

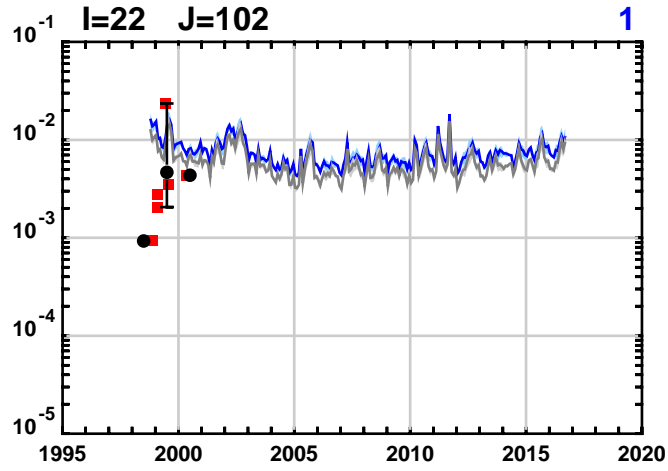
APPENDIX 14

Contaminant Concentrations in the Water Column Model and Measurement Comparisons Results Diagrams, Calibration, Various Measurement Programs, Sixty-One Locations throughout NY/NJ Harbor, 1998-2016 Water Years

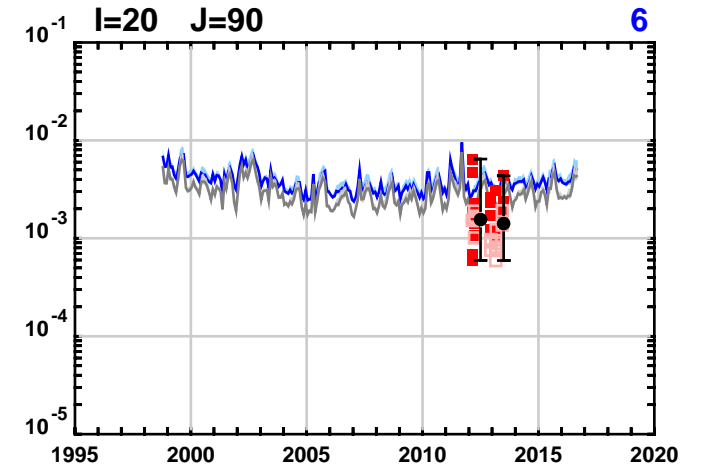
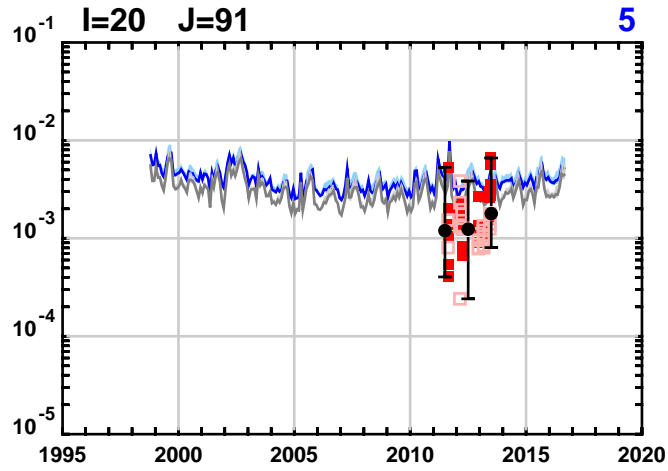
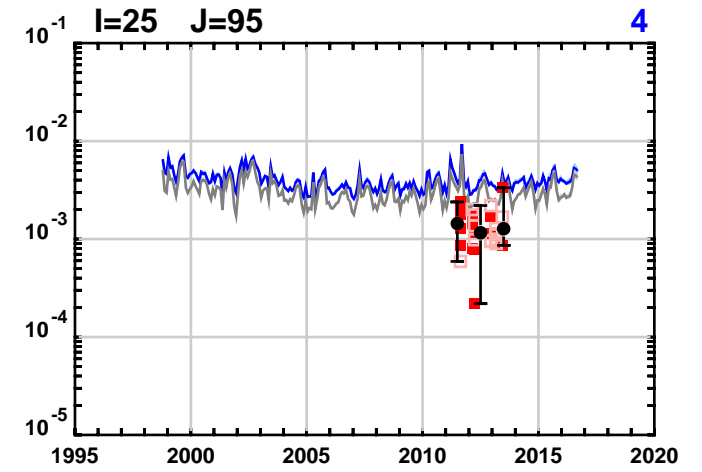
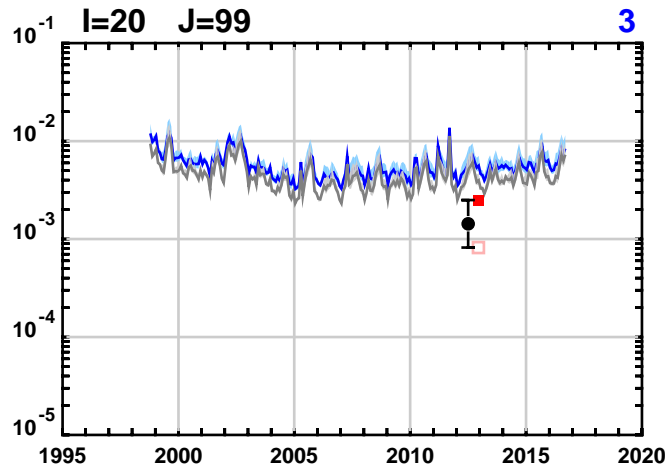
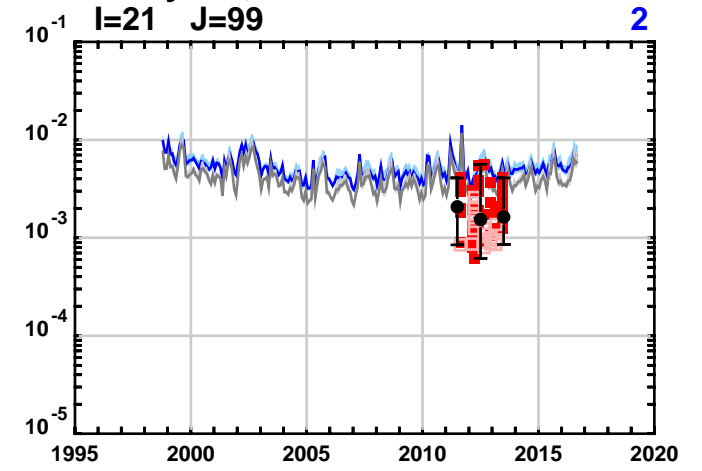
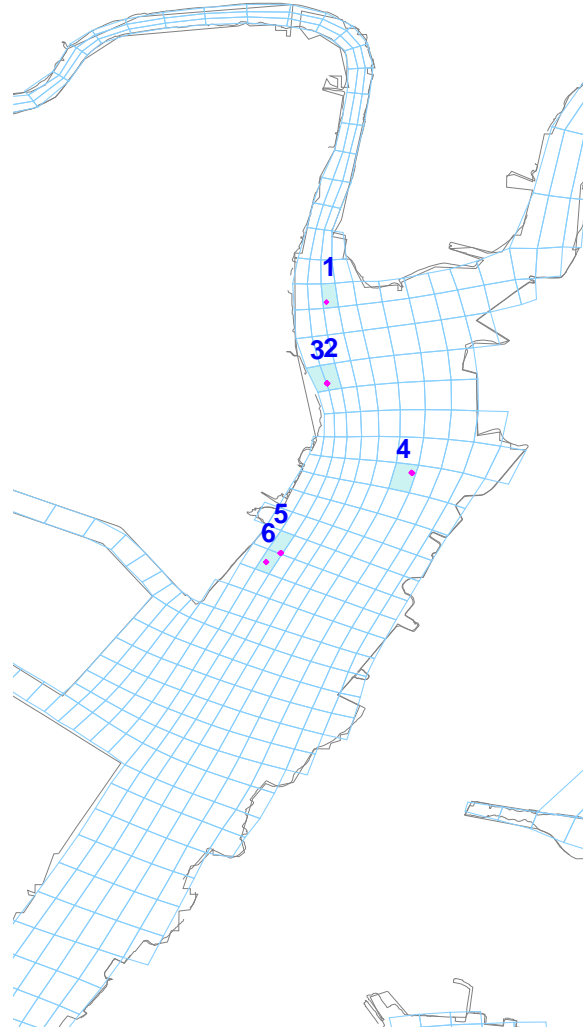
- **2,3,7,8-TCDD**
- **2,3,4,7,8-PCDF**
- **di-CB**
- **tetra-CB**
- **hexa-CB**
- **octa-CB**
- **PCB summation**

Water Column Data Comparison With Model All Water Column Layers, RUN18

2,3,7,8-Tetrachlorodibenzo-p-dioxin, ng/L



Update of CARP Models
Upper Newark Bay

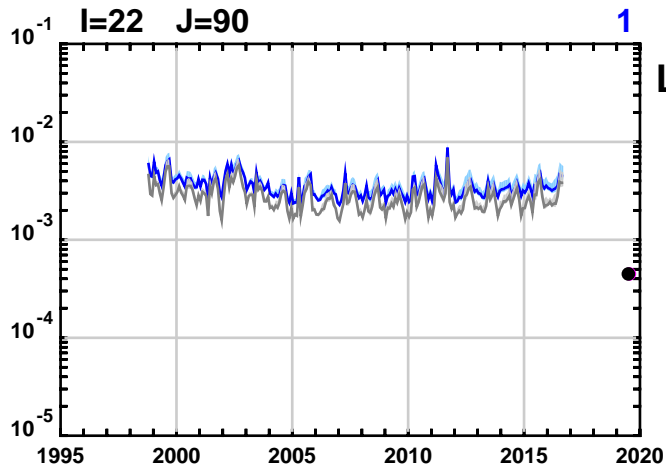


● Detect Data □ Non-Detect Data
— Model: mean and range of values in Water Column
— Model: Particulate Phase mean and range of values in Water Column

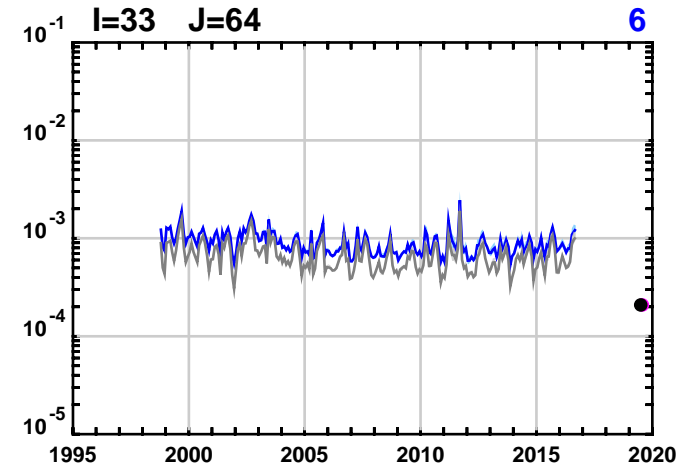
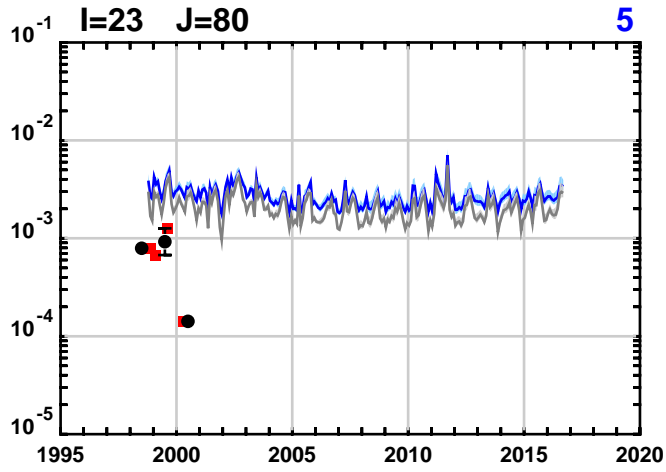
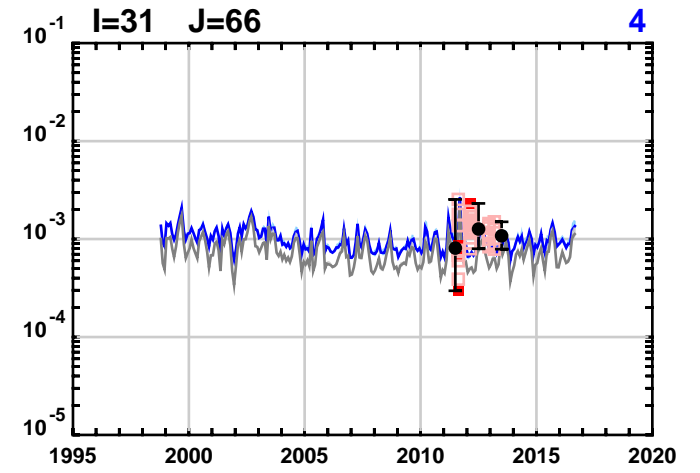
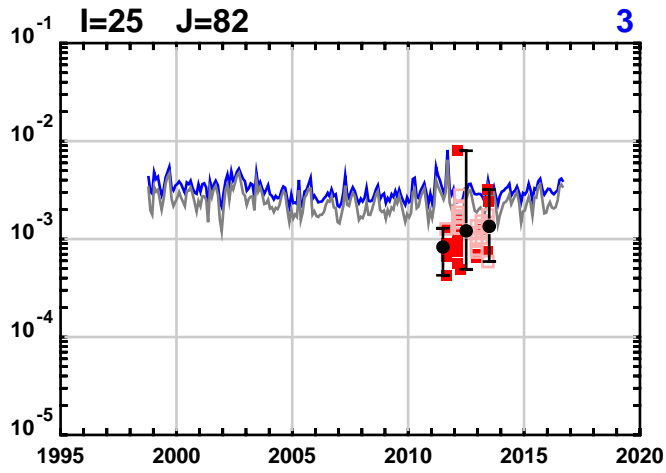
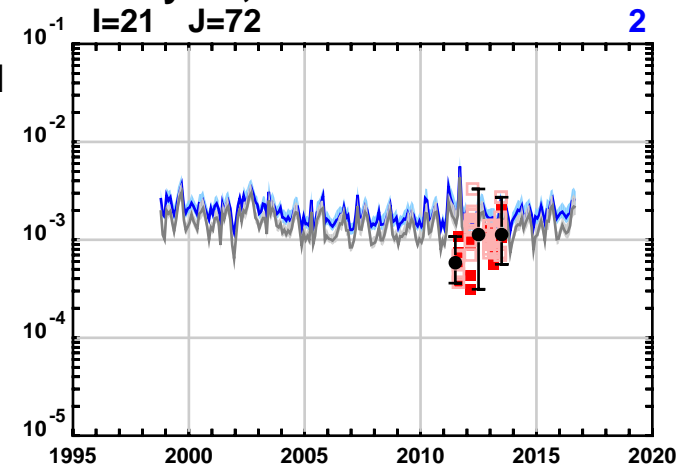
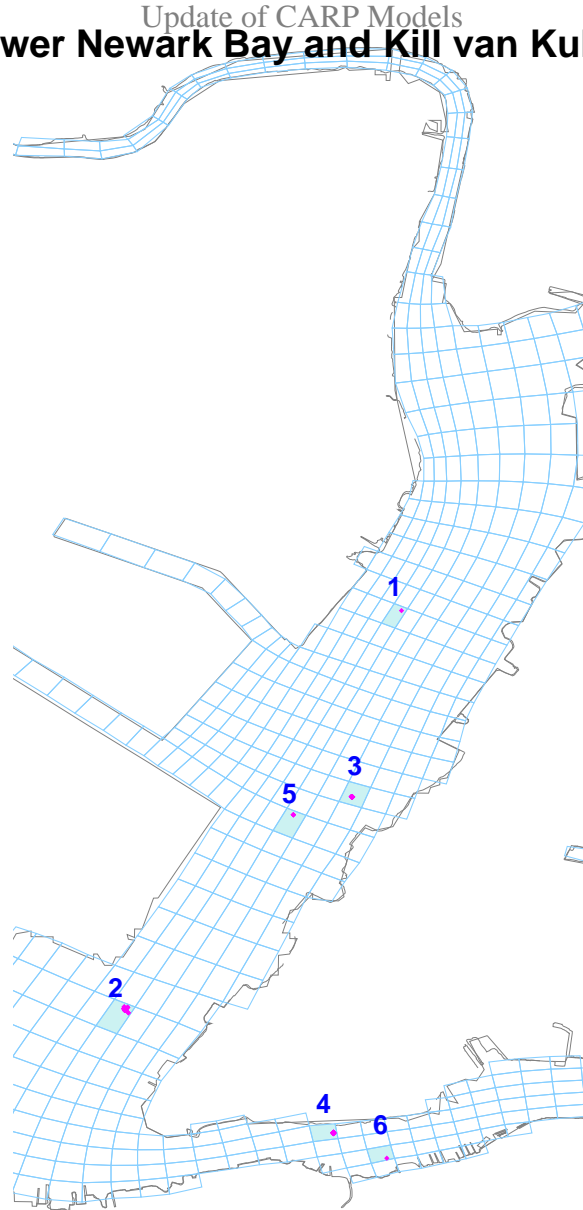
● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

2,3,7,8-Tetrachlorodibenzo-p-dioxin, ng/L



Update of CARP Models Lower Newark Bay and Kill van Kull

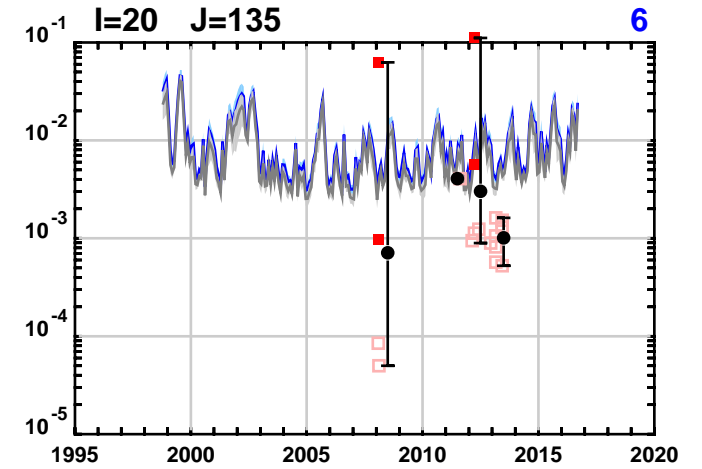
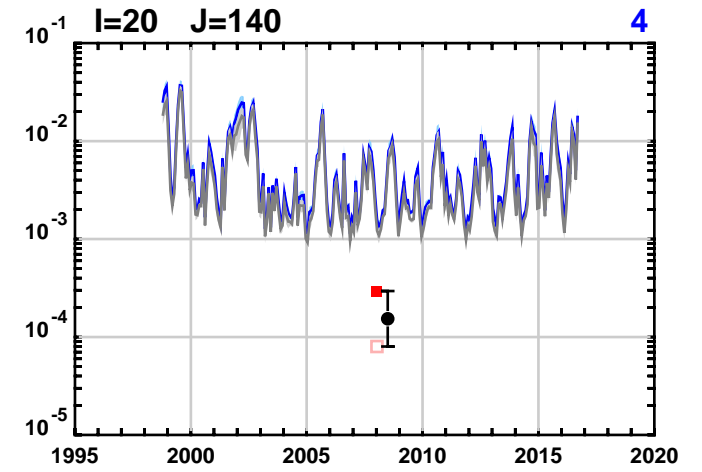
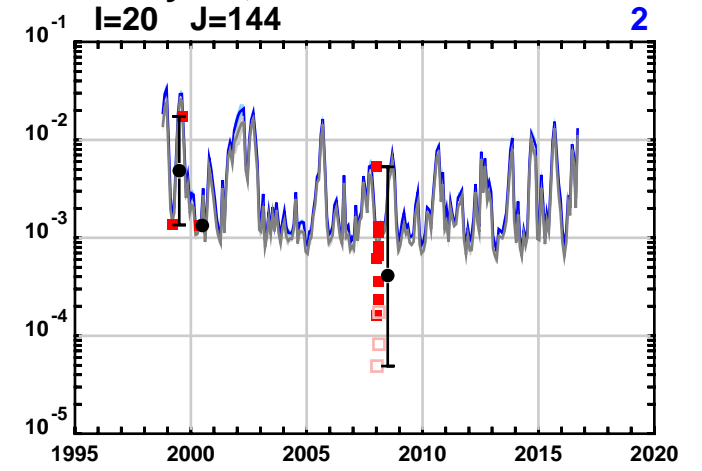
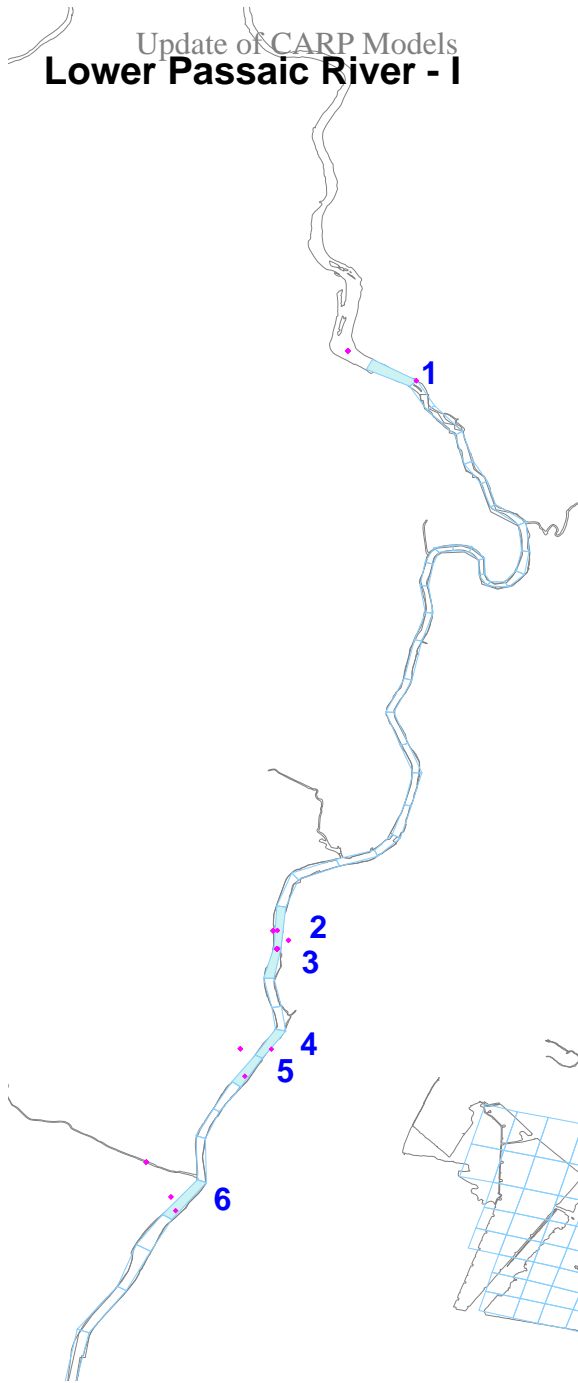
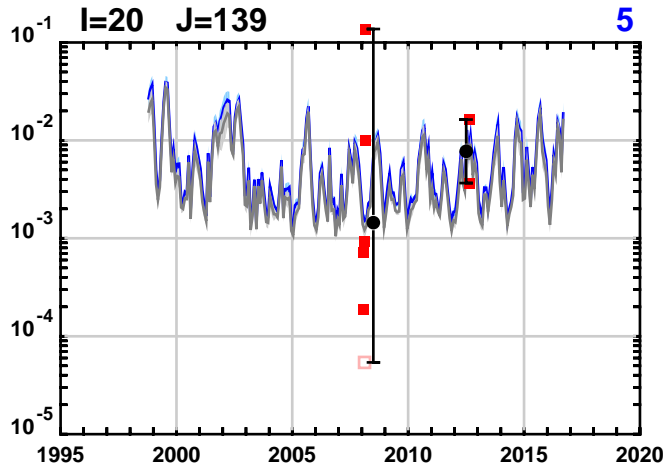
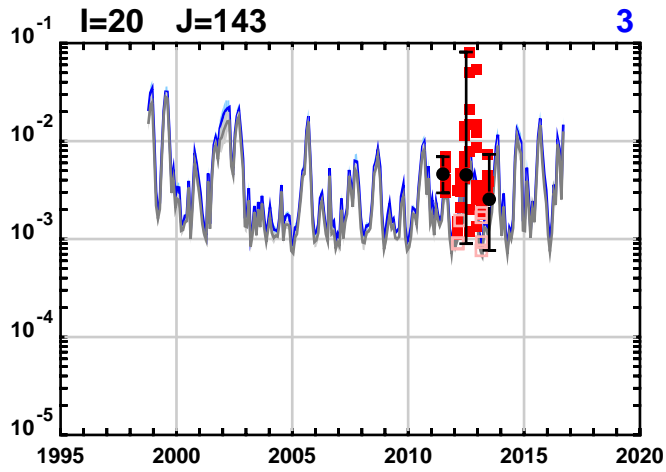
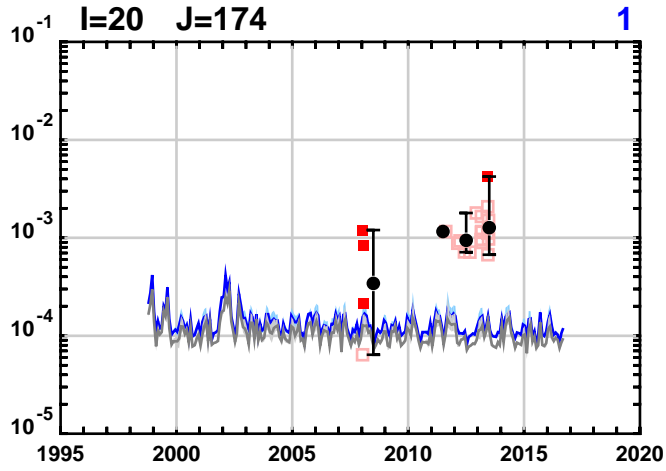


● Detect Data ● Non-Detect Data
— Model: mean and range of values in Water Column
— Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

2,3,7,8-Tetrachlorodibenzo-p-dioxin, ng/L

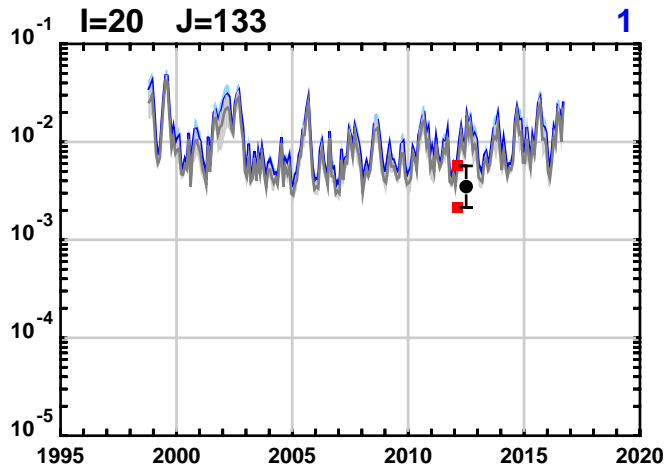


● Detect Data ● Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

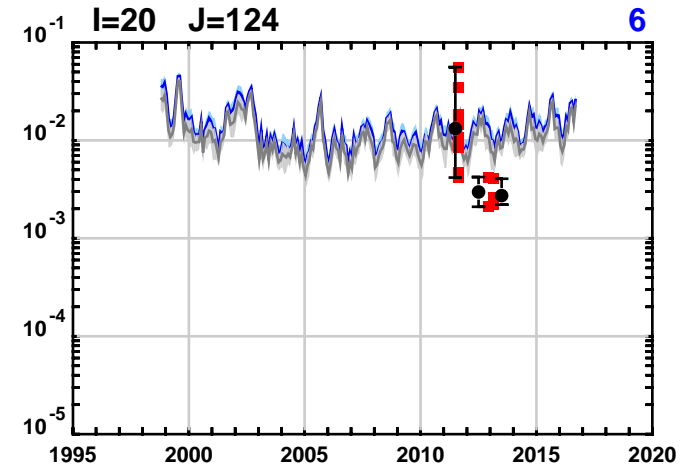
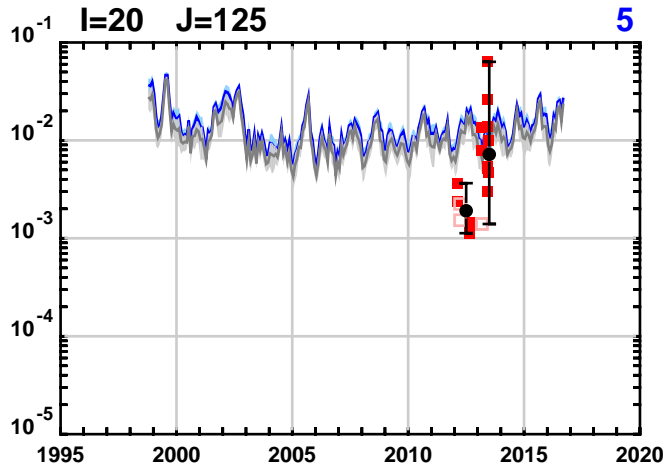
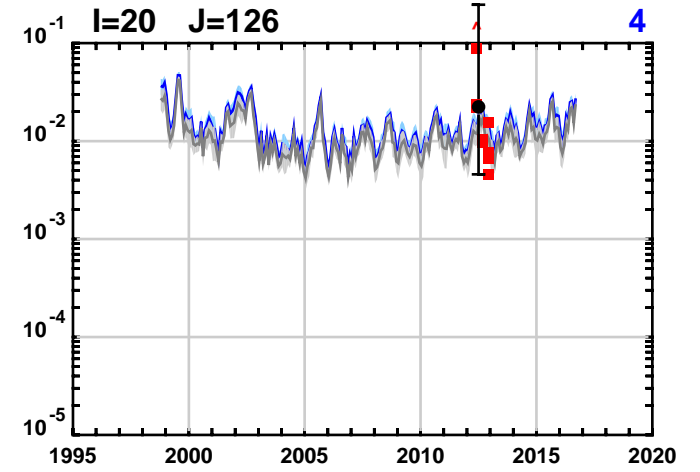
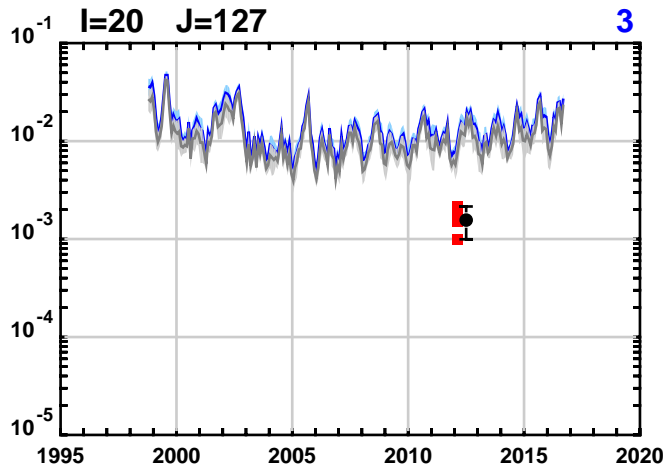
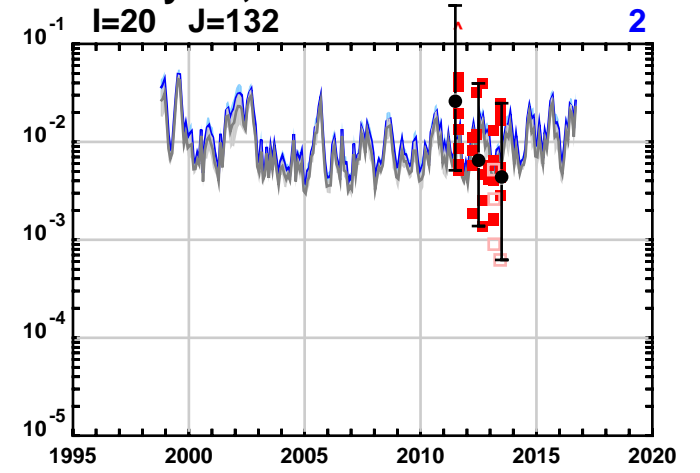
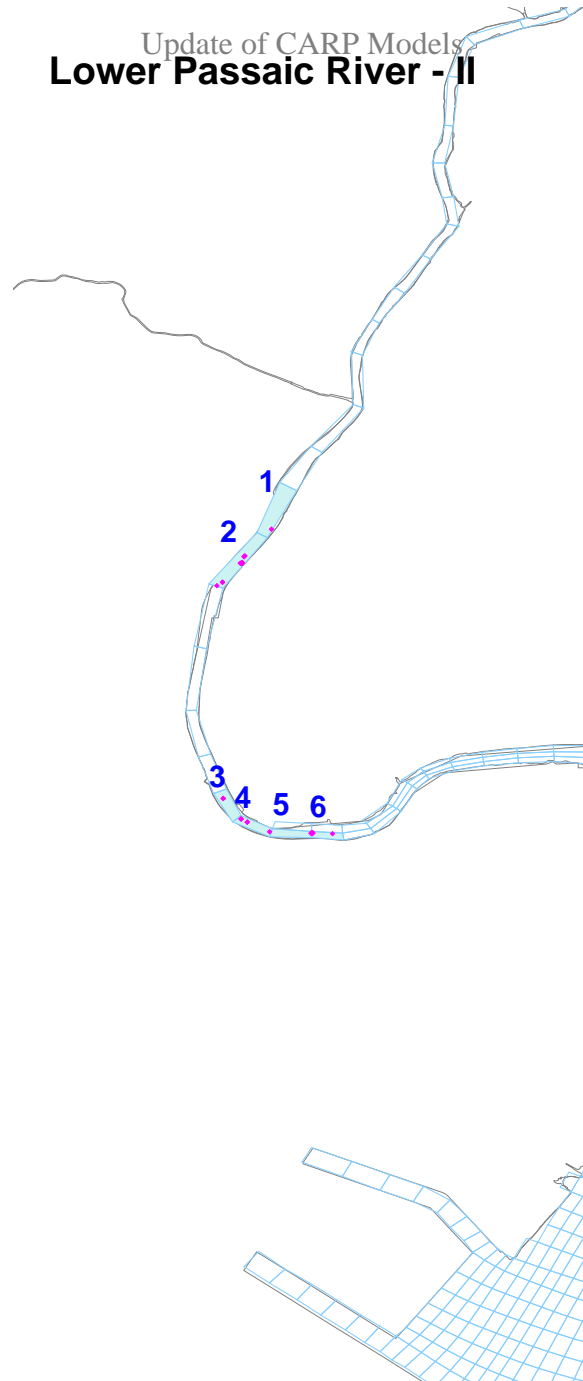
● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

2,3,7,8-Tetrachlorodibenzo-p-dioxin, ng/L



Update of CARP Models
Lower Passaic River - II

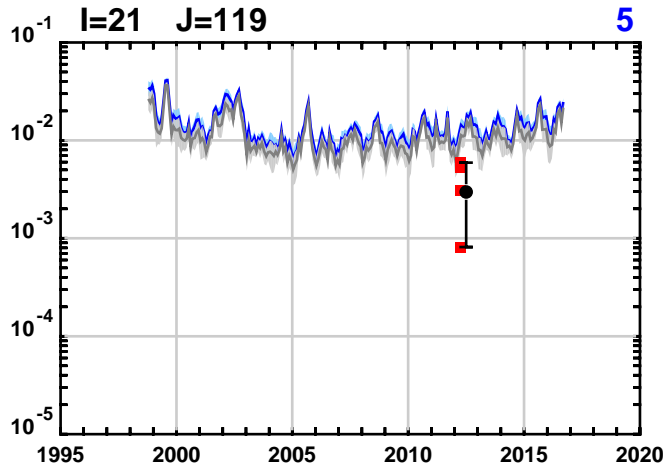
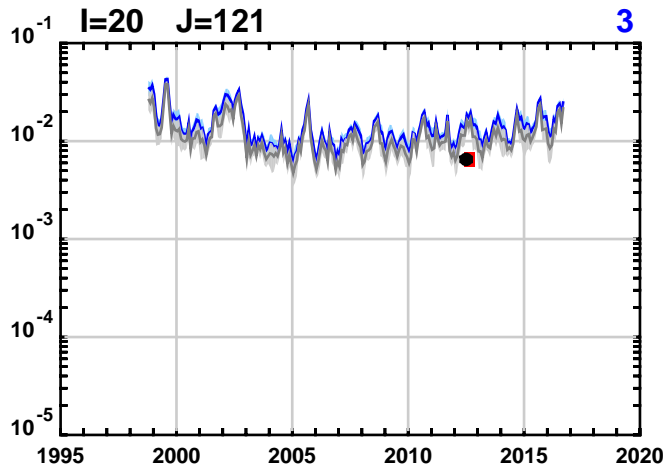
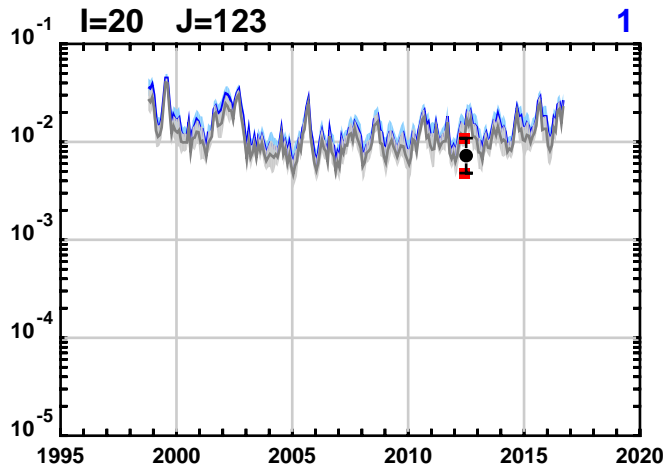


● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

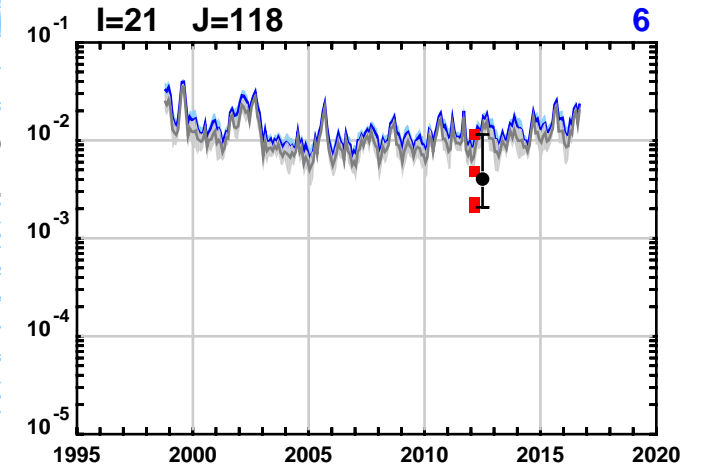
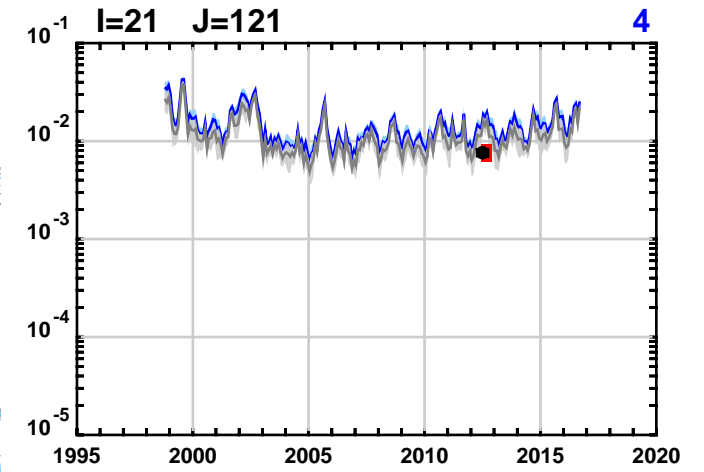
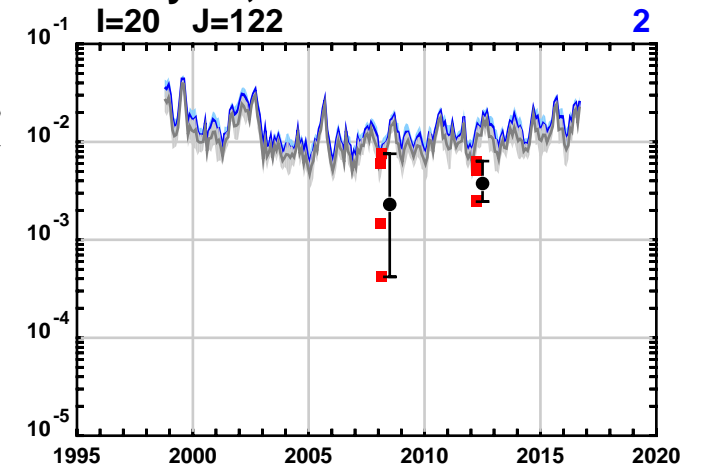
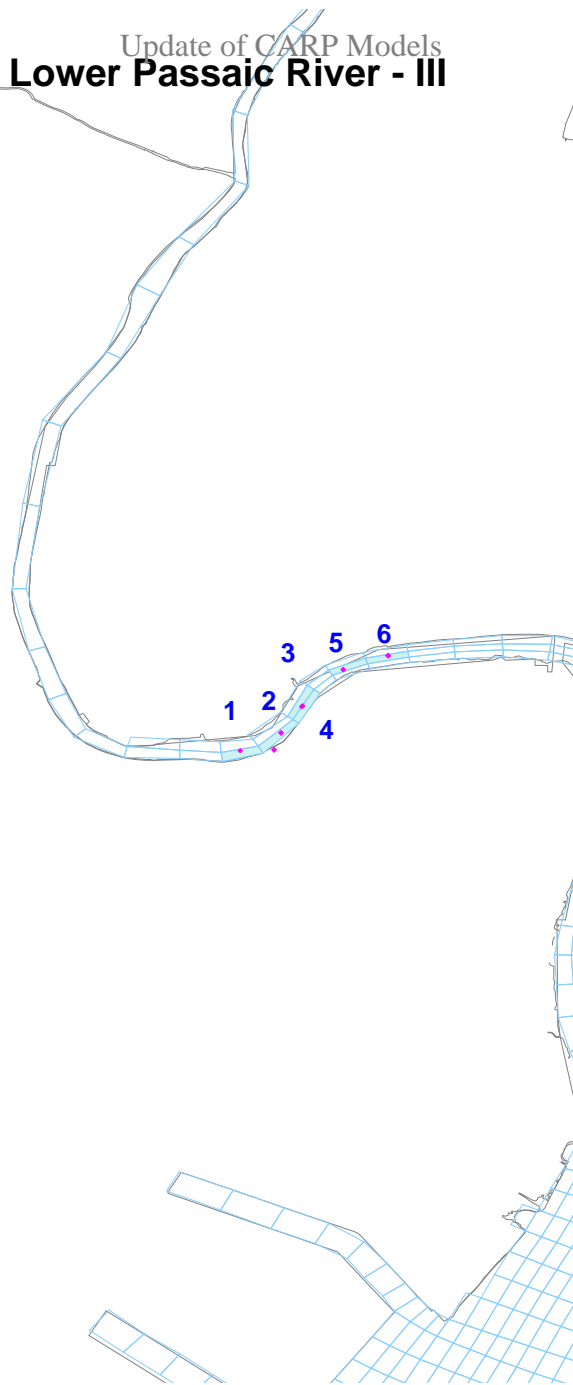
● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

2,3,7,8-Tetrachlorodibenzo-p-dioxin, ng/L



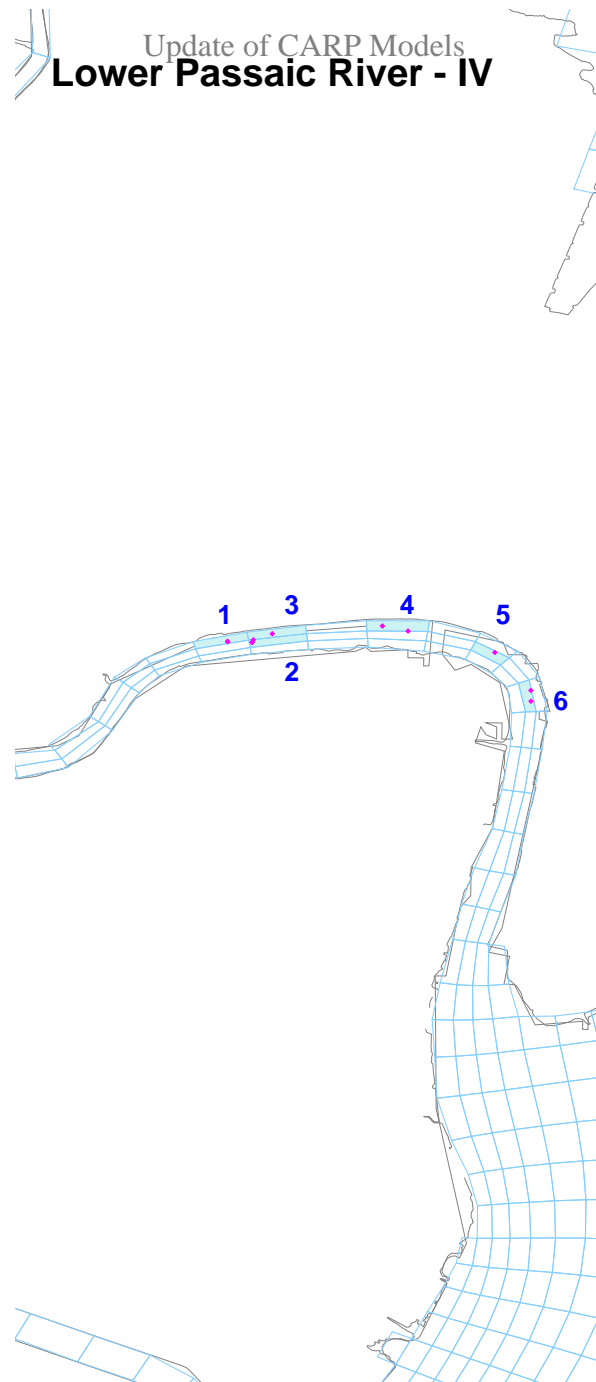
Update of CARP Models Lower Passaic River - III



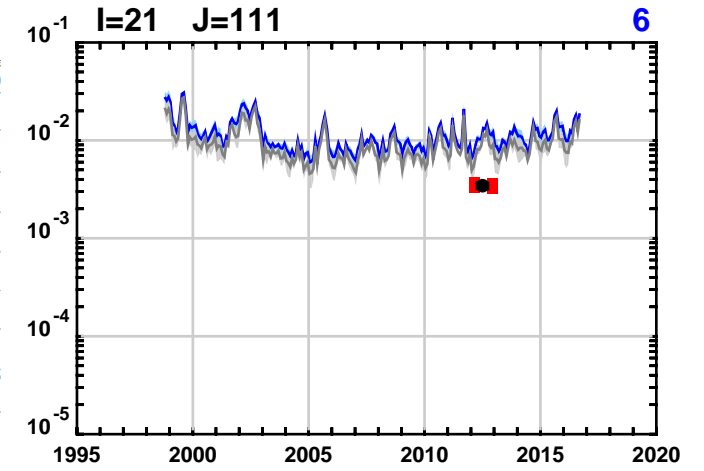
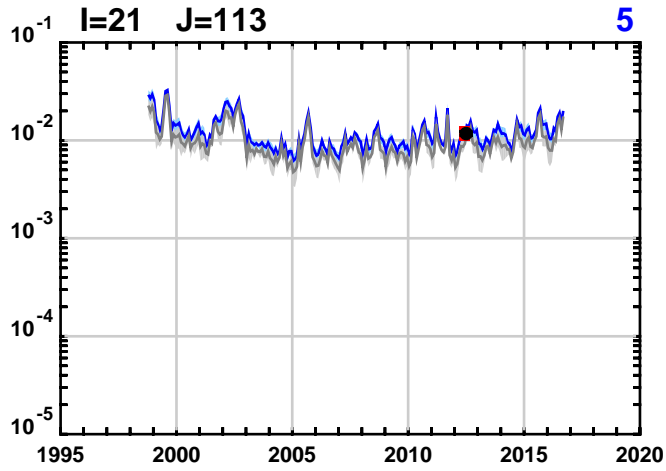
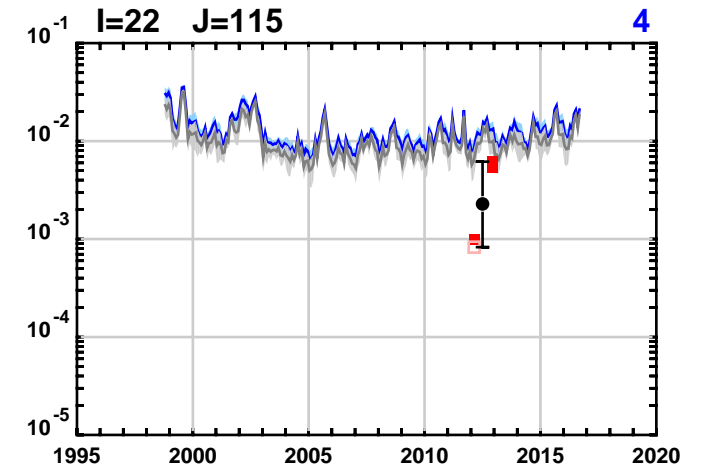
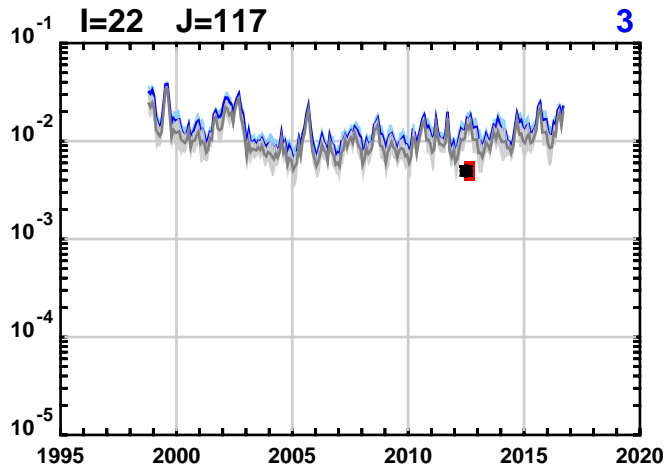
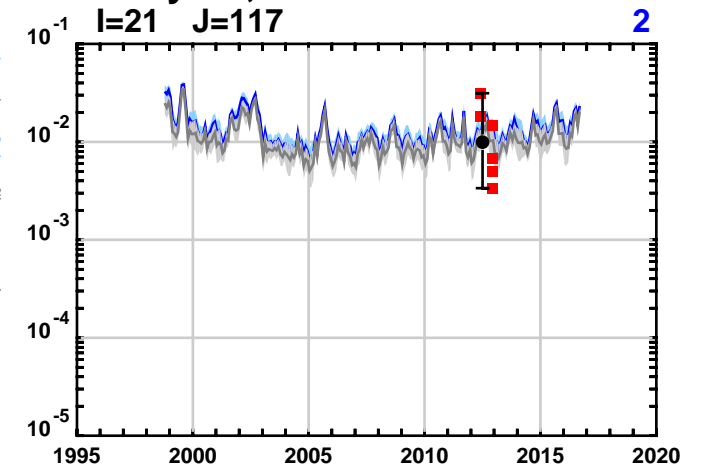
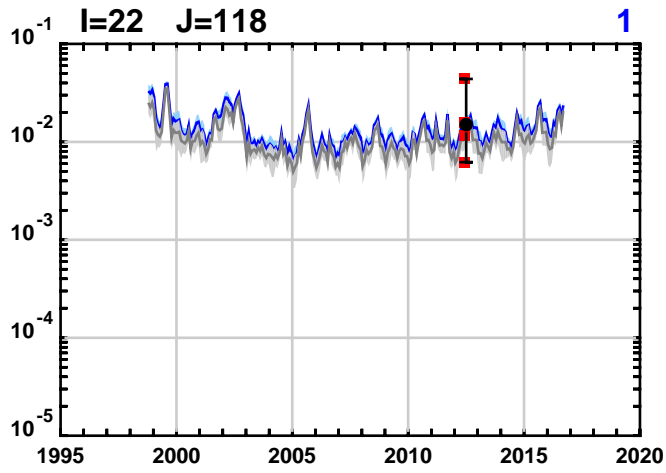
● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18



