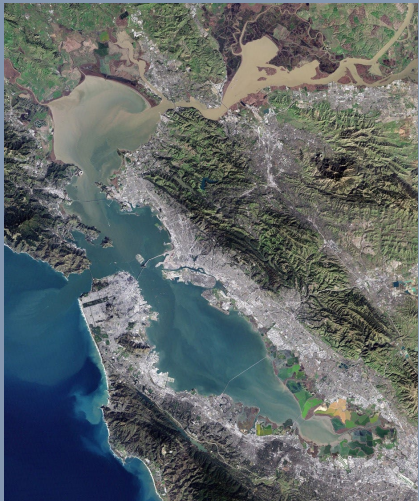
How much?

Levels of concern?

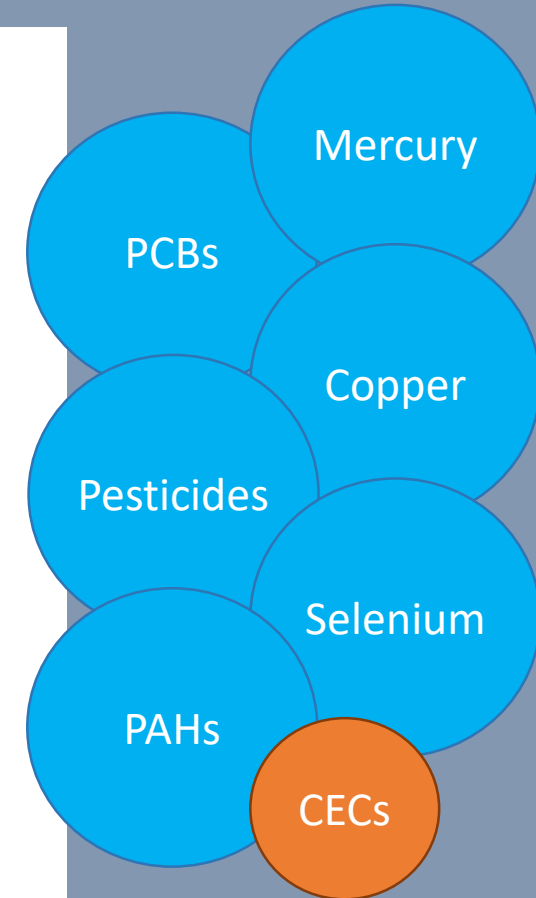
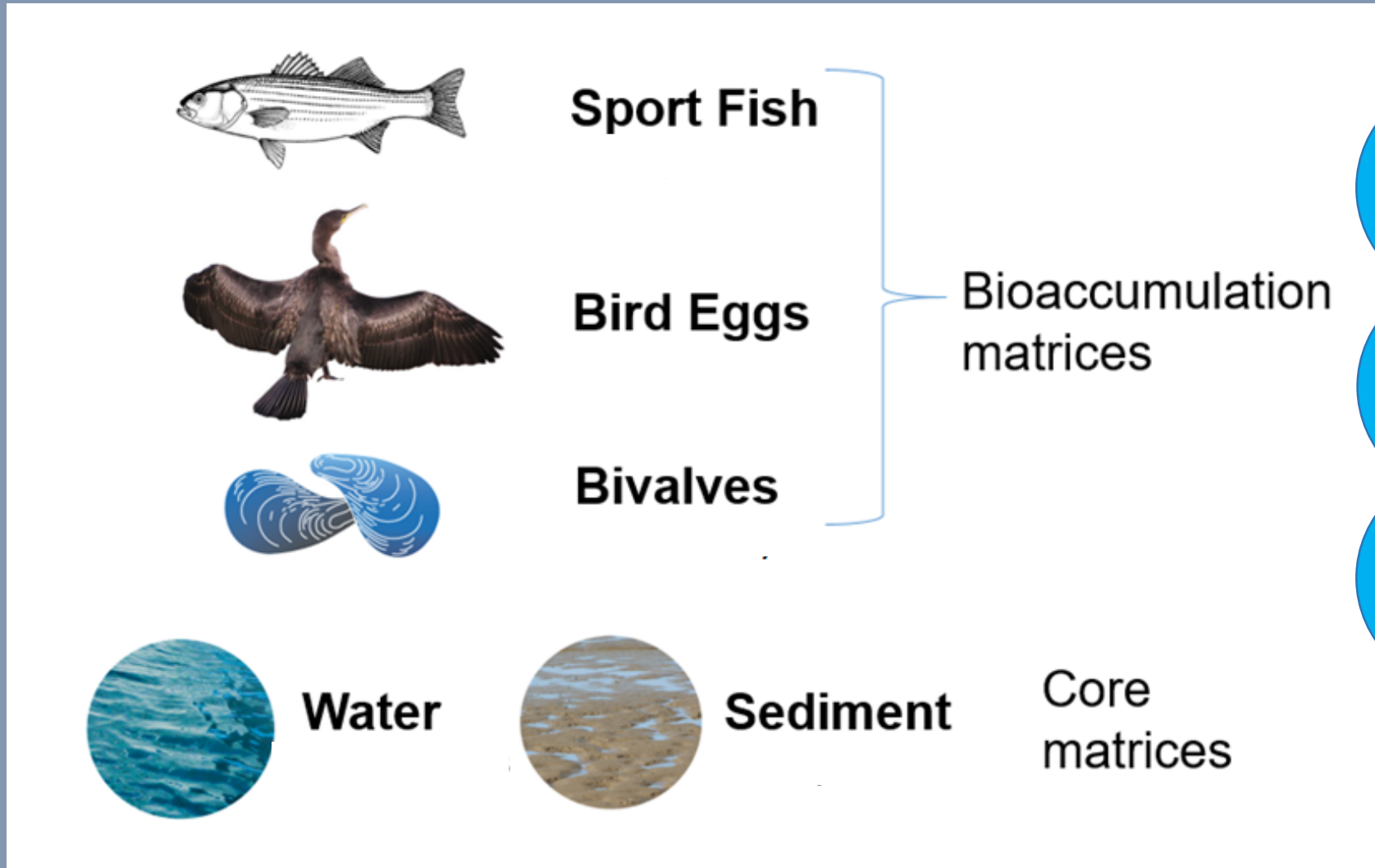
Sources, pathways, loadings?

Trending up or down?

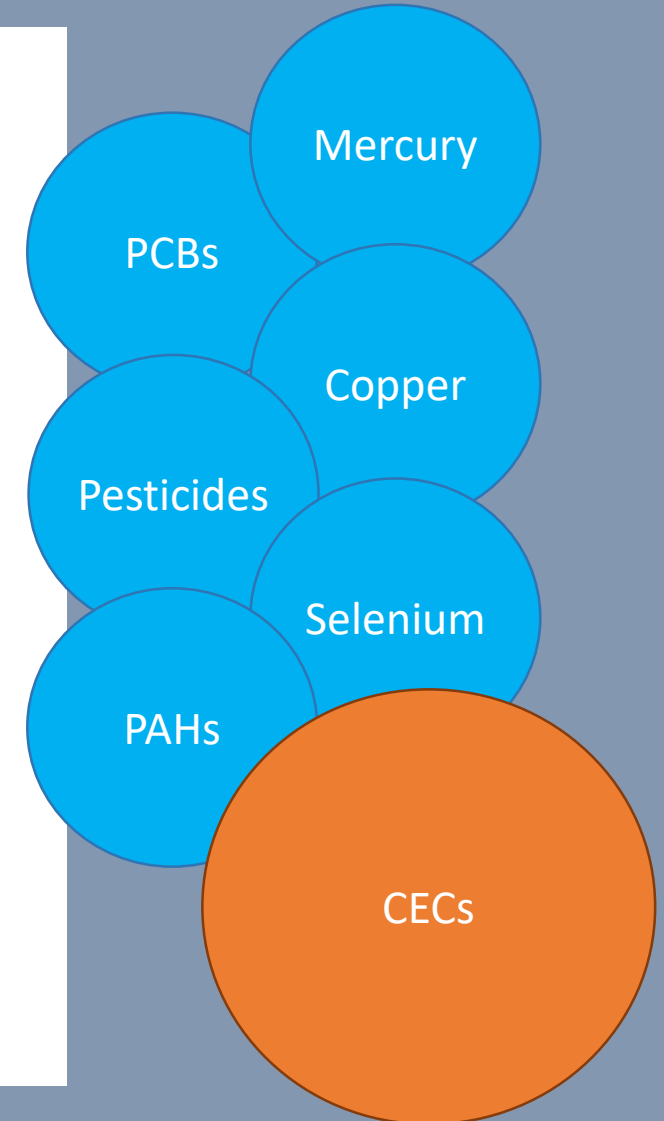