2,3,7,8-Tetrachlorodibenzo-p-dioxin, ng/L

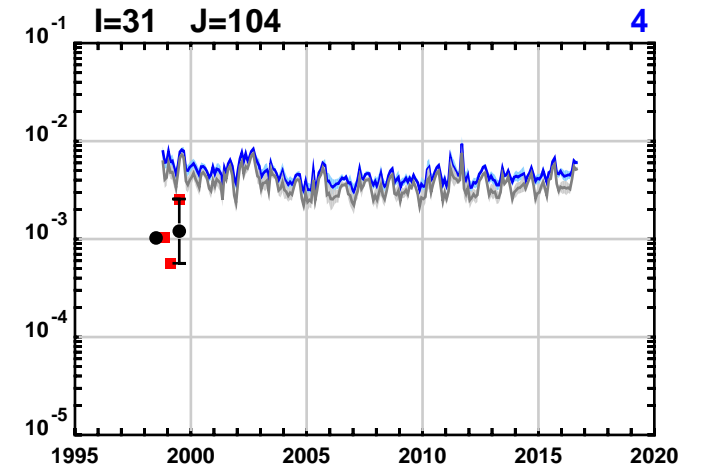
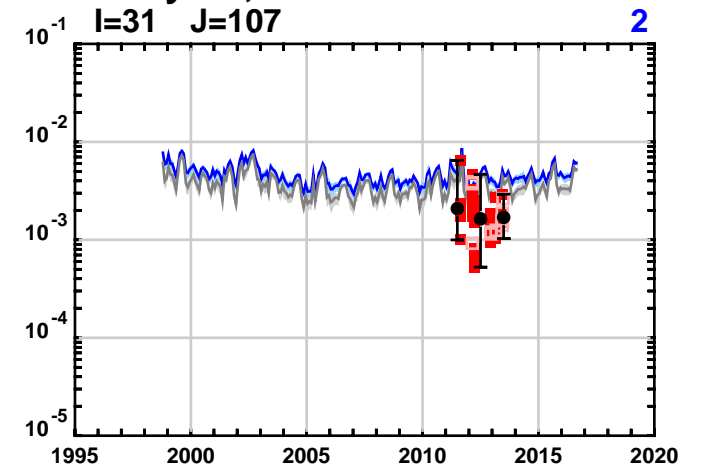
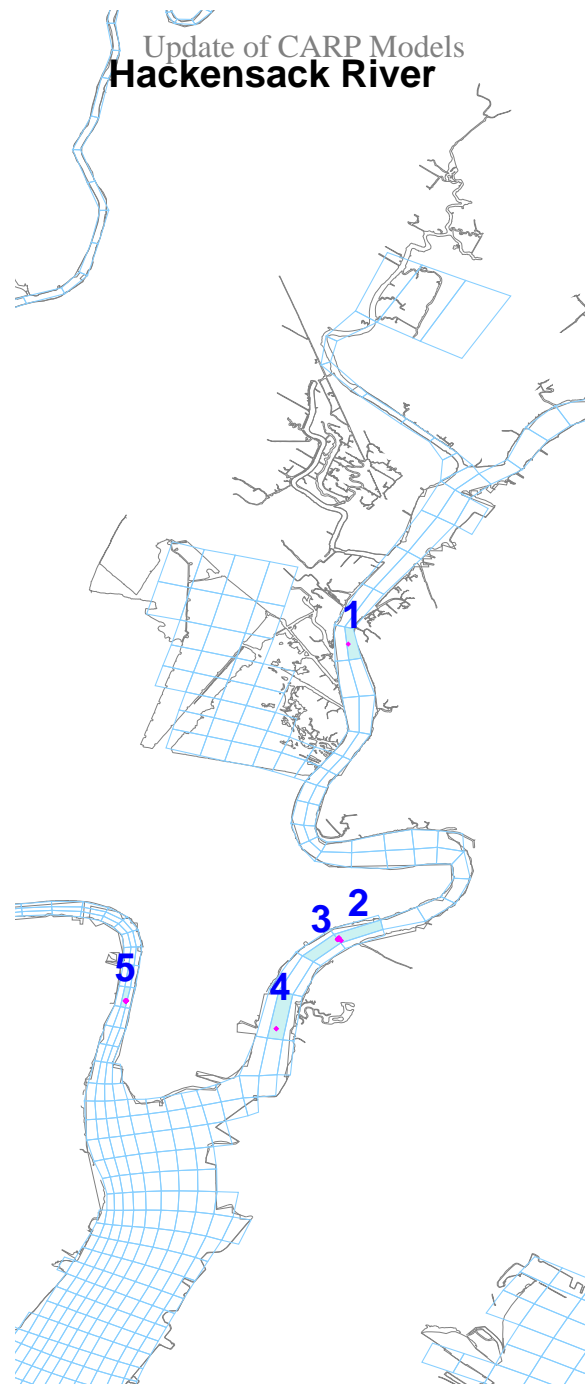
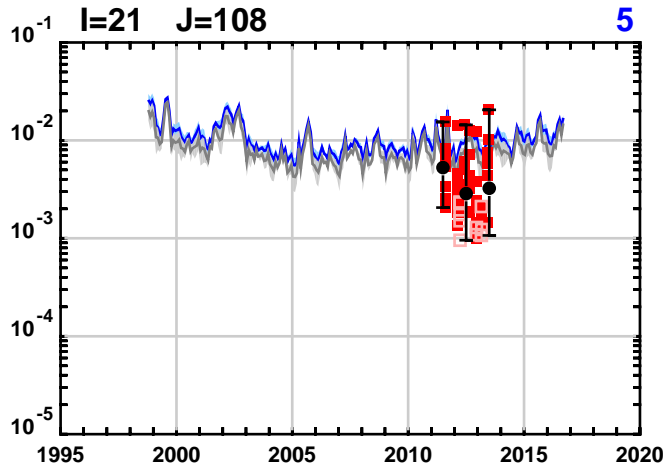
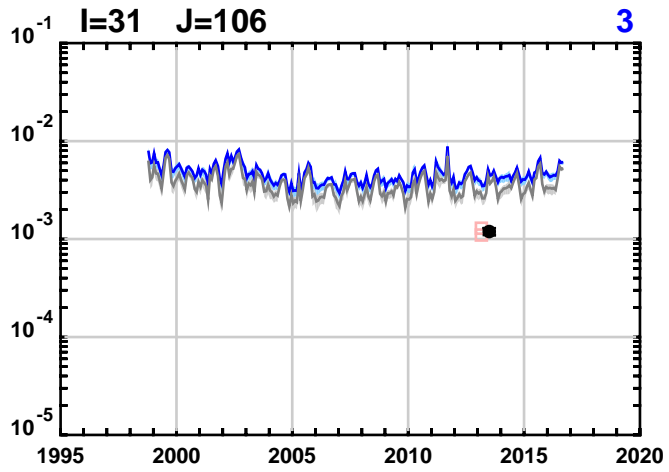
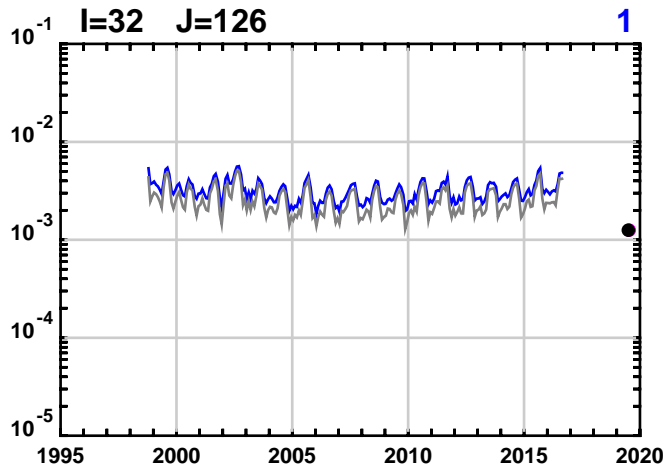


Detect Data Non-Detect Data
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

2,3,7,8-Tetrachlorodibenzo-p-dioxin, ng/L



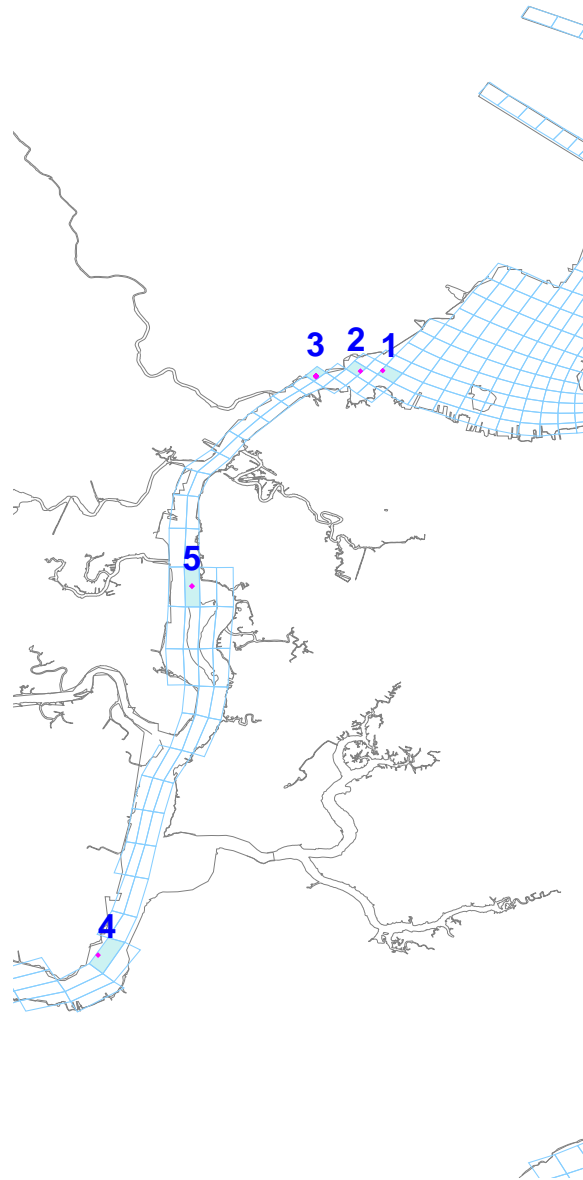
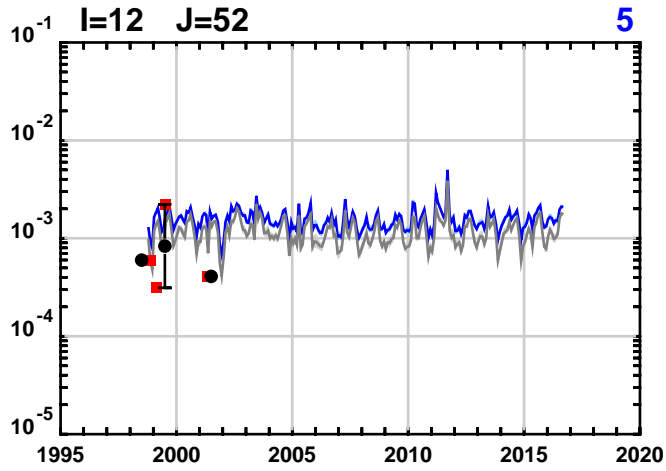
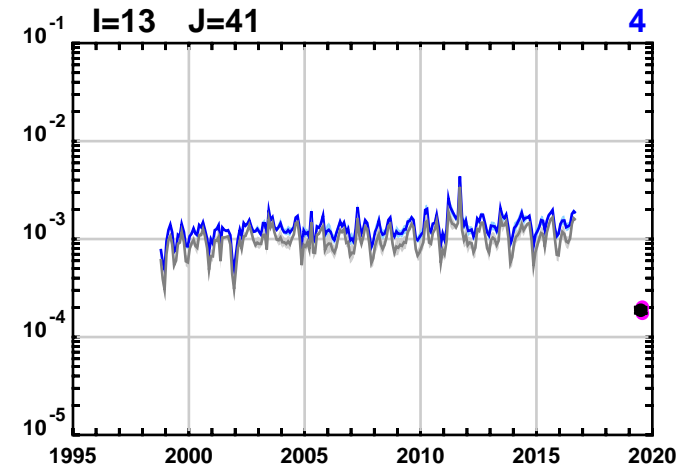
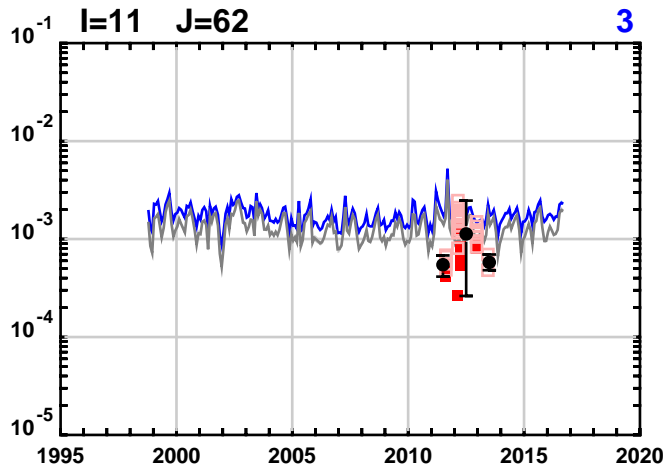
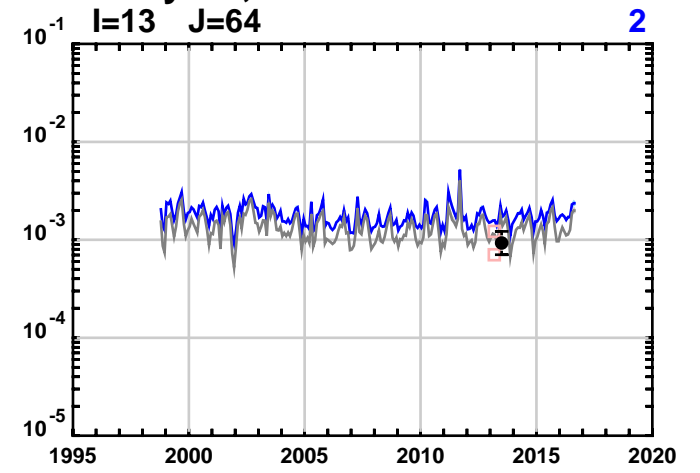
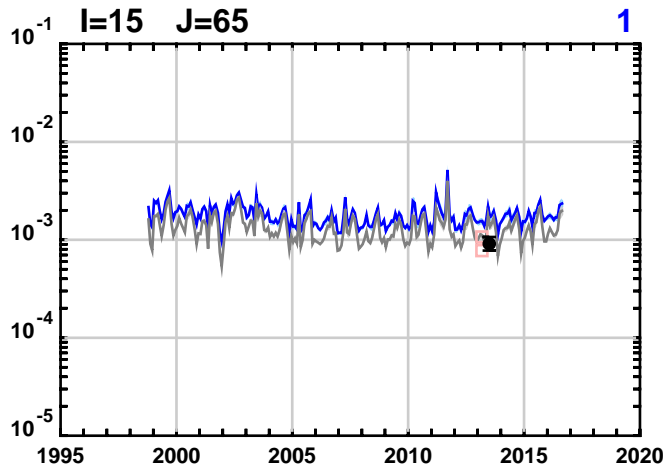
● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

Update of CARP Models
Arthur Kill

2,3,7,8-Tetrachlorodibenzo-p-dioxin, ng/L

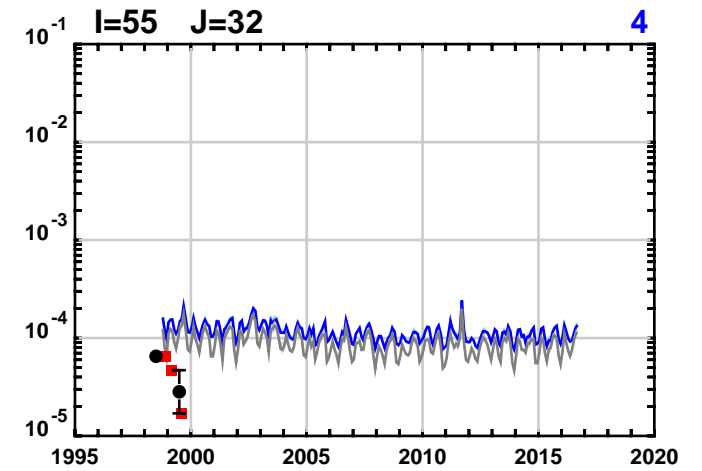
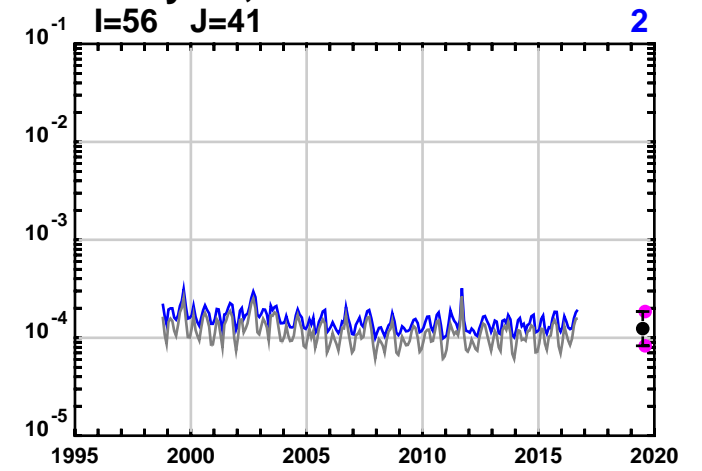
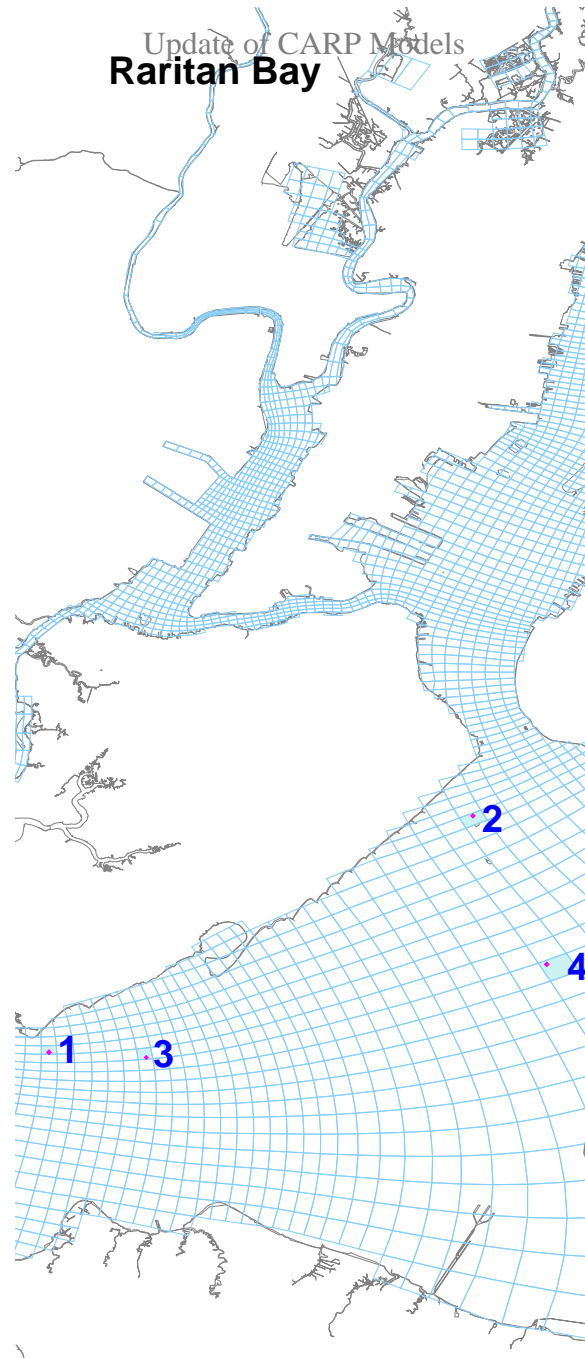
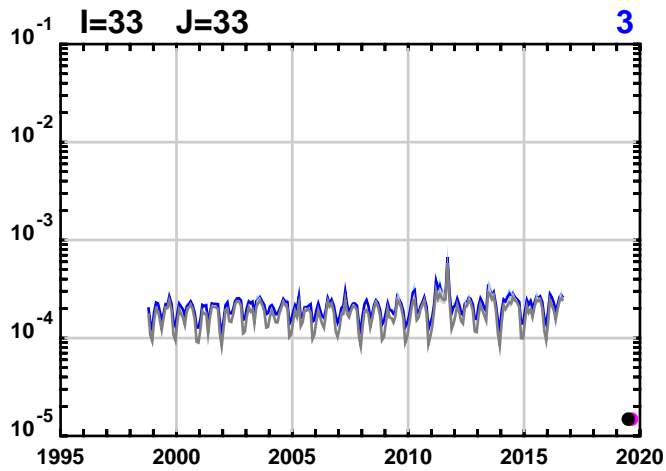
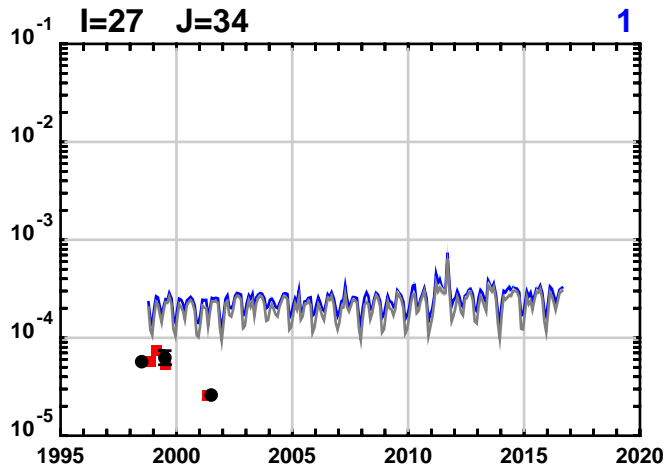


● Detect Data ● Non-Detect Data
— Model: mean and range of values in Water Column
— Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

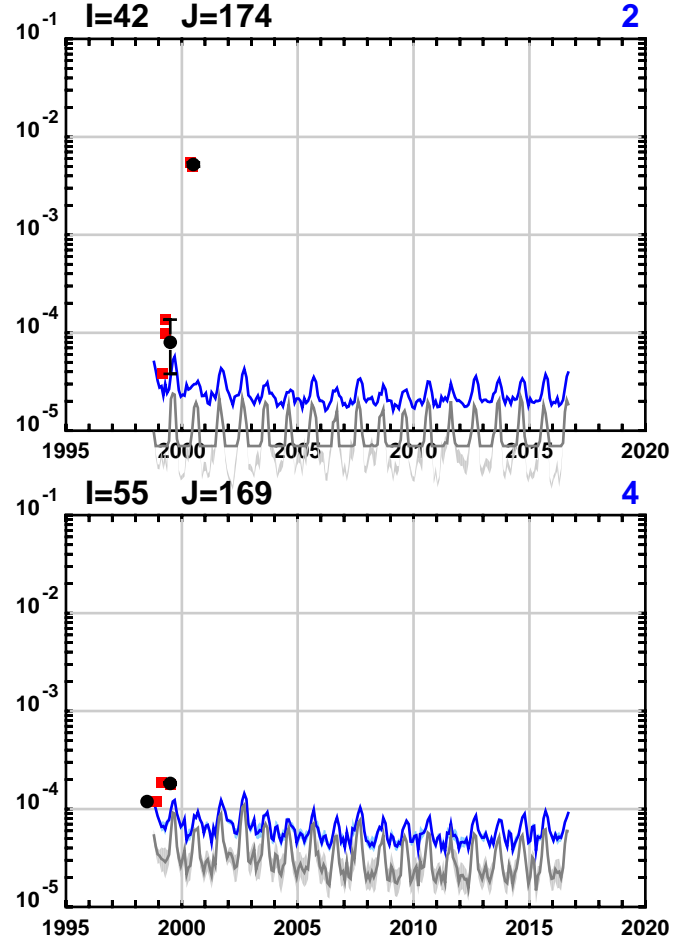
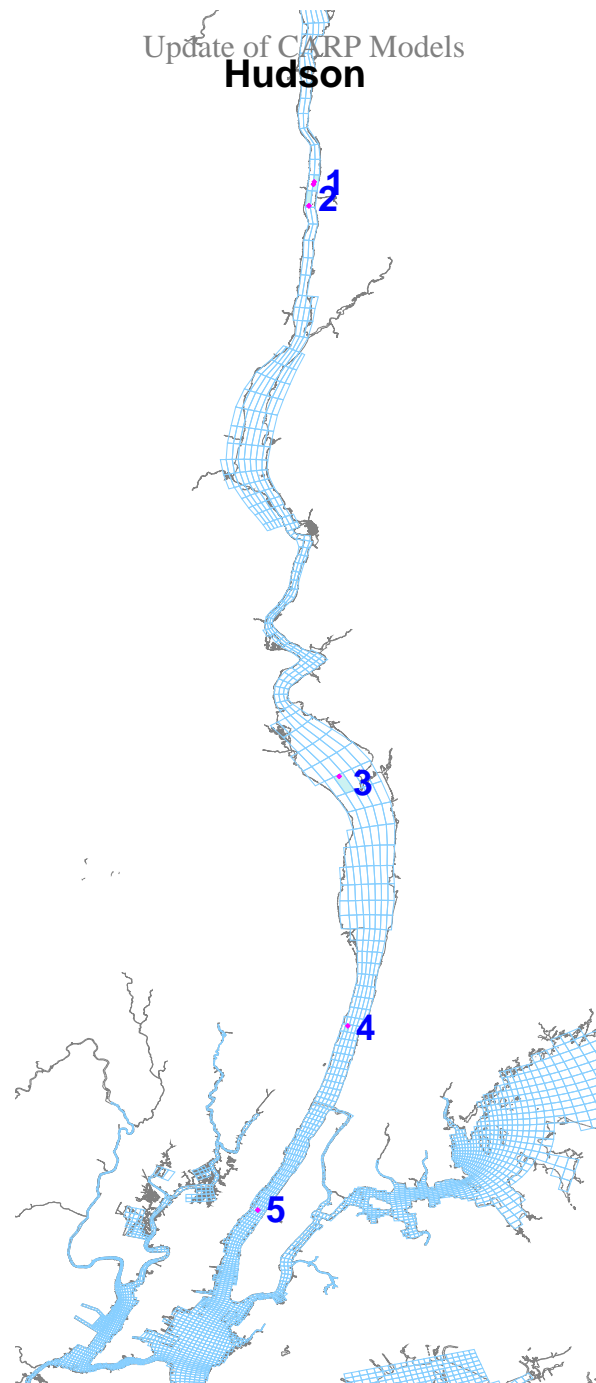
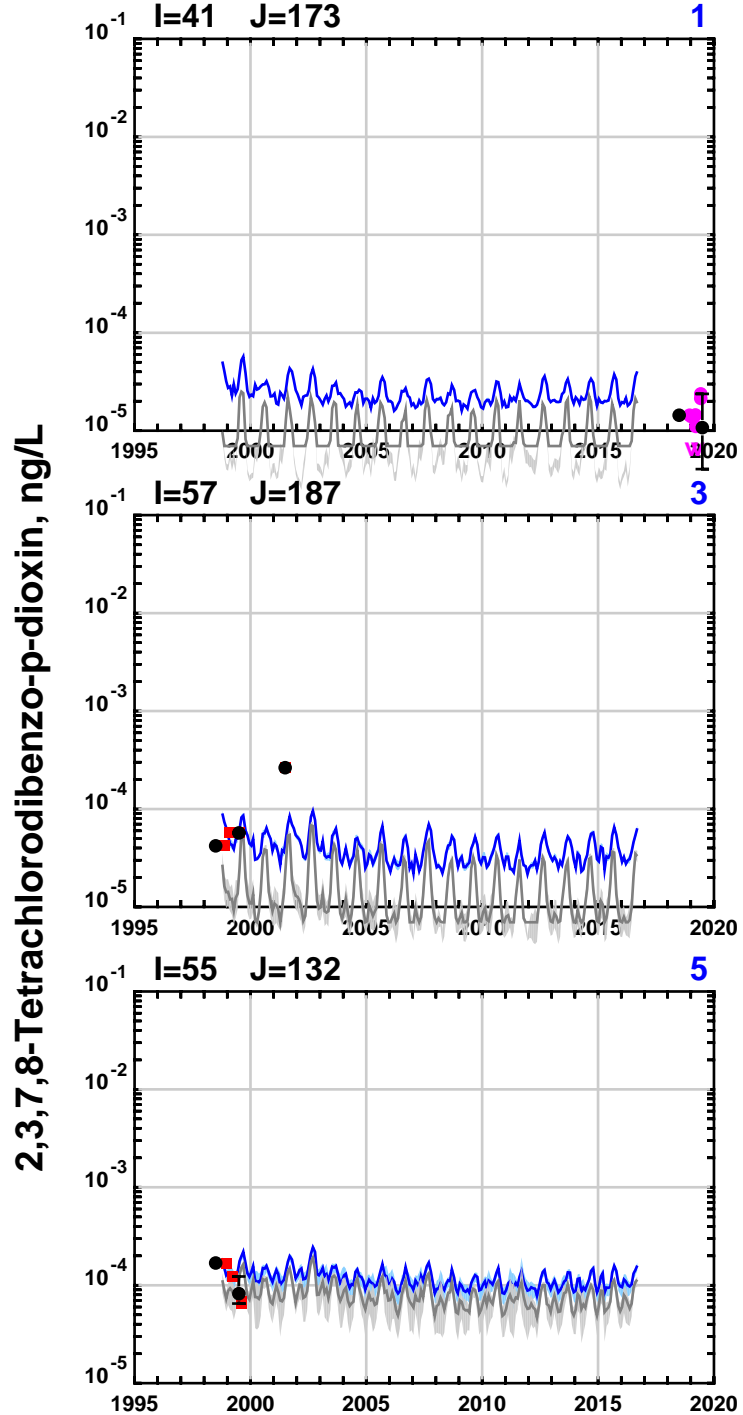
2,3,7,8-Tetrachlorodibenzo-p-dioxin, ng/L



Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

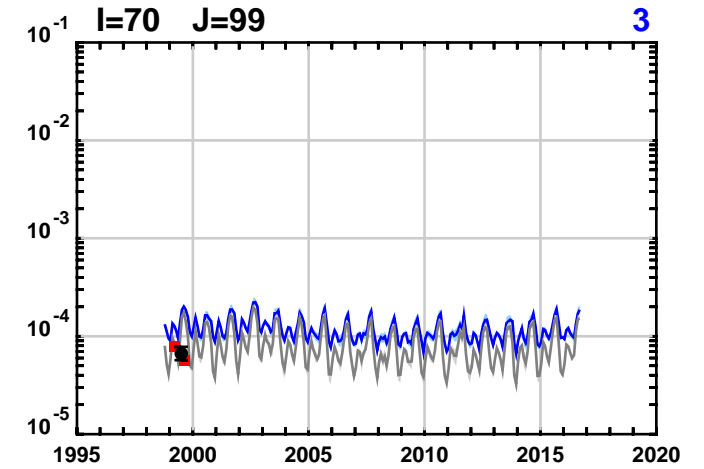
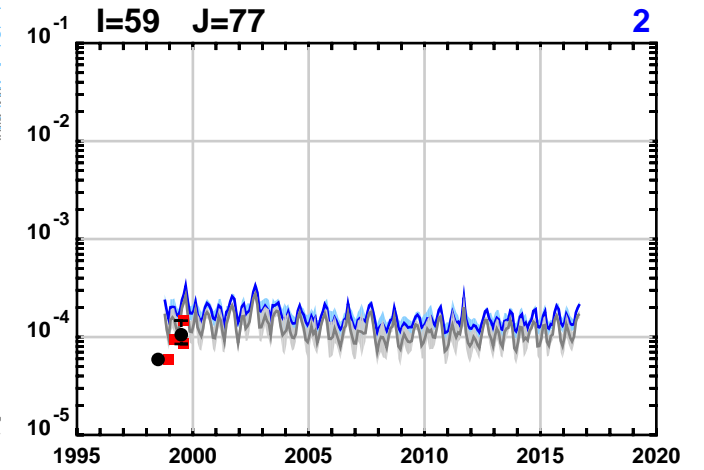
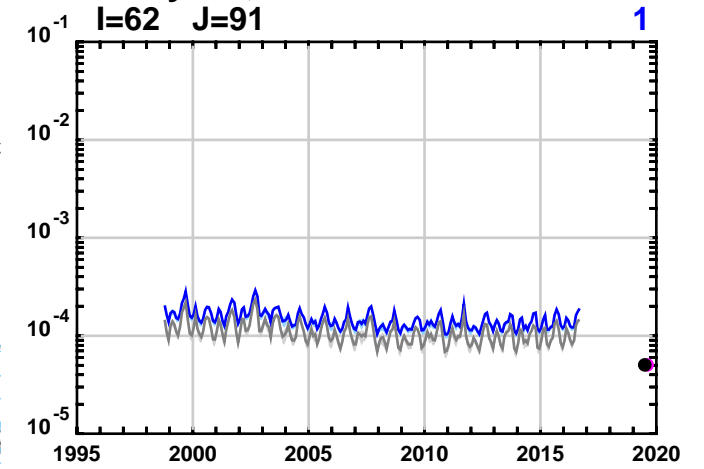
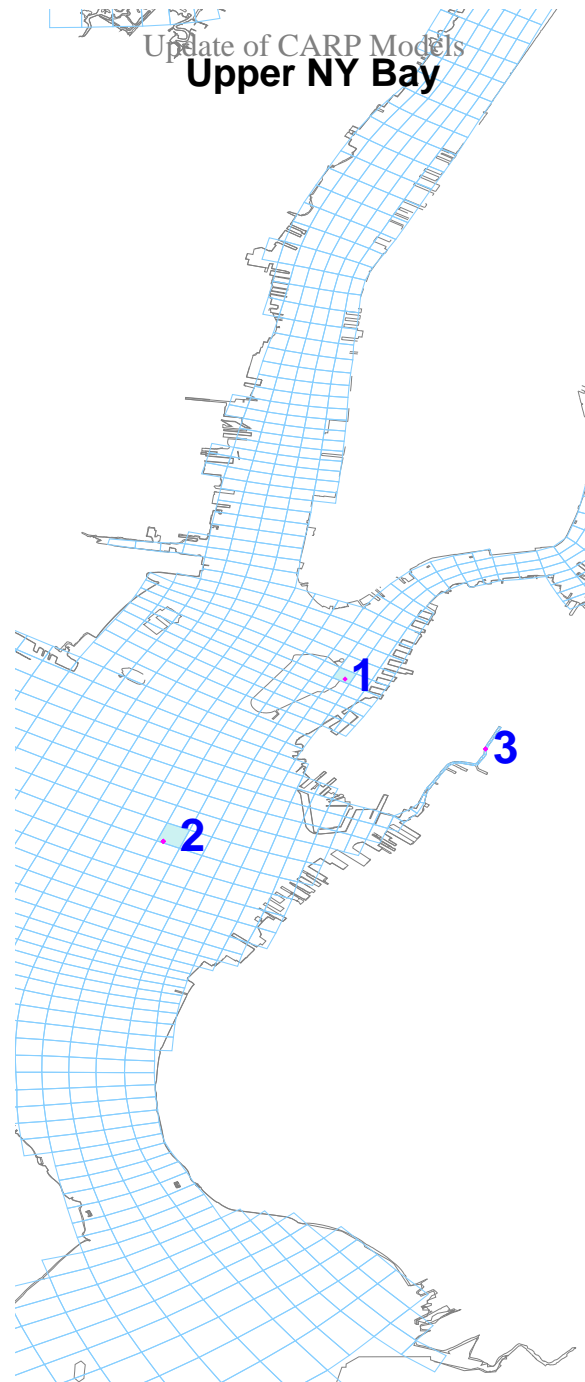


● Detect Data ● Non-Detect Data
— Model: mean and range of values in Water Column
— Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

2,3,7,8-Tetrachlorodibenzo-p-dioxin, ng/L

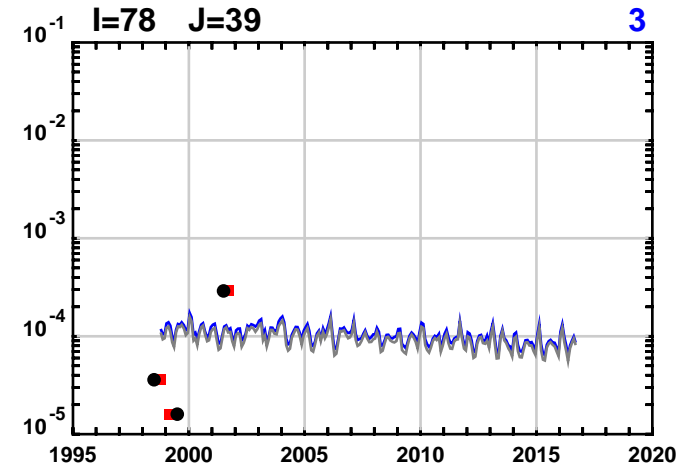
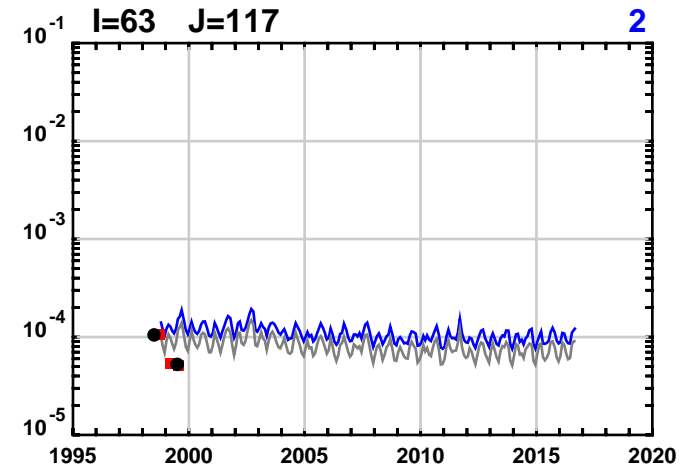
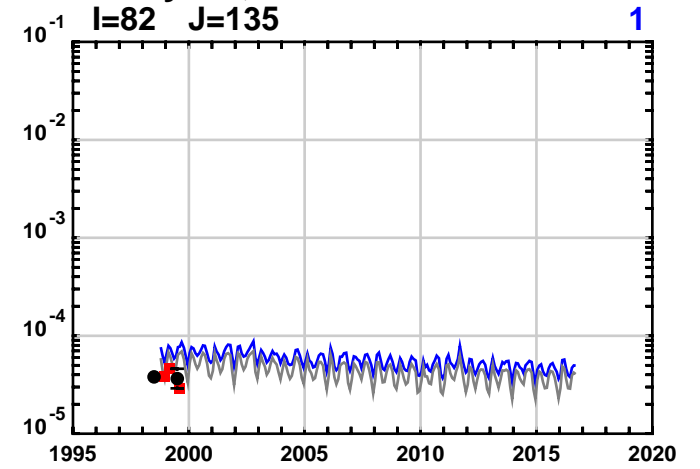
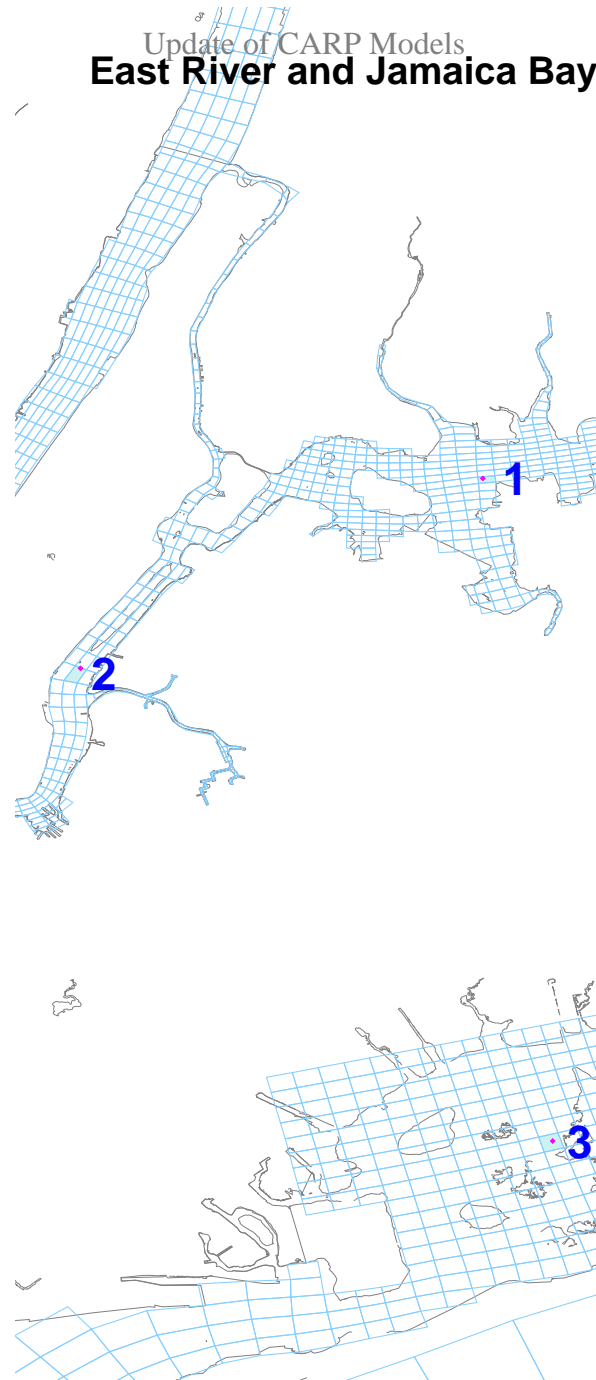


Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

2,3,7,8-Tetrachlorodibenzo-p-dioxin, ng/L

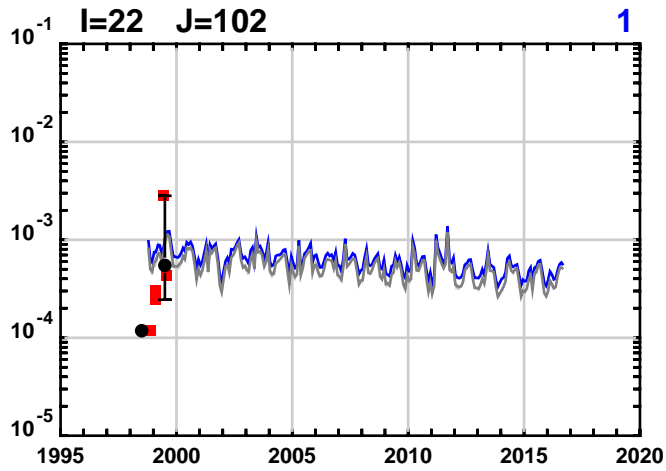


Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

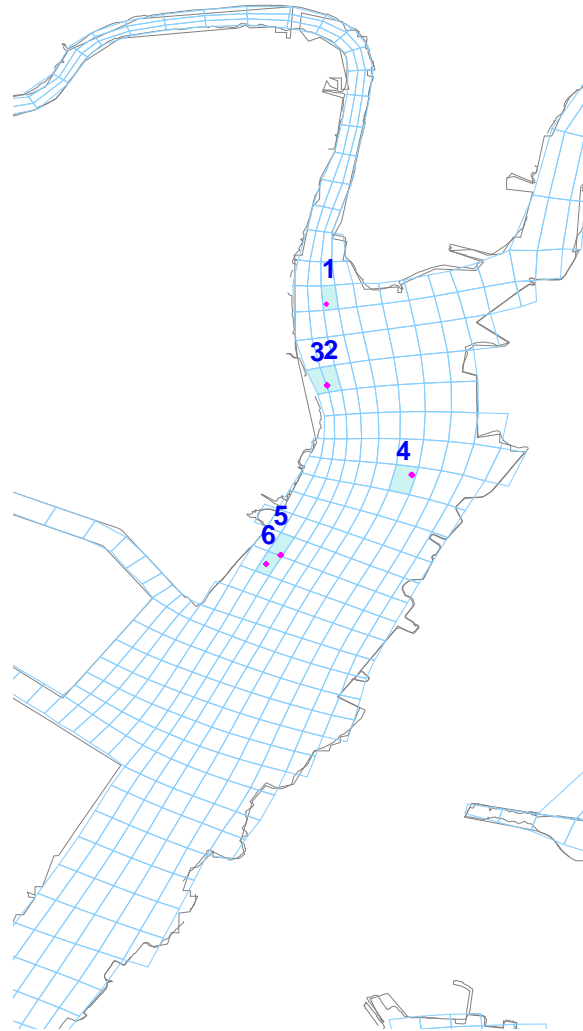
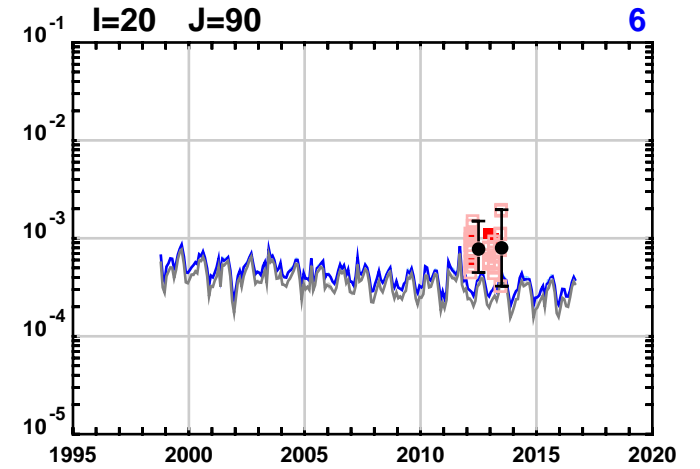
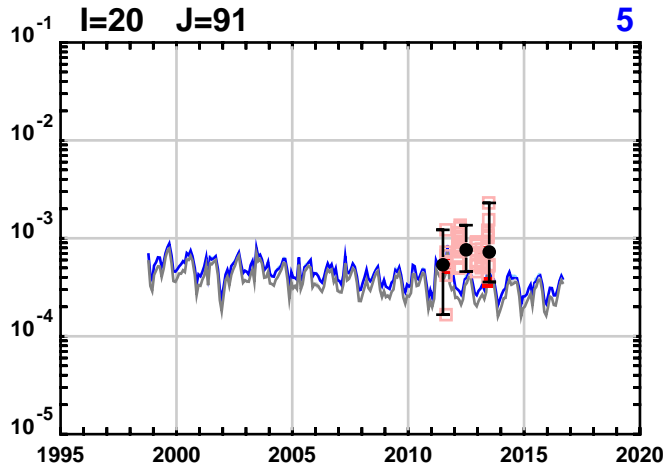
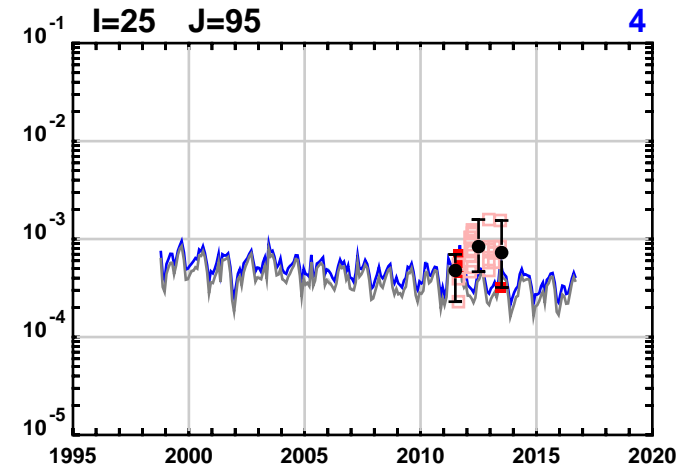
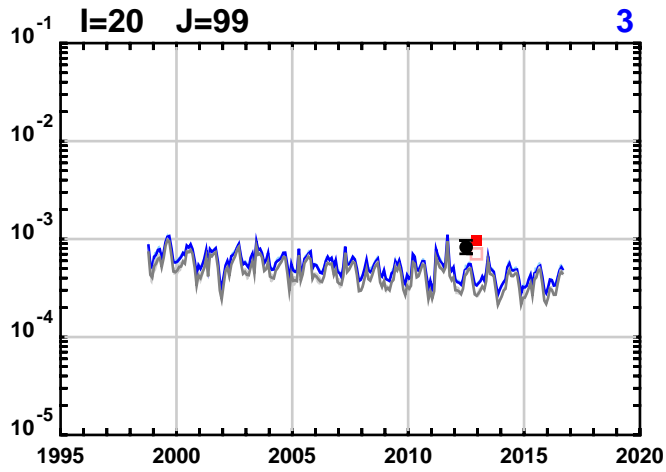
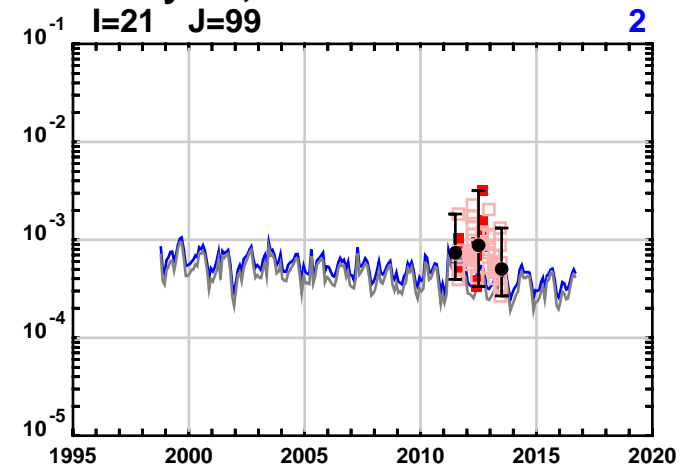
● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

2,3,4,7,8-Pentachlorodibenzofuran, ng/L



Update of CARP Models
Upper Newark Bay

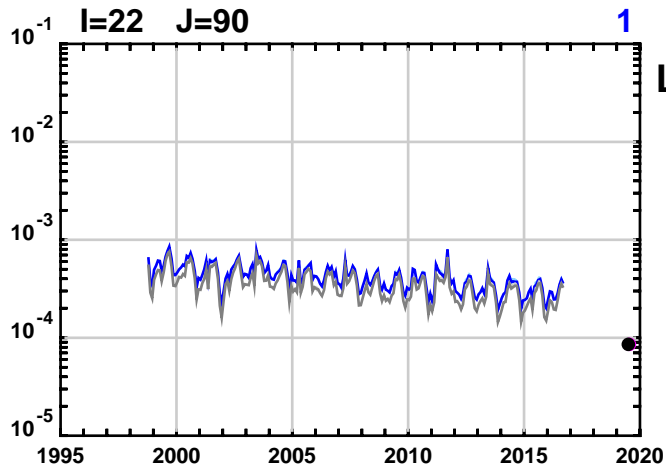


● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
— Model: Particulate Phase mean and range of values in Water Column