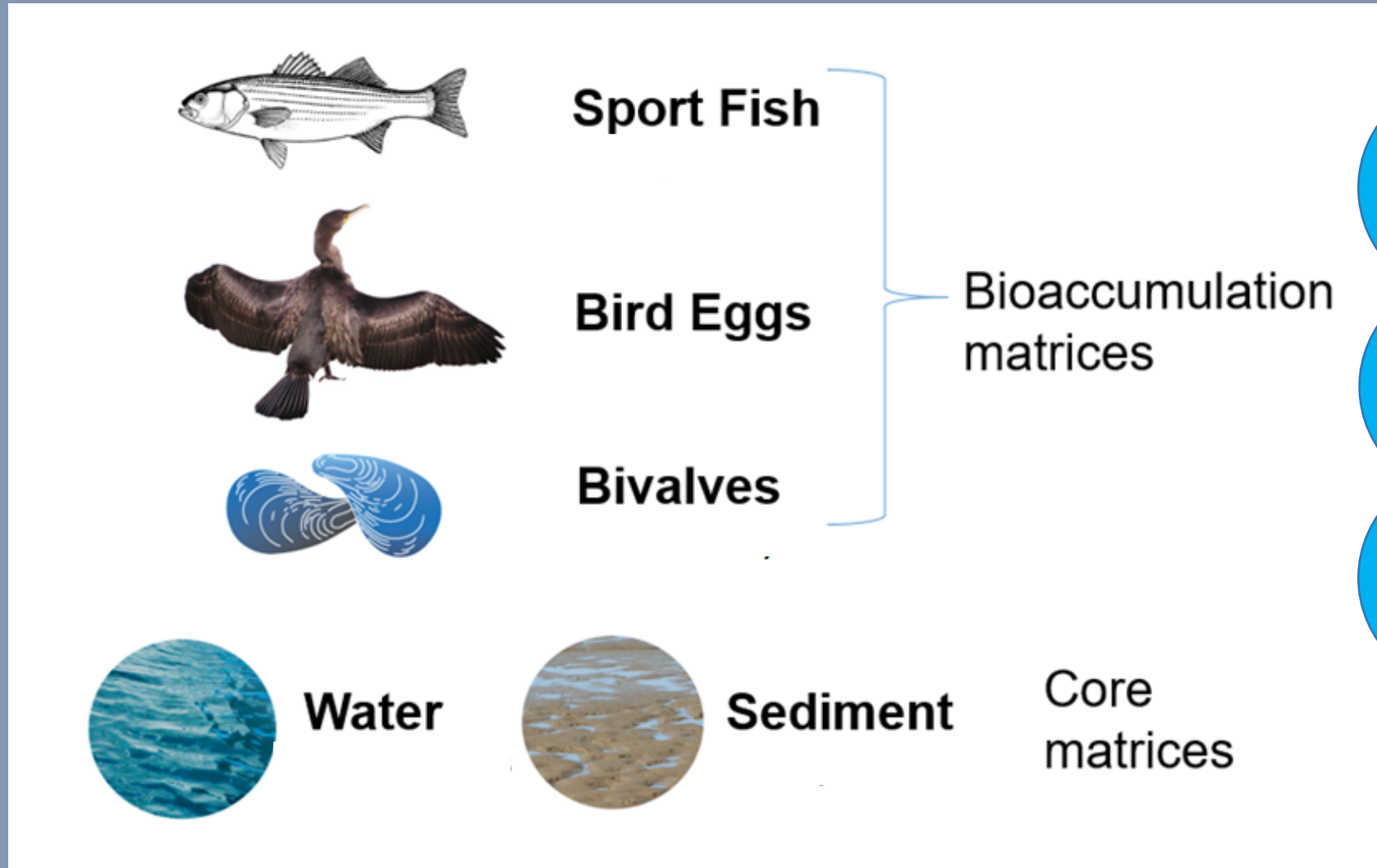
Future changes?