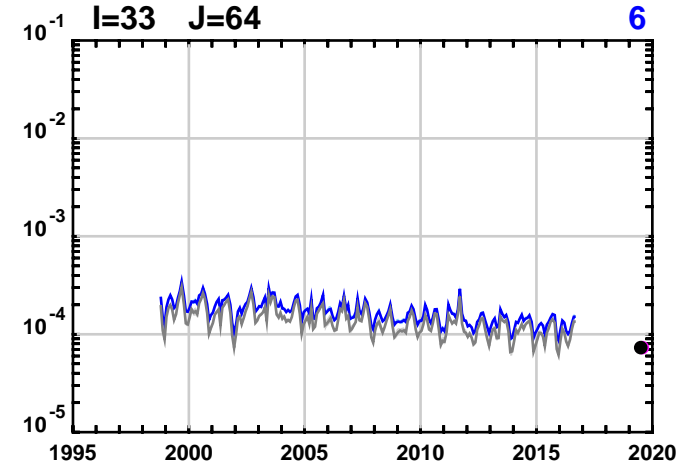
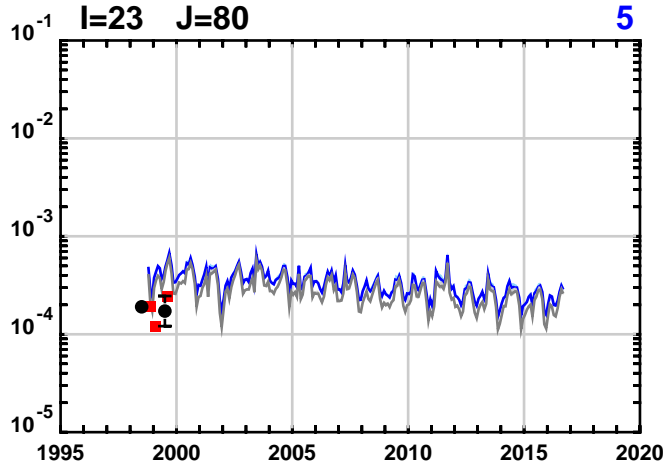
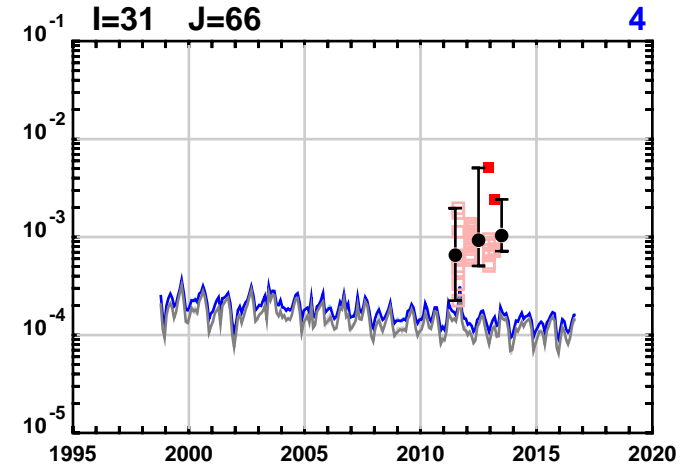
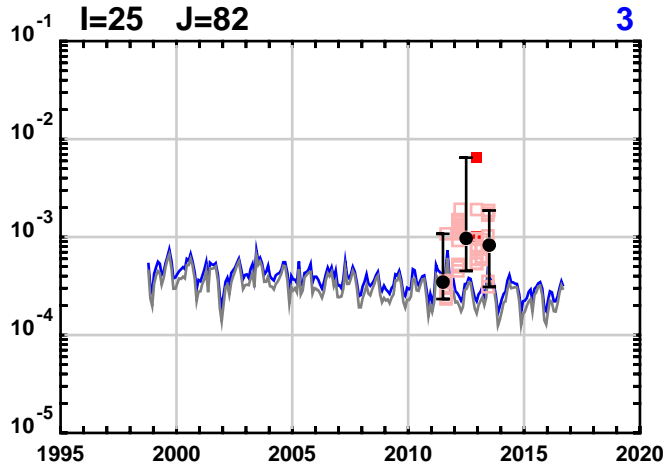
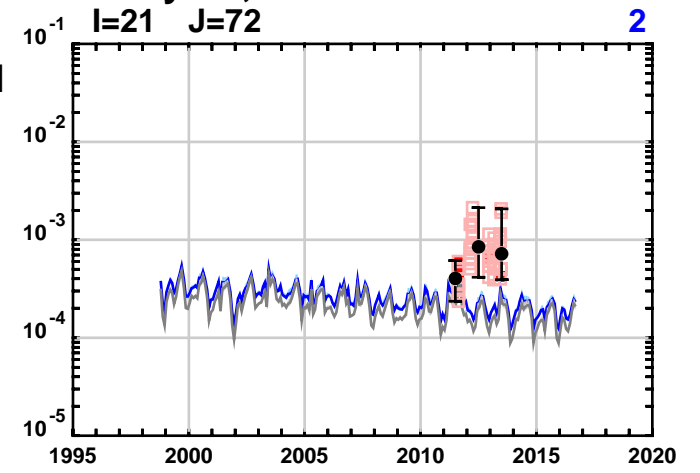
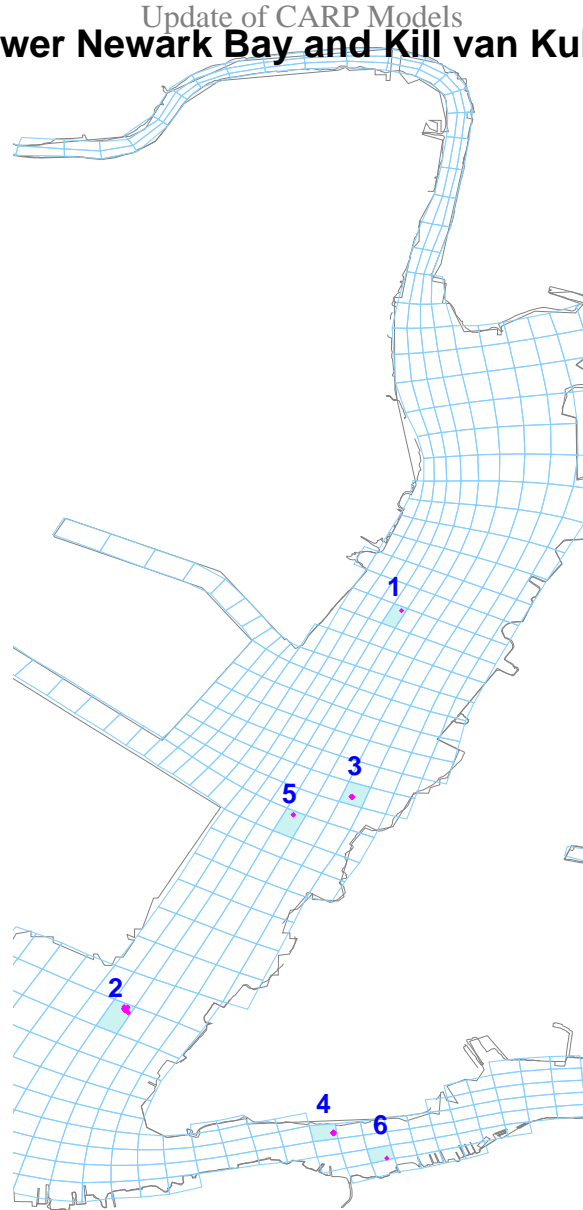
● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

2,3,4,7,8-Pentachlorodibenzofuran, ng/L



Update of CARP Models Lower Newark Bay and Kill van Kull



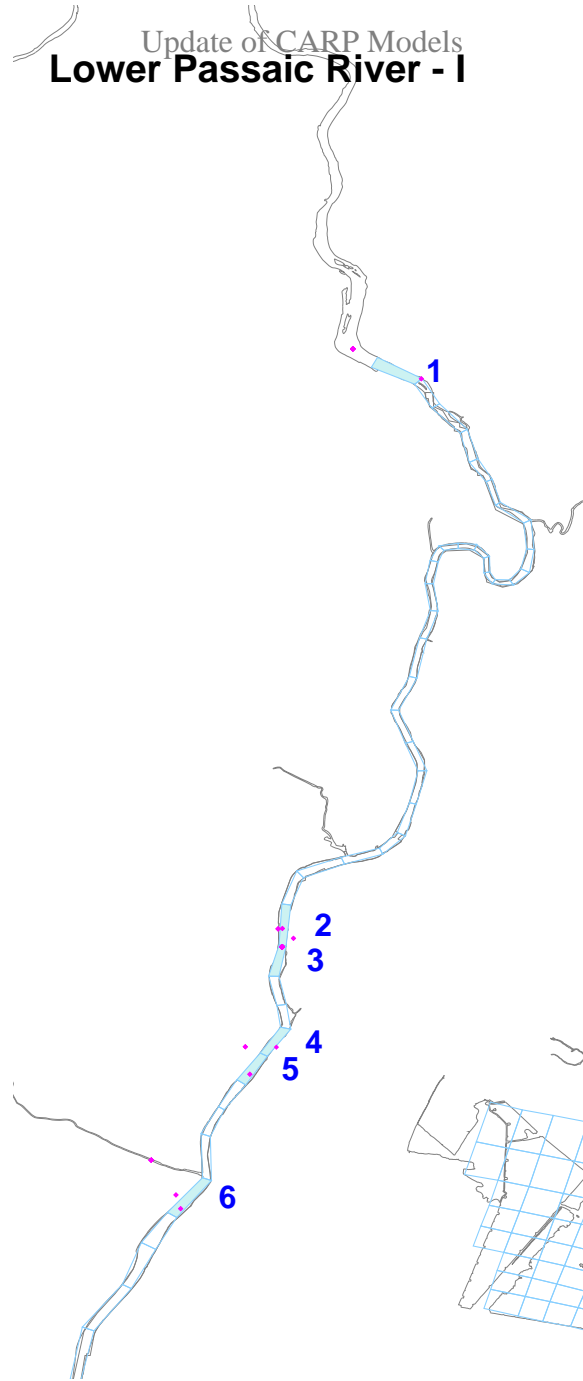
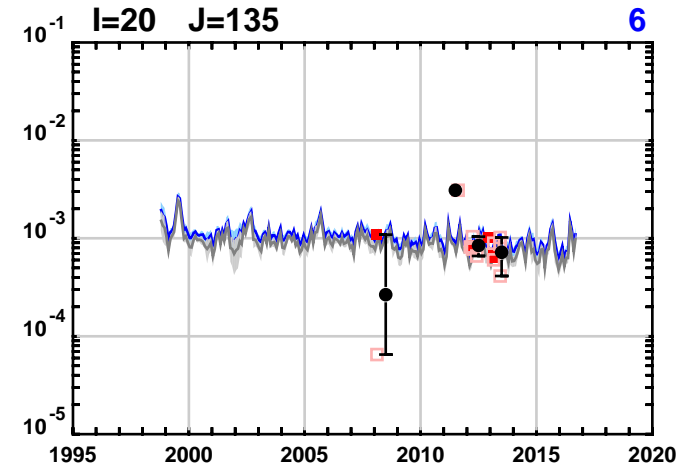
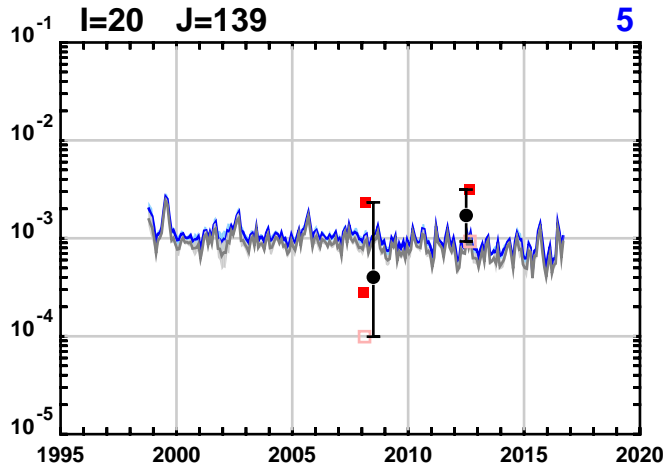
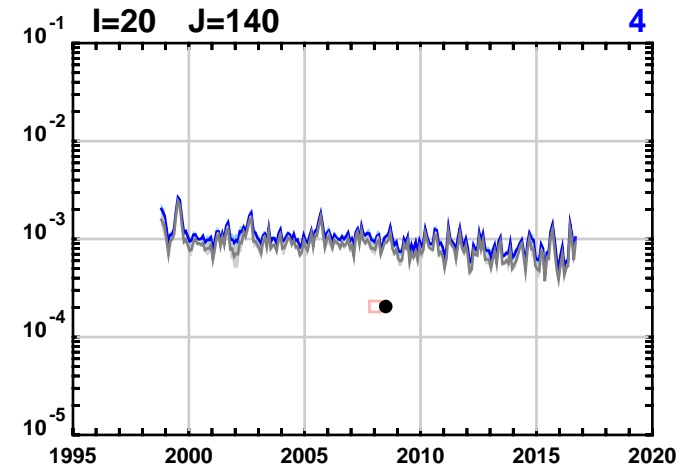
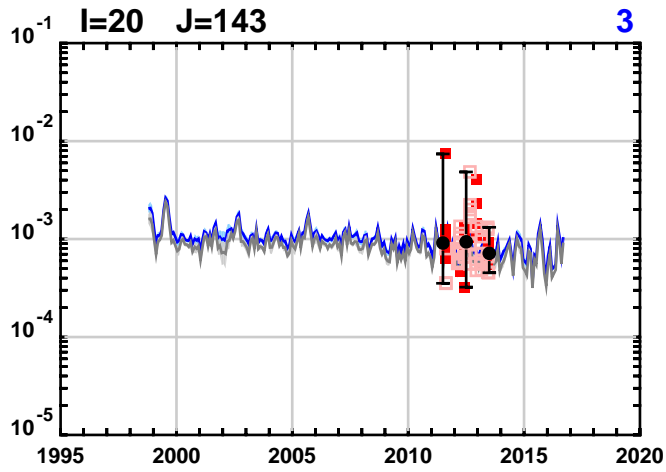
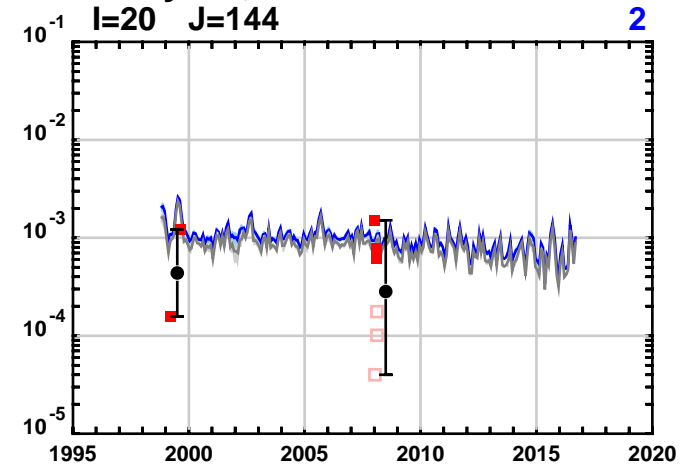
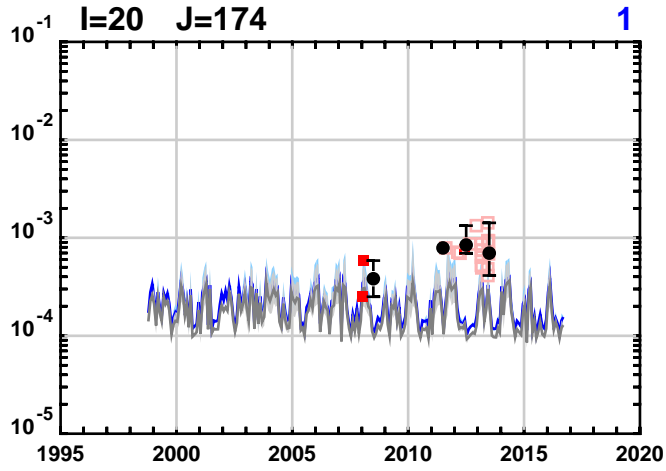
● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

Update of CARP Models Lower Passaic River - I

2,3,4,7,8-Pentachlorodibenzofuran, ng/L

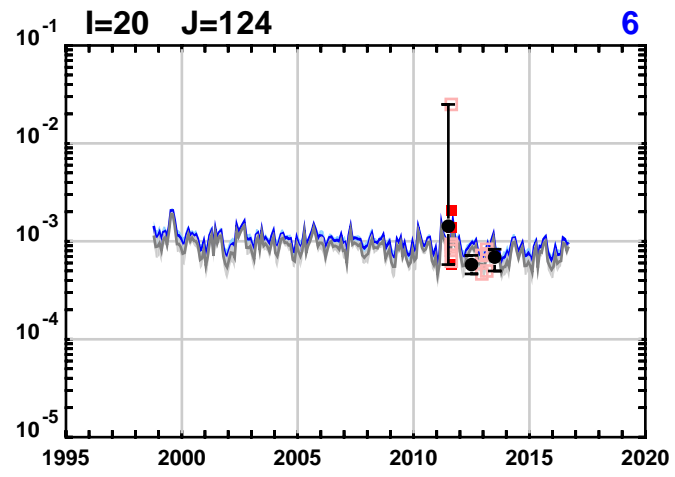
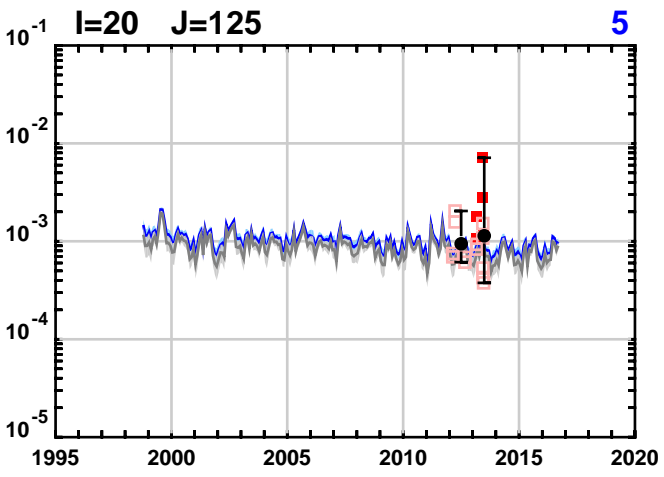
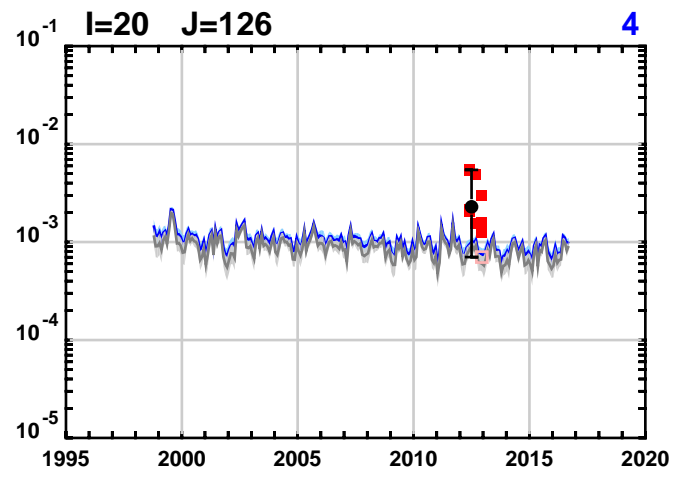
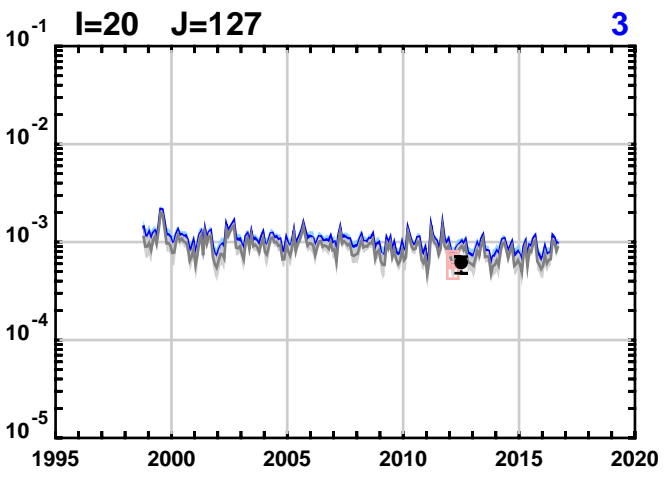
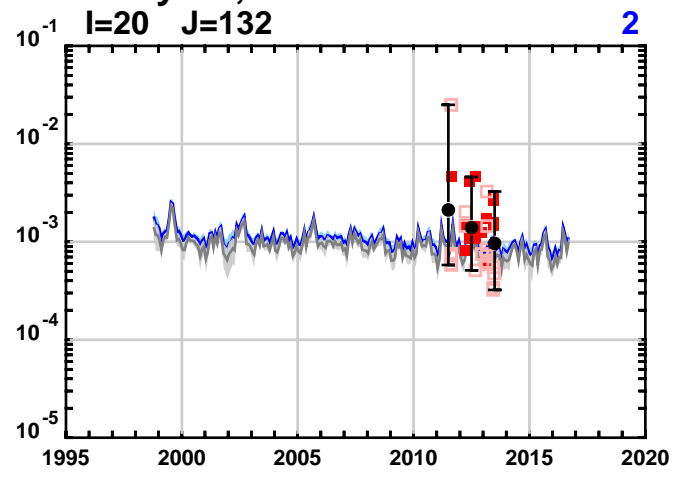
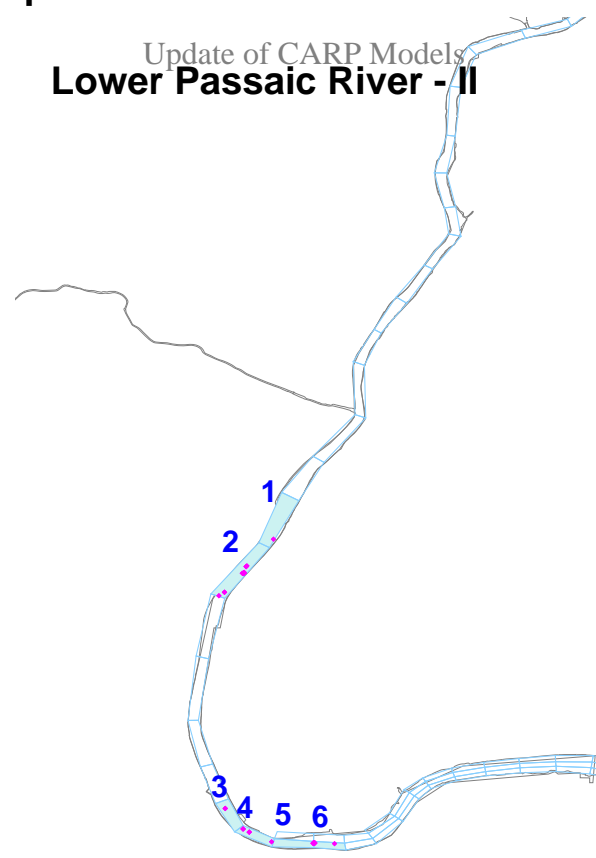
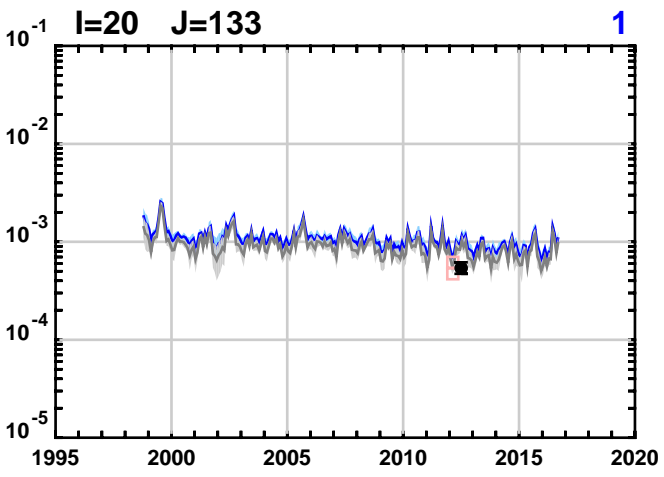


● Detect Data ● Non-Detect Data
— Model: mean and range of values in Water Column
— Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

2,3,4,7,8-Pentachlorodibenzofuran, ng/L

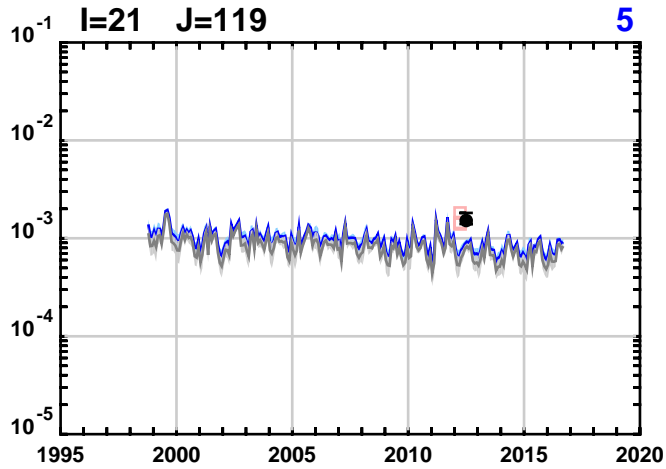
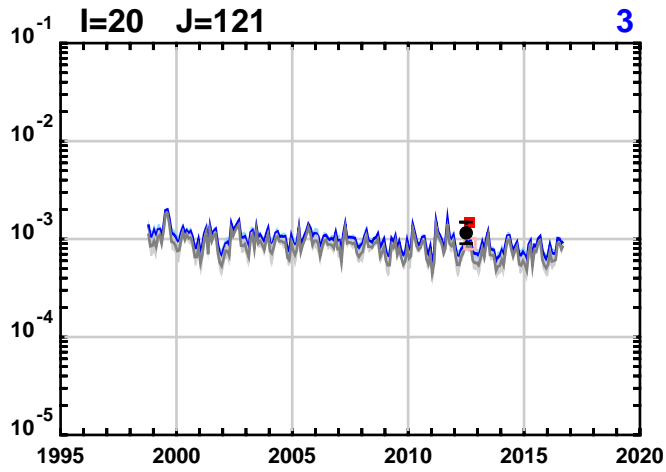
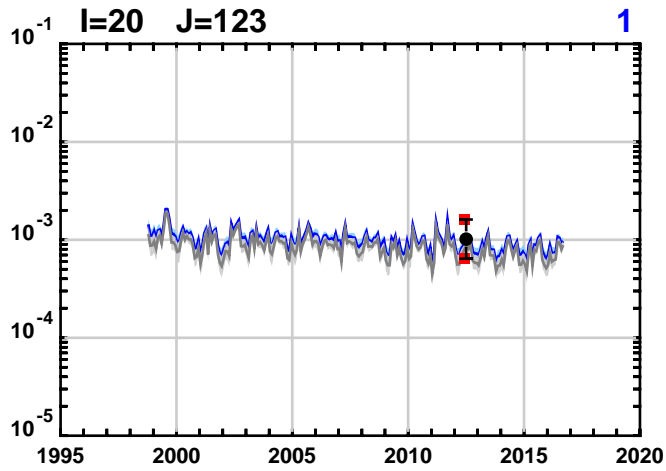


● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

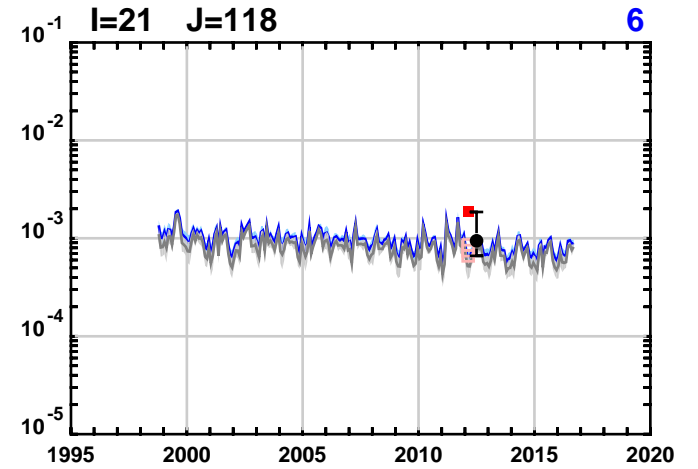
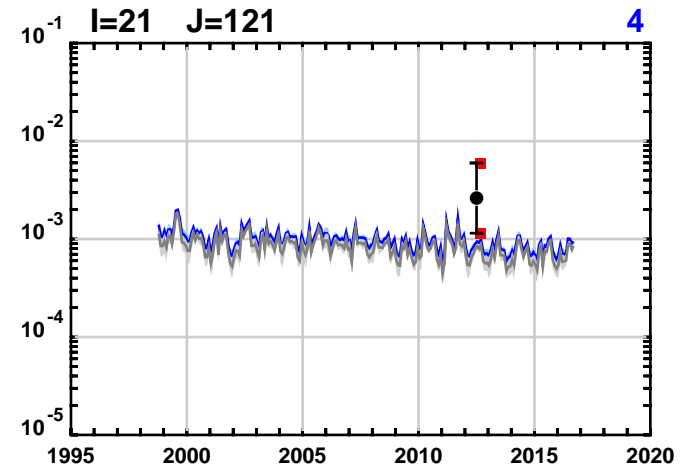
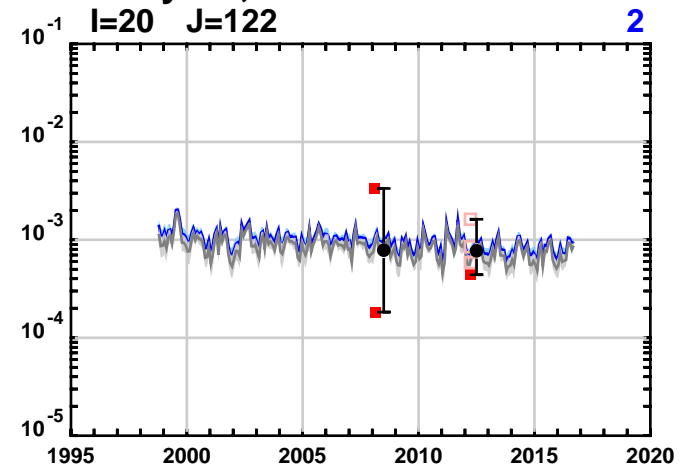
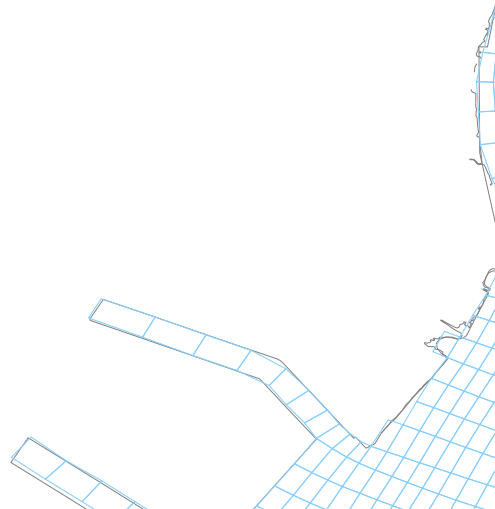
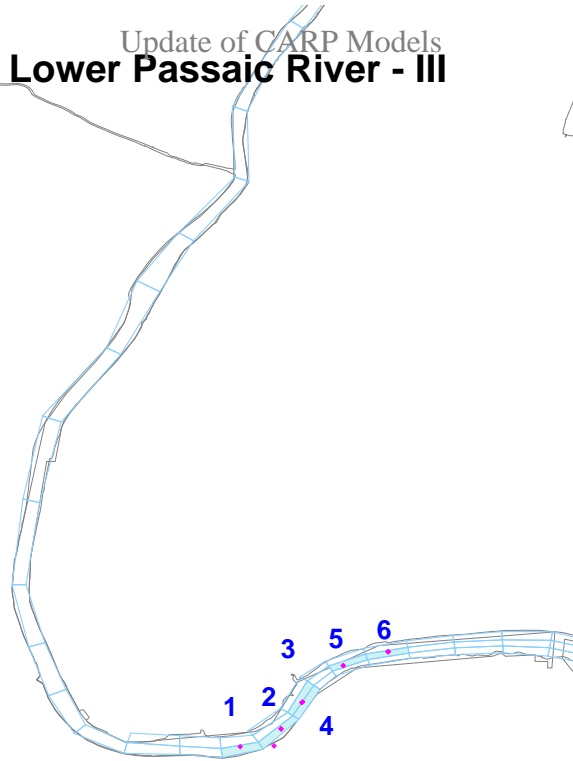
● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

2,3,4,7,8-Pentachlorodibenzofuran, ng/L



Update of CARP Models Lower Passaic River - III



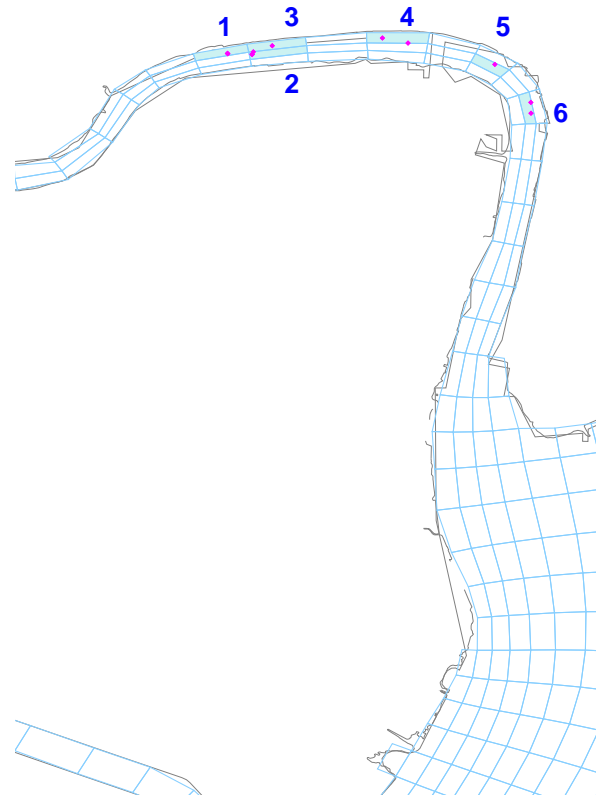
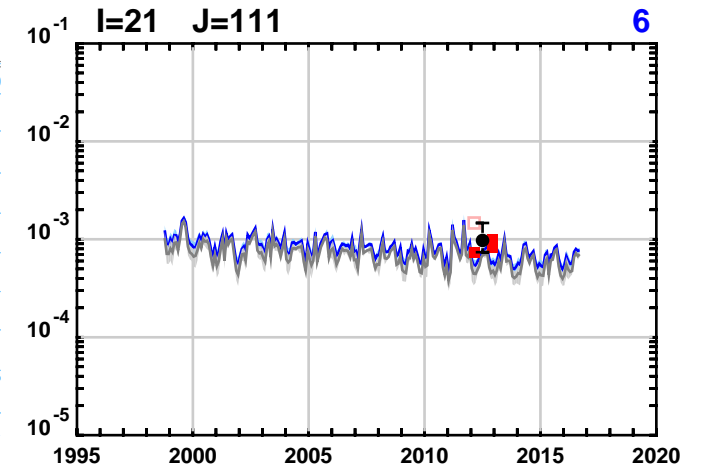
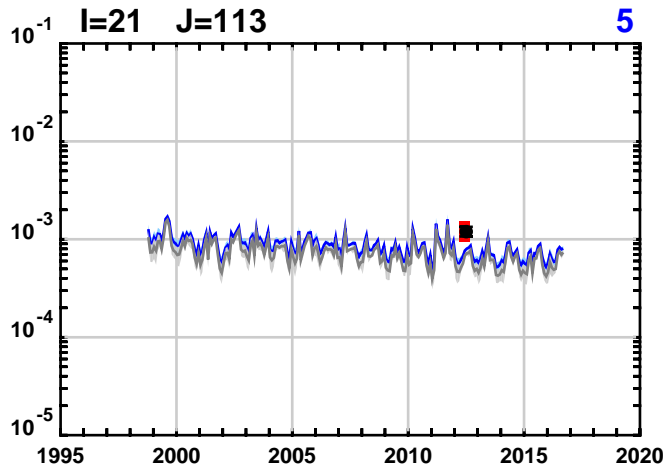
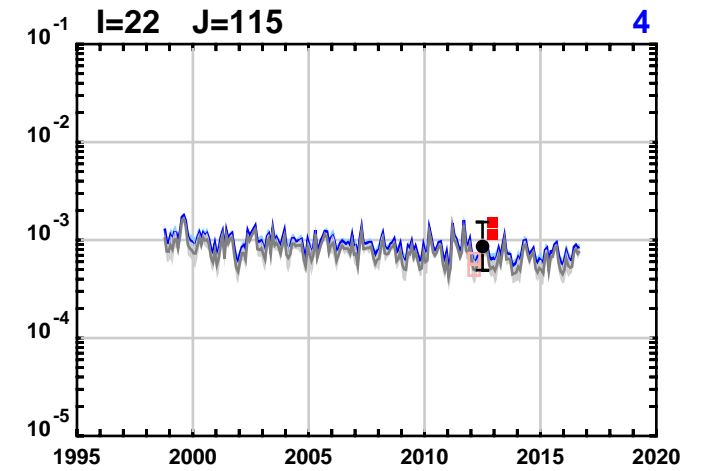
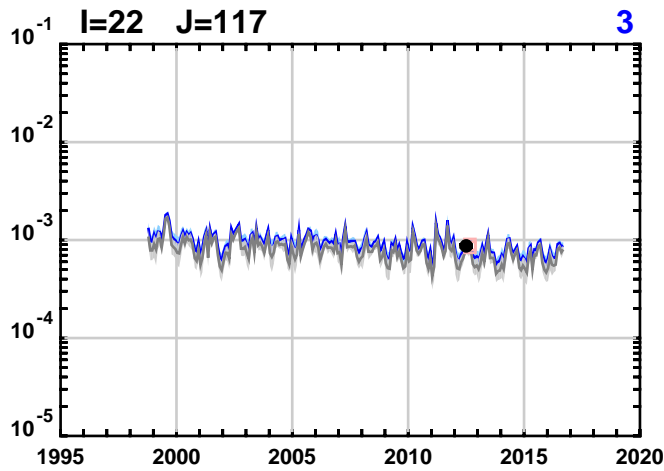
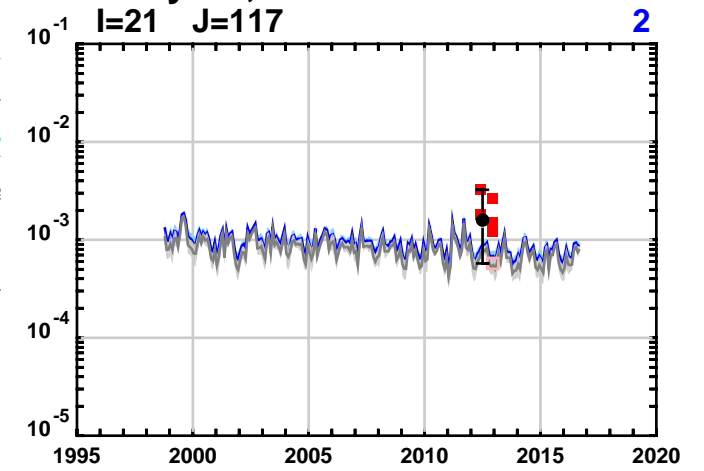
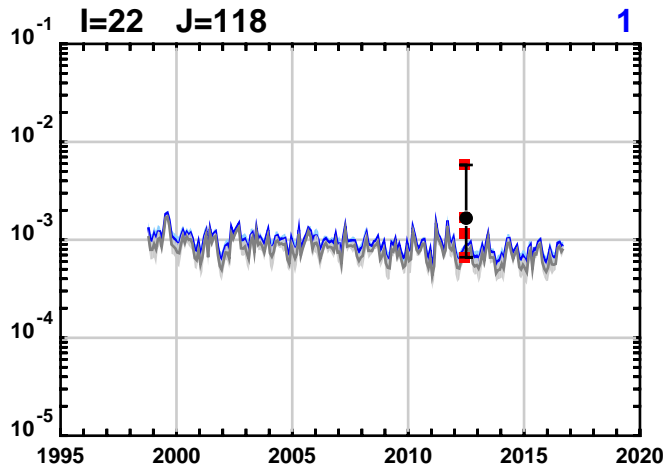
● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
— Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

Update of CARP Models
Lower Passaic River - IV

2,3,4,7,8-Pentachlorodibenzofuran, ng/L

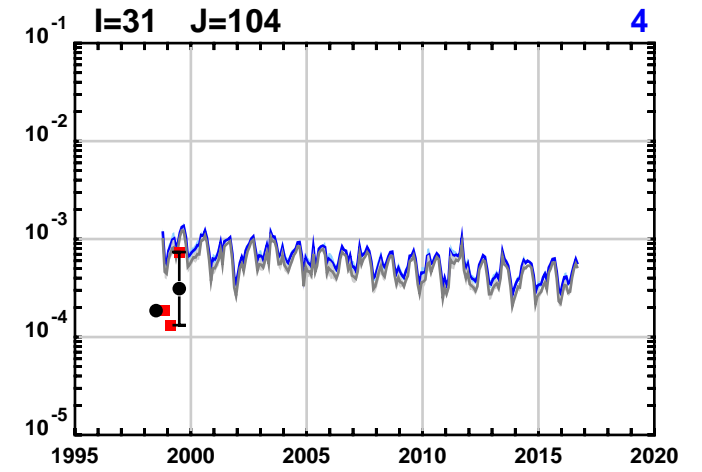
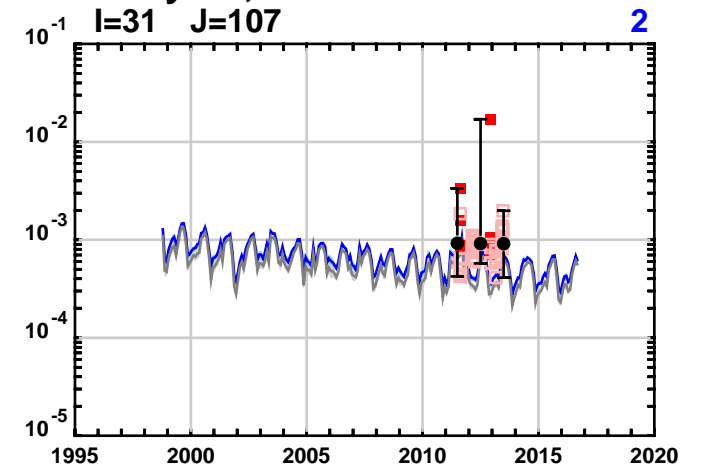
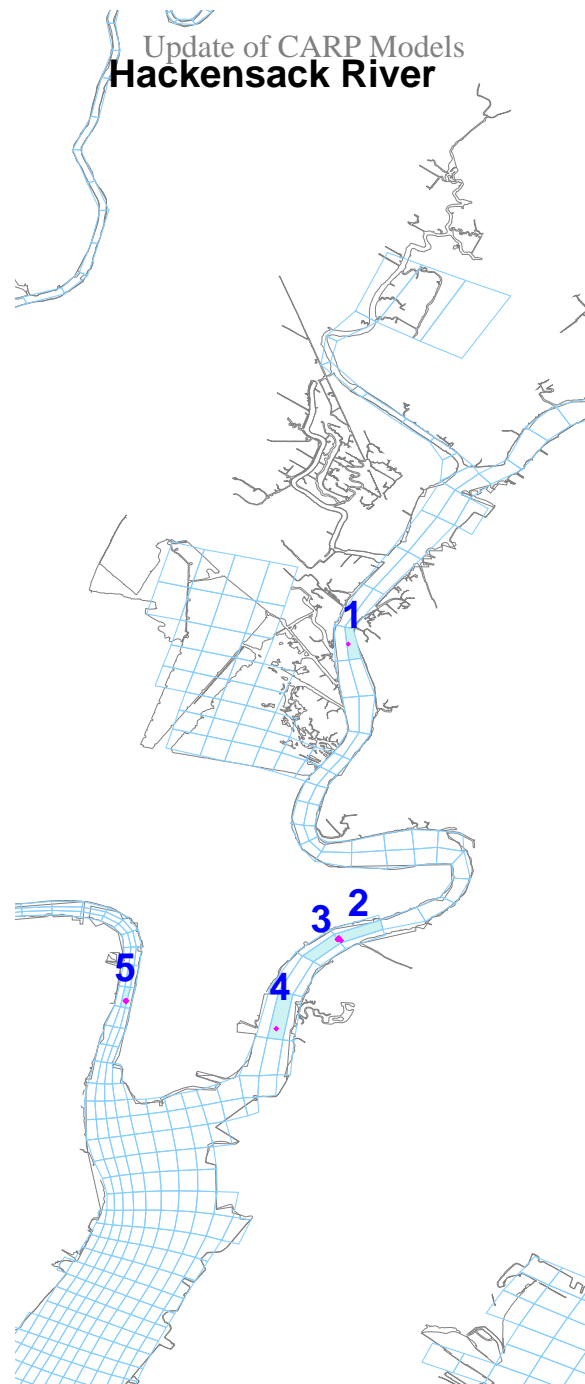
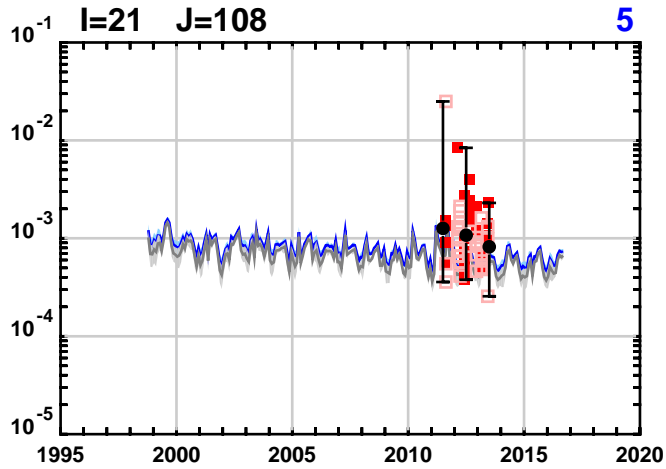
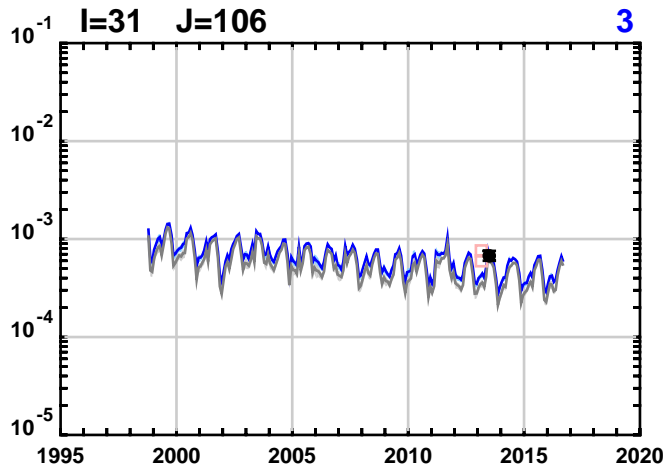
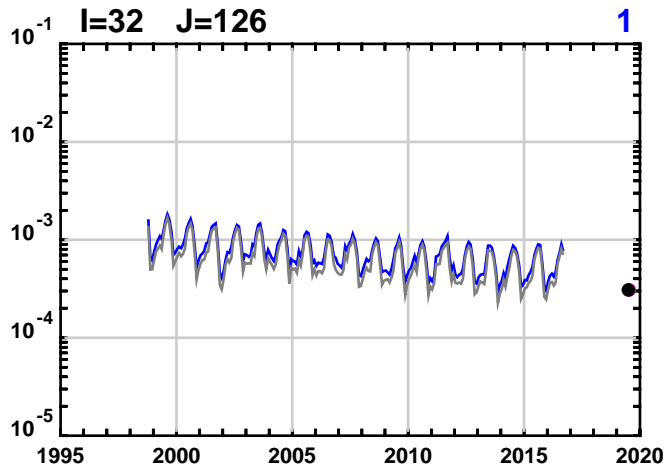


● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
— Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

2,3,4,7,8-Pentachlorodibenzofuran, ng/L



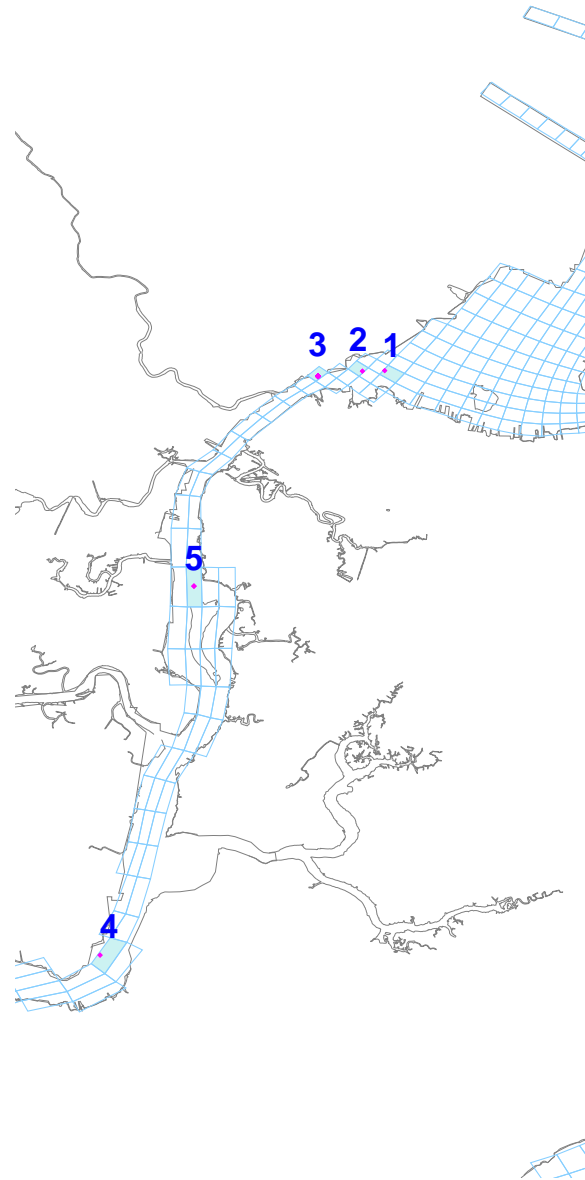
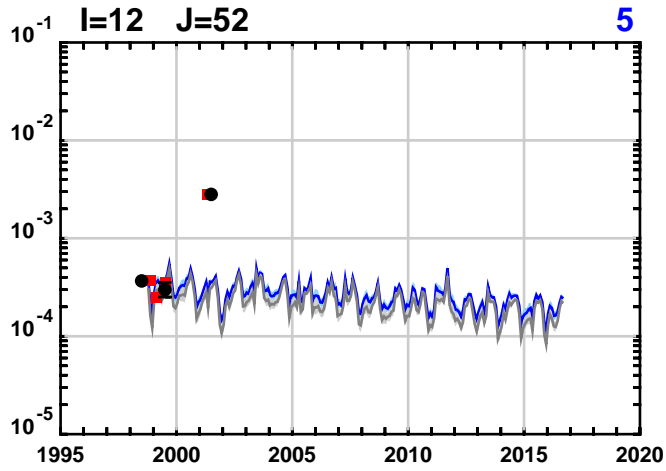
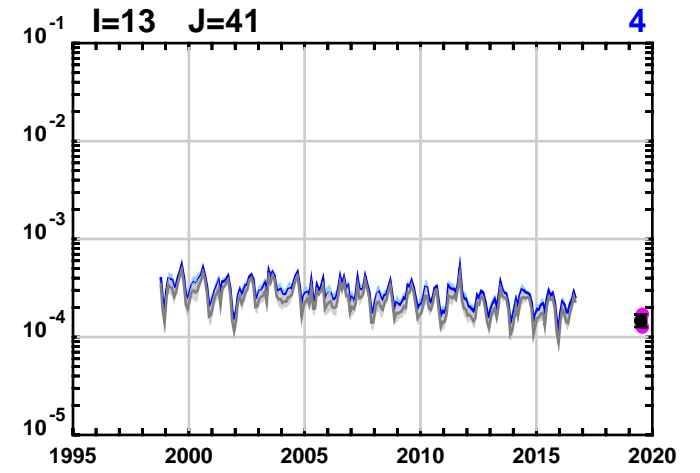
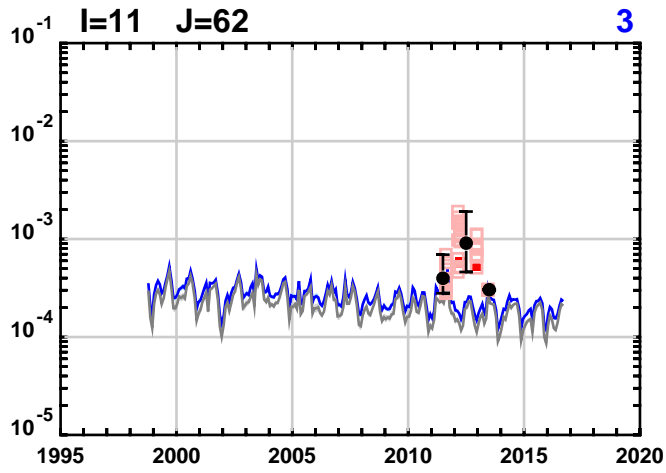
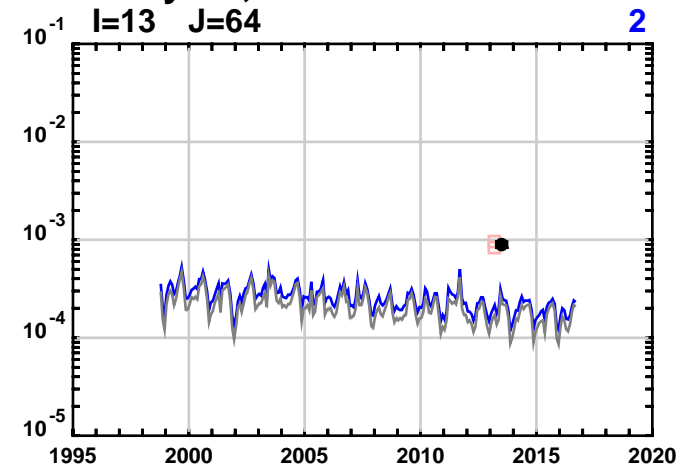
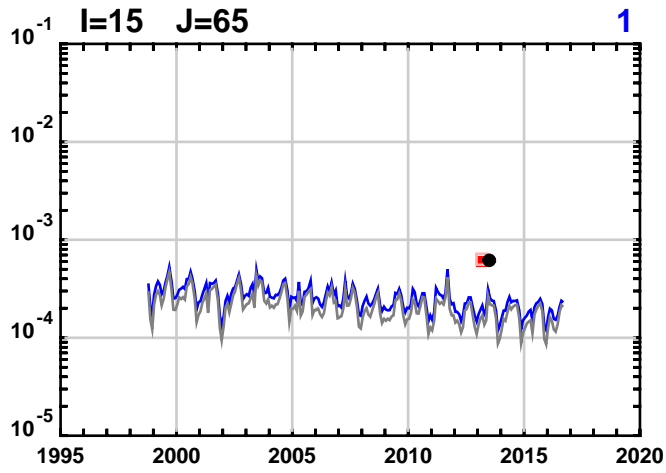
● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
— Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