RMP S&T Program – Matrices and analytes



RMP S&T Program – Matrices and analytes



CEC Tiered Risk-Based Framework

High Concern

High probability of moderate or high level effect on Bay aquatic species

Moderate Concern

High probability of low level effect on Bay aquatic species

Low Concern

High probability of minimal effects on Bay aquatic species

Possible Concern

Uncertainty in level of effect on Bay aquatic species due to uncertainty in toxicity thresholds and methods

Secondary factors

Trends

Cumulative effects

Persistence

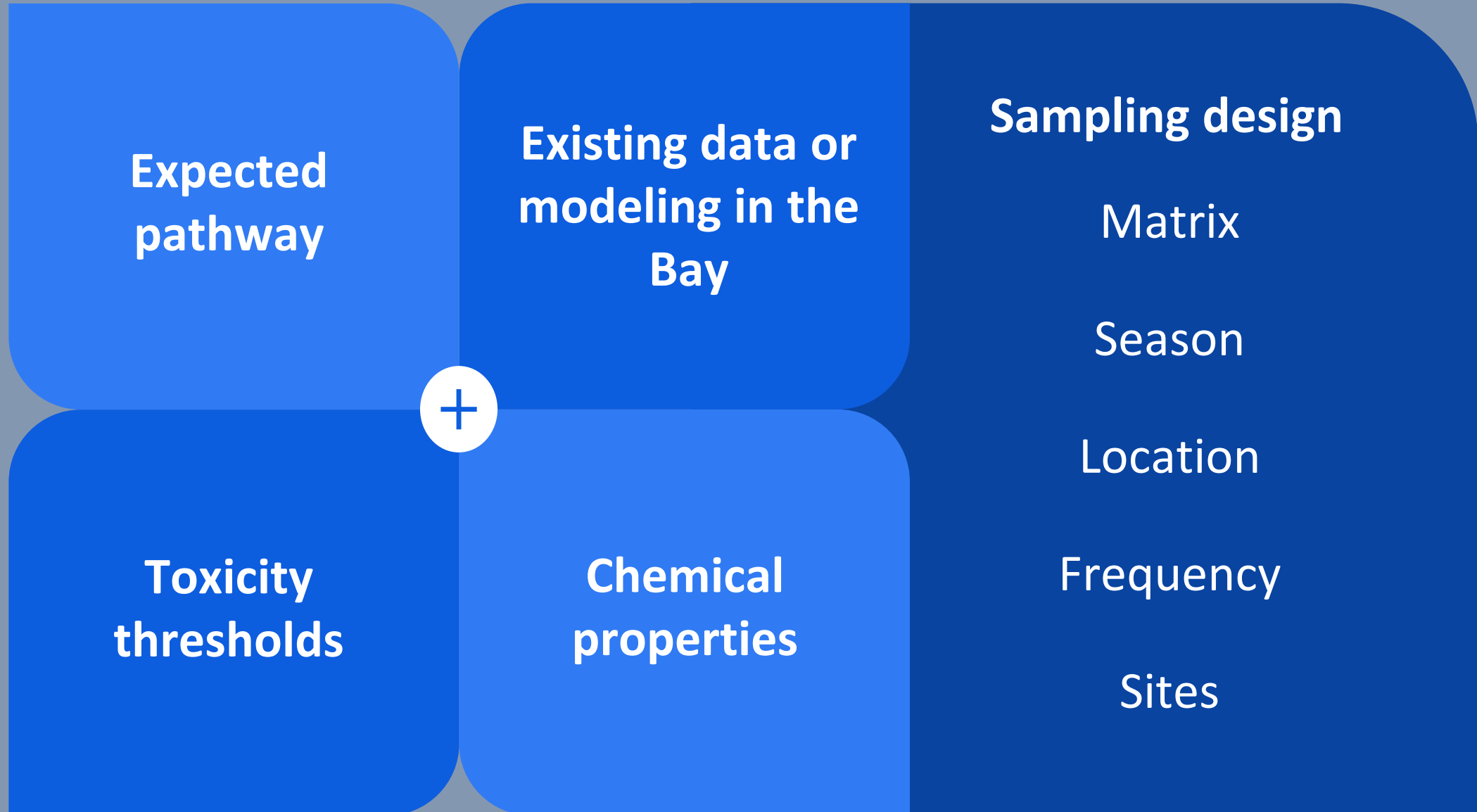
CEC Tiered Risk-Based Framework

<p>High Concern moderate or high impact</p>	<p>Studies to support TMDL or alternative management plan.</p>
<p>Moderate Concern low impact</p>	<p><i>Consider including in Status and Trends monitoring.</i> Special studies of fate, effects, sources, pathways, and loadings.</p>
<p>Low Concern minimal impact</p>	<p>Periodic screening-level monitoring in relevant matrices in the Bay and in wastewater and stormwater pathways.</p>