Update of CARP Models
Arthur Kill

2,3,4,7,8-Pentachlorodibenzofuran, ng/L

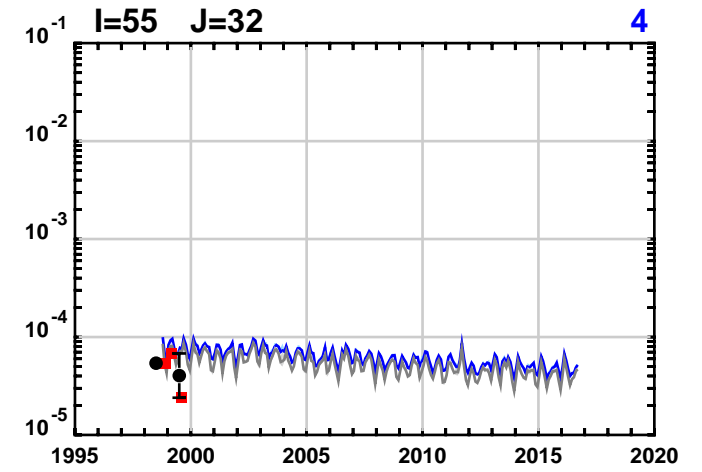
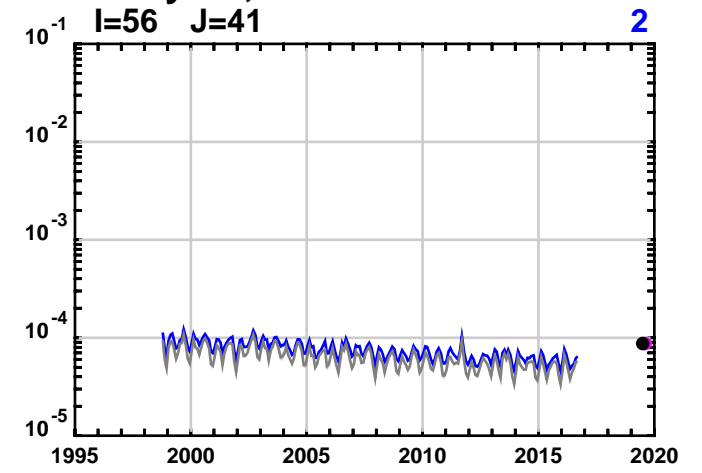
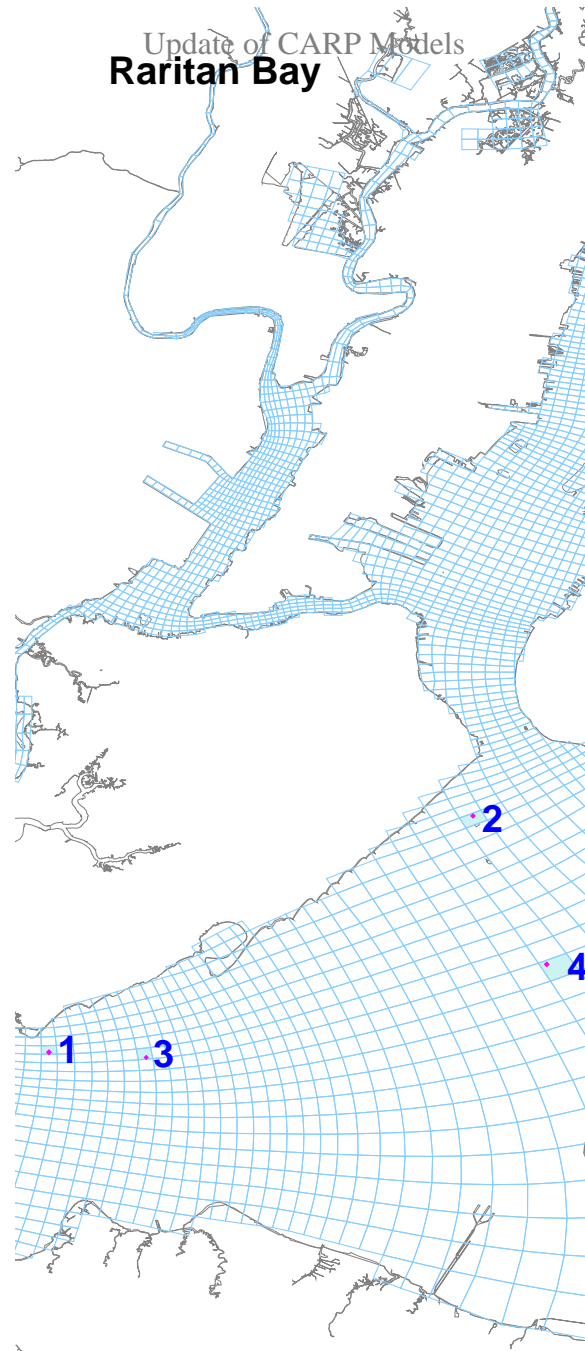
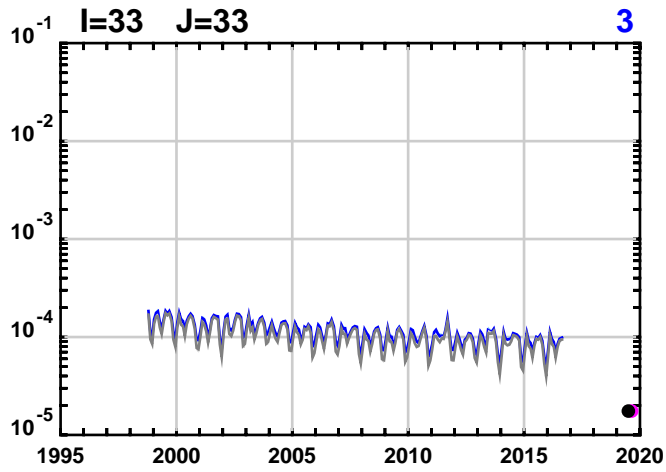
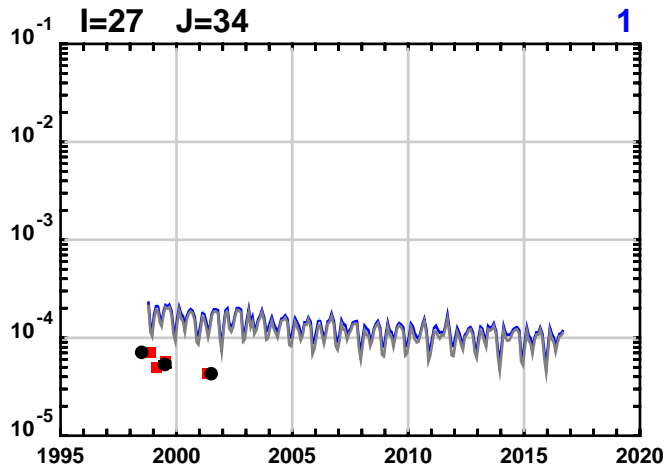


● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
— Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

2,3,4,7,8-Pentachlorodibenzofuran, ng/L

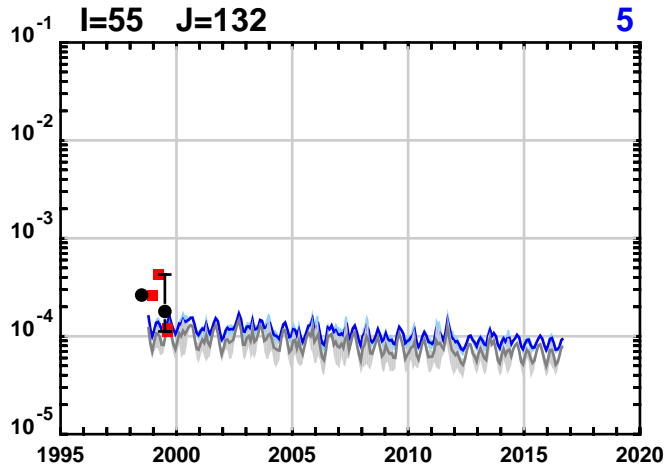
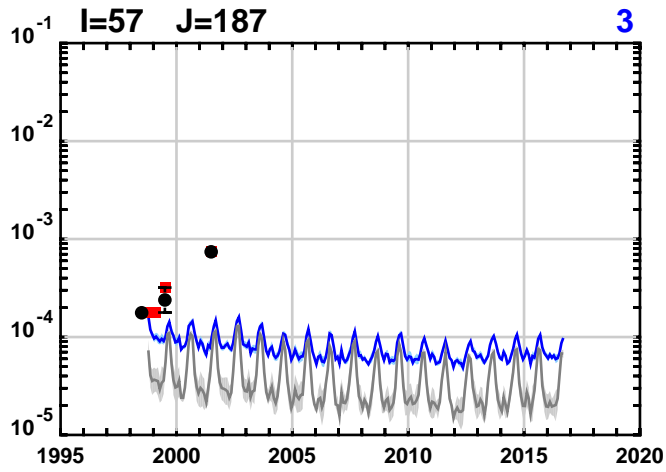
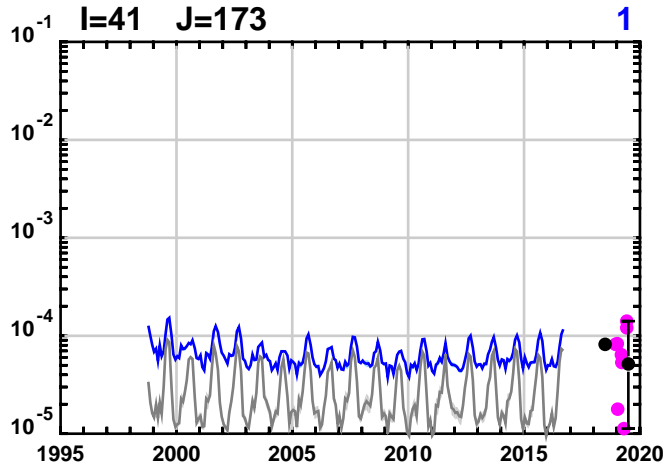


● **Detect Data** ● **Non-Detect Data**
— **Model: mean and range of values in Water Column**
— **Model: Particulate Phase mean and range of values in Water Column**

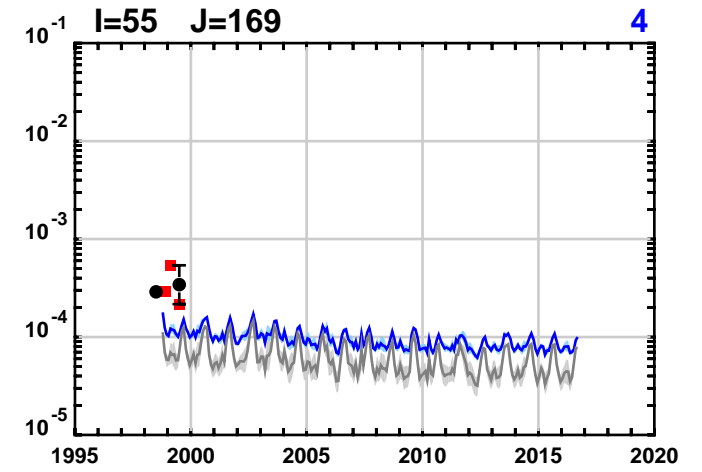
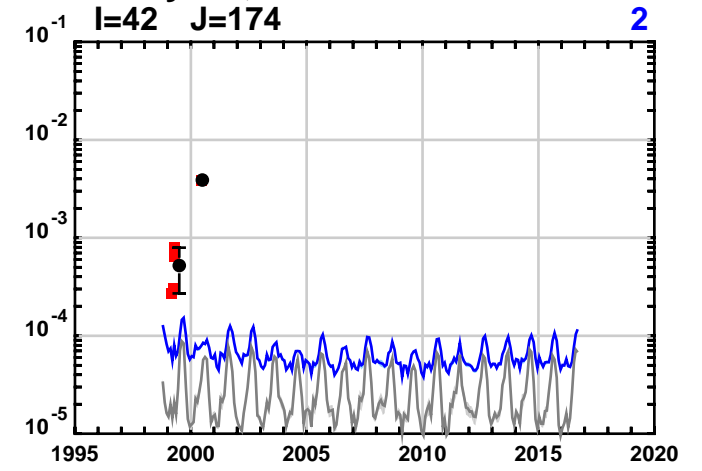
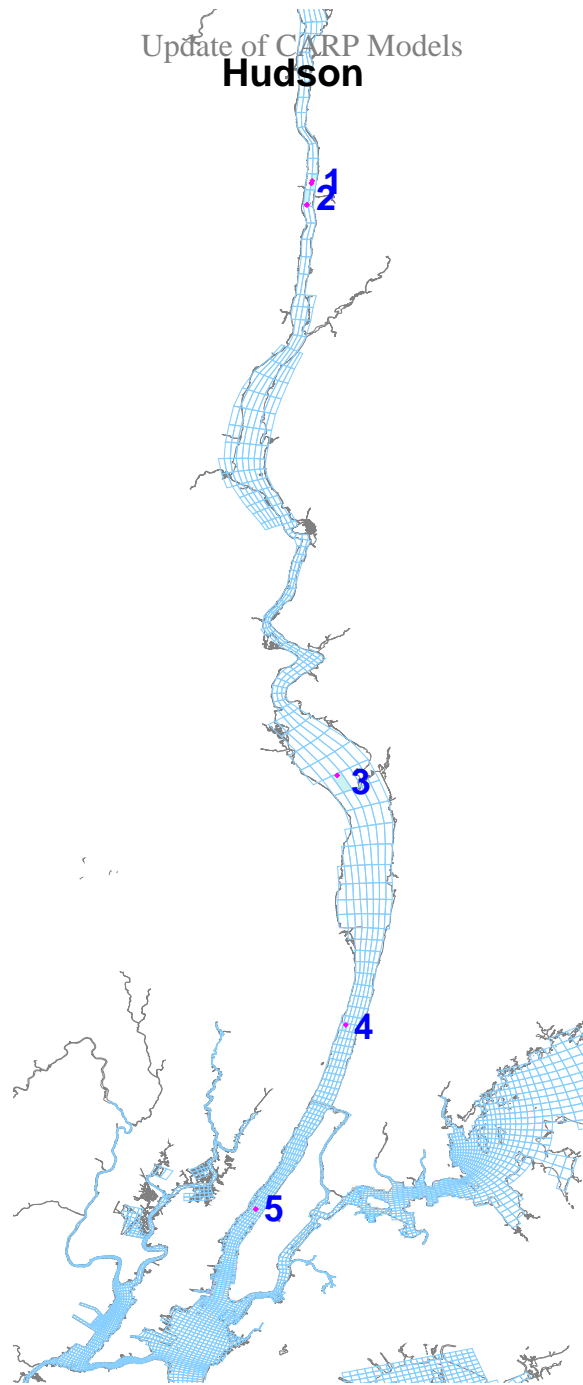
● **Water Column Data: yearly mean and range**
● **CARP2 Data**

Water Column Data Comparison With Model All Water Column Layers, RUN18

2,3,4,7,8-Pentachlorodibenzofuran, ng/L



Update of CARP Models
Hudson



Detect Data

Non-Detect Data

Model: mean and range of values in Water Column

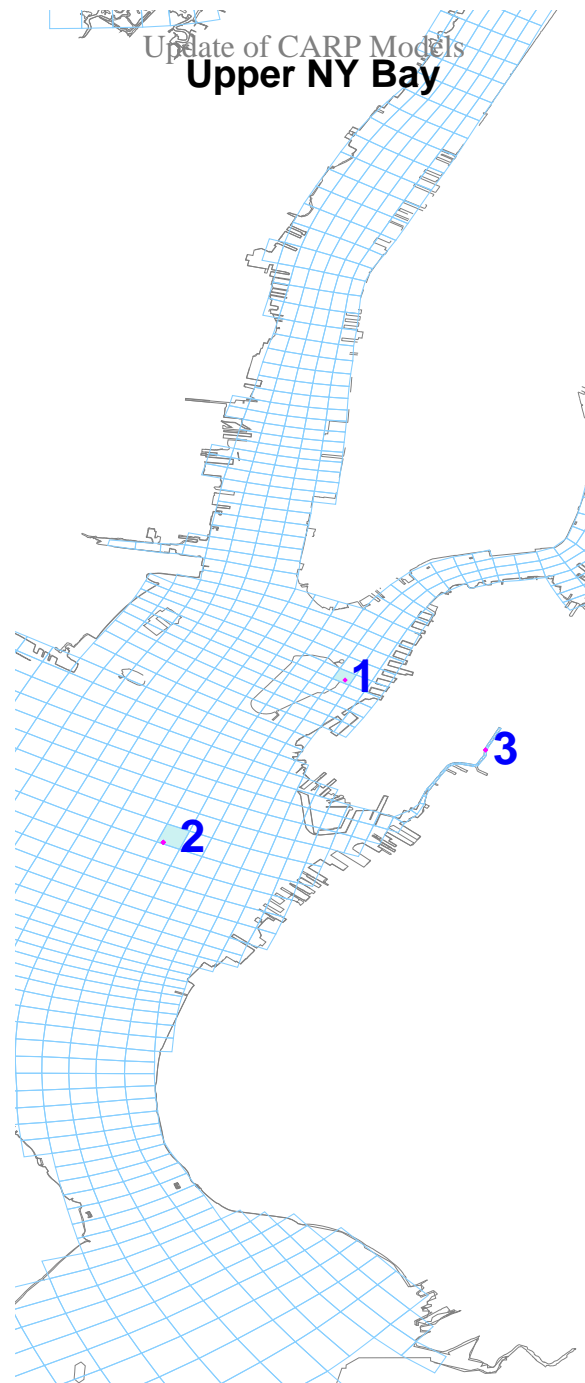
Model: Particulate Phase mean and range of values in Water Column

● **Water Column Data: yearly mean and range**

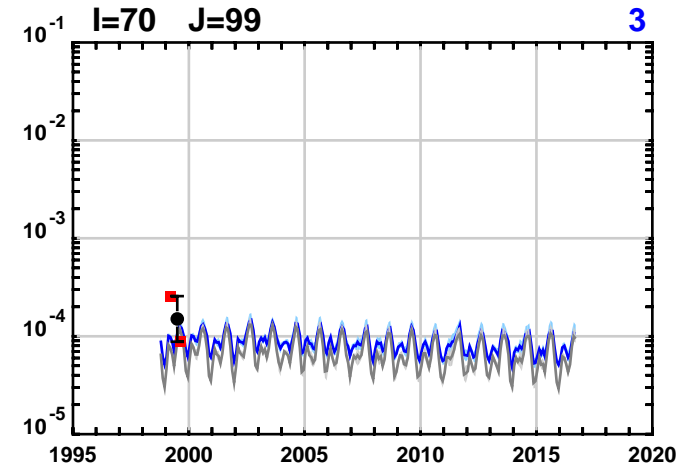
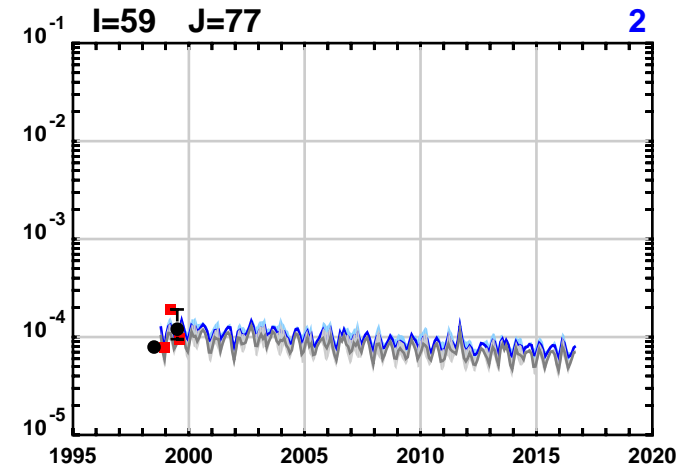
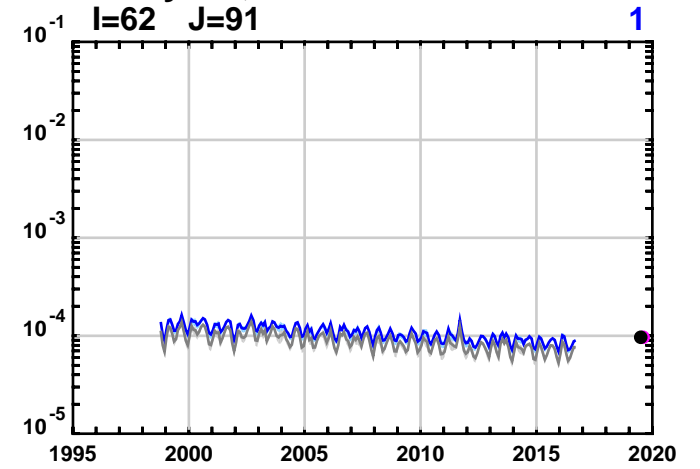
● **CARP2 Data**

Water Column Data Comparison With Model All Water Column Layers, RUN18

2,3,4,7,8-Pentachlorodibenzofuran, ng/L



Update of CARP Models
Upper NY Bay

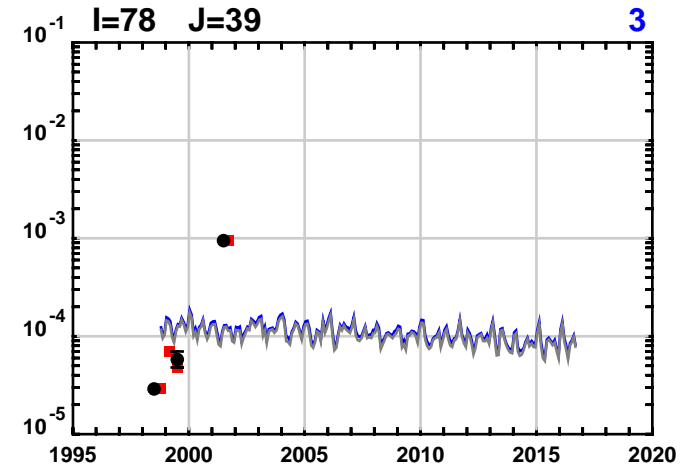
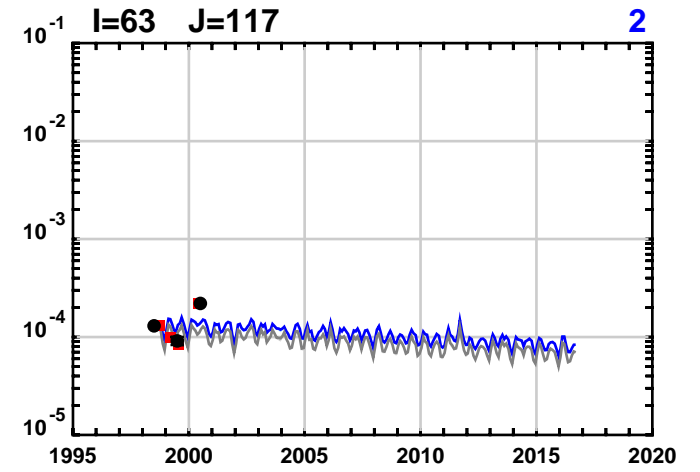
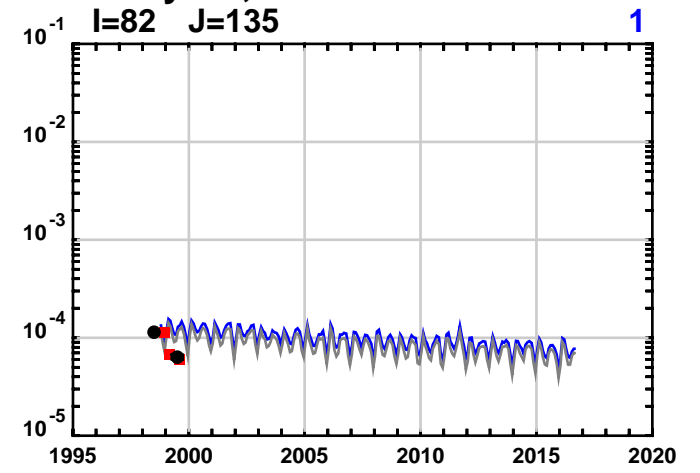
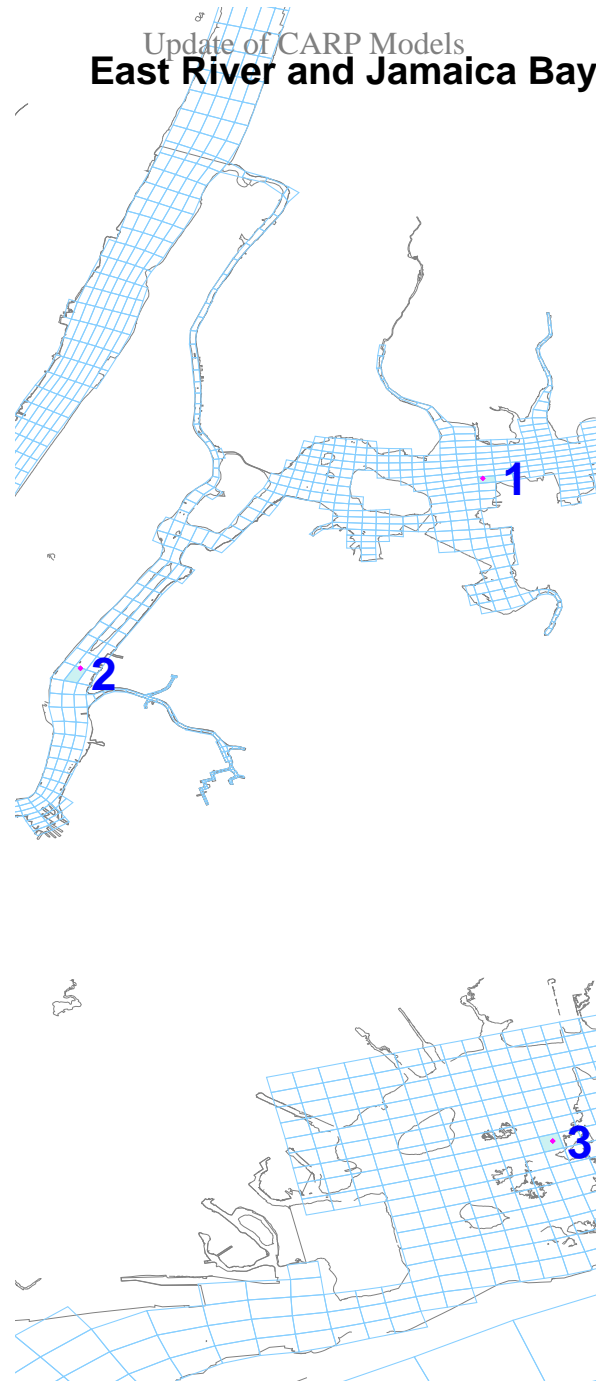


Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

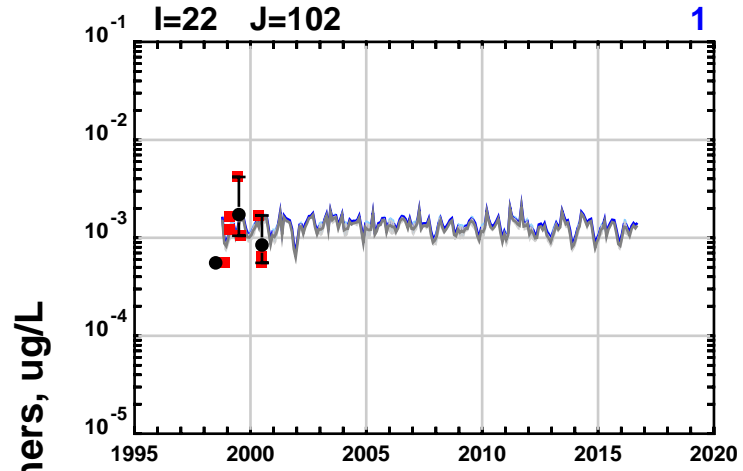
2,3,4,7,8-Pentachlorodibenzofuran, ng/L



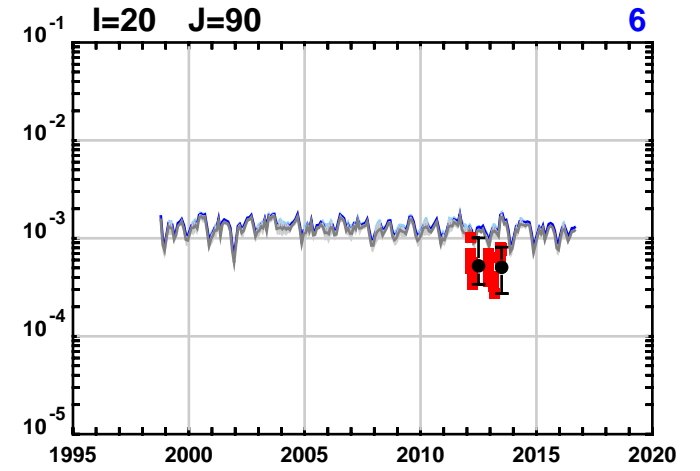
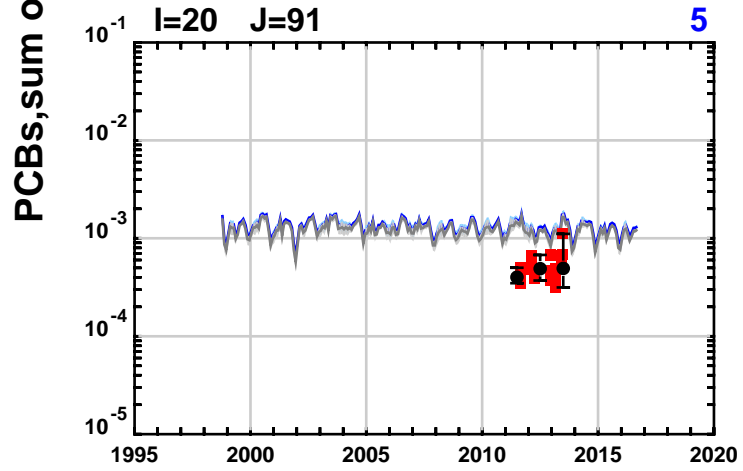
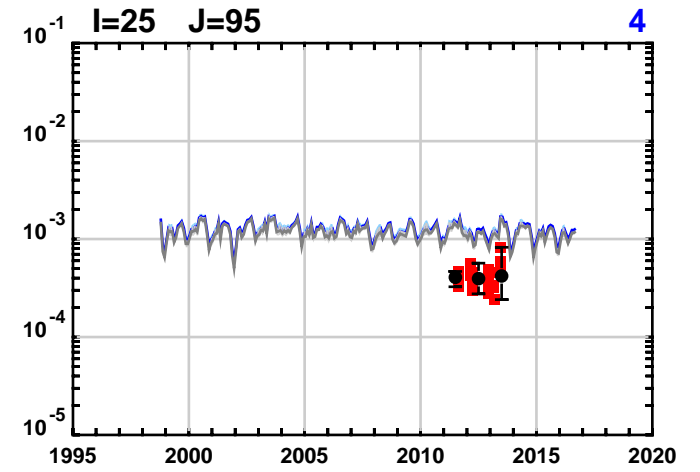
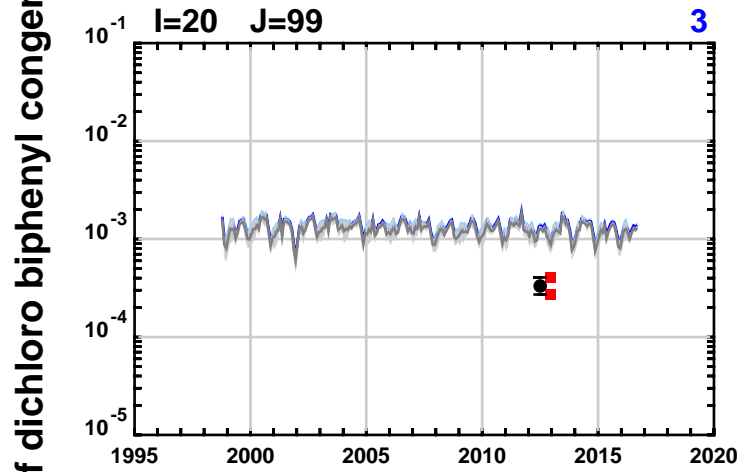
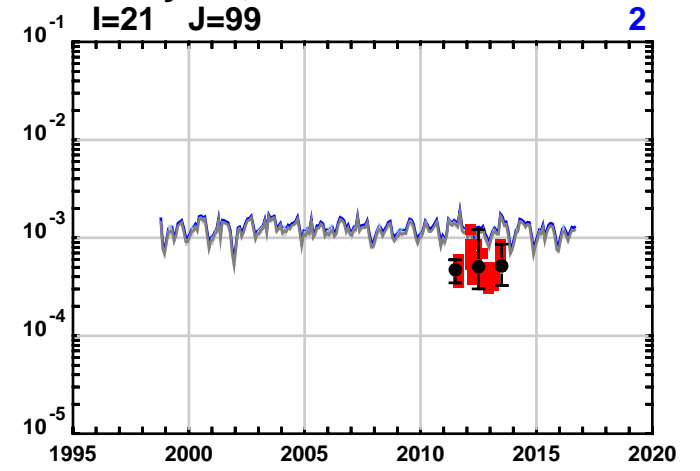
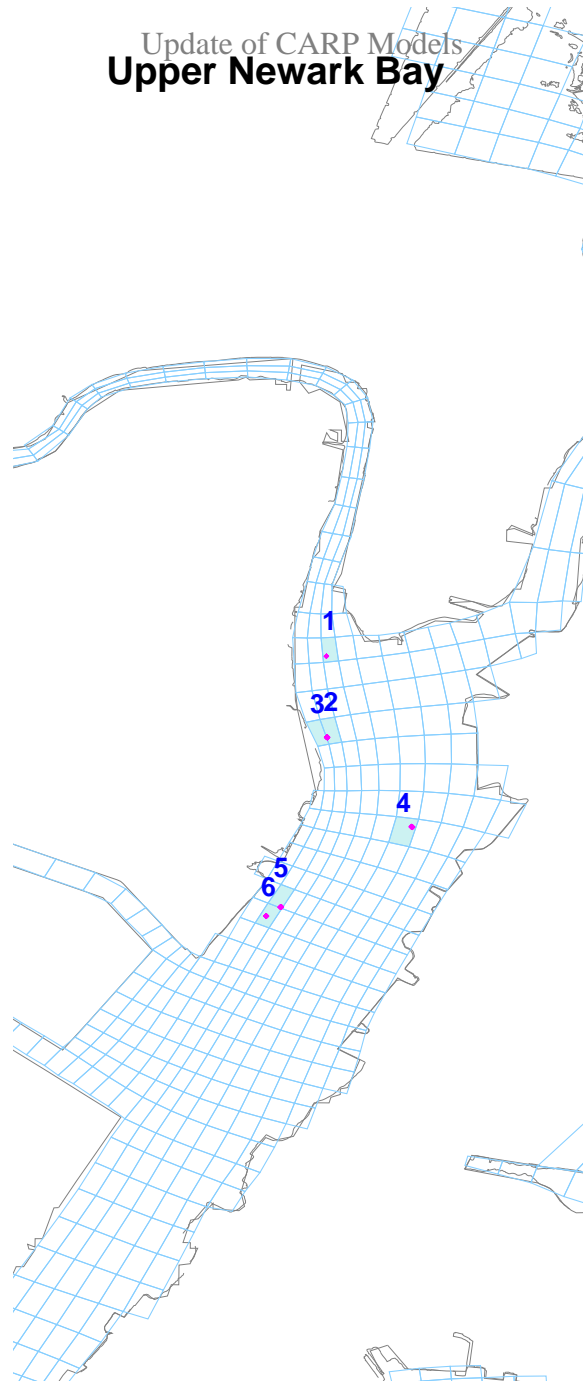
Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18



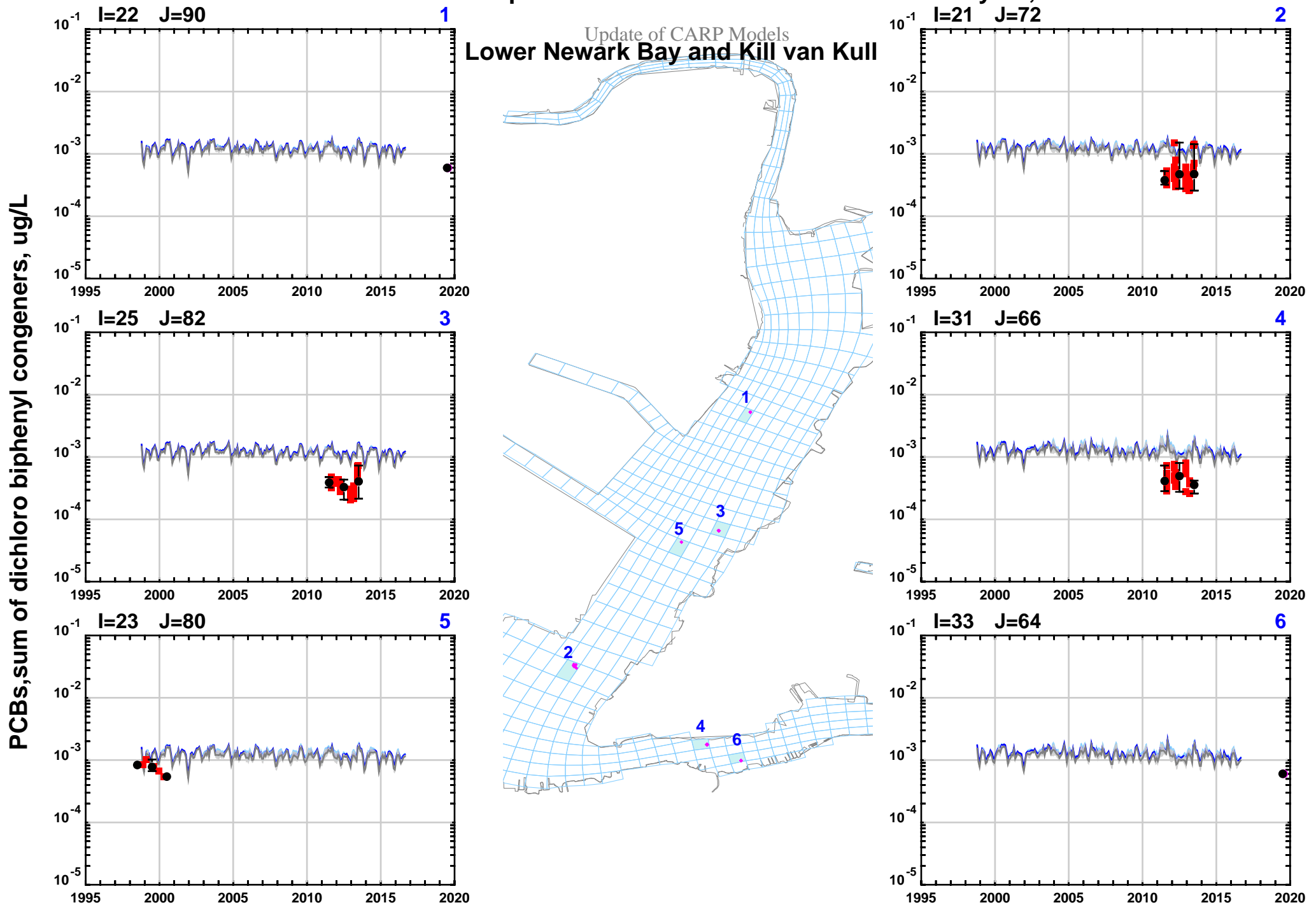
Update of CARP Models
Upper Newark Bay



● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

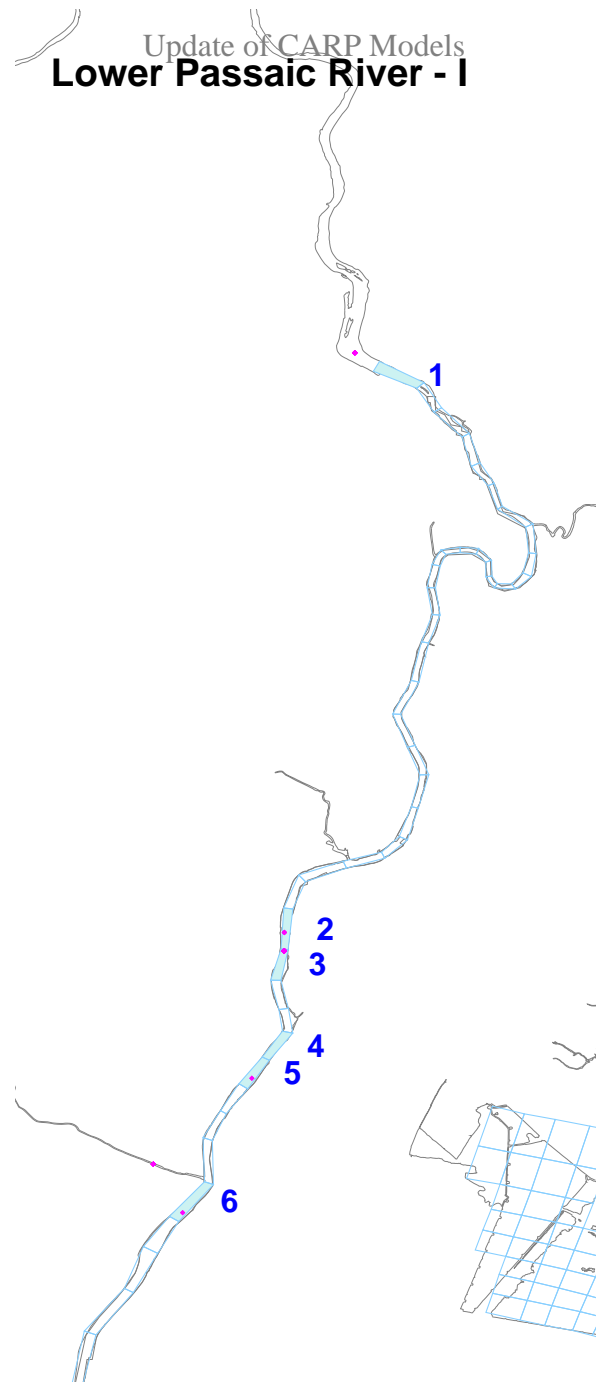
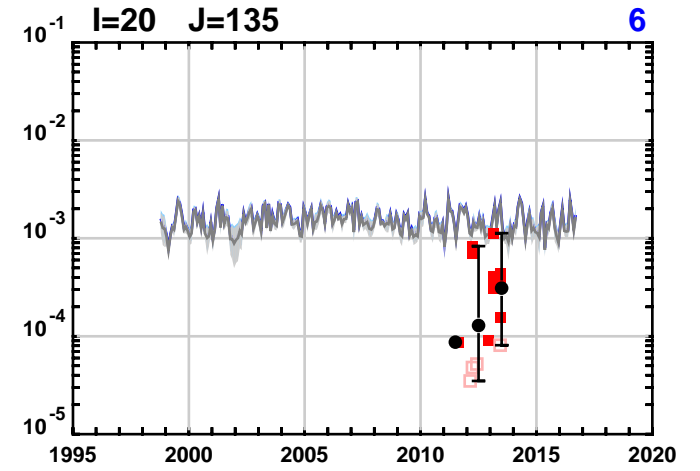
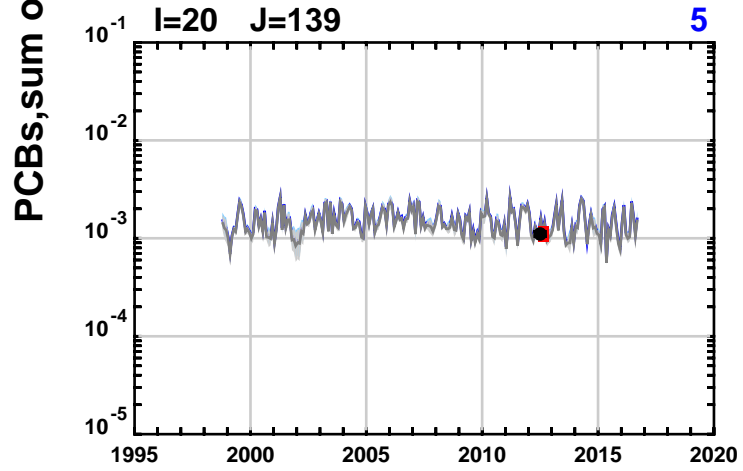
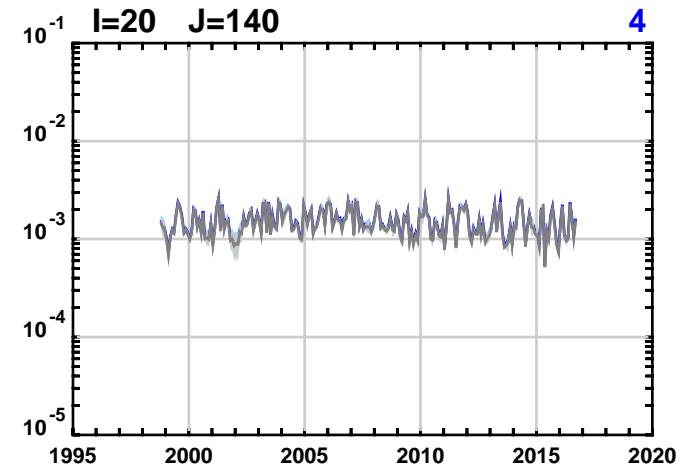
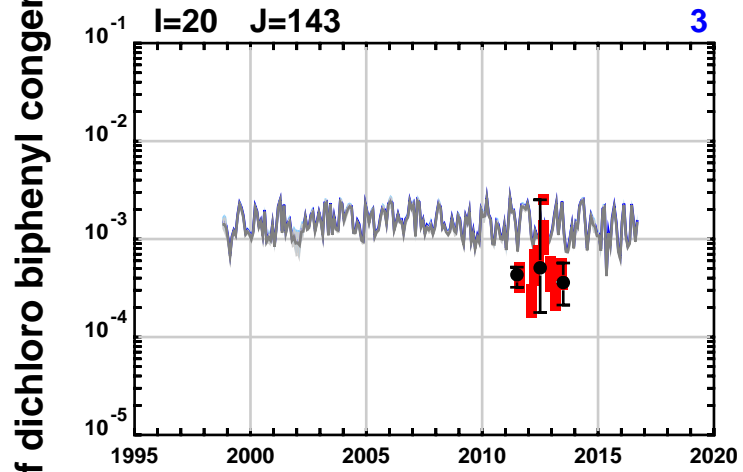
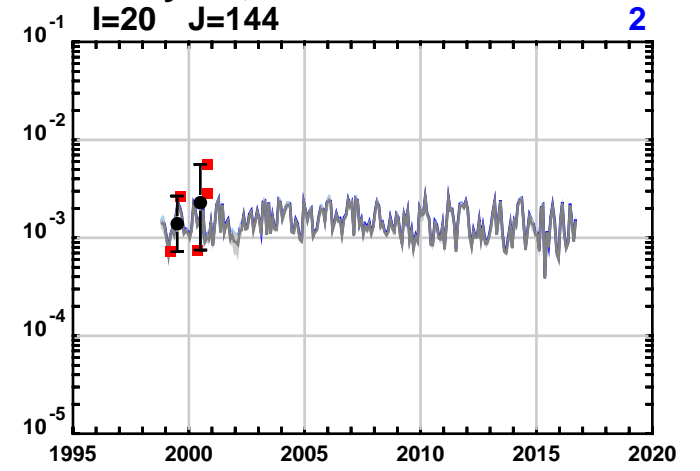
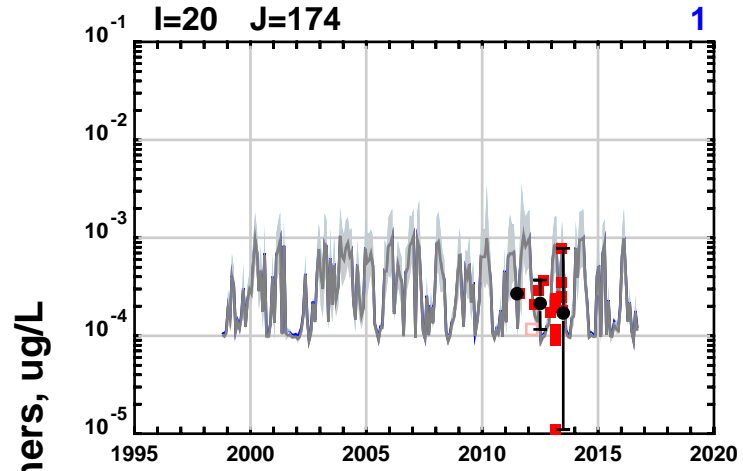


● Detect Data ● Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

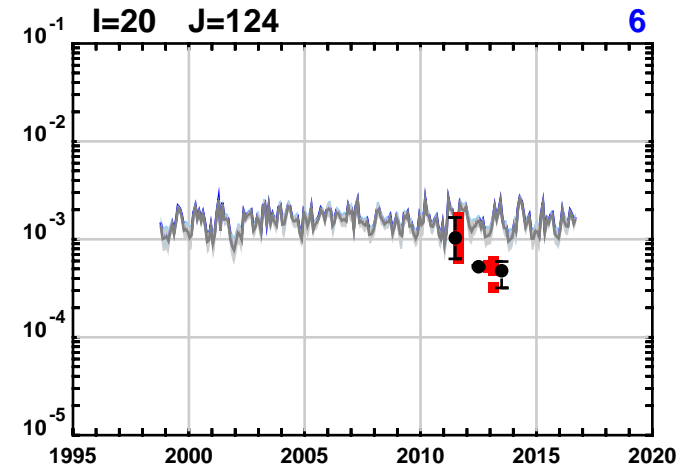
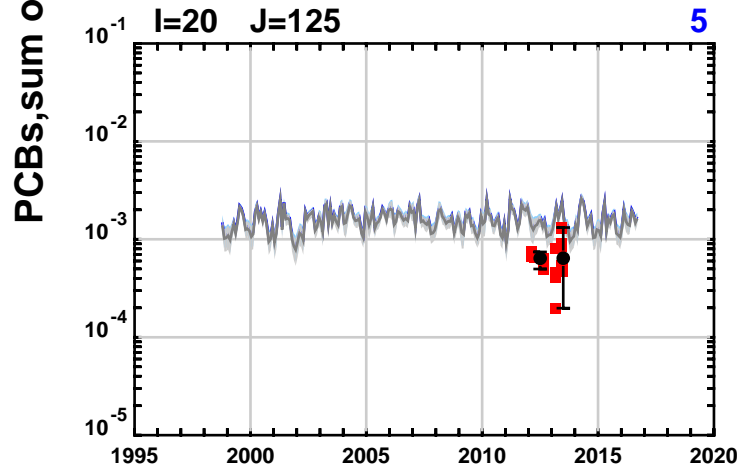
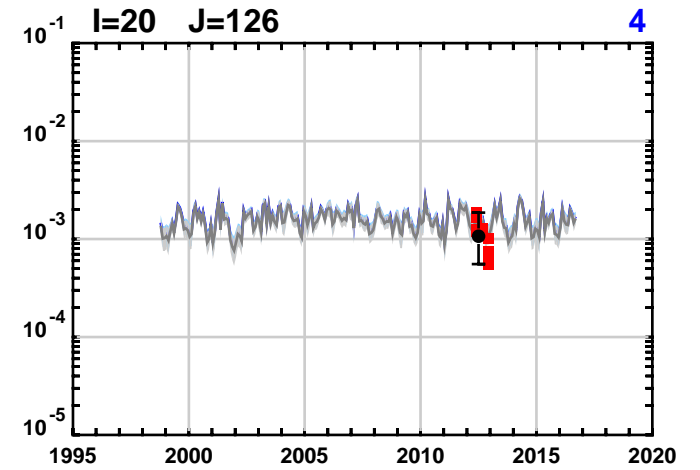
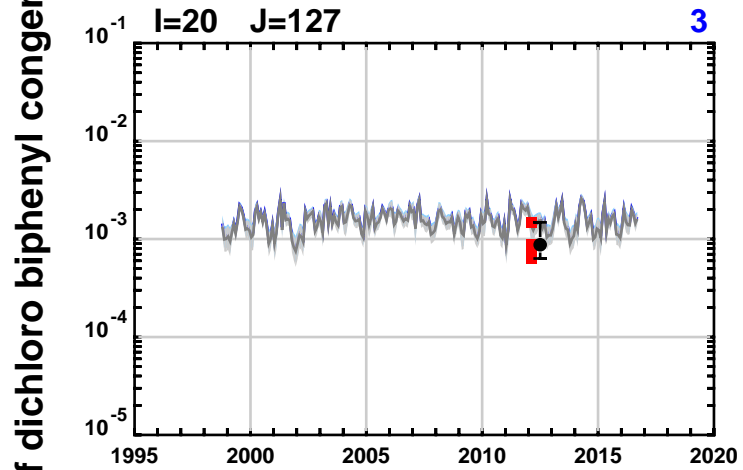
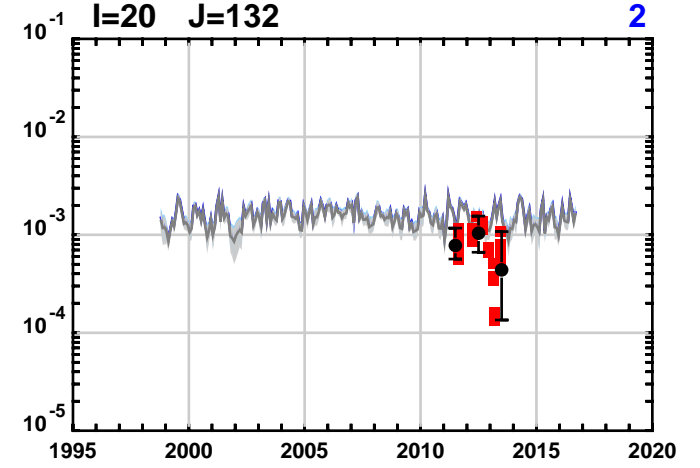
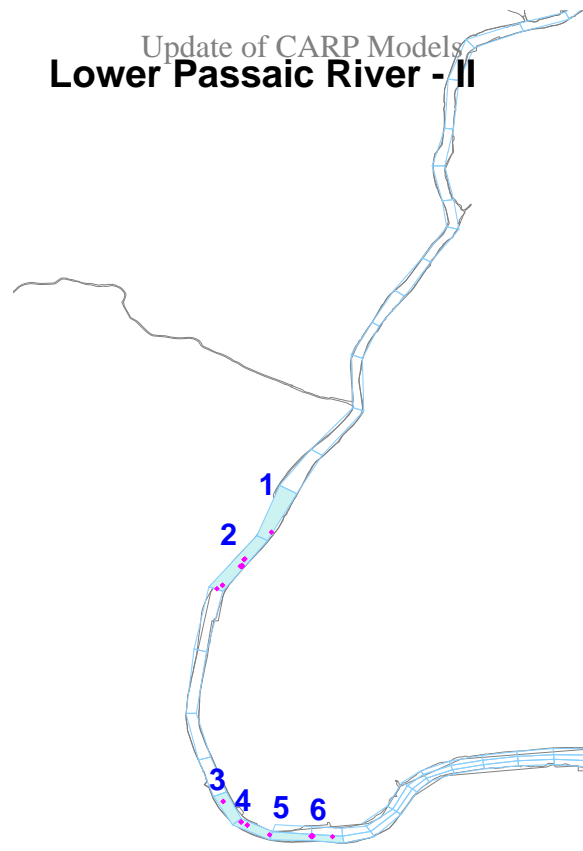
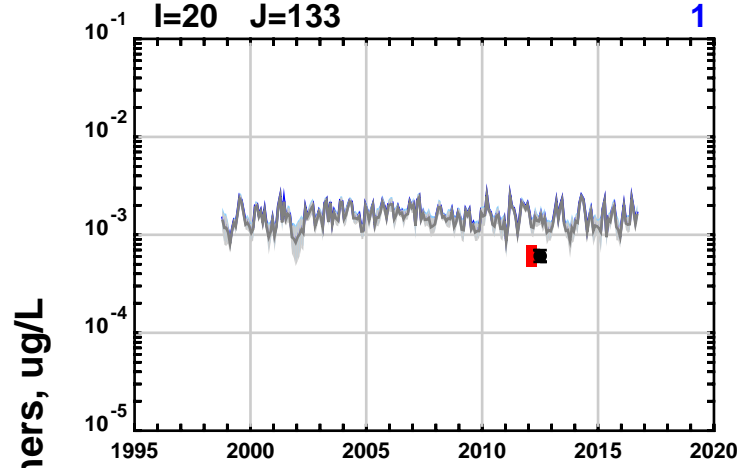
Update of CARP Models Lower Passaic River - I



● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

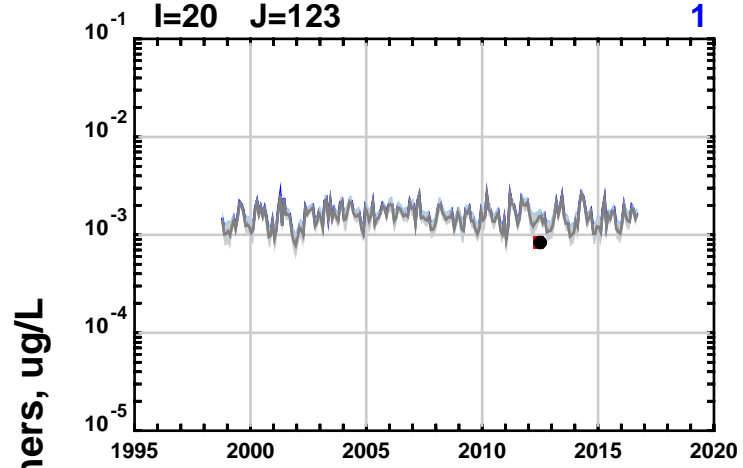
Water Column Data Comparison With Model All Water Column Layers, RUN18



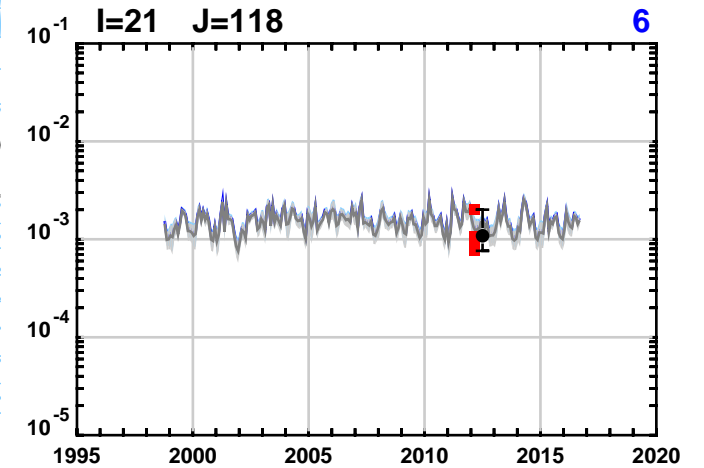
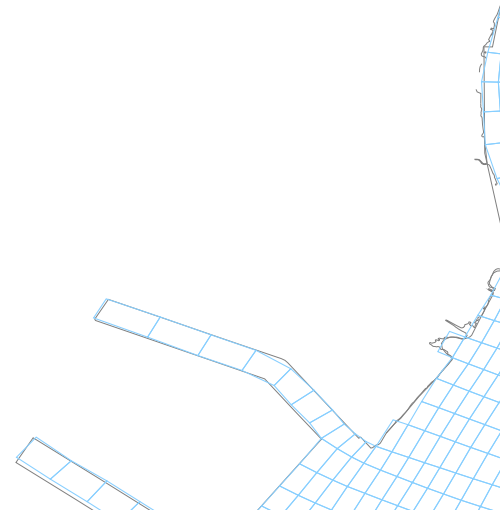
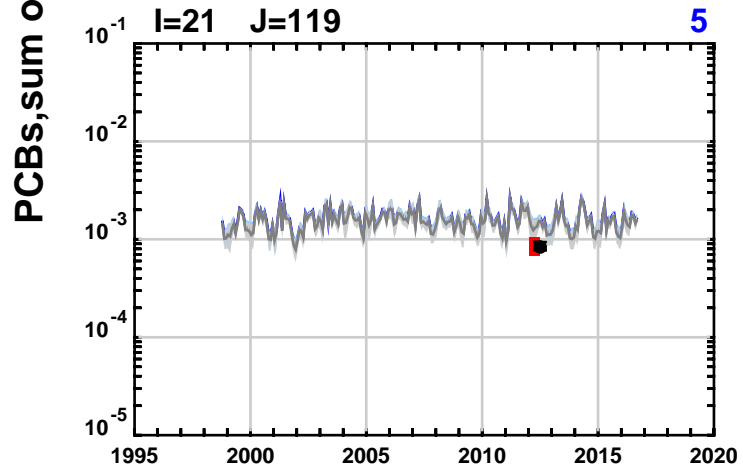
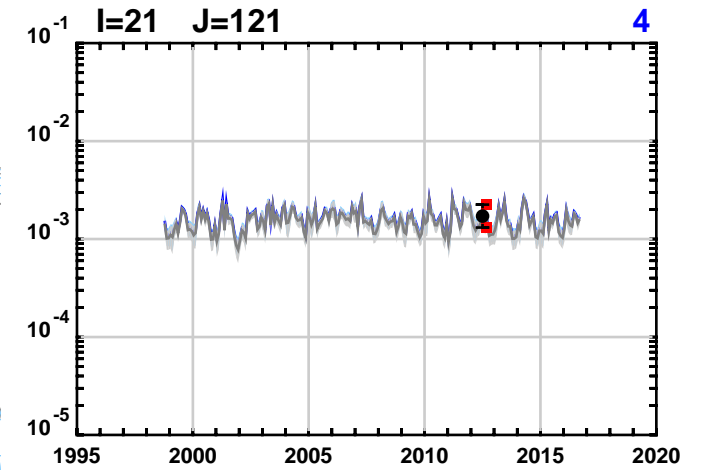
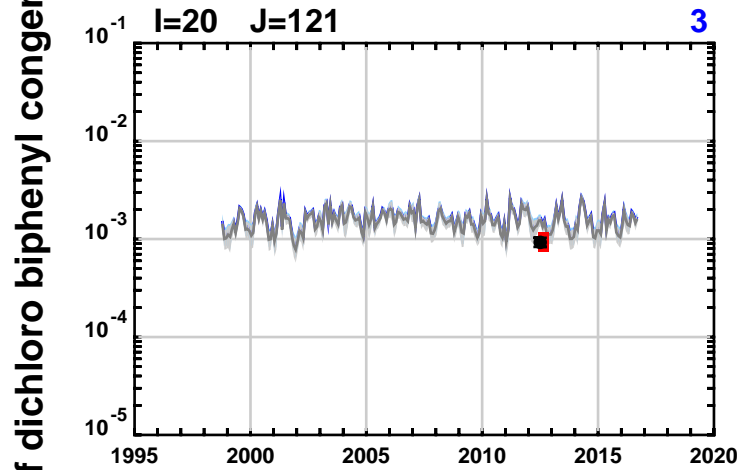
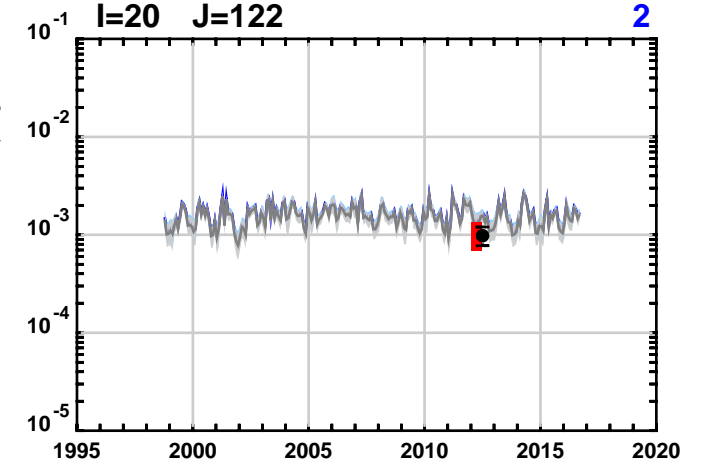
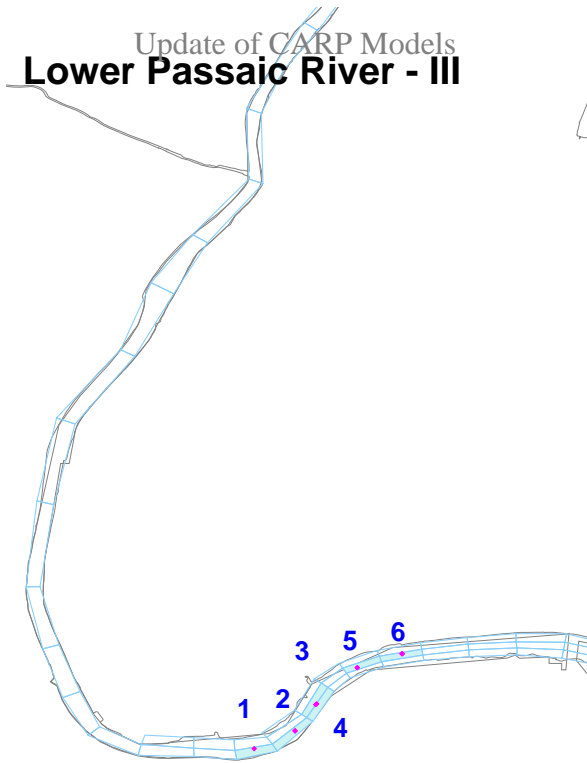
● Detect Data ■ Non-Detect Data
■ Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18



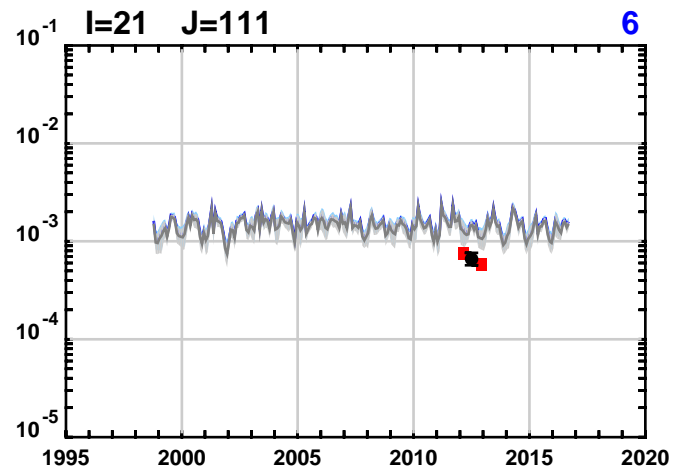
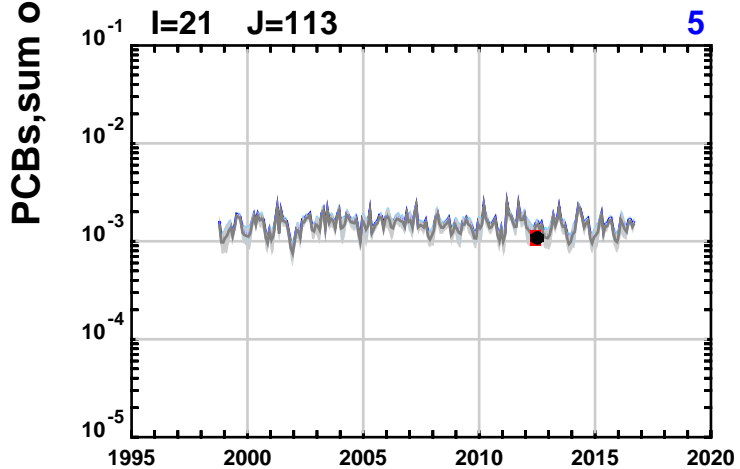
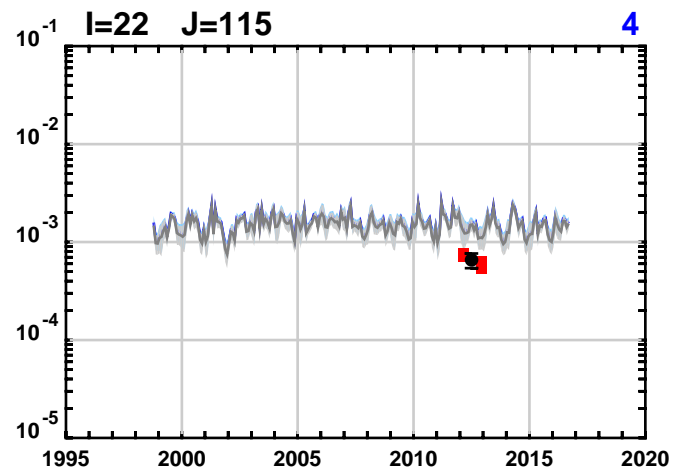
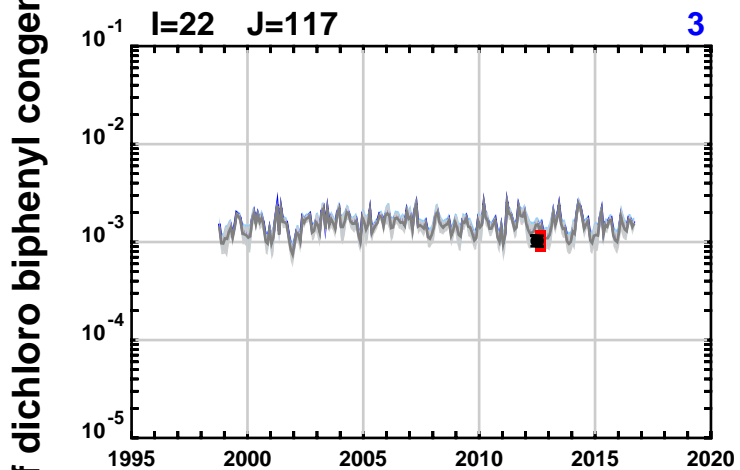
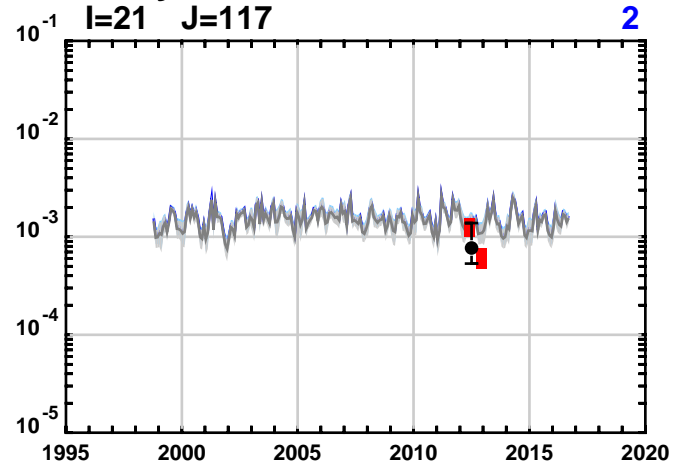
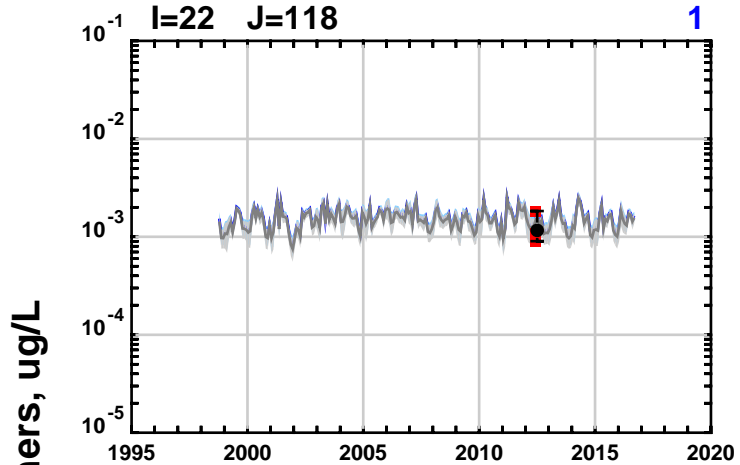
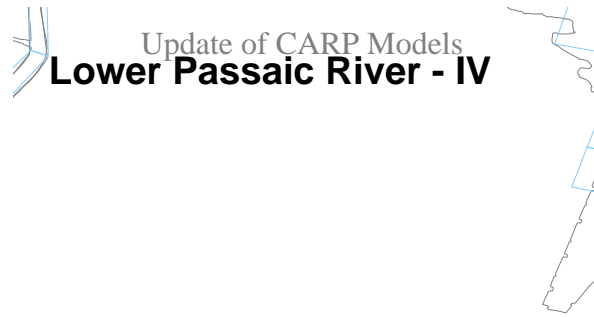
Update of CARP Models Lower Passaic River - III



● Detect Data ■ Non-Detect Data
■ Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

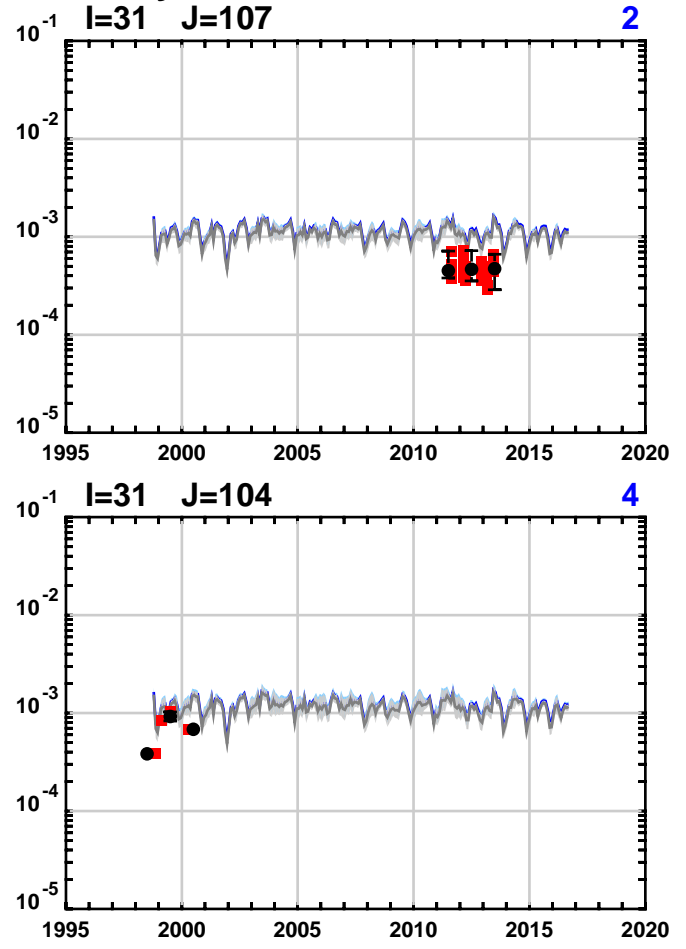
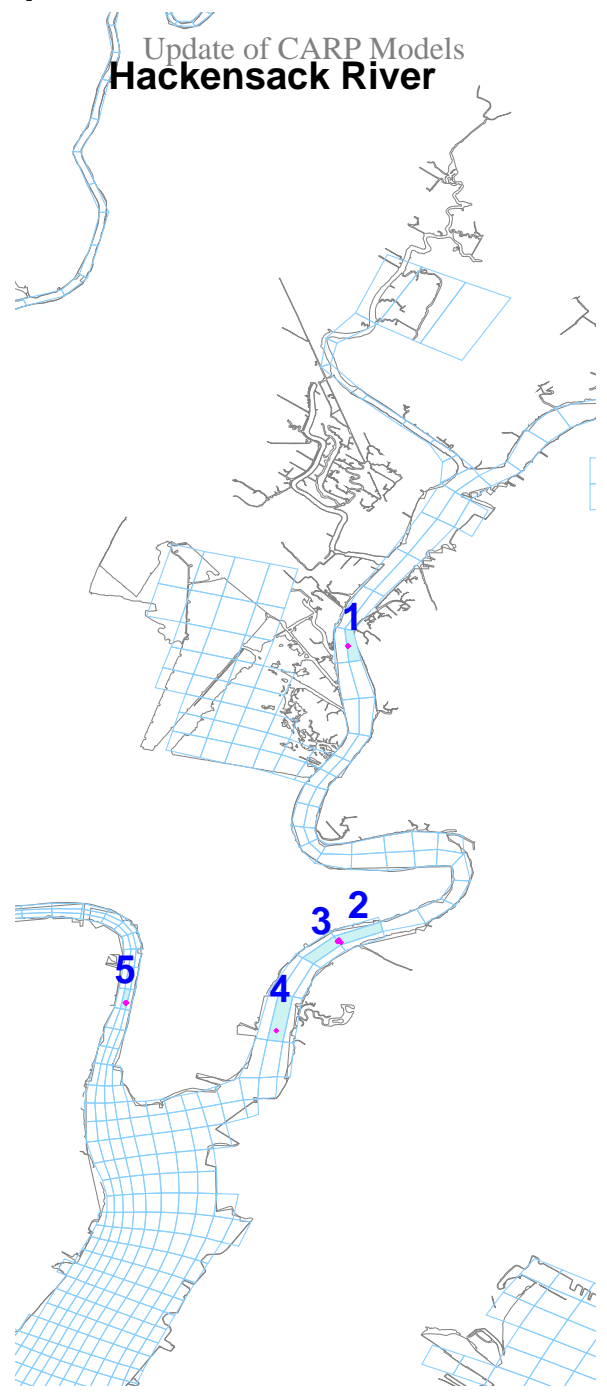
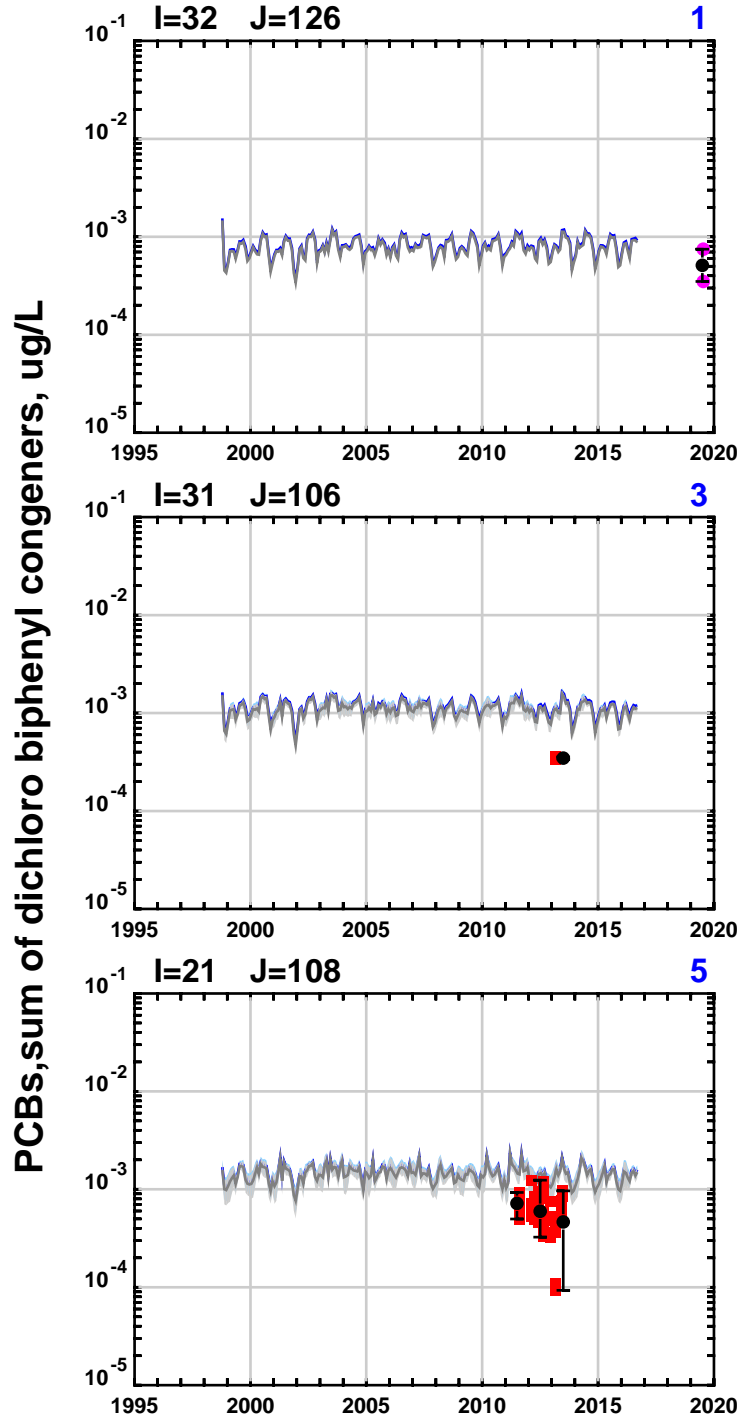
Water Column Data Comparison With Model All Water Column Layers, RUN18



● Detect Data ■ Non-Detect Data
■ Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

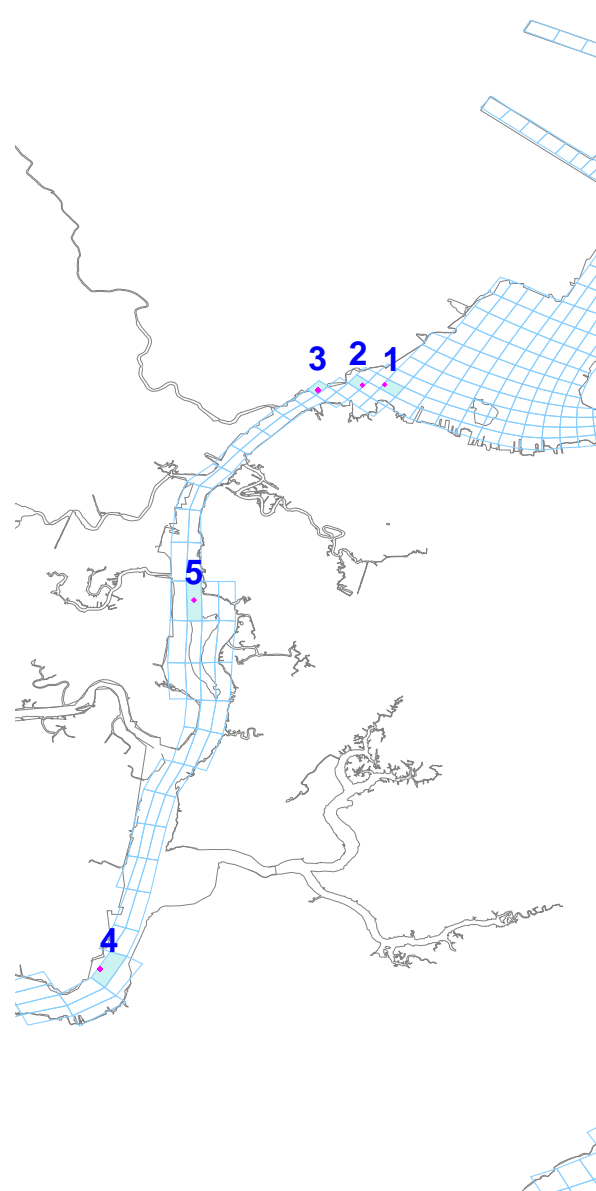
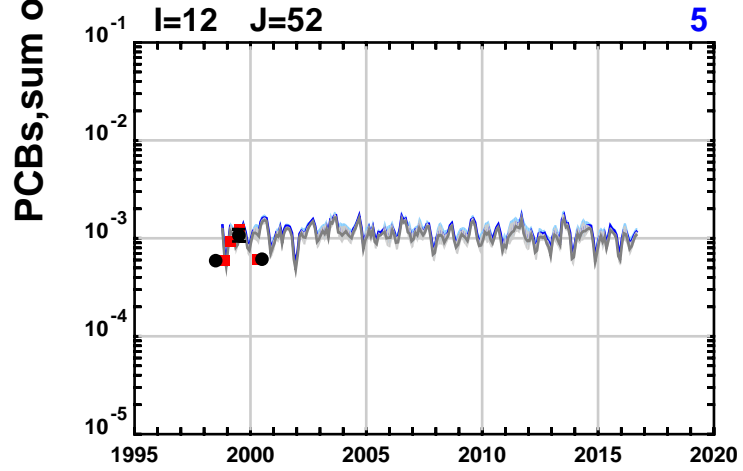
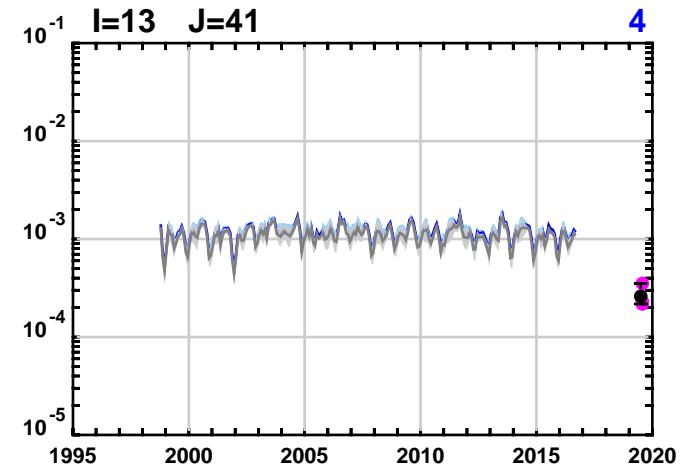
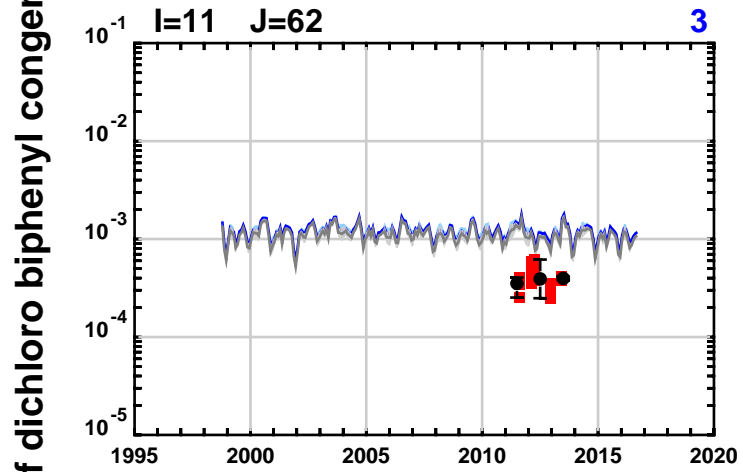
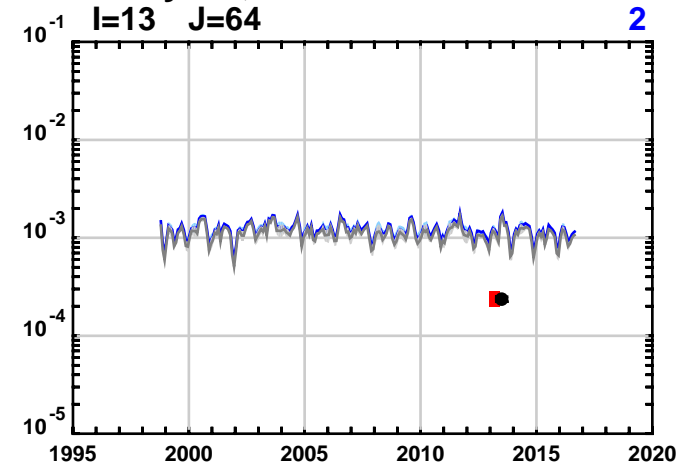
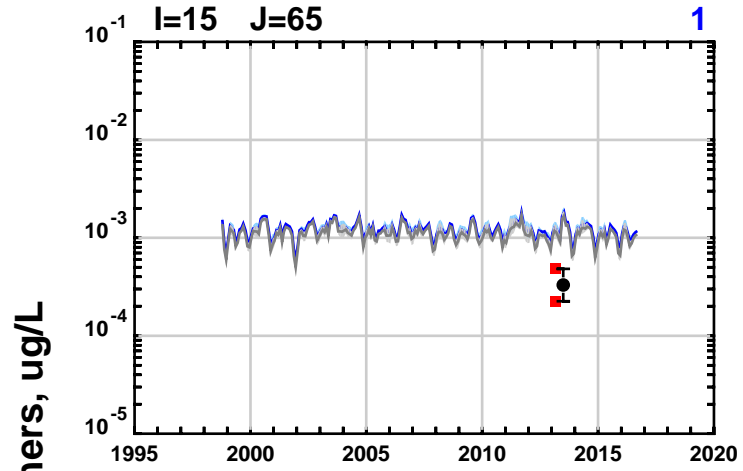


Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

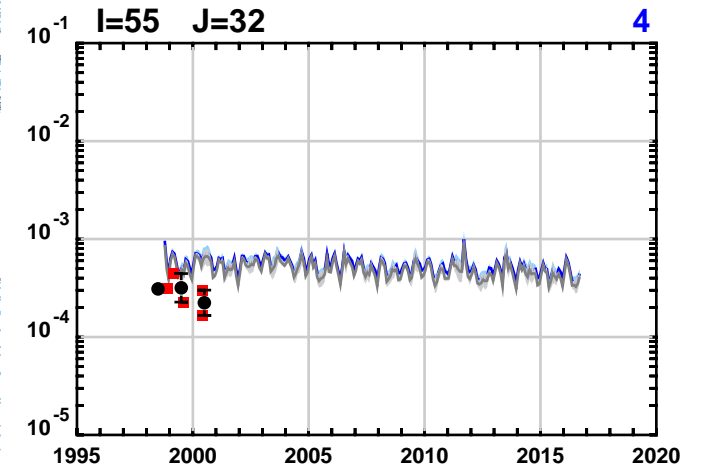
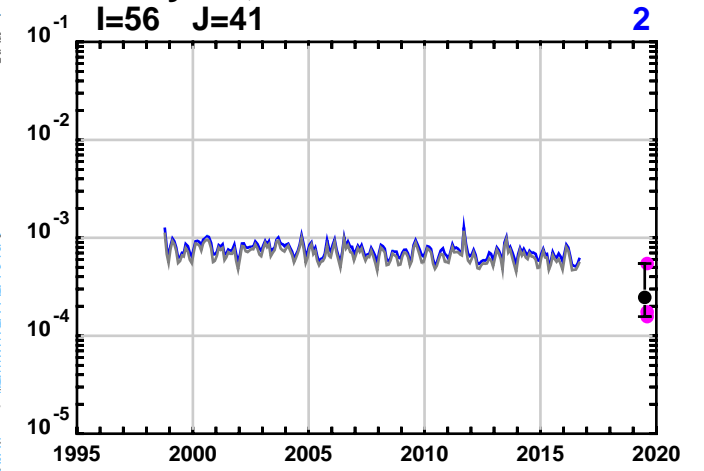
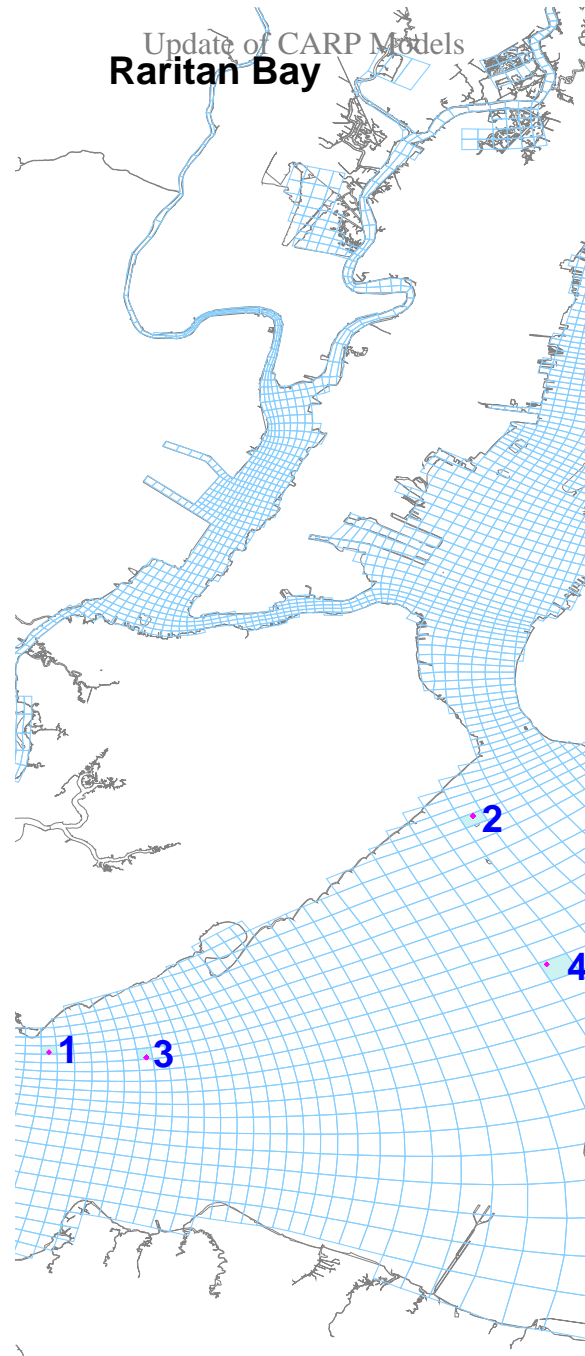
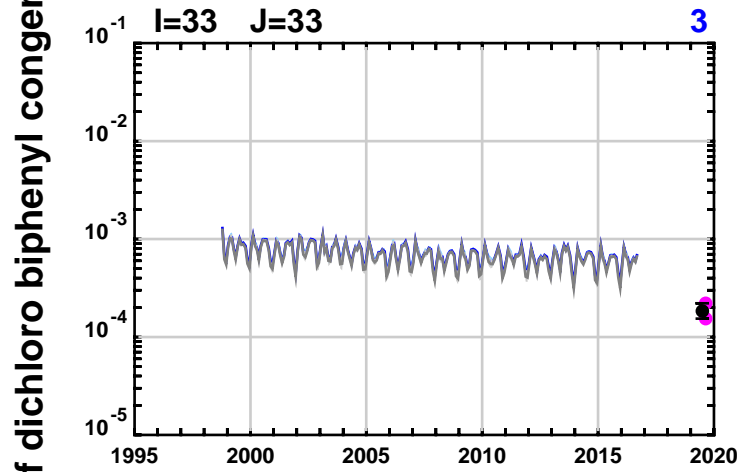
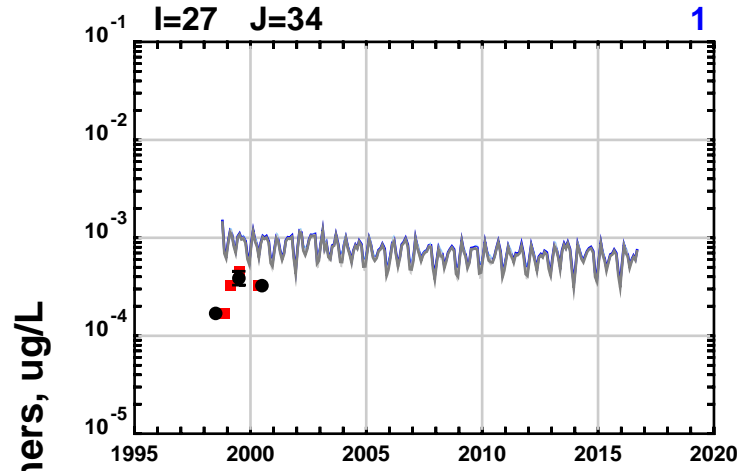
Update of CARP Models
Arthur Kill



● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
— Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

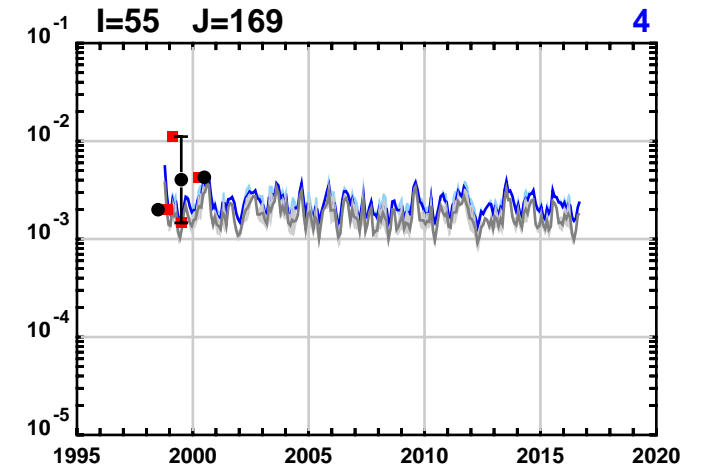
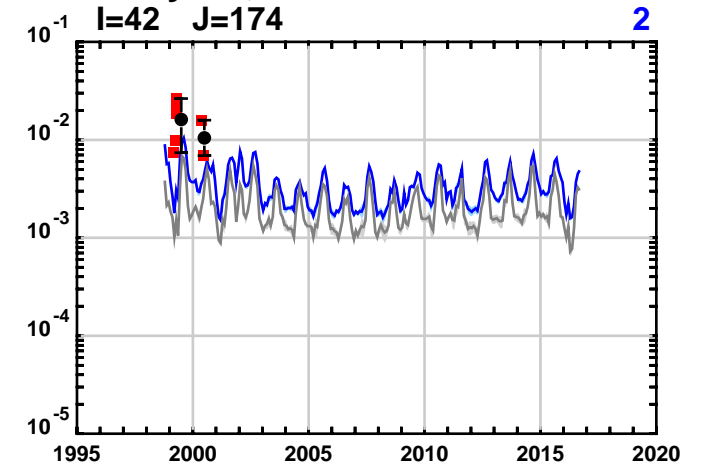
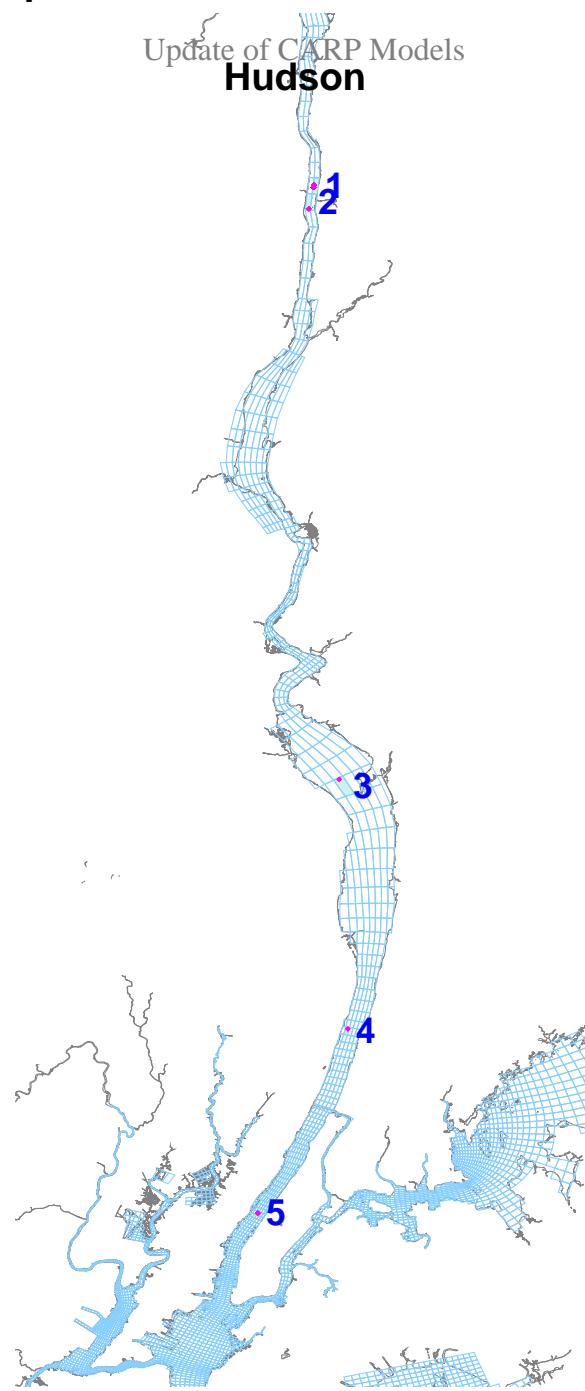
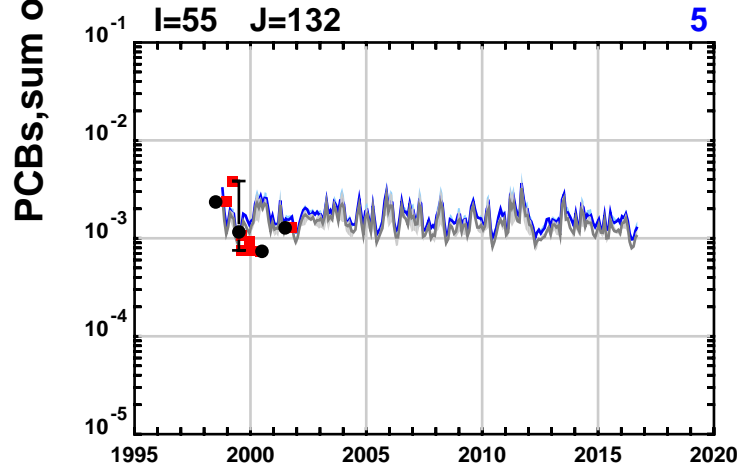
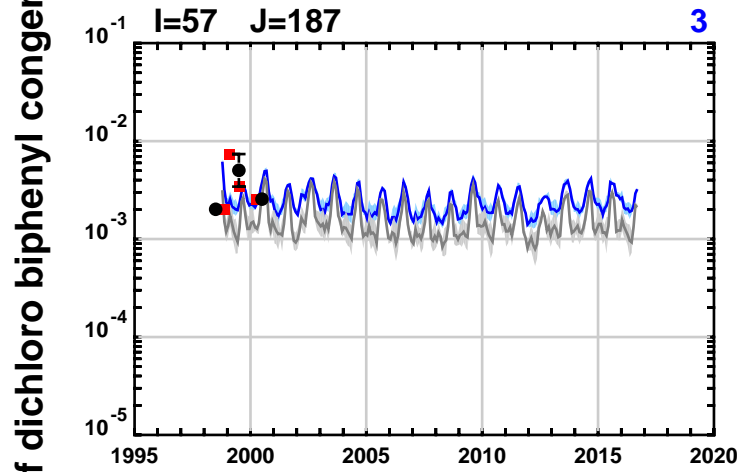
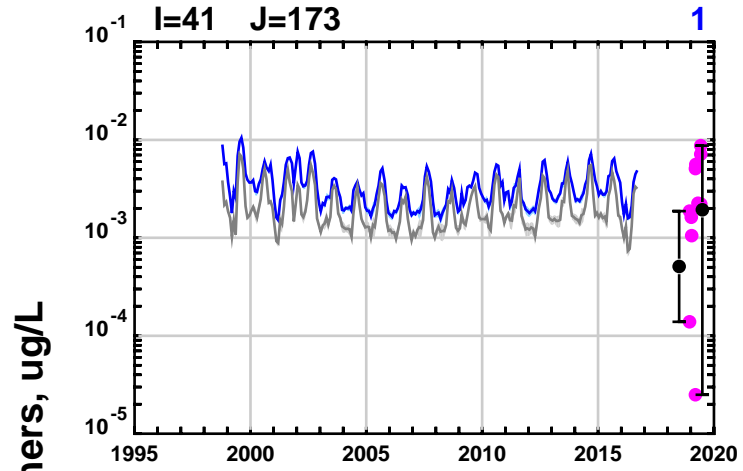
Water Column Data Comparison With Model All Water Column Layers, RUN18



Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

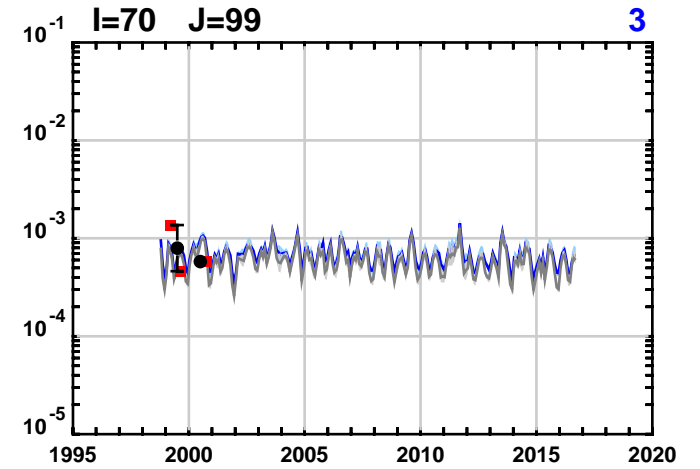
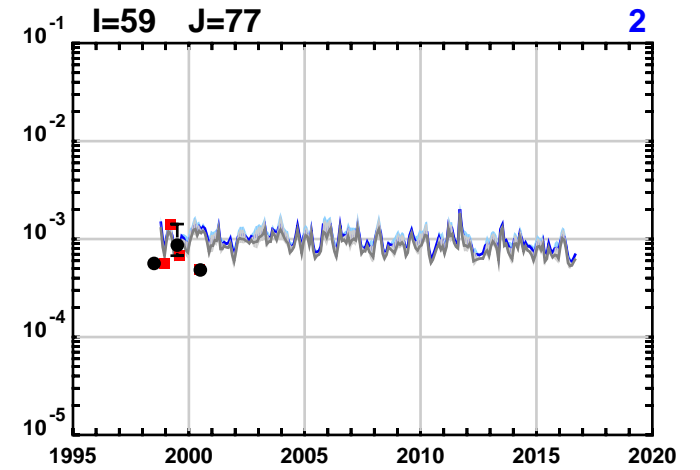
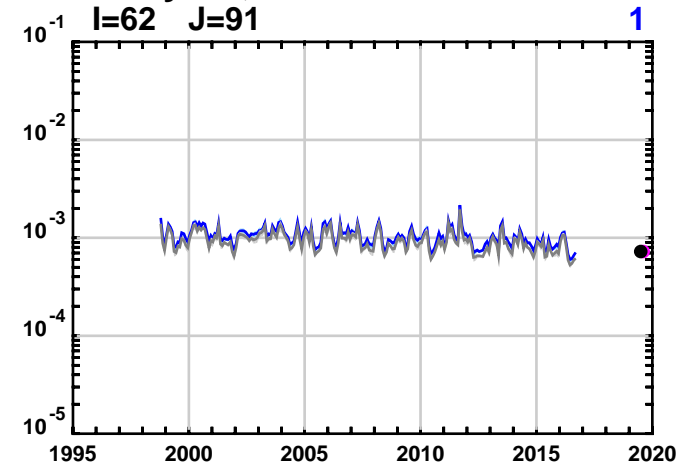
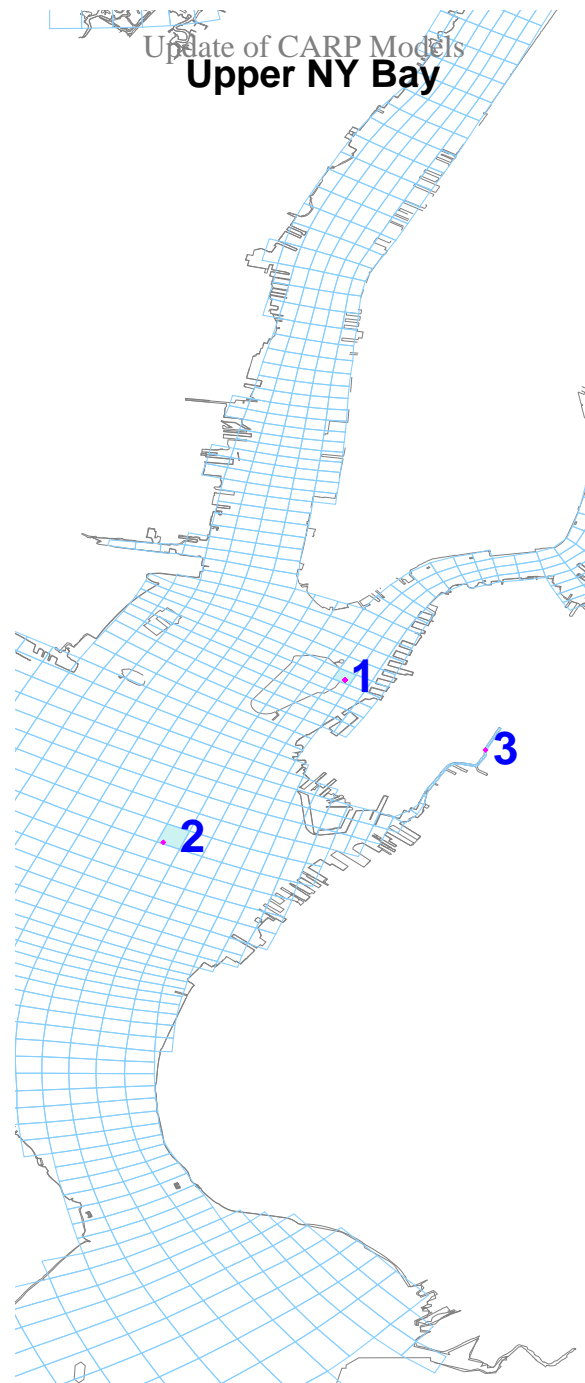


● Detect Data ● Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

PCBs, sum of dichloro biphenyl congeners, ug/L



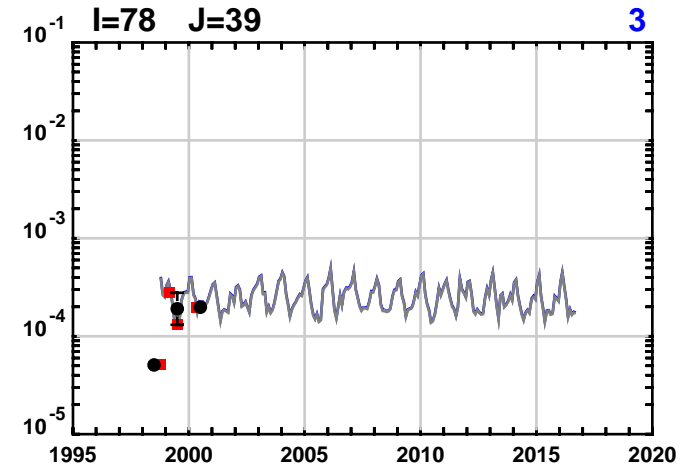
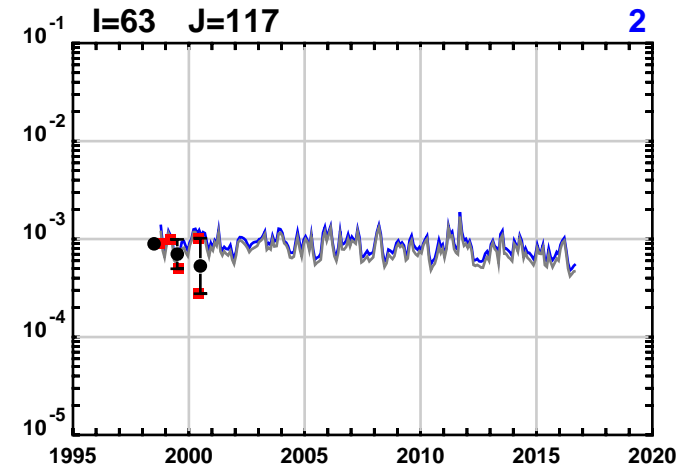
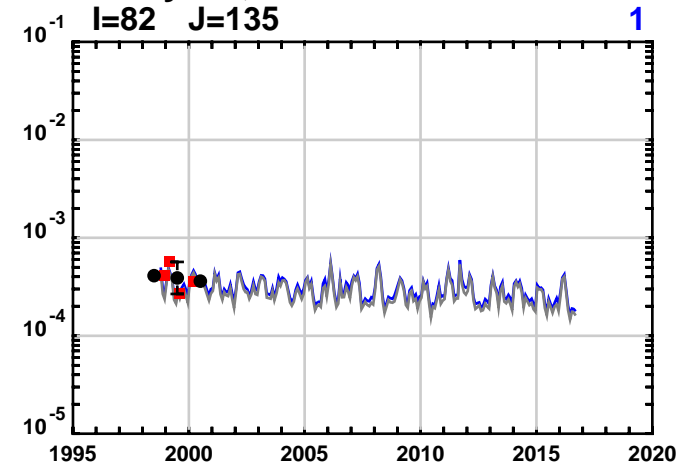
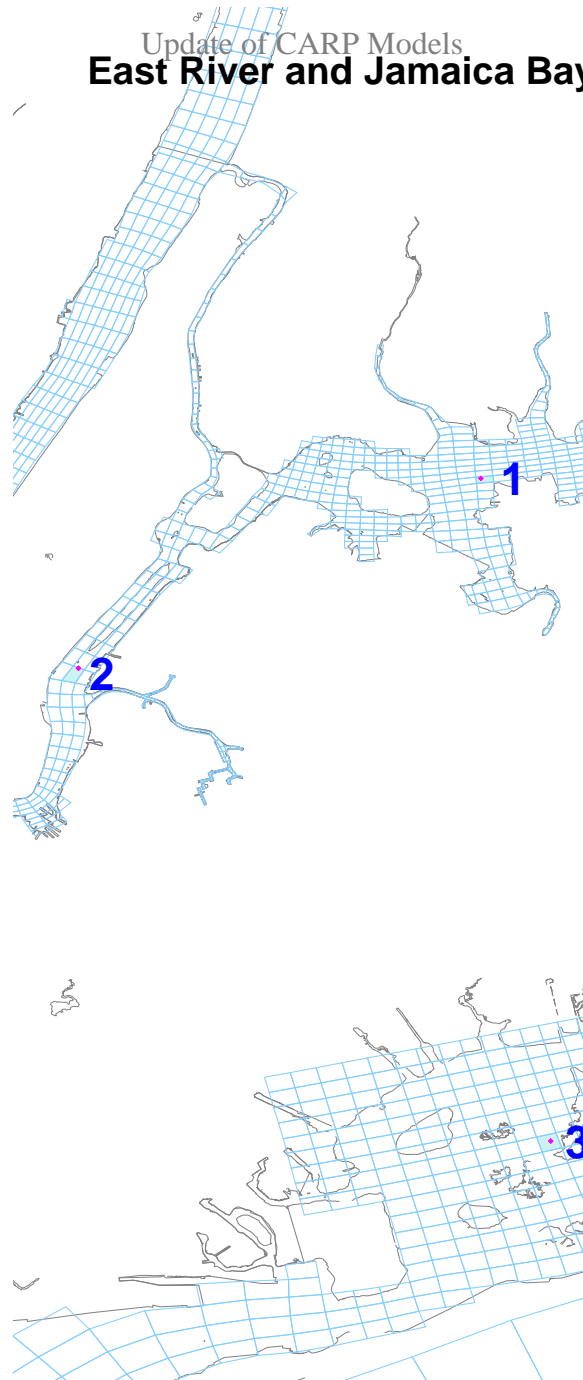
Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

Update of CARP Models East River and Jamaica Bay

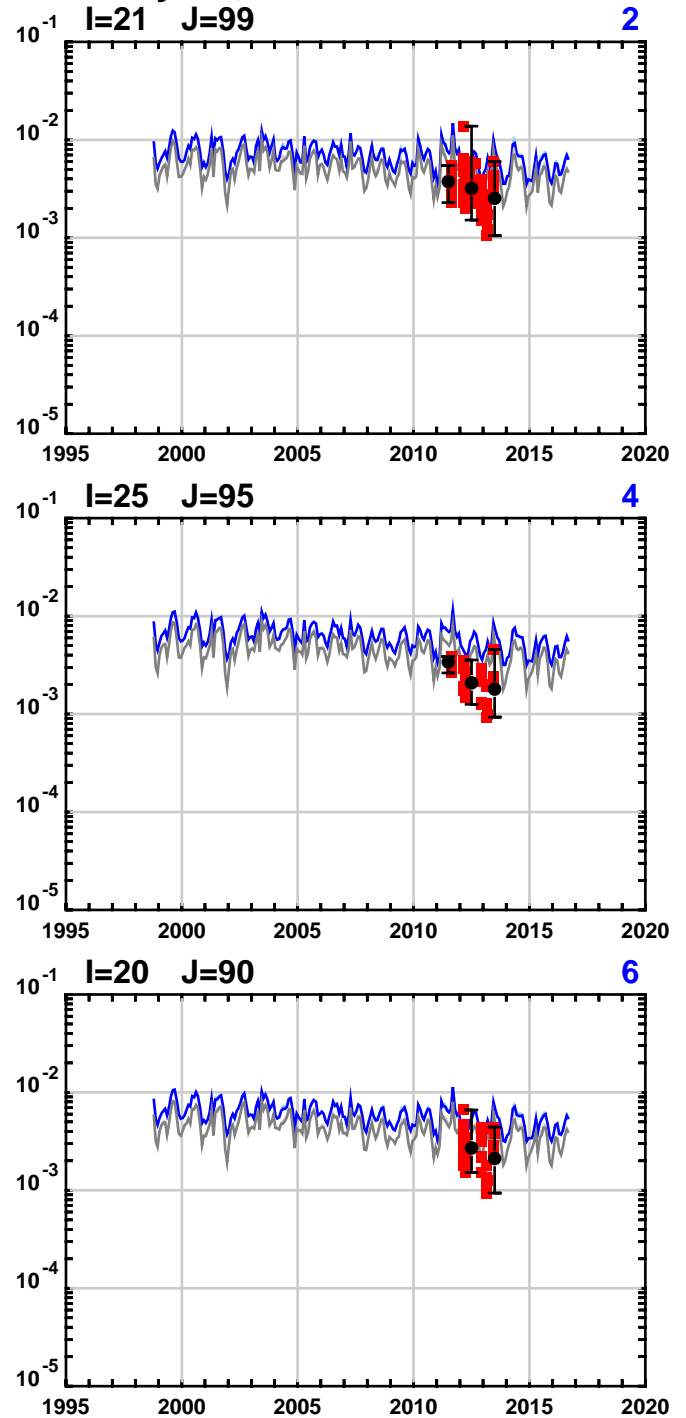
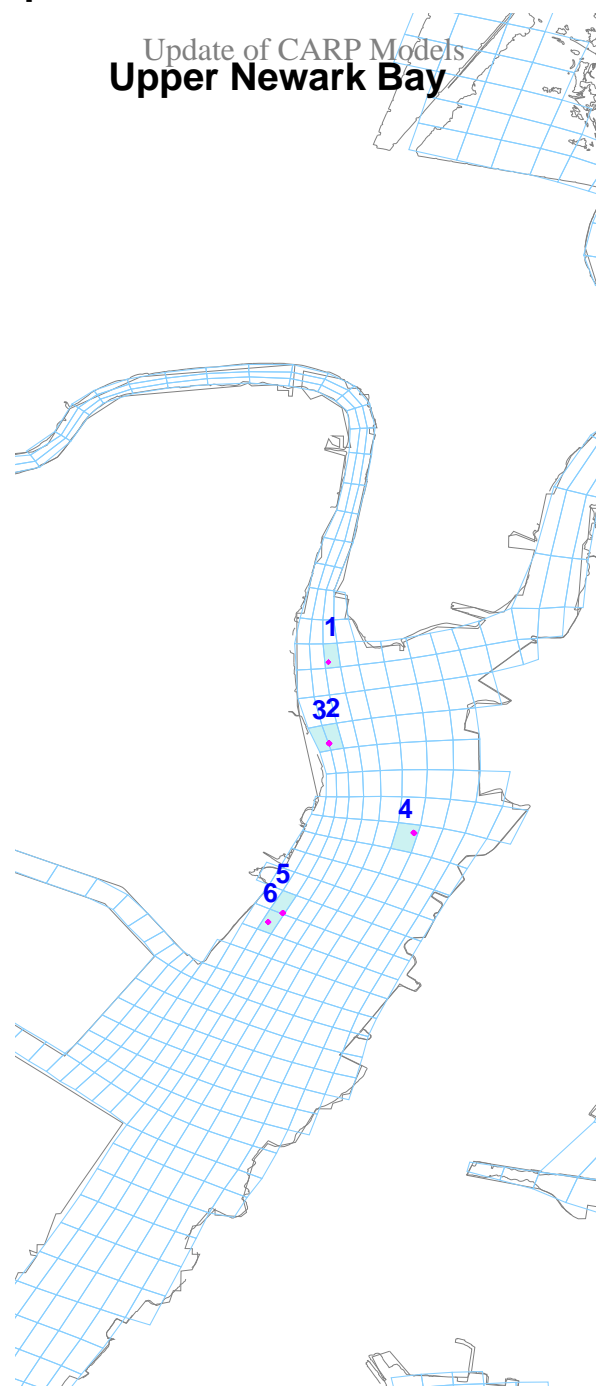
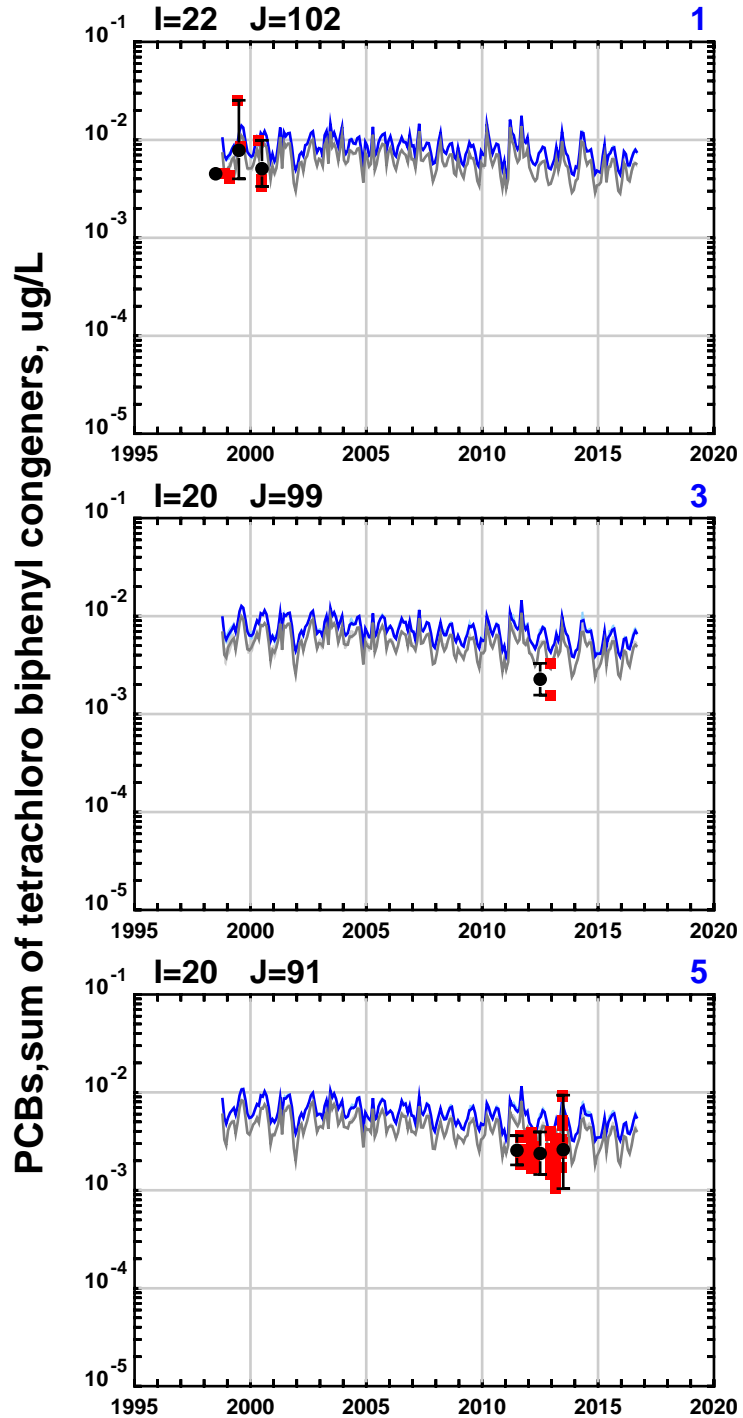
PCBs, sum of dichloro biphenyl congeners, ug/L



Detect Data Non-Detect Data
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

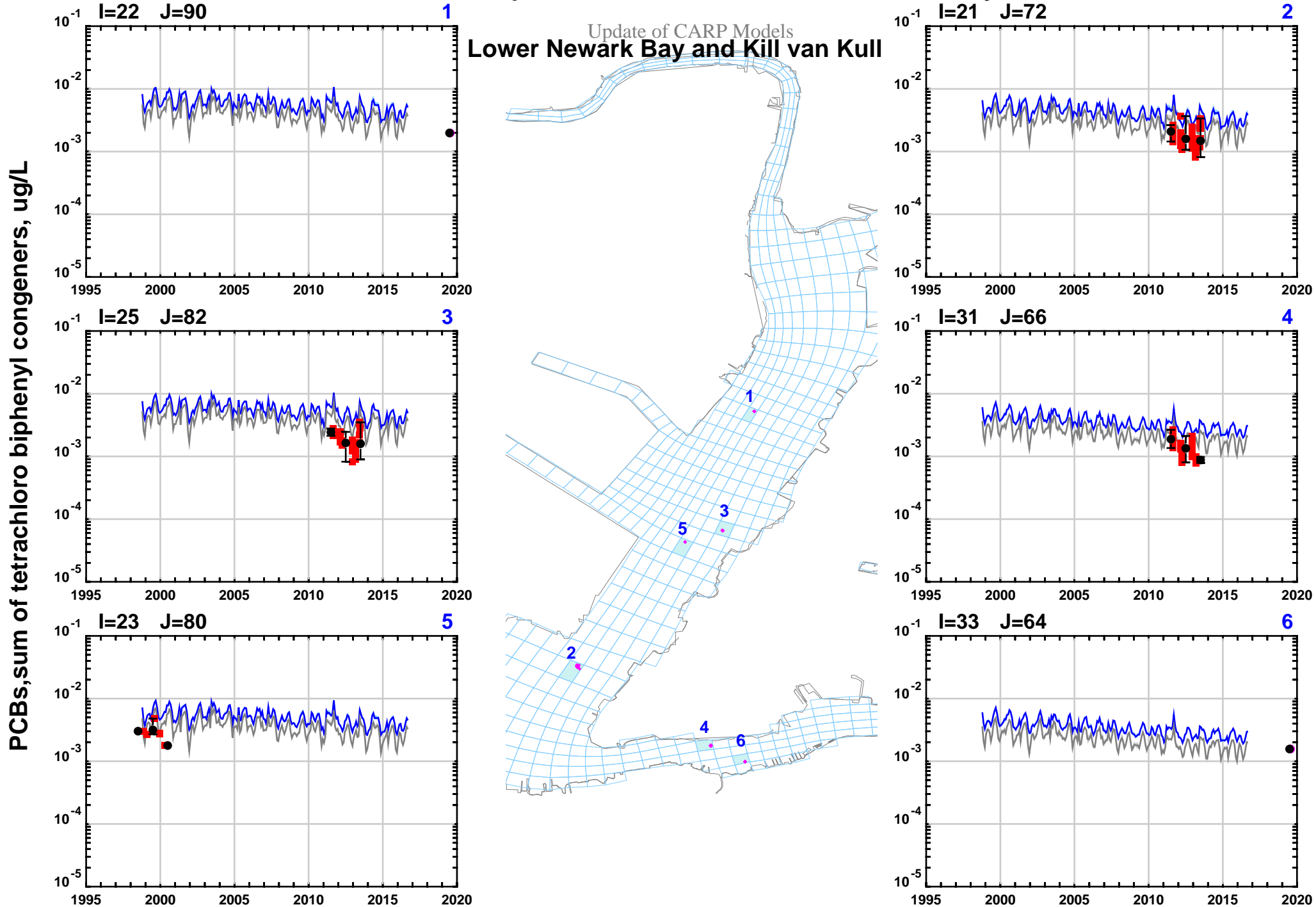
Water Column Data Comparison With Model All Water Column Layers, RUN18



● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
— Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

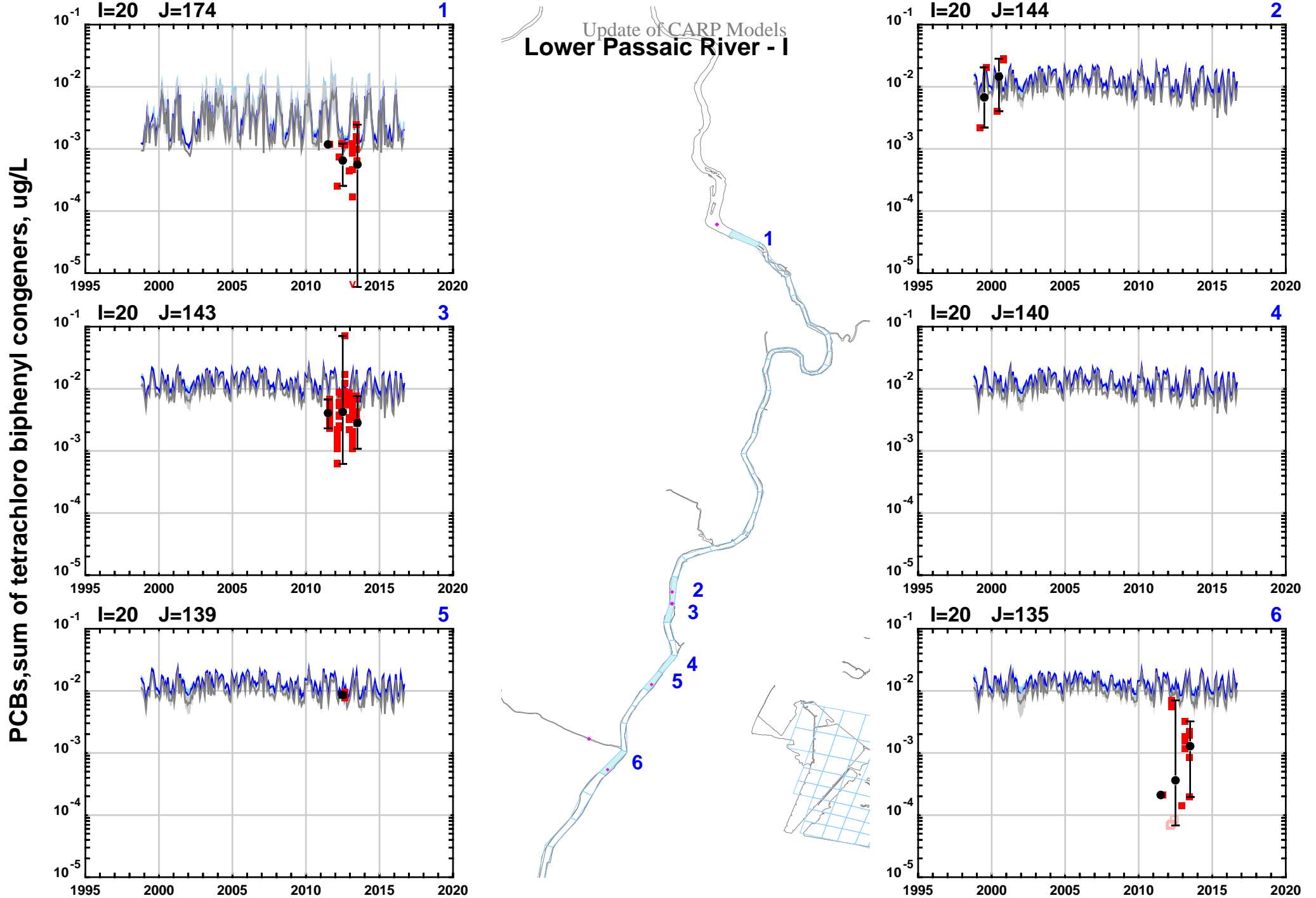


● Detect Data ● Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

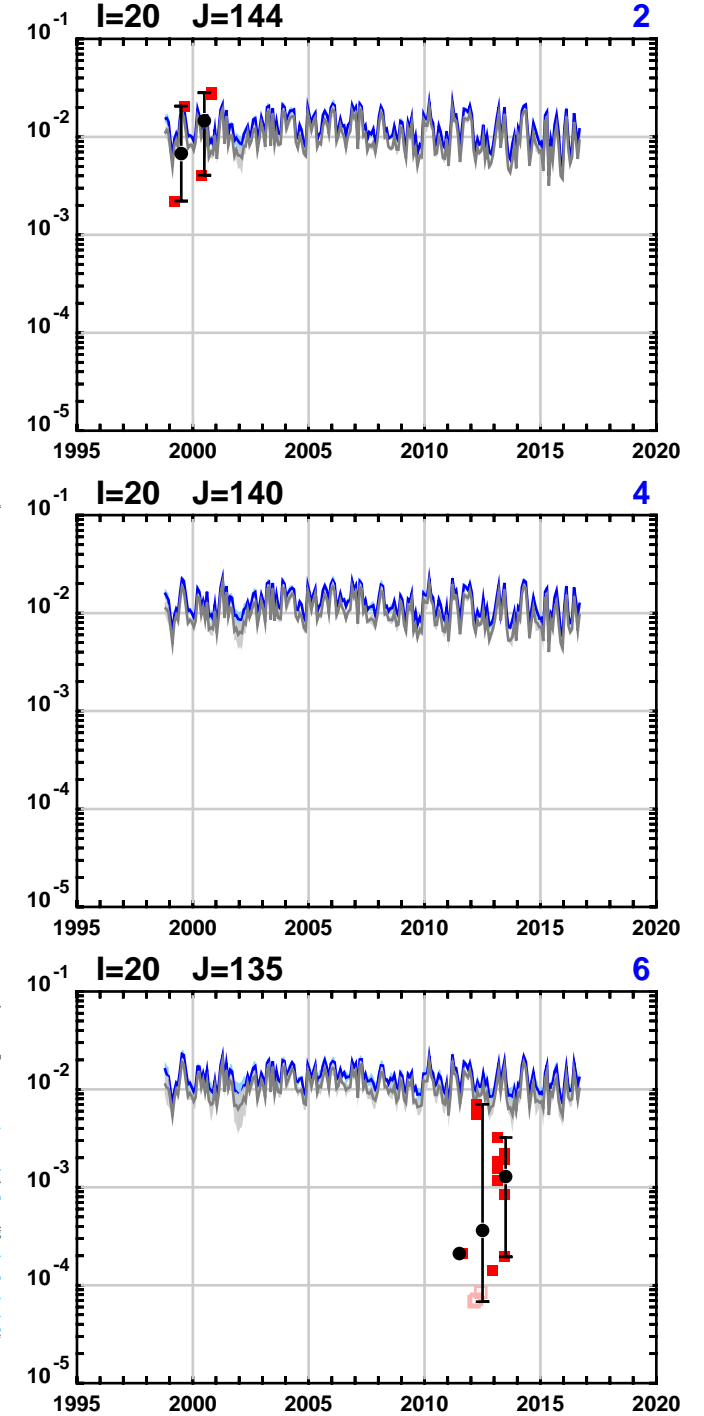
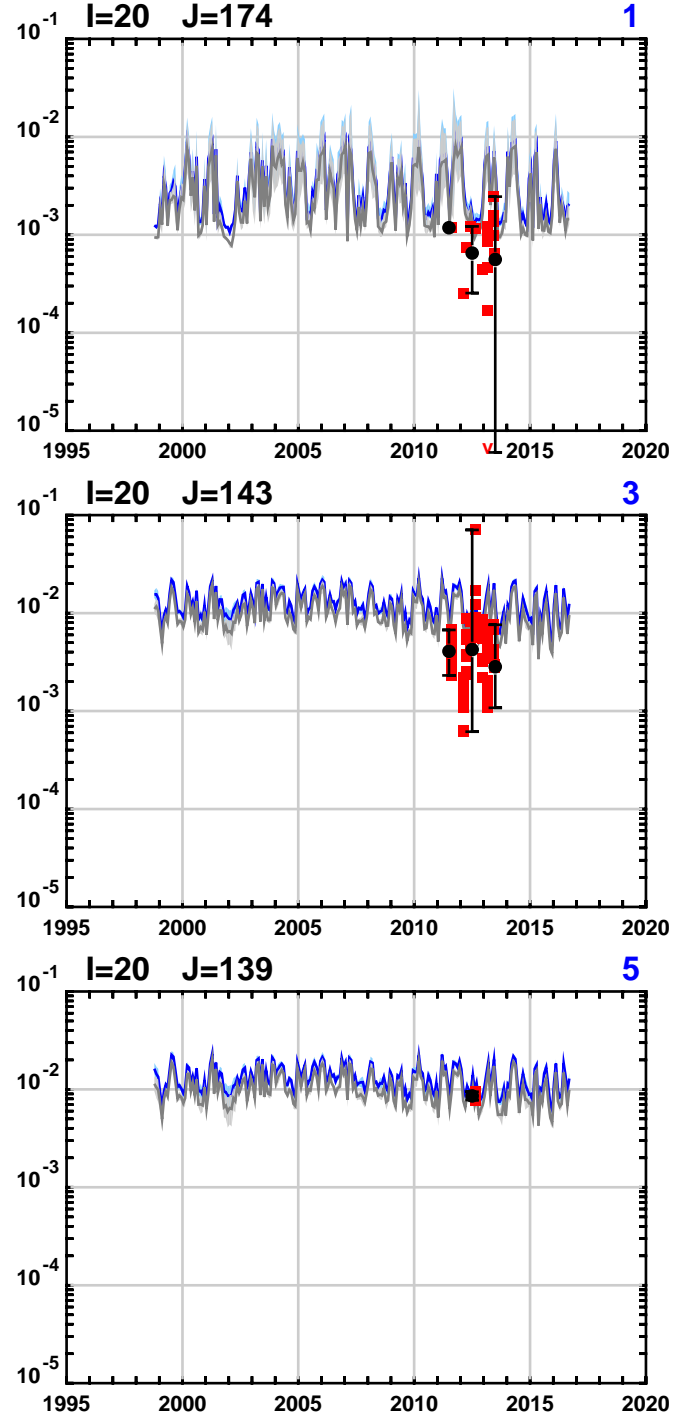
● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

Update of CARP Models Lower Passaic River - I



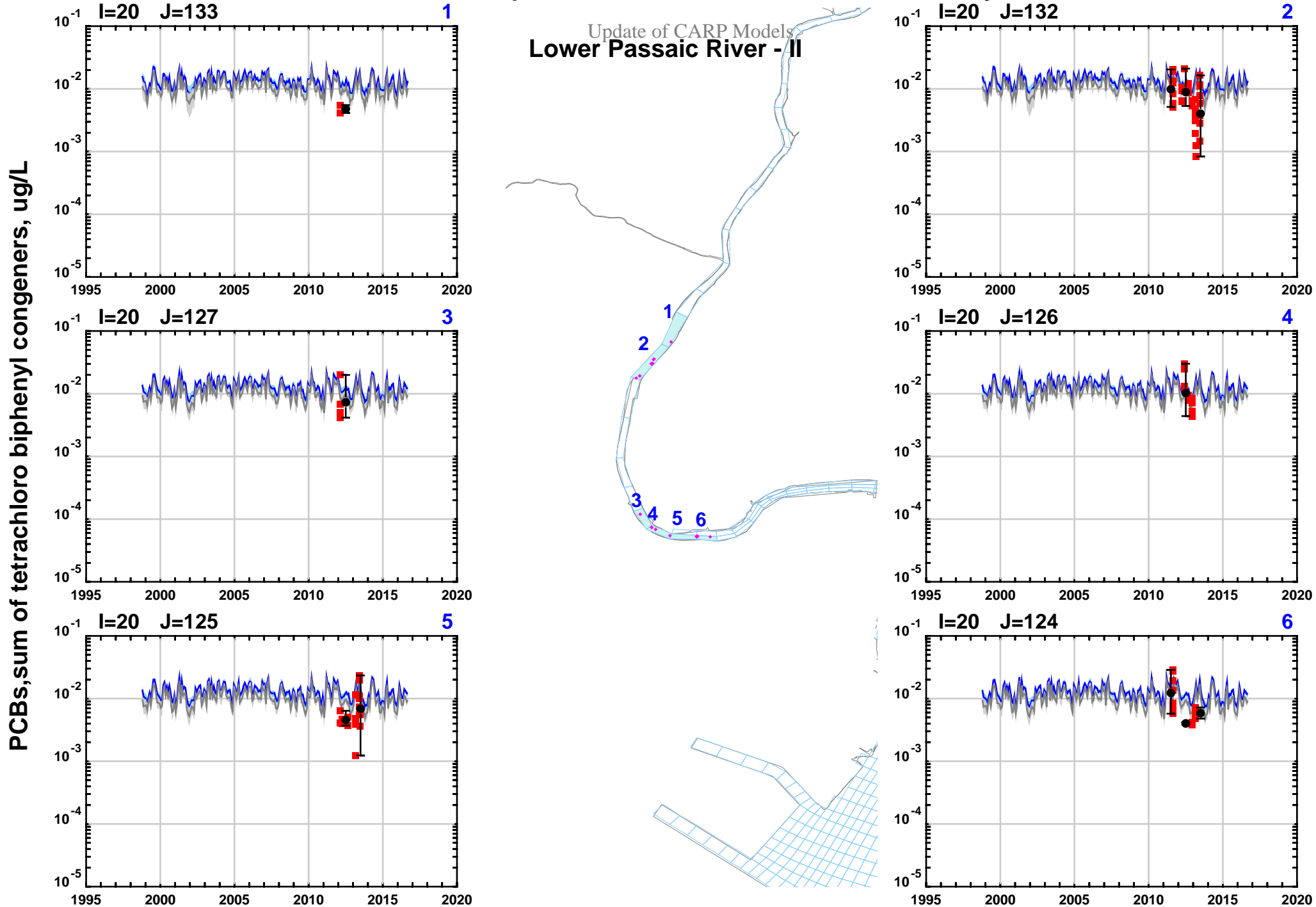
PCBs, sum of tetrachloro biphenyl congeners, ug/L



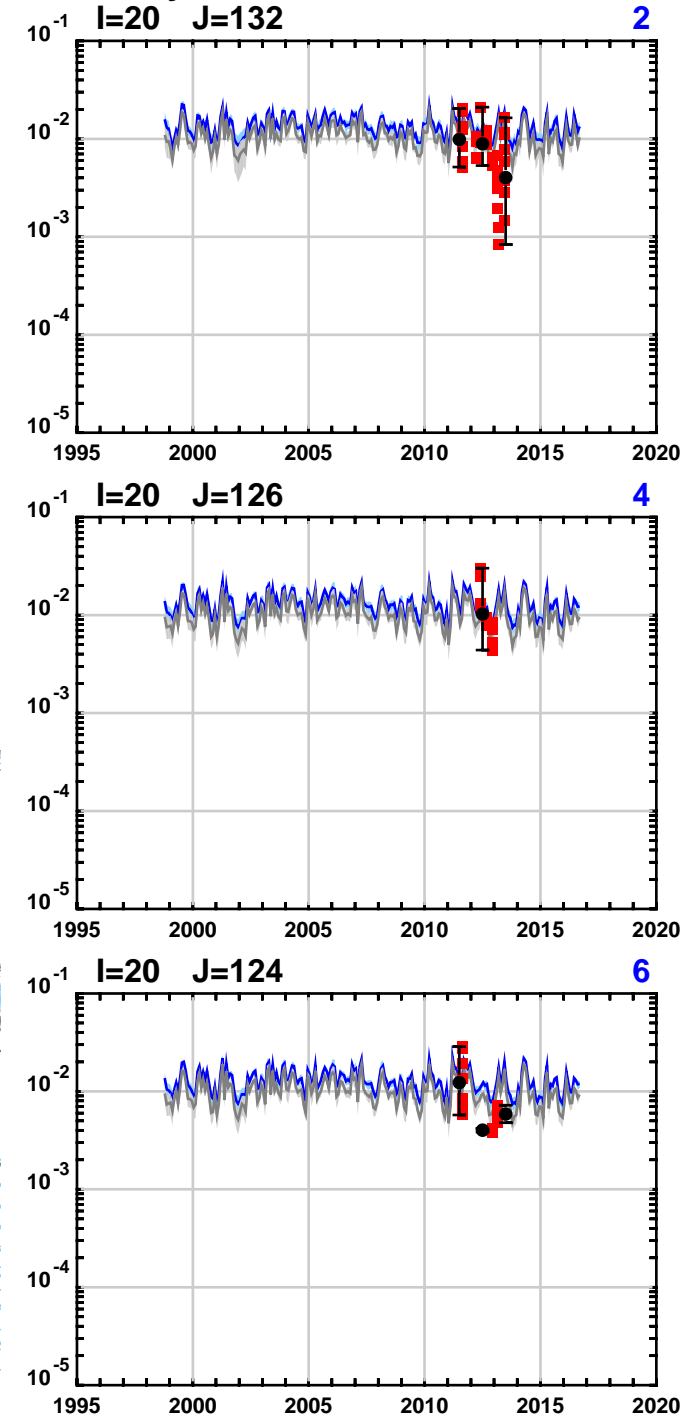
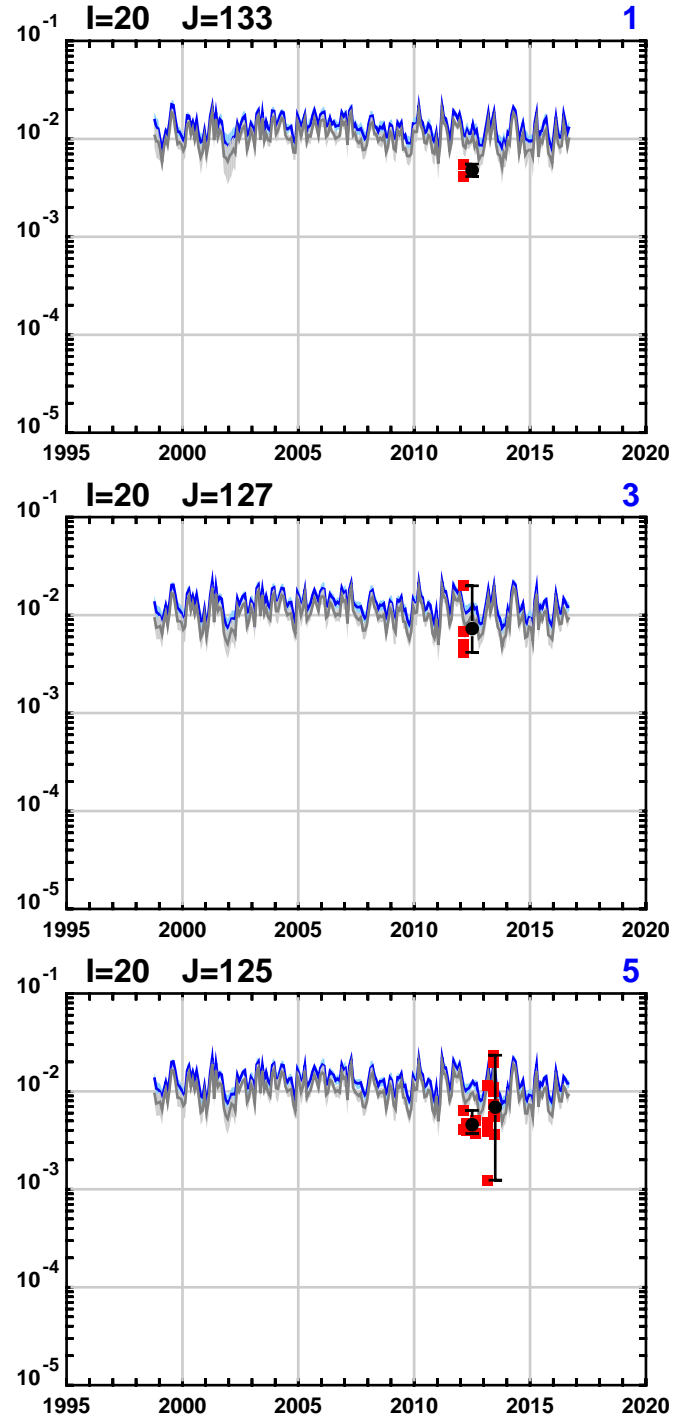
Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18



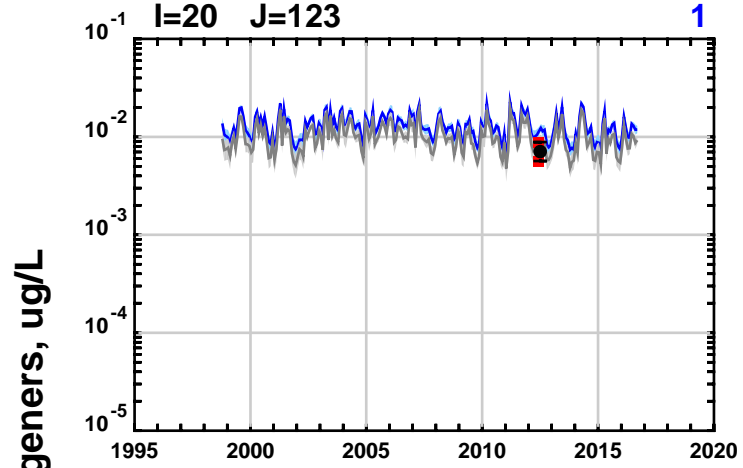
PCBs, sum of tetrachloro biphenyl congeners, ug/L