<p>Possible Concern uncertainty as to impact</p>	<p>Screening level monitoring to determine presence in Bay matrices and in wastewater and stormwater.</p>

CEC Tiered Risk-Based Framework

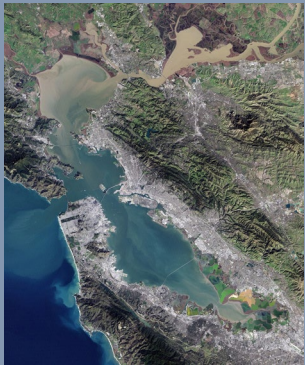
High Concern moderate or high impact	None currently
Moderate Concern low impact	PFAS Alkylphenols, Alkylphenol Ethoxylates Fipronil, Imidacloprid, Bisphenols Organophosphate Esters, Microplastics
Low Concern minimal impact	PBDEs and HBCD Pharmaceuticals, Pyrethroids* Personal Care & Cleaning PBDDs / PBDFs
Possible Concern uncertainty as to impact	Alternative Flame Retardants Pesticides, Plastic Additives Quaternary Ammonium Compounds Siloxanes, SDPAs, UV-BZTs, others

CEC information matrix



RMP S&T Program – Management Questions

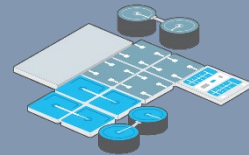
How much?



Levels of concern?



Sources, pathways, loadings?



Trending up or down?



Future changes?



Management effects?