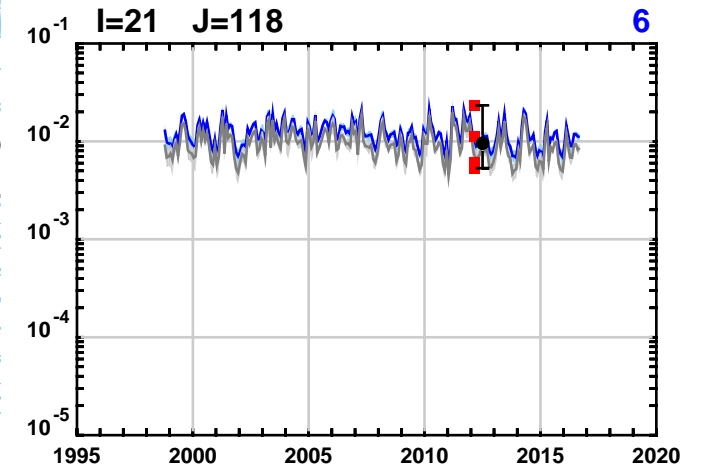
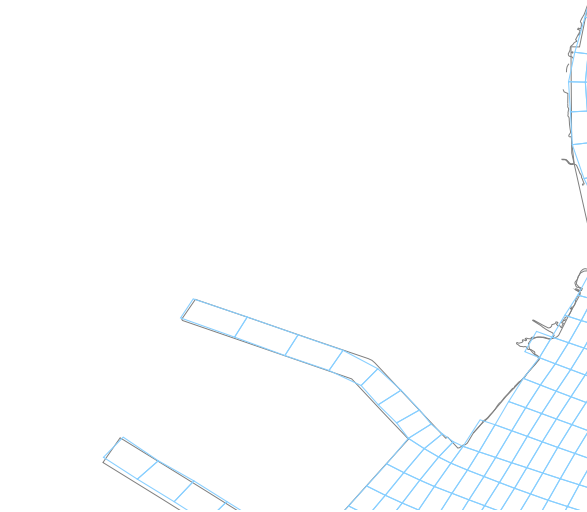
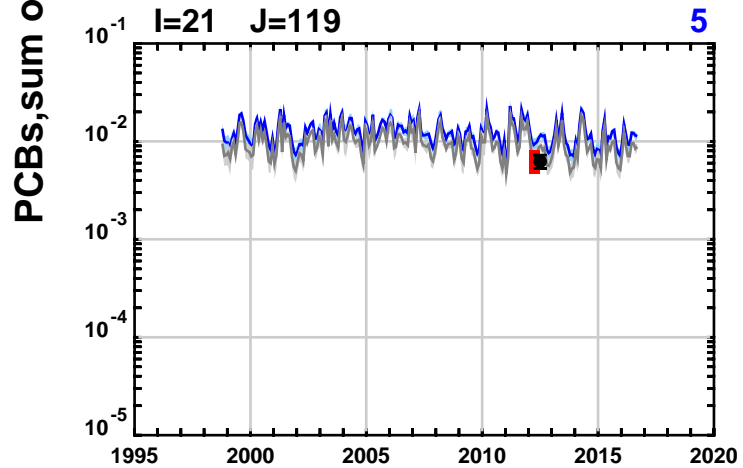
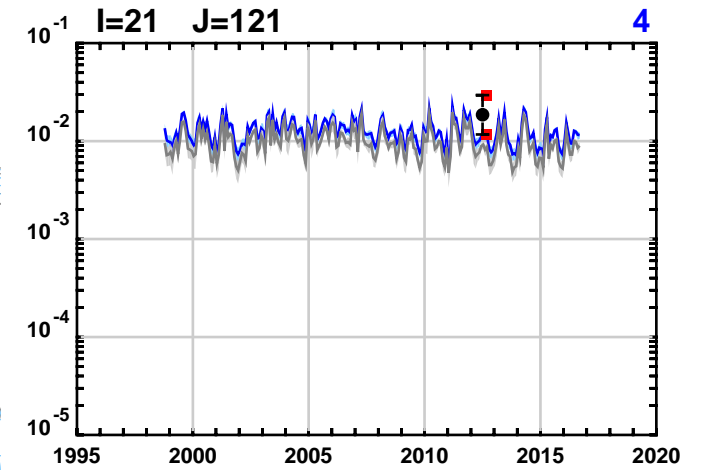
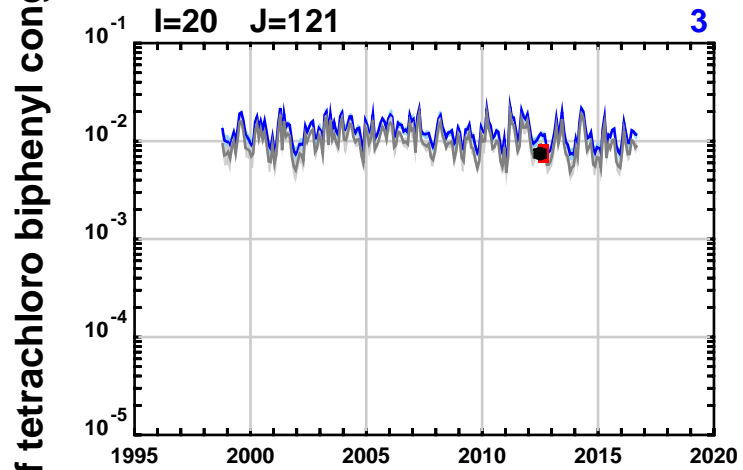
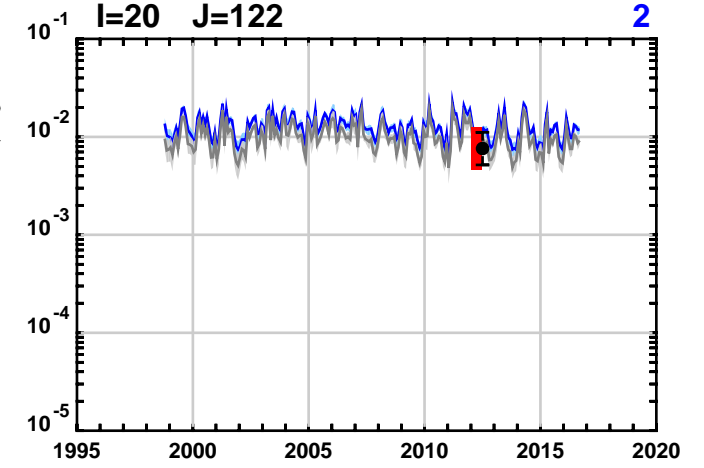
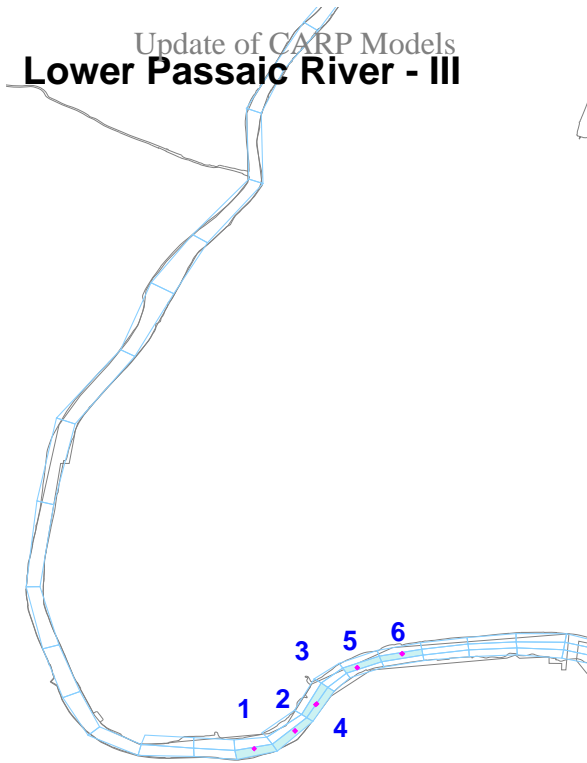
Update of CARP Models
Lower Passaic River - II

● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column
● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18



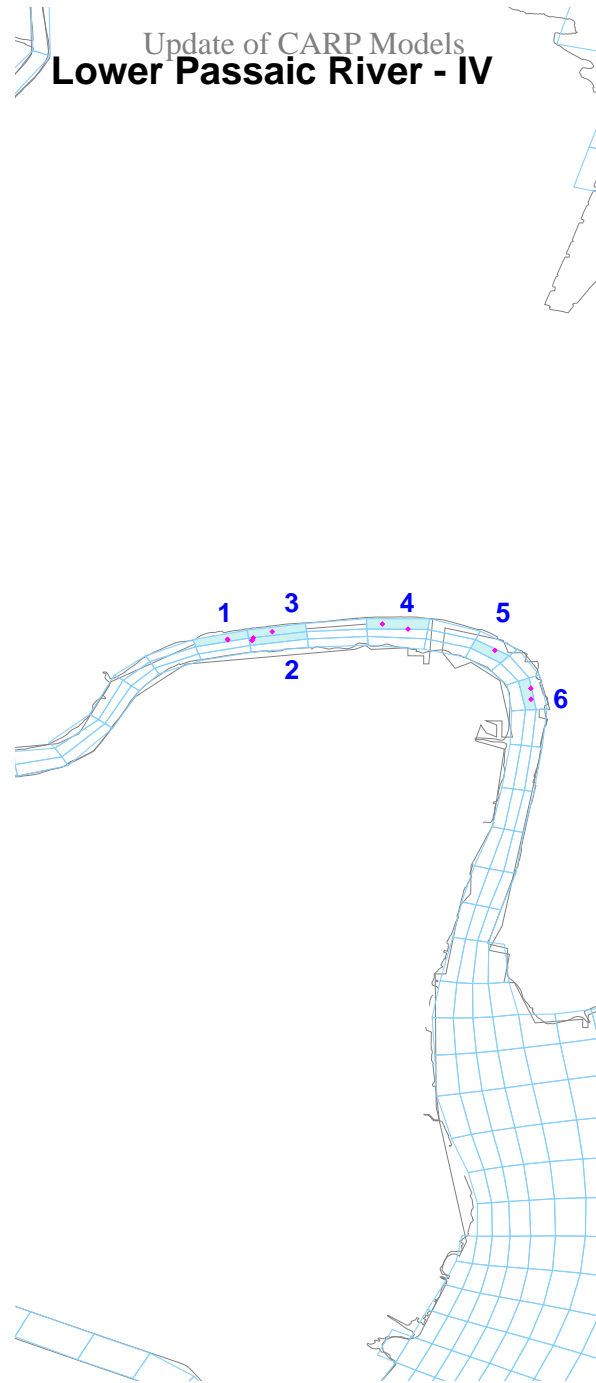
Update of CARP Models Lower Passaic River - III



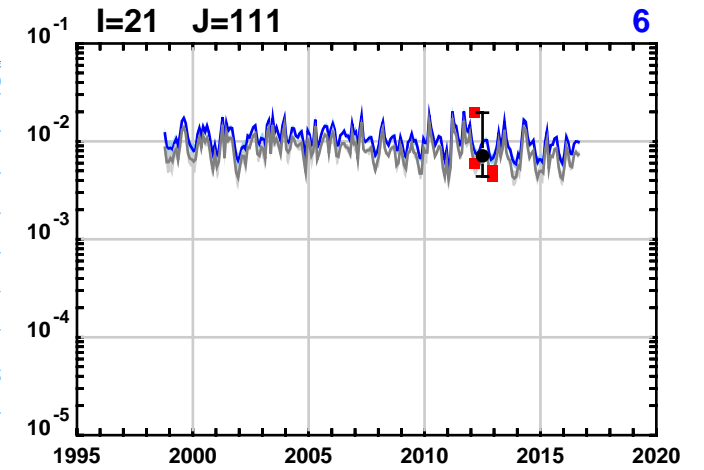
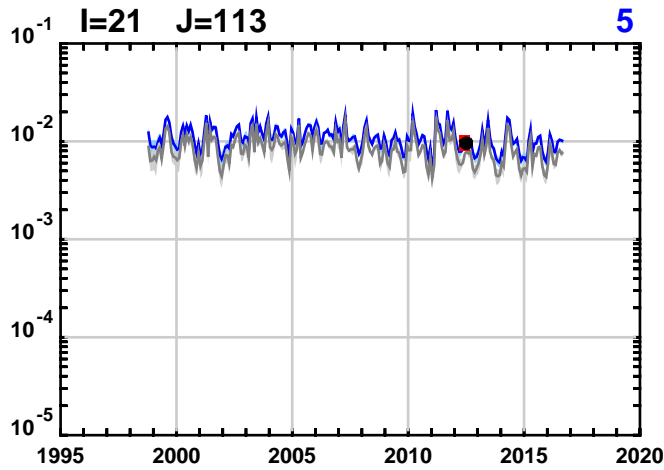
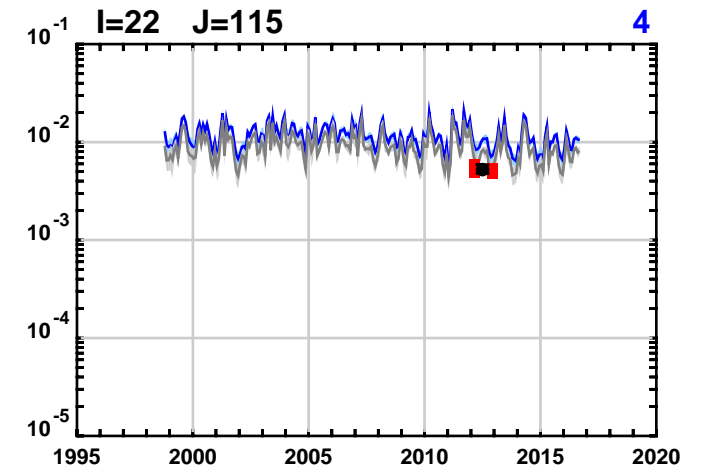
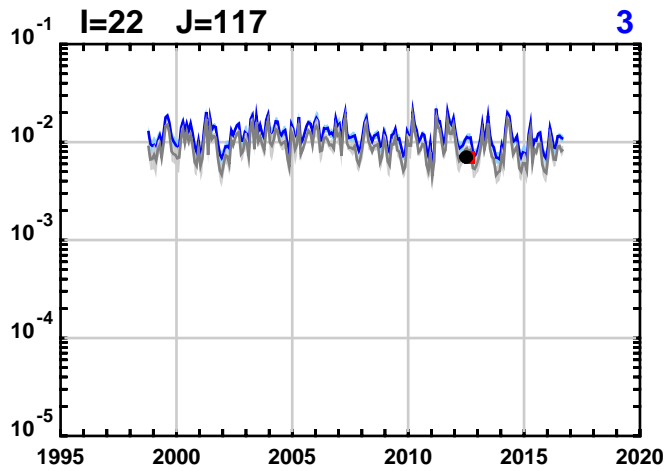
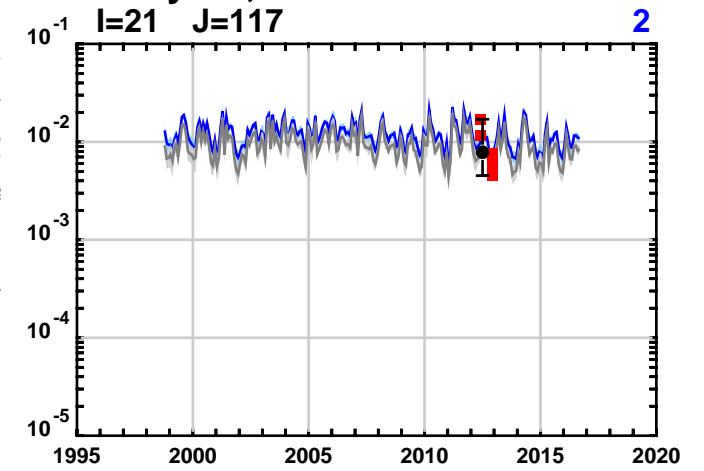
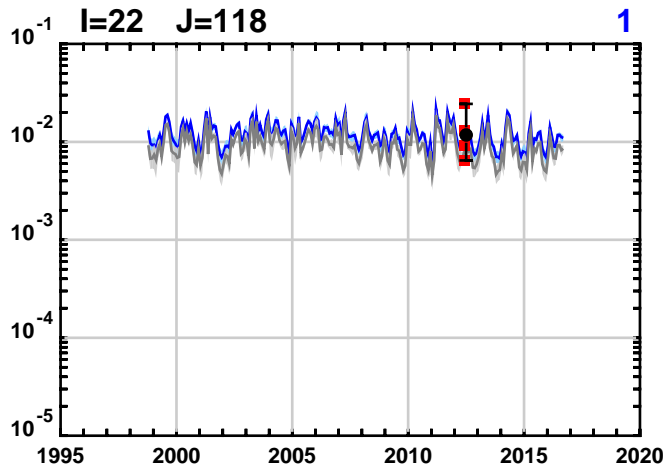
● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
— Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18



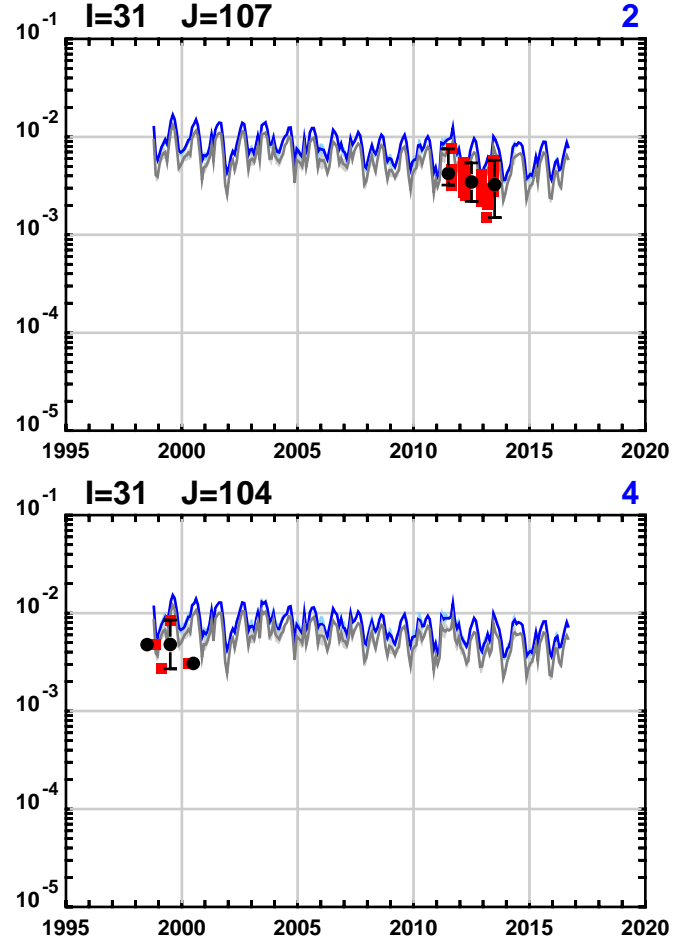
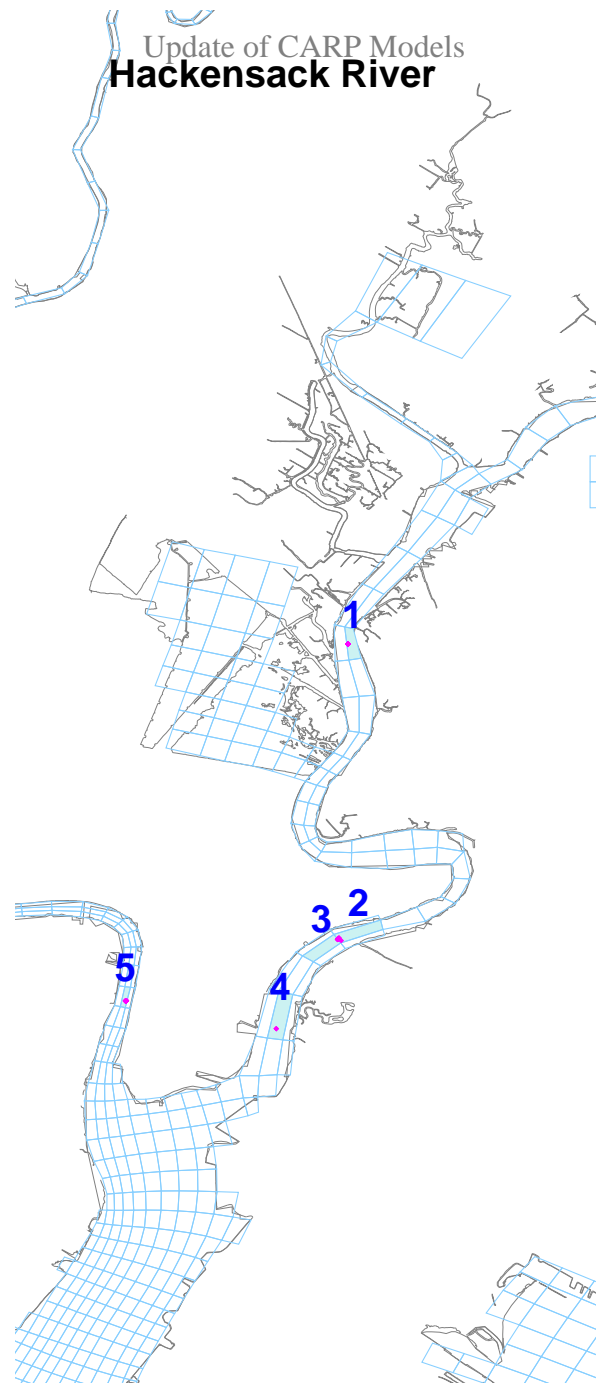
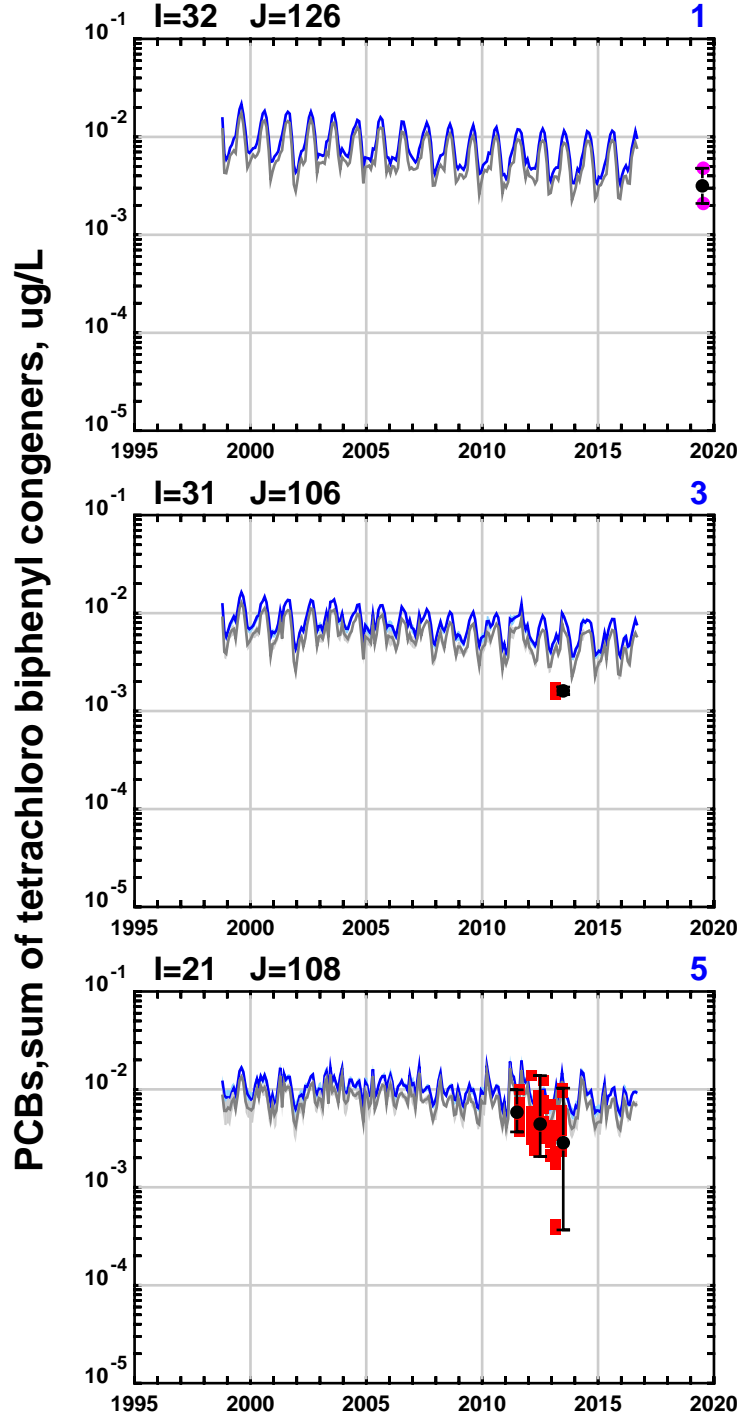
PCBs, sum of tetrachloro biphenyl congeners, ug/L



Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

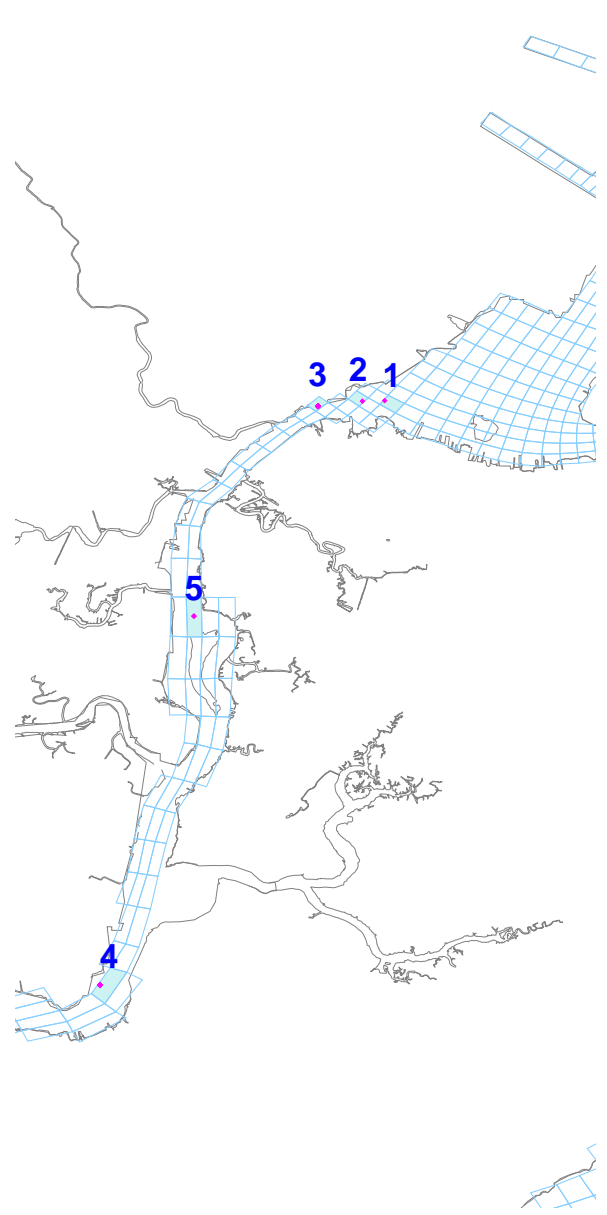
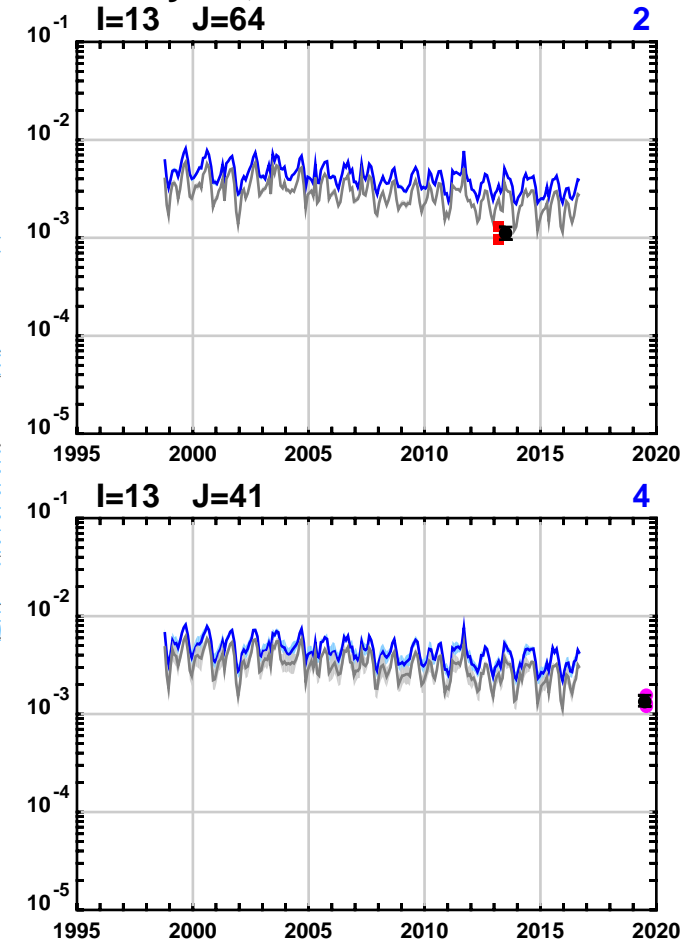
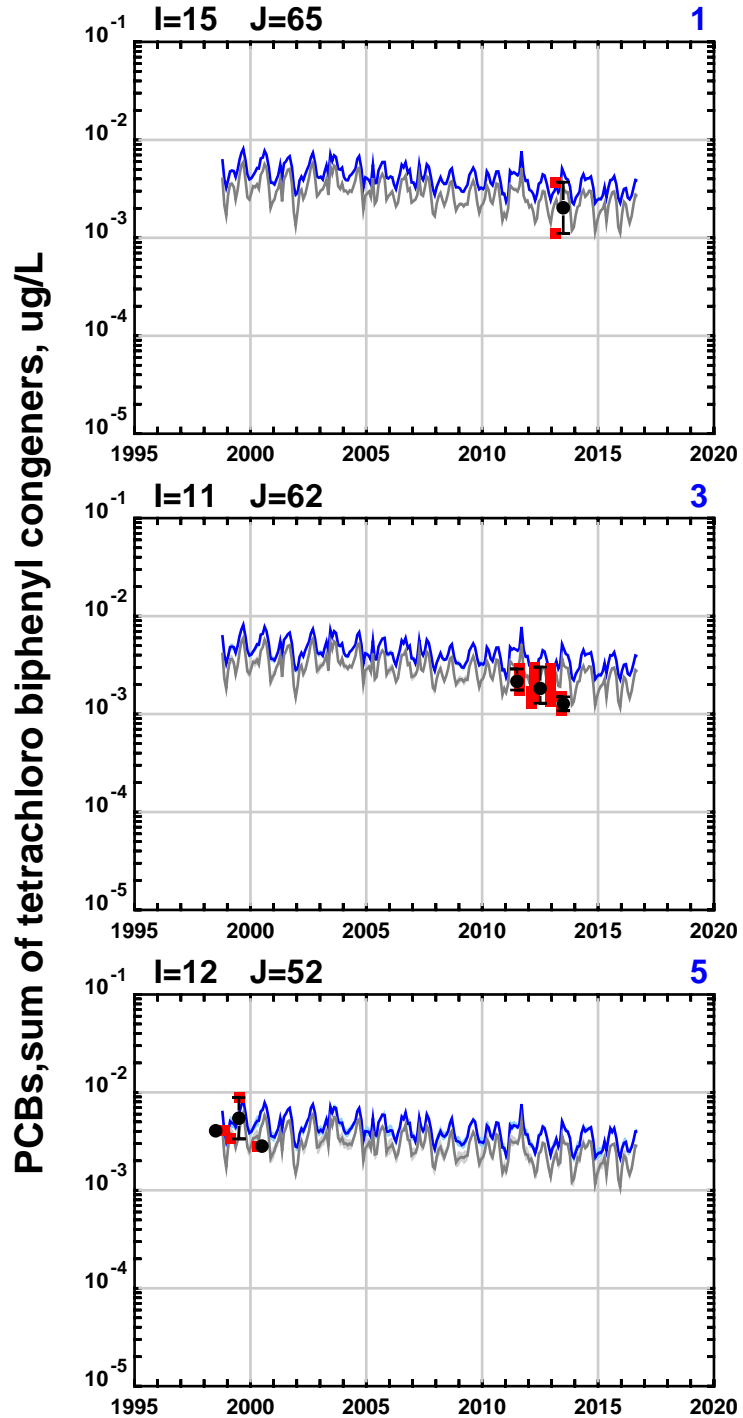


Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

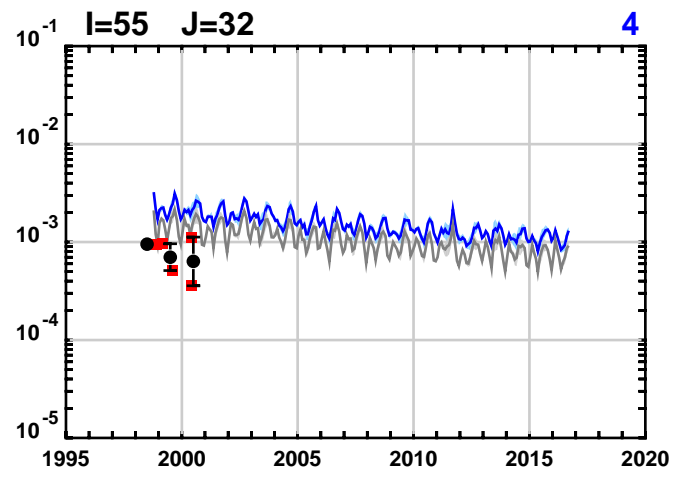
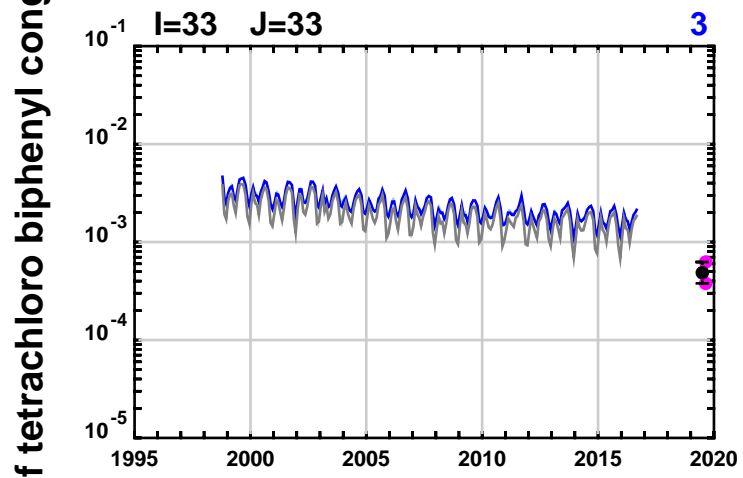
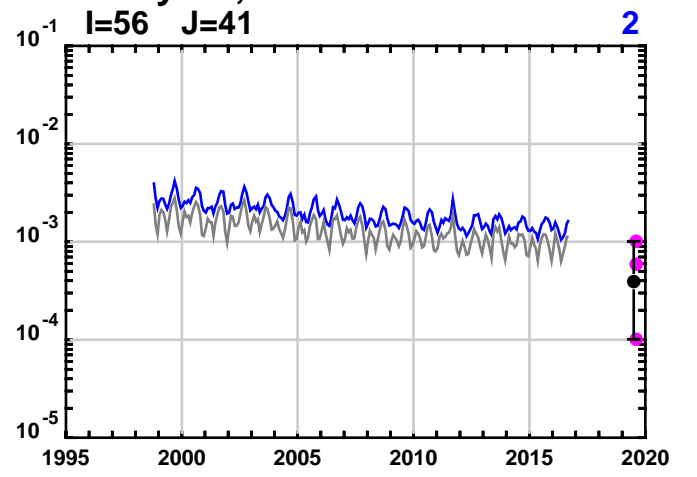
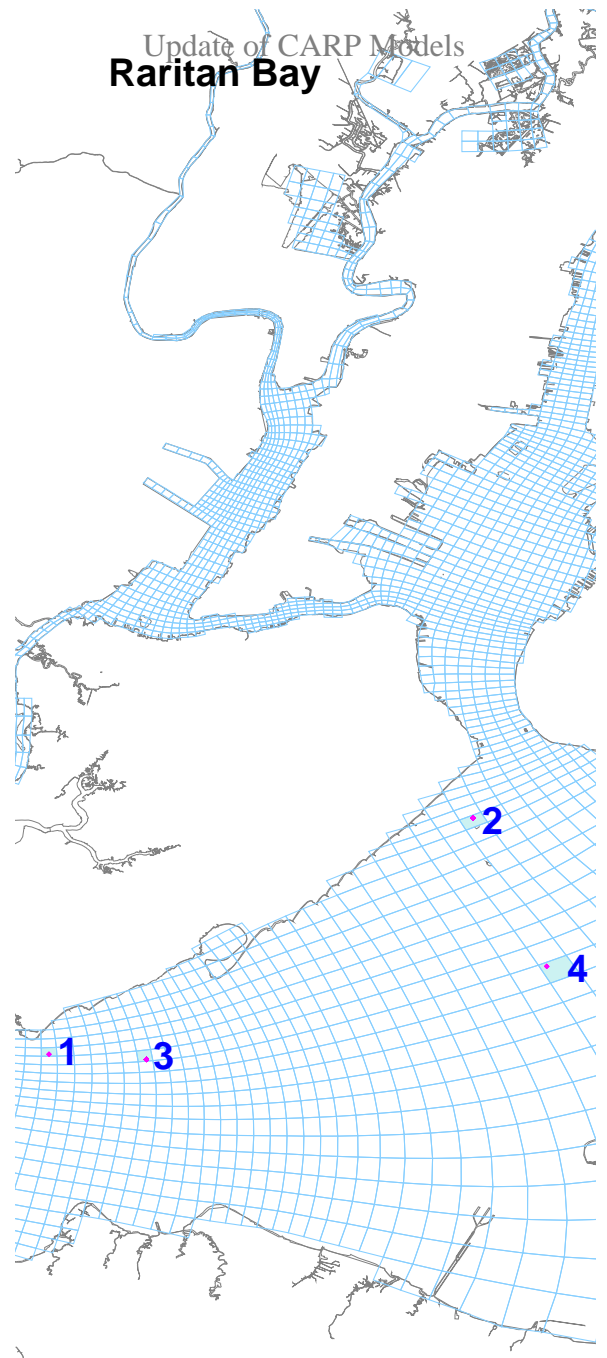
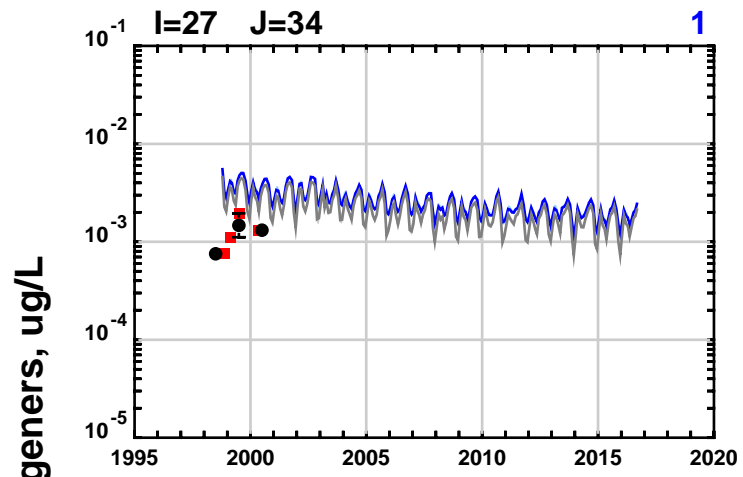
Update of CARP Models
Arthur Kill



Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

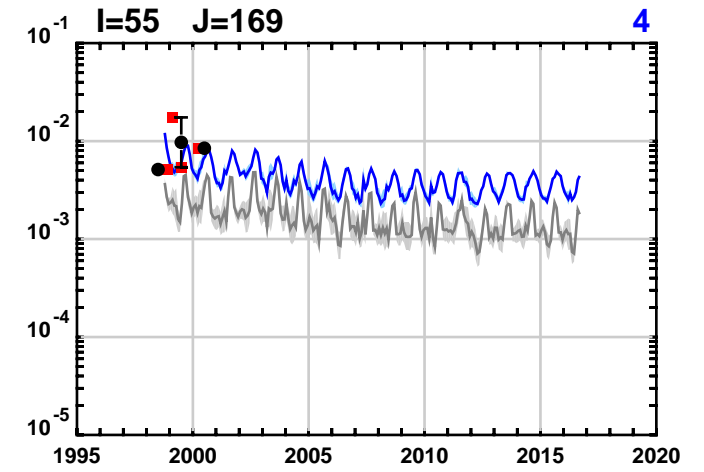
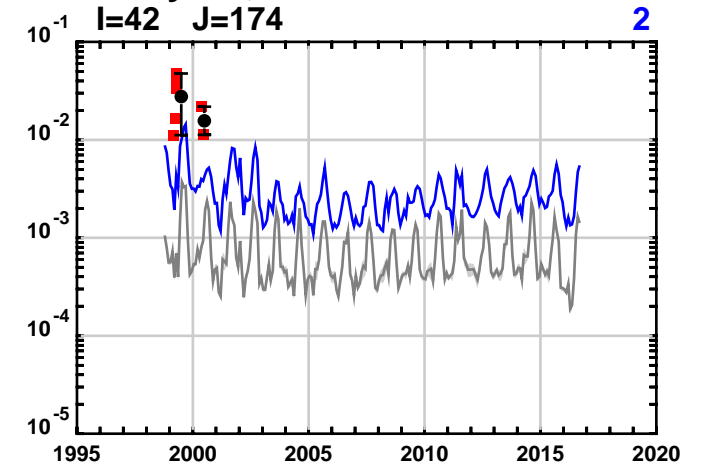
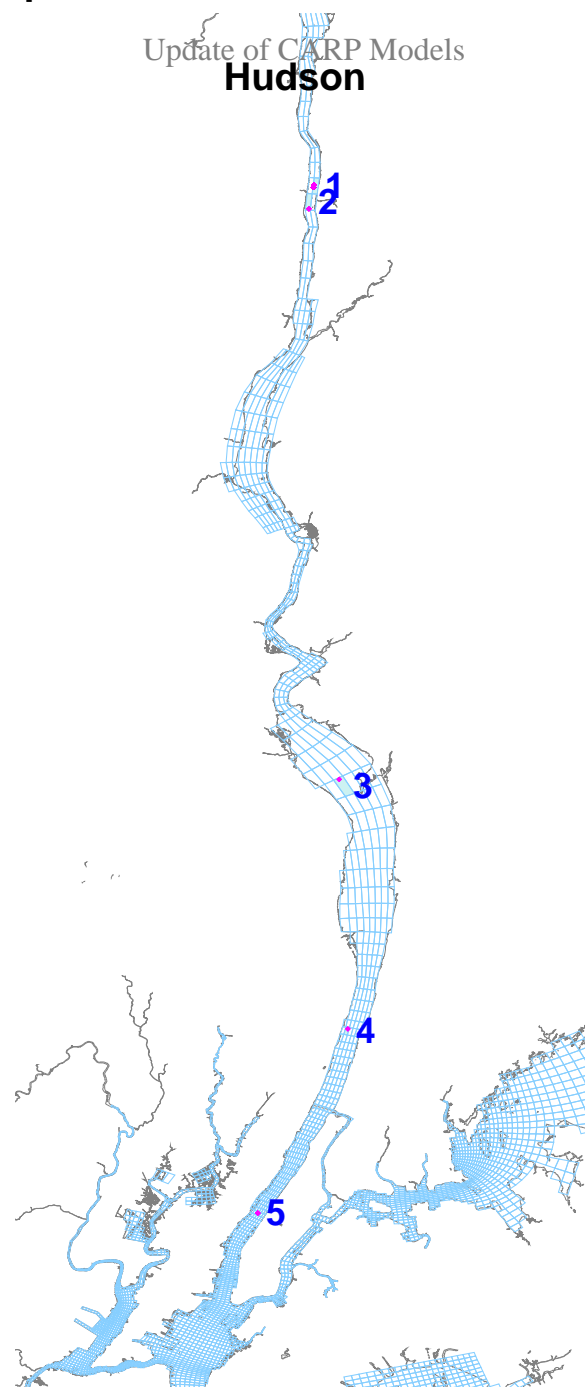
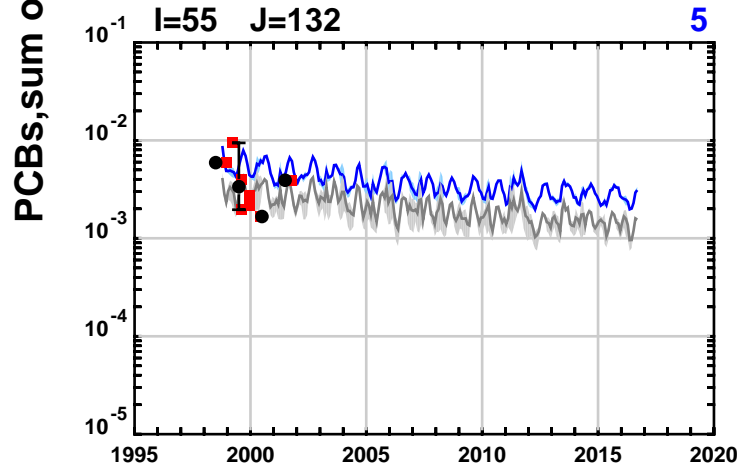
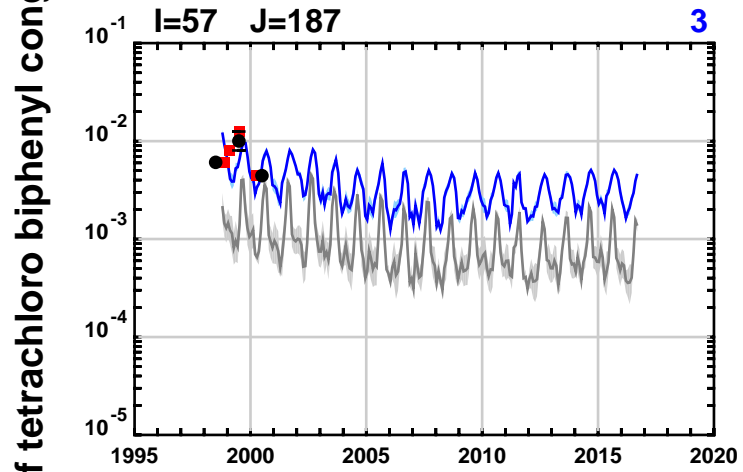
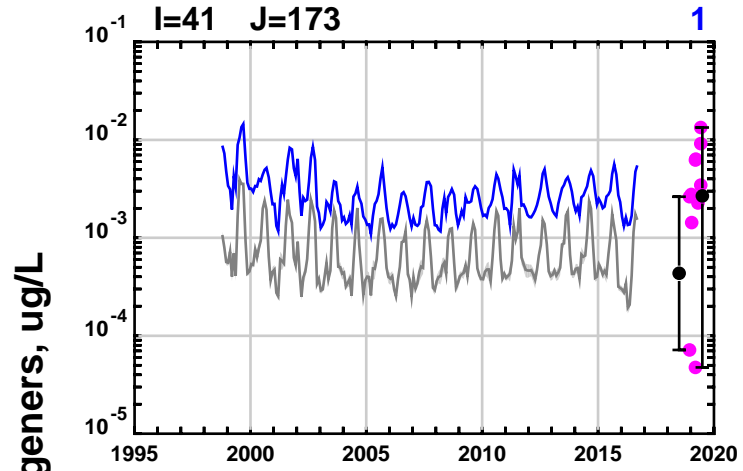
Water Column Data Comparison With Model All Water Column Layers, RUN18



Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18



Detect Data

Non-Detect Data

Model: mean and range of values in Water Column

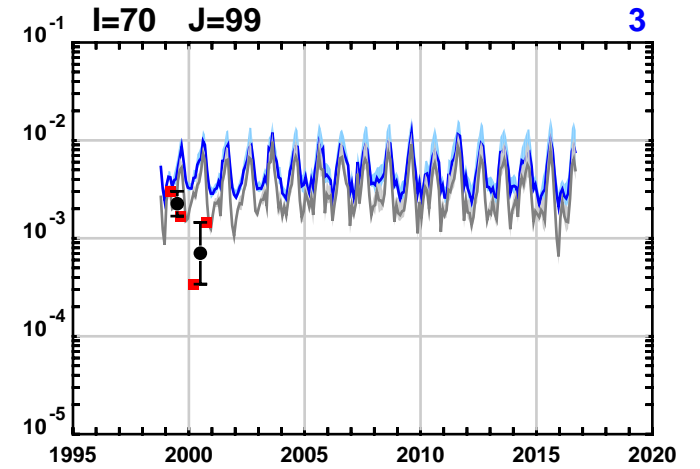
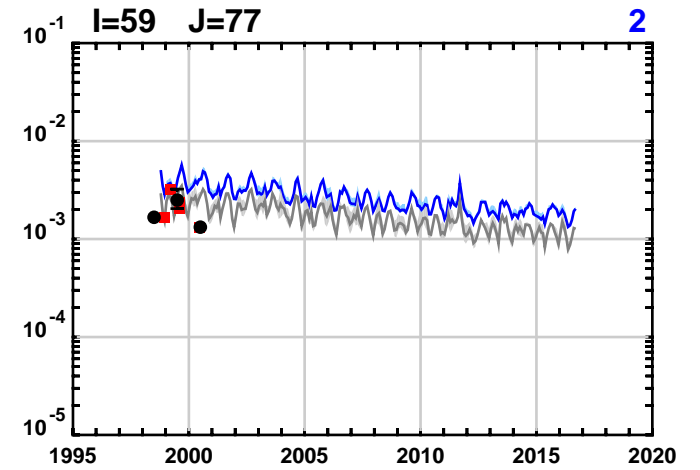
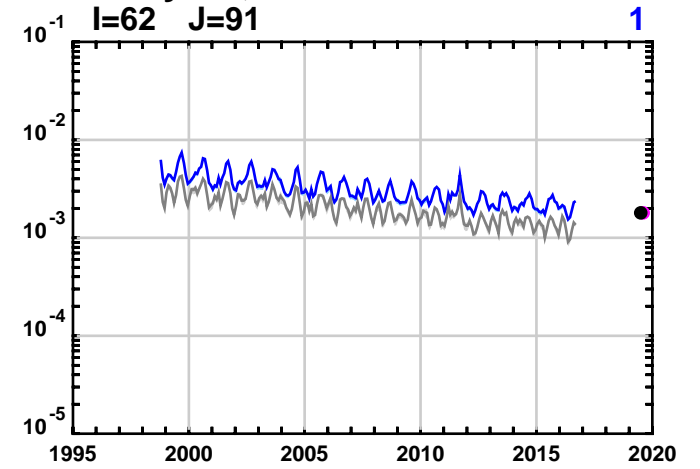
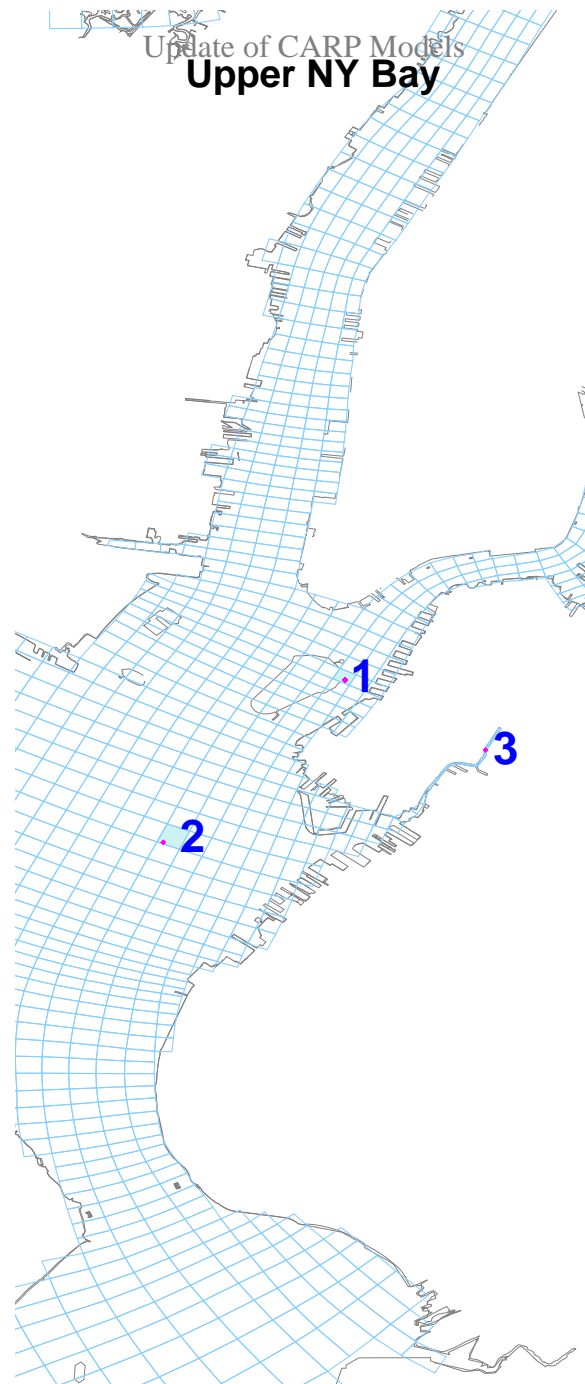
Model: Particulate Phase mean and range of values in Water Column