CEC Tiered Risk-Based Framework

PFAS



Bisphenols

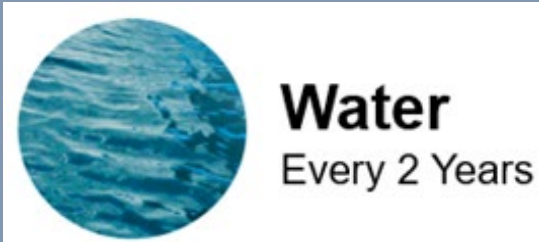


Organophosphate Esters



Moderate
Concern
low impact

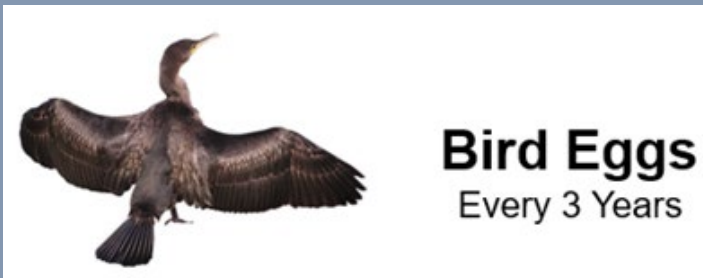
RMP S&T Program – CEC additions



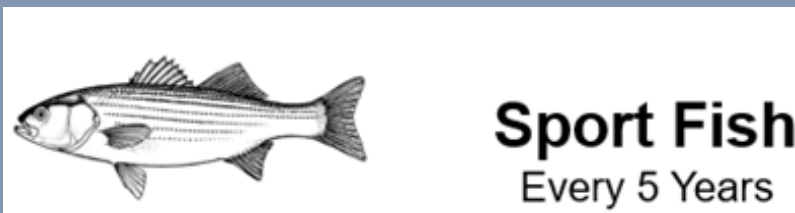
- **PFAS, bisphenols, organophosphate esters**
- Whole Bay, wet and dry seasons
- Targeted nearfield (urban) sites; random open Bay



- **PFAS and bisphenols**
- Whole Bay, dry season
- Targeted nearfield sites; random margins and open Bay



- **PFAS**
- Whole Bay, spring
- Targeted sites



- **PFAS**
- Whole Bay, summer
- Targeted sites



RMP S&T Program – CEC additions (pilot studies)



Prey fish



- **PFAS**
- Central, South, Lower South Bays
- Targeted



Marine mammals

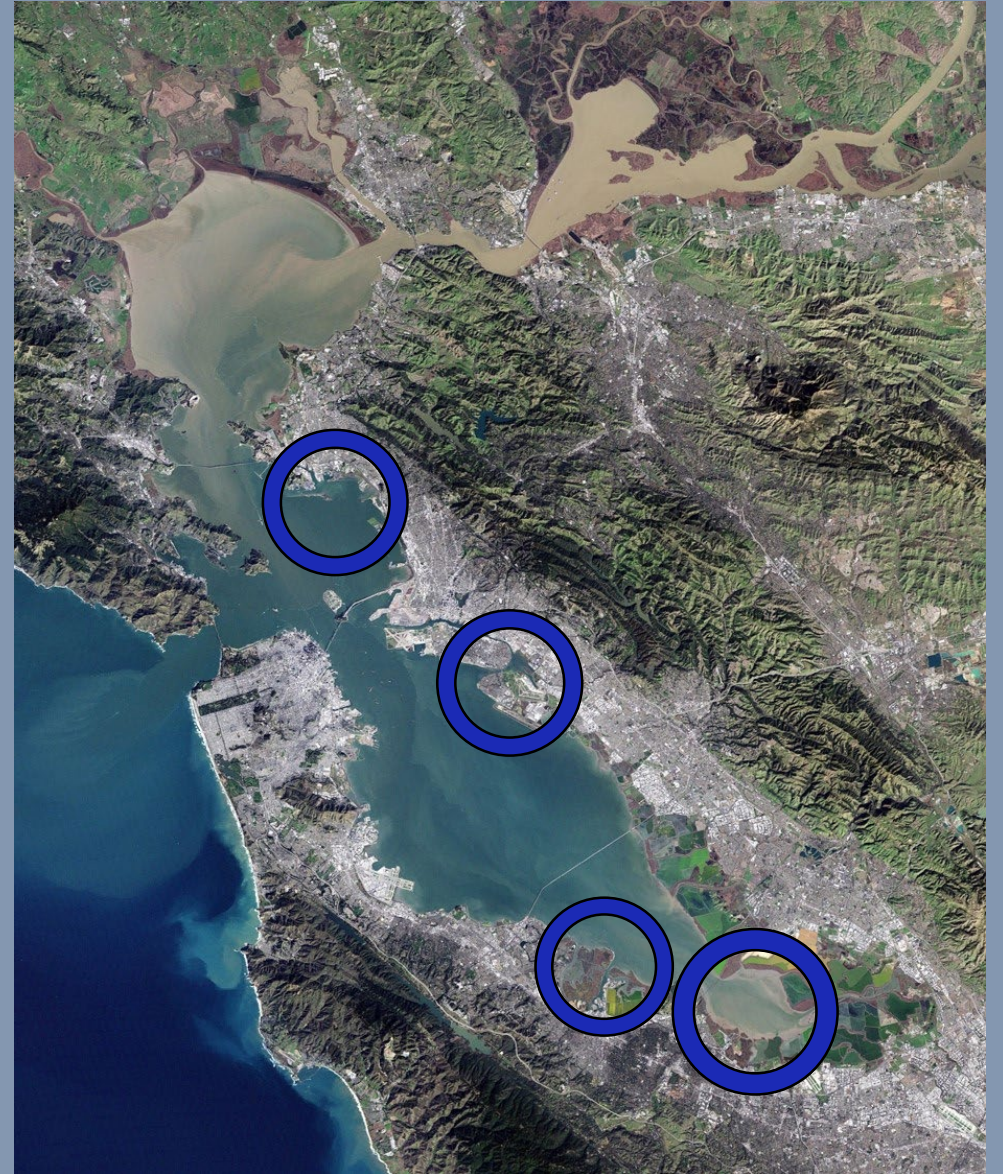


- **PFAS**
- Whole Bay
- Opportunistic

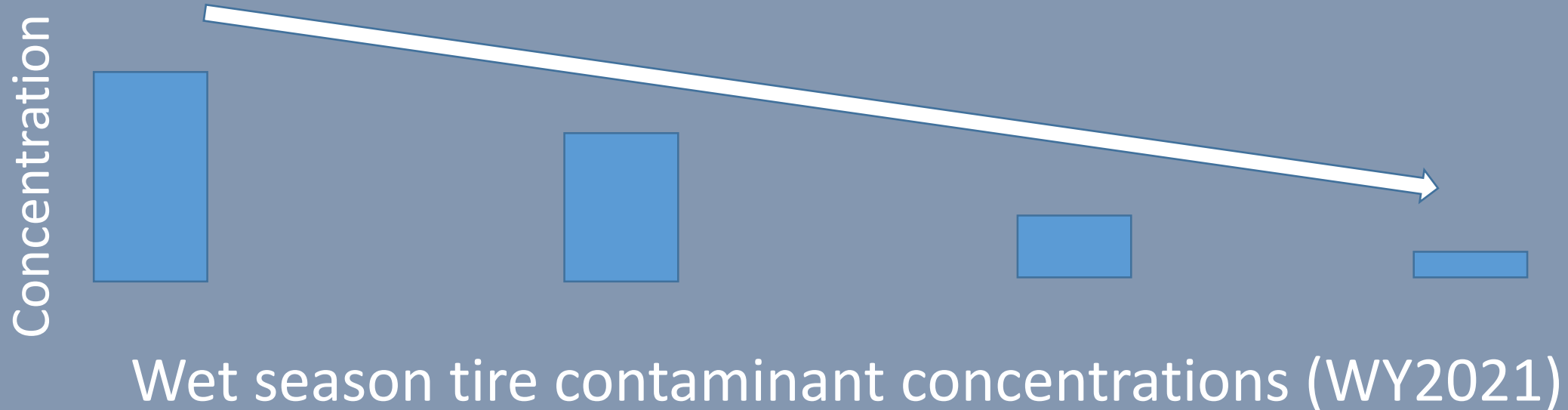
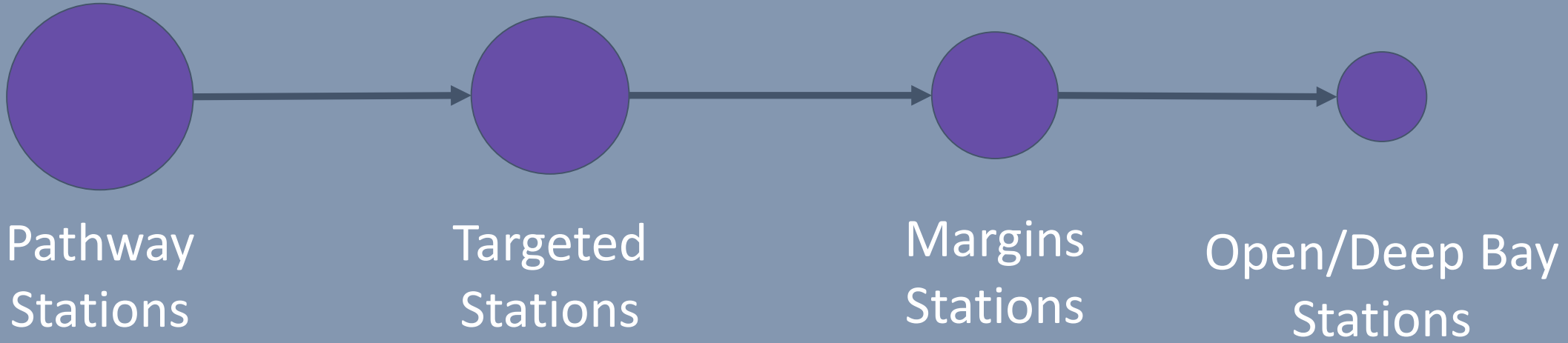


RMP S&T Program – Sample overlap

- Bay and nearfield water (dry and wet season)
- Nearfield, margins, and ambient sediment
- Prey fish
- Sport fish
- Marine mammals



Testing our conceptual models



RMP updates



RMP Updates - Budget

Core RMP Fees

1997 - \$2.5M → 2023 - \$4M (\$5.1M)

Supplemental Environmental Projects (2016)

Total - \$3.4M \$300k-\$600k per year

CEC Alternate Monitoring Funds

Municipal Wastewater (2017) - \$330k per year

Municipal Stormwater (2023?) - \$100k per year



RMP Updates - Budget

External funding (2021-2022)

- CECs - \$390k
- Microplastics - \$250k
- Sediment - \$750k
- Stormwater - \$1M

Recently submitted proposal

- Water Quality Improvement Fund - \$2.9M



RMP Coming Attractions

Stormwater
CECs report

PFAS in
the Bay
report

Sediment
Conceptual
Model

Sediment
beneficial use
guidelines report

In-Bay model
development

Tire
contaminants
in the Bay

Sediment
flux reports

Watershed
Dynamic
Model

Margins
sediment report

PCBs in
Steinberger
Slough

Dredged
sediment PCB
thresholds

Bisphenols in
sediment and
wastewater report



Thank you!





Thank you for coming!

- Return your name tags to the registration table
- Fill out the survey that will be emailed to you
- Let us know if you want a hard copy of the Pulse

Post-Meeting Social

Study Hall Rooftop Lounge
Residence Inn by Marriott
2121 Center St., Berkeley
12th floor