● **Water Column Data: yearly mean and range**

● **CARP2 Data**

Water Column Data Comparison With Model All Water Column Layers, RUN18

PCBs, sum of tetrachloro biphenyl congeners, ug/L

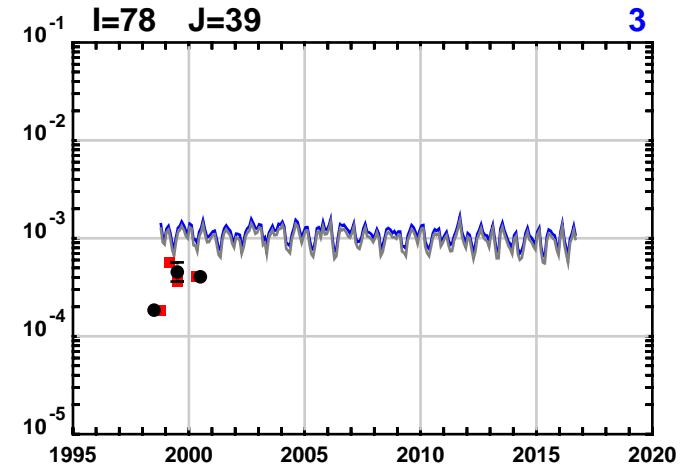
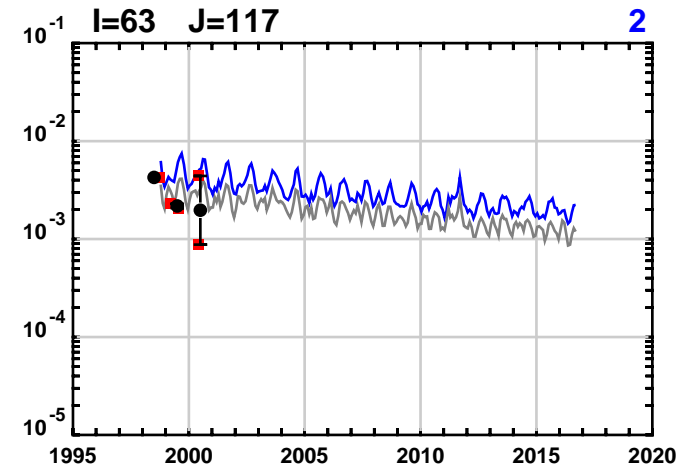
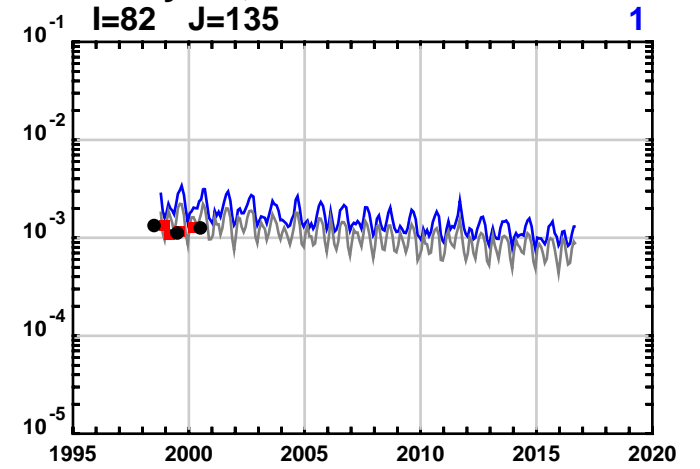
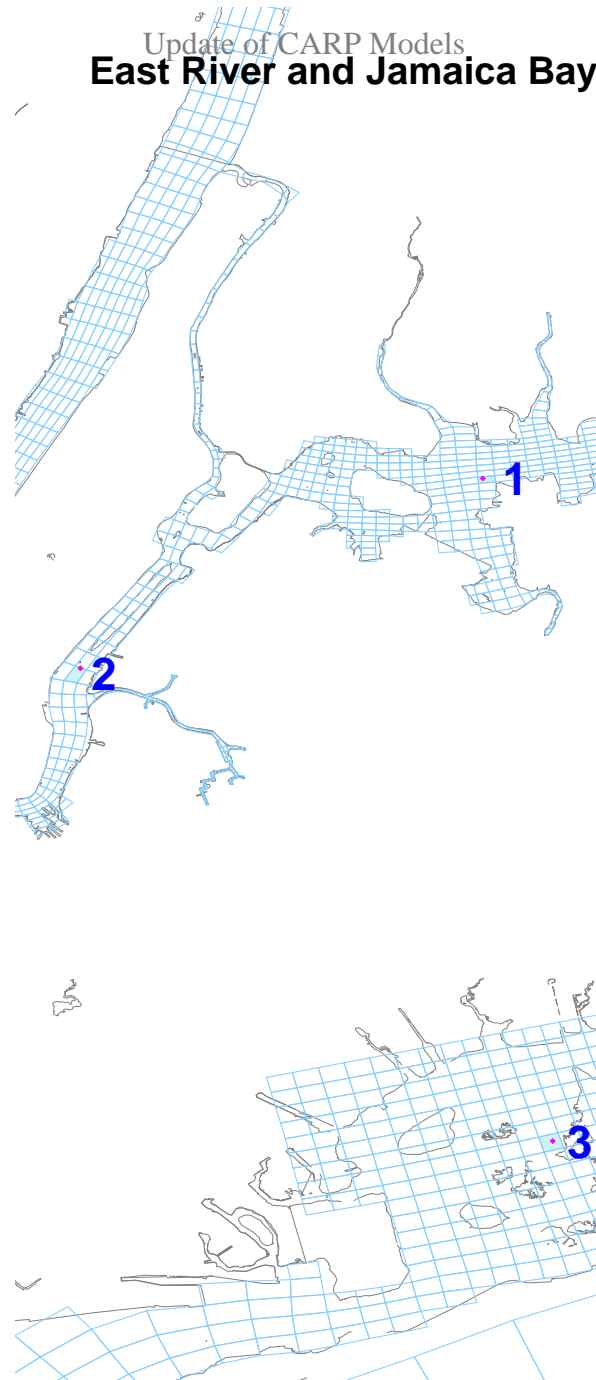


Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

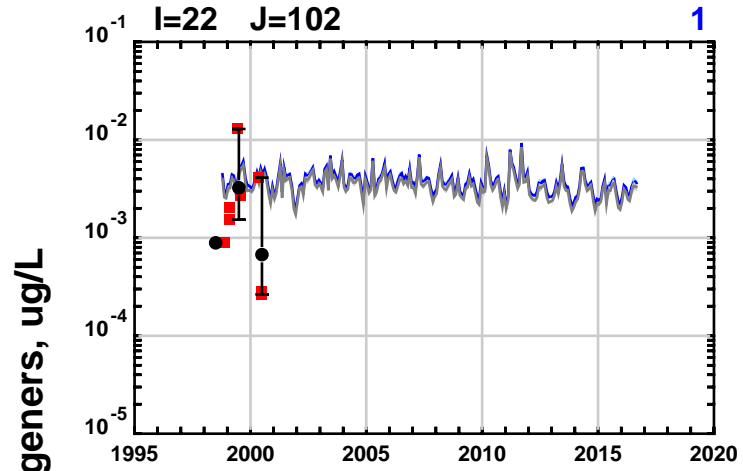
PCBs, sum of tetrachloro biphenyl congeners, ug/L



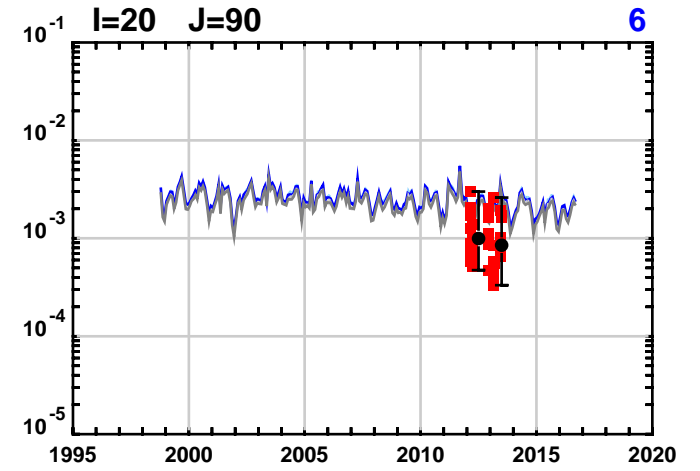
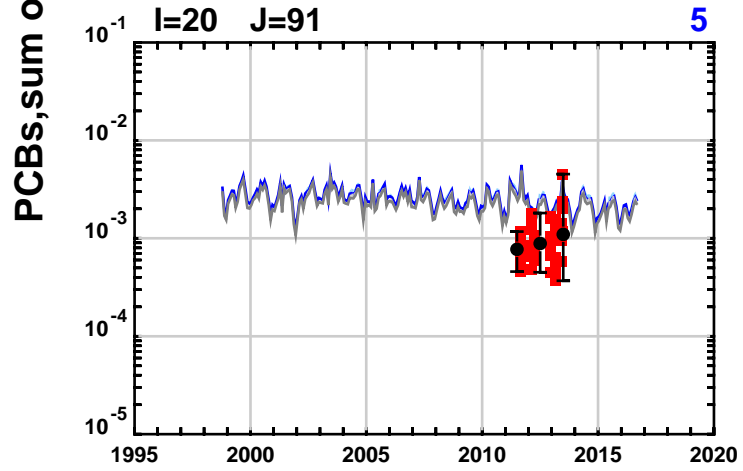
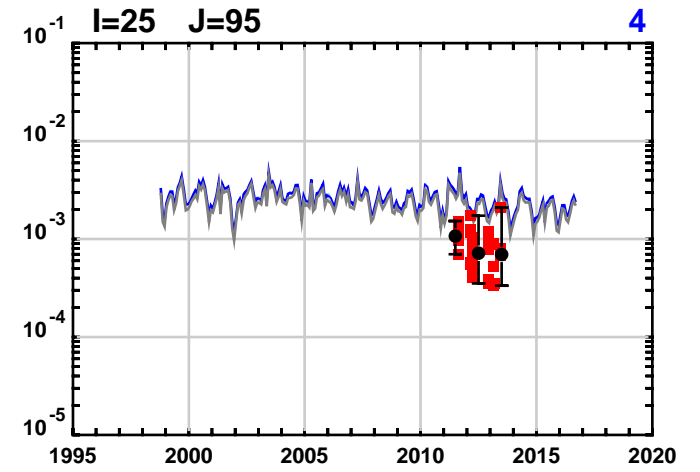
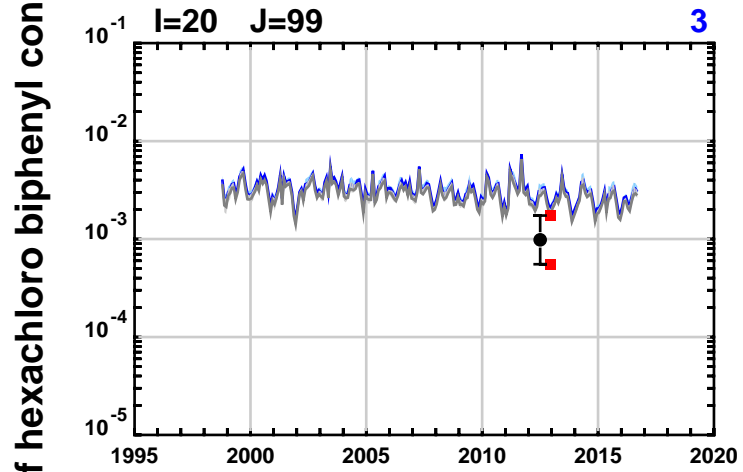
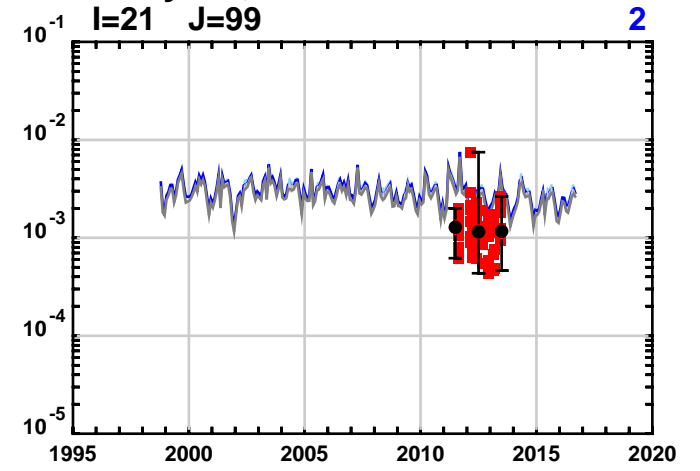
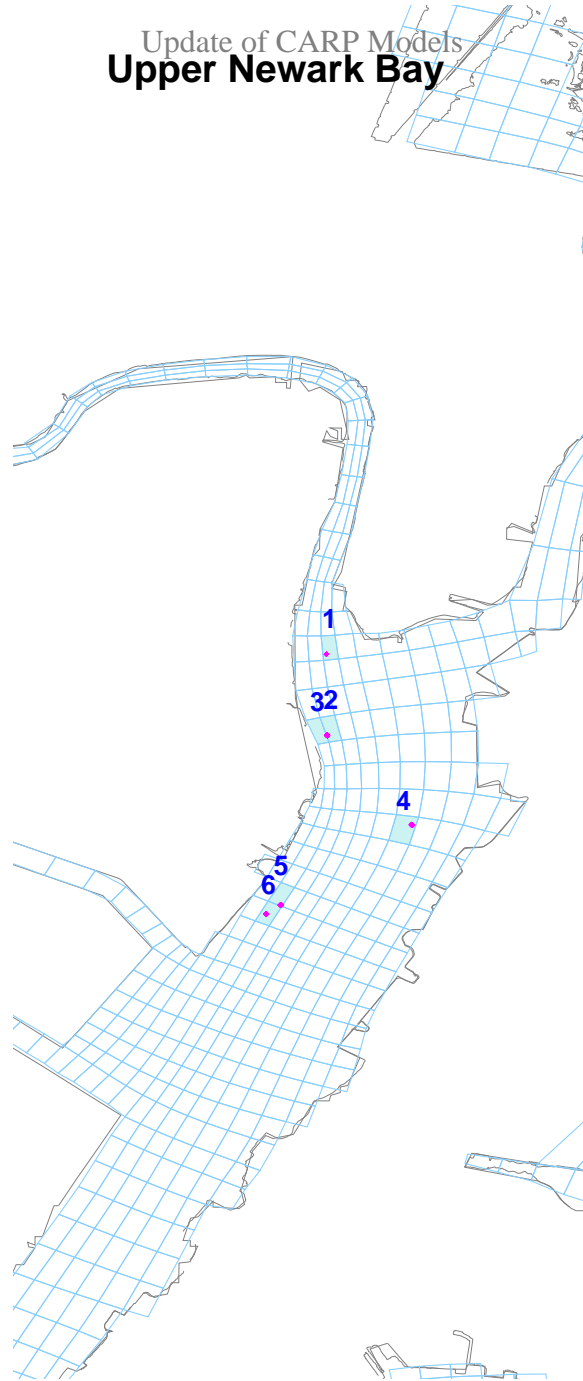
Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18



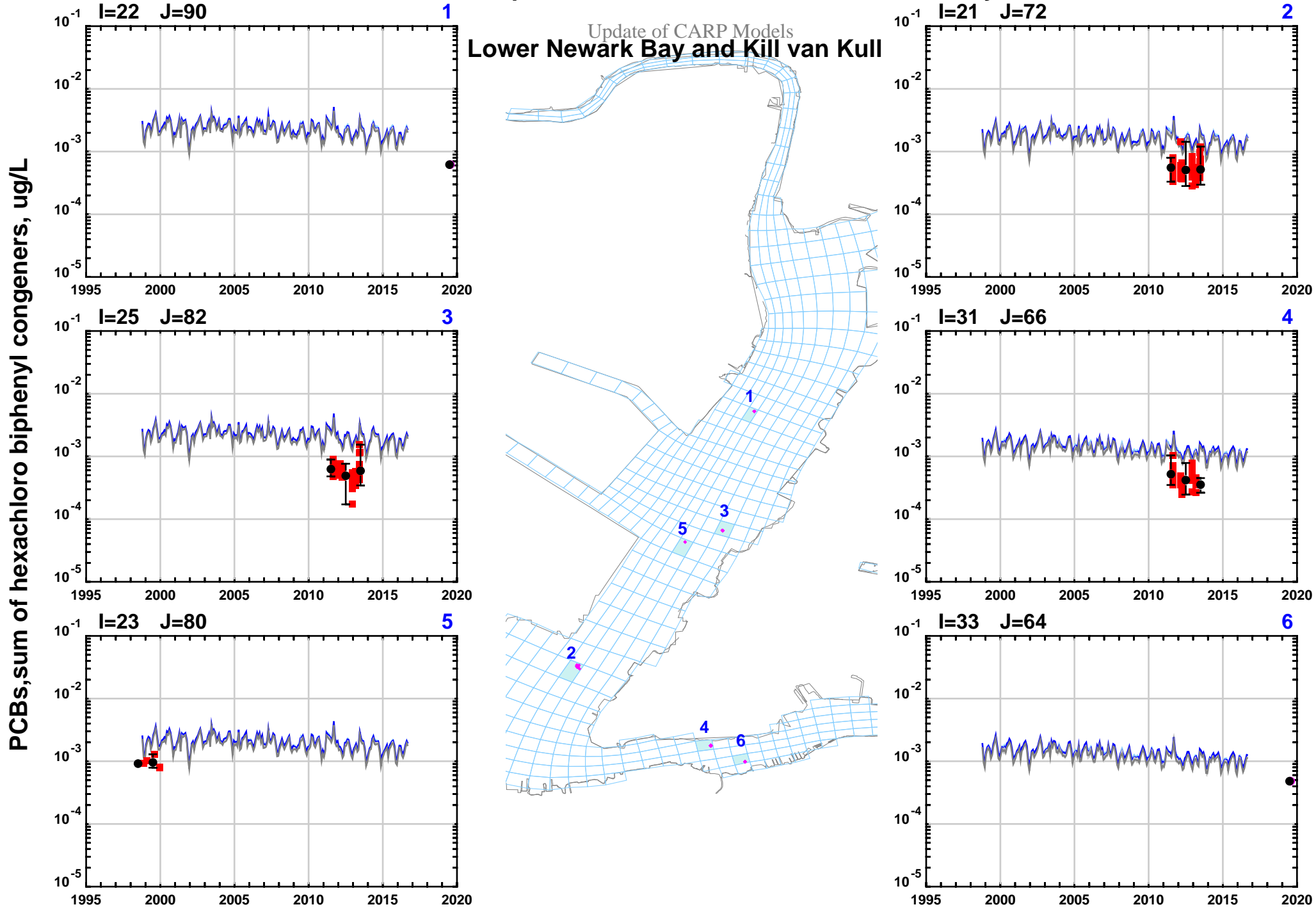
Update of CARP Models
Upper Newark Bay



● Detect Data ● Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

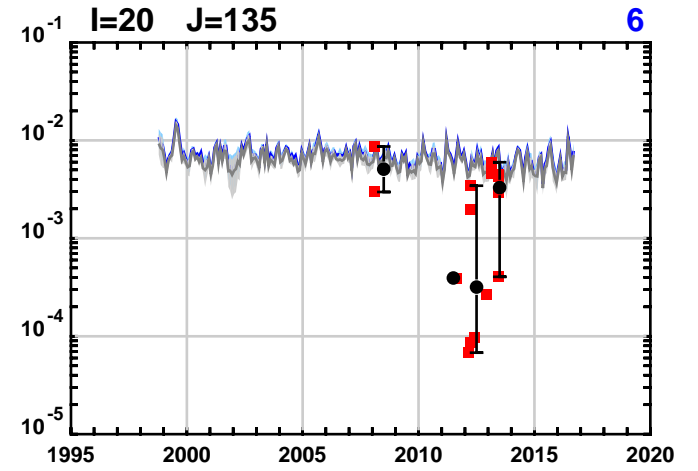
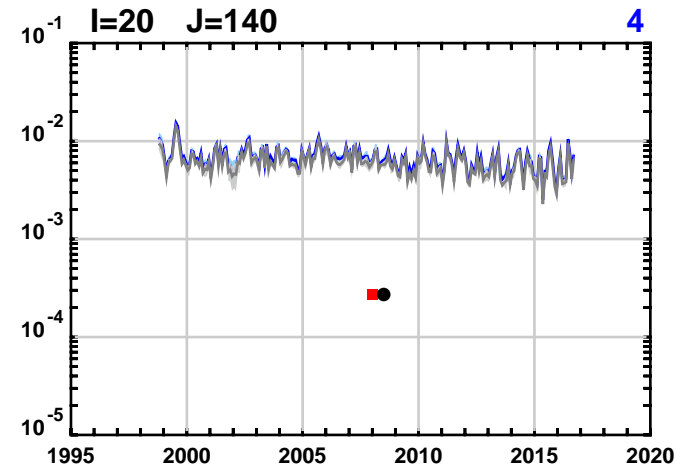
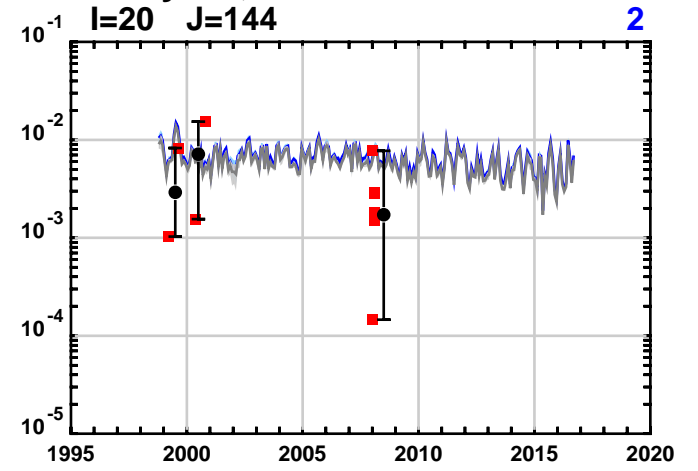
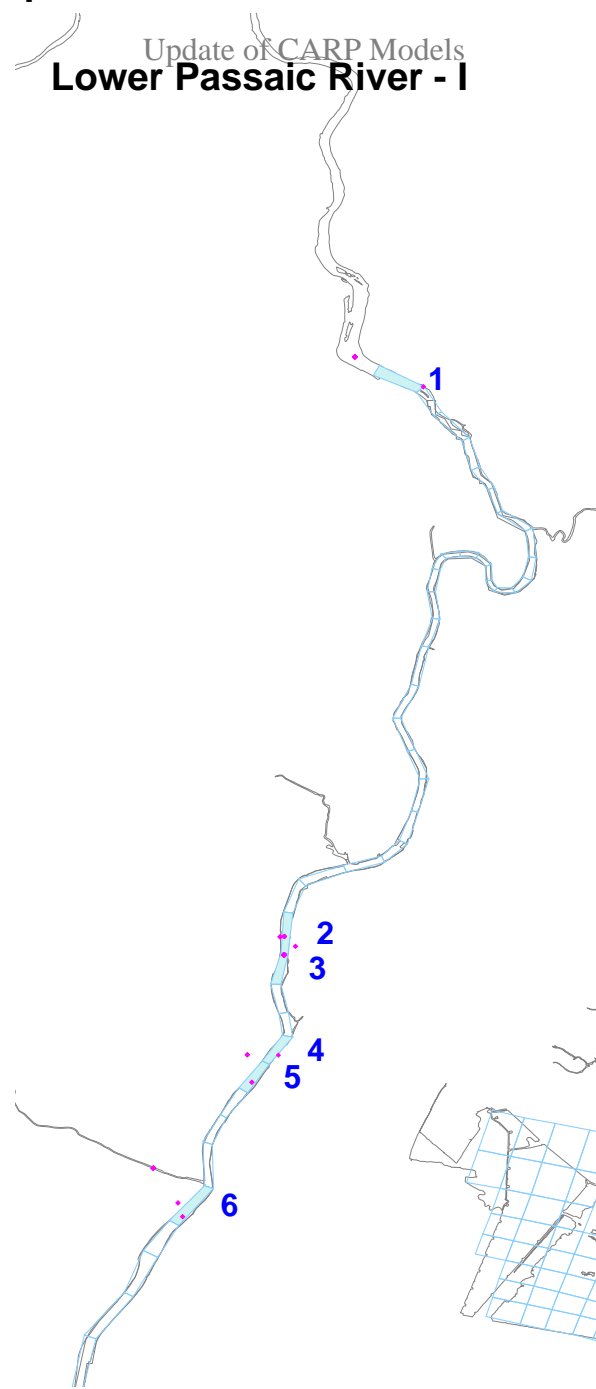
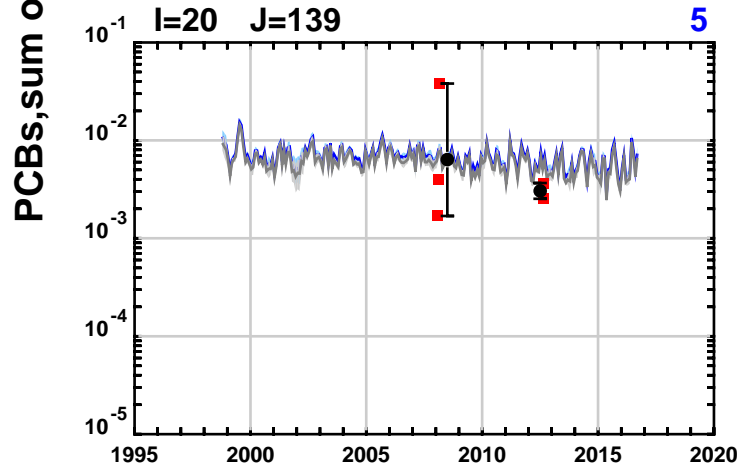
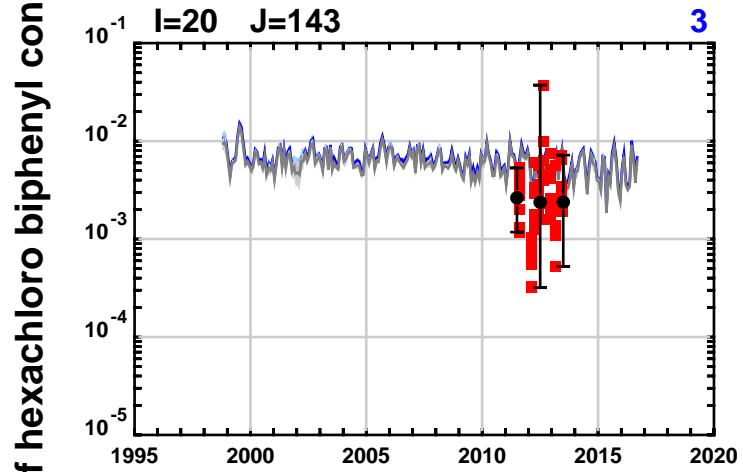
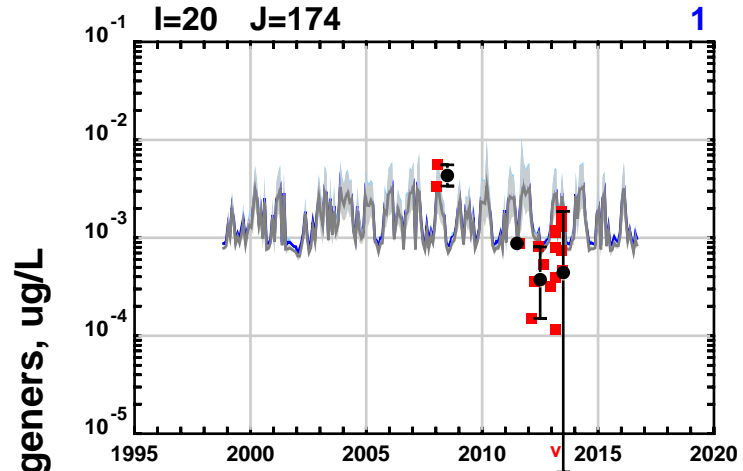


Update of CARP Models
Lower Newark Bay and Kill van Kull

● Detect Data ● Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

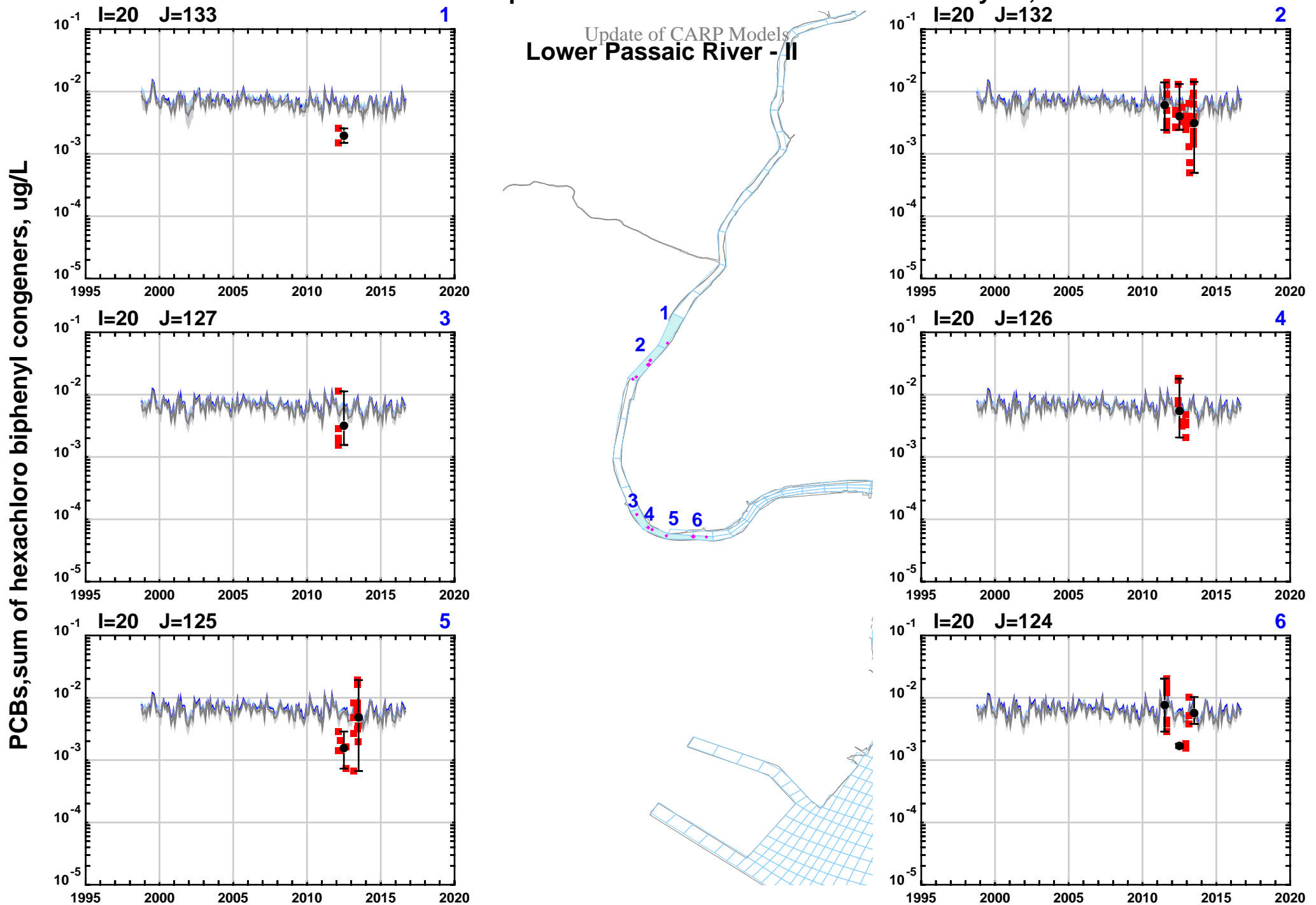
Water Column Data Comparison With Model All Water Column Layers, RUN18



Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

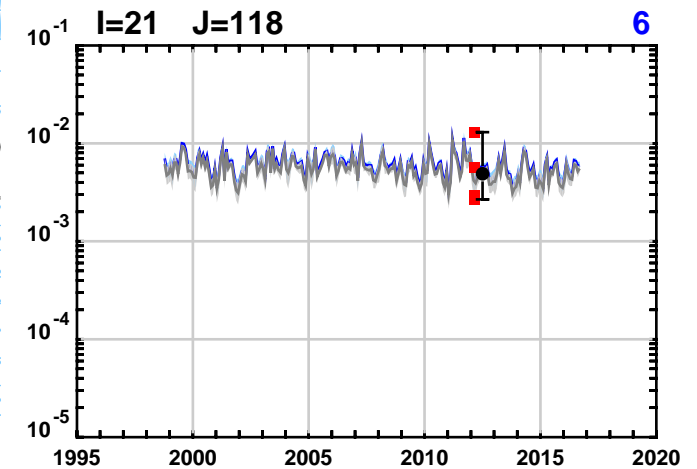
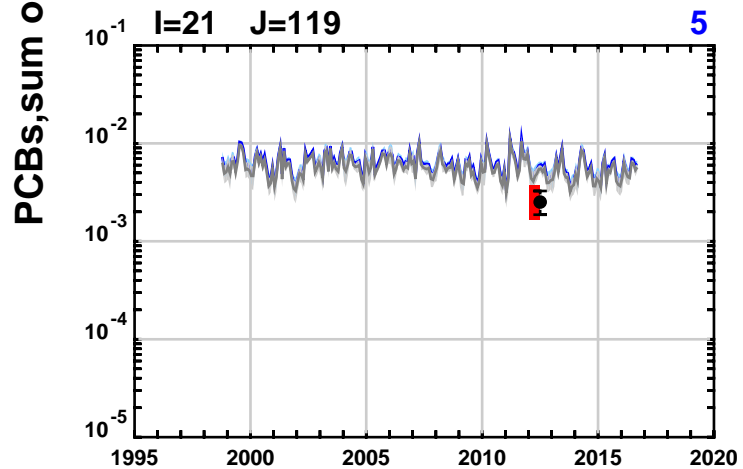
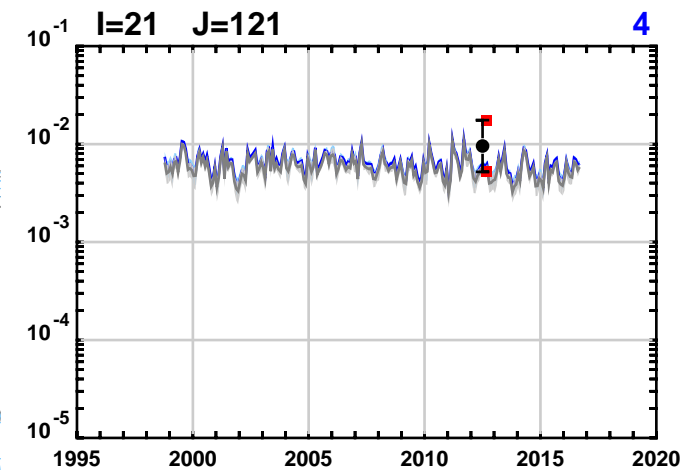
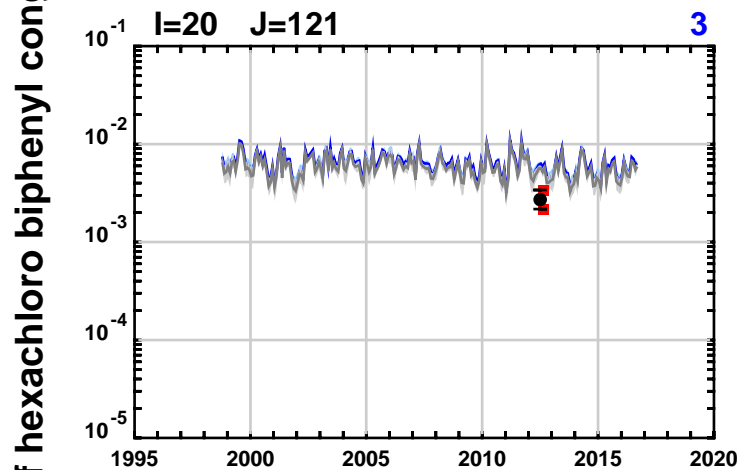
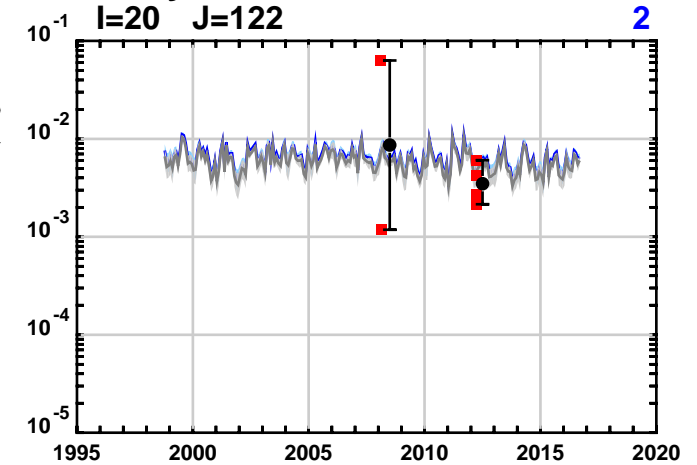
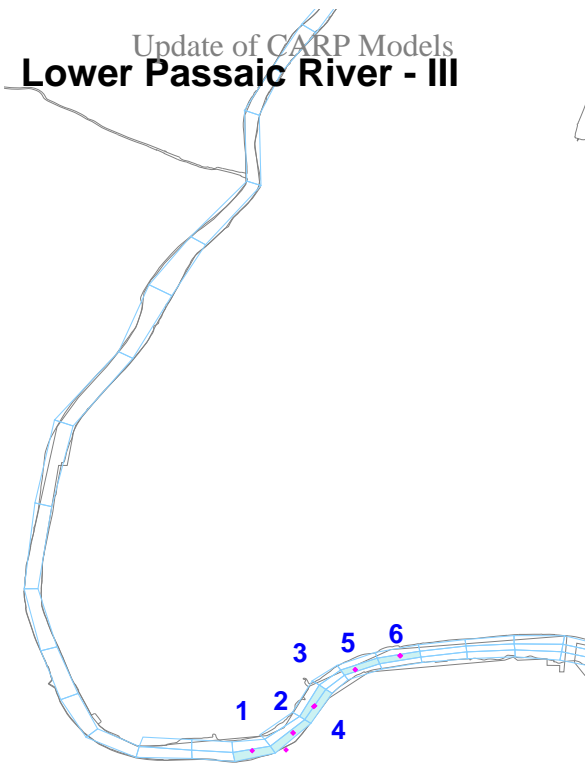
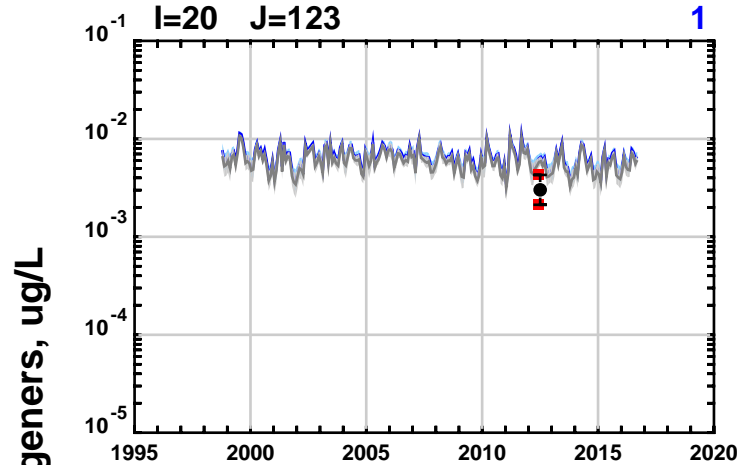
Water Column Data Comparison With Model All Water Column Layers, RUN18



● **Detect Data** ■ **Non-Detect Data**
— **Model: mean and range of values in Water Column**
 Model: Particulate Phase mean and range of values in Water Column

● **Water Column Data: yearly mean and range**
● **CARP2 Data**

Water Column Data Comparison With Model All Water Column Layers, RUN18

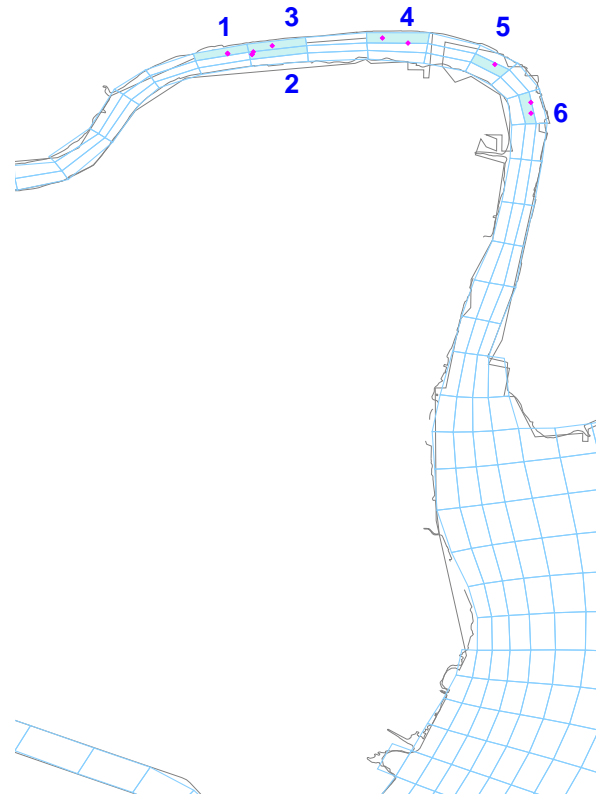
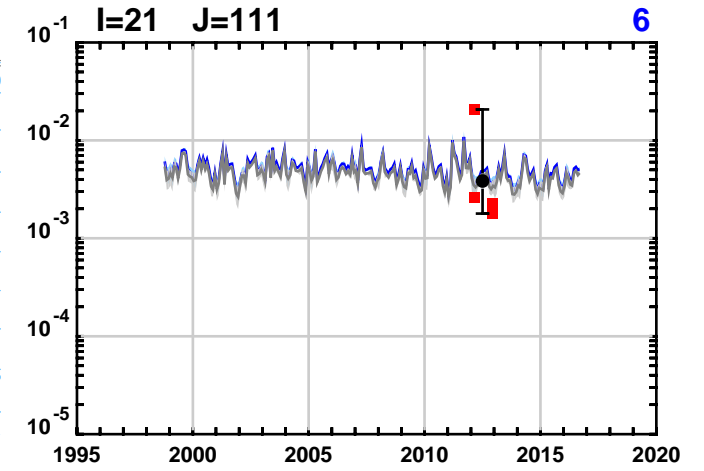
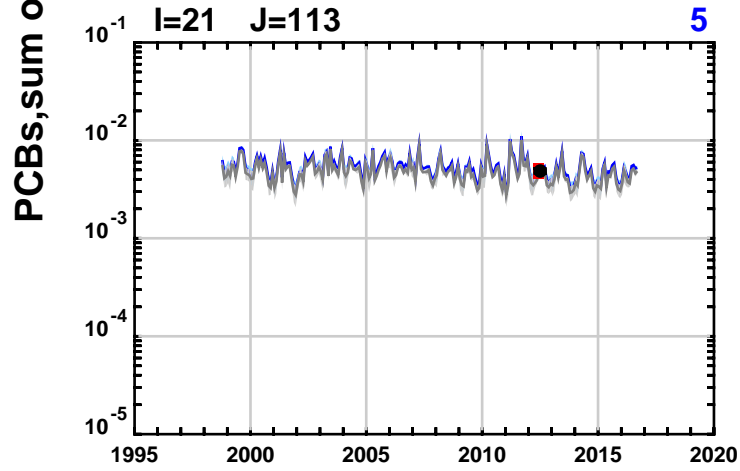
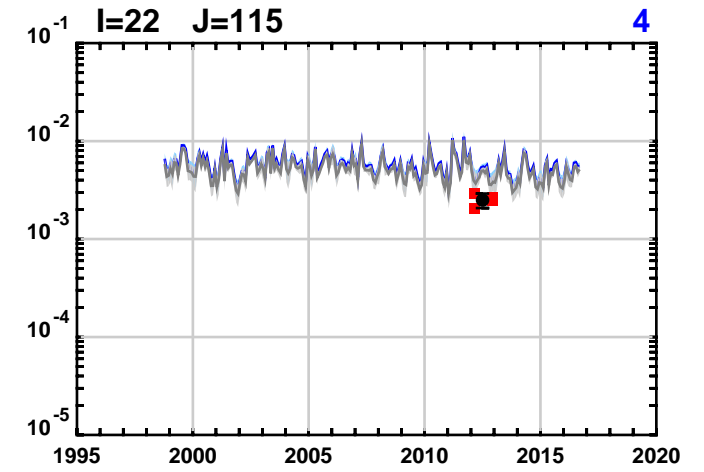
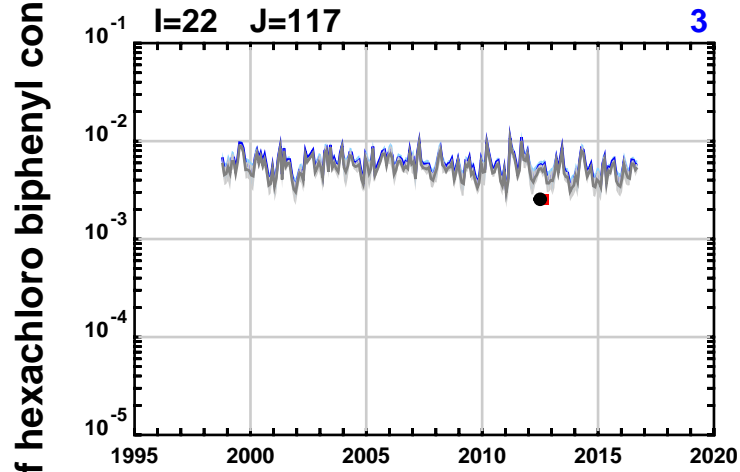
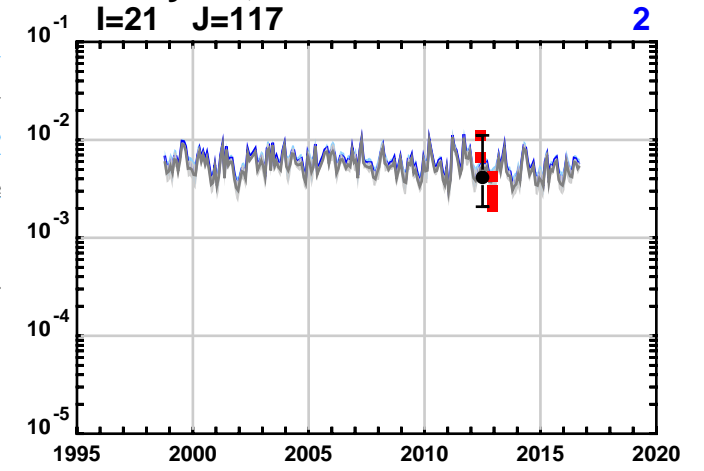
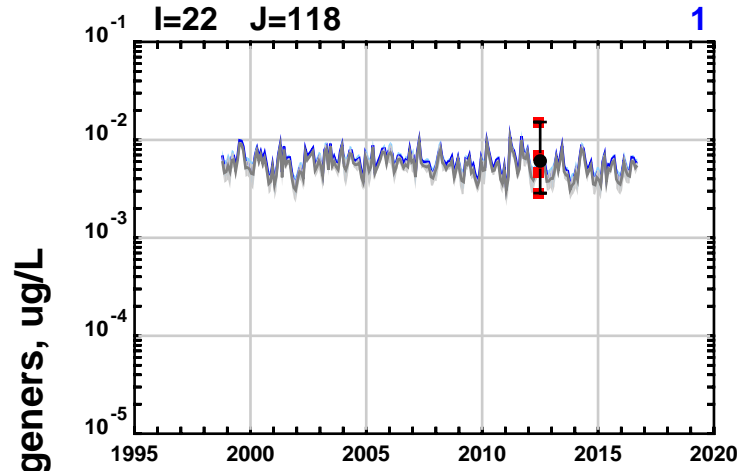


Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

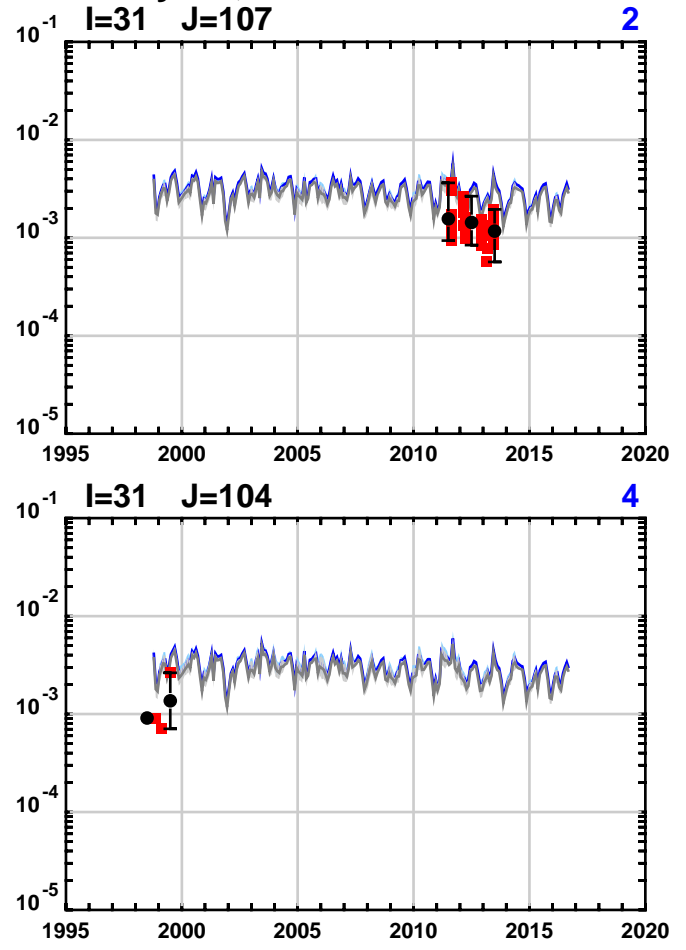
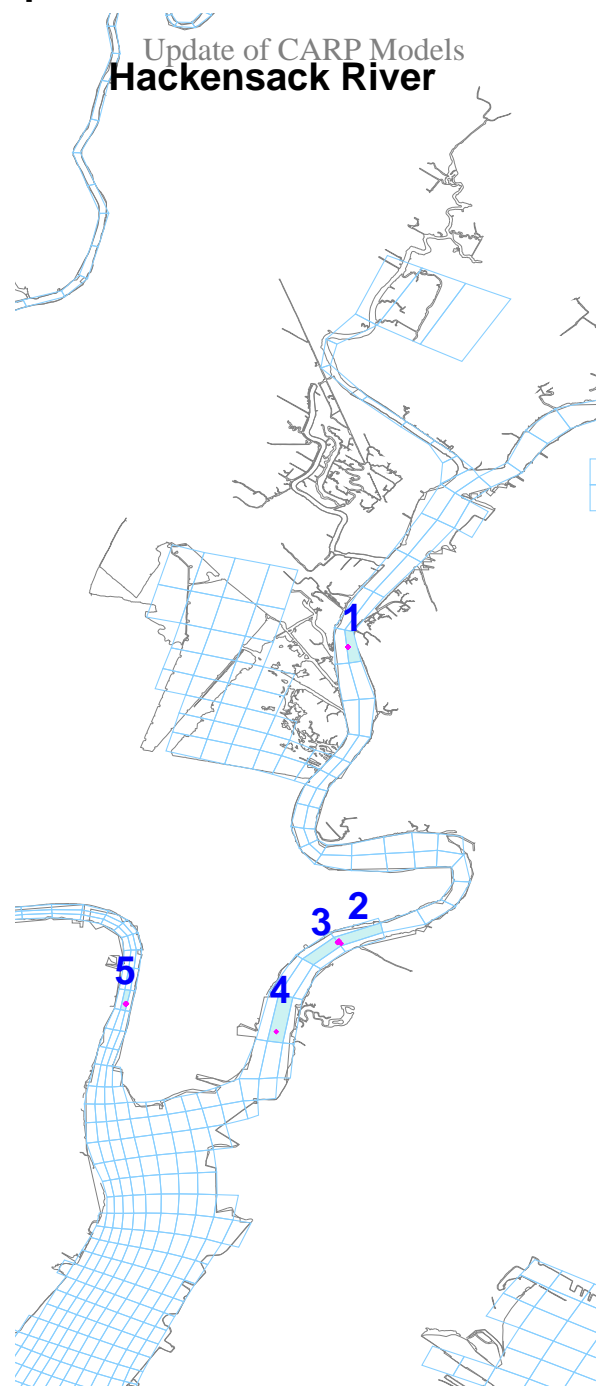
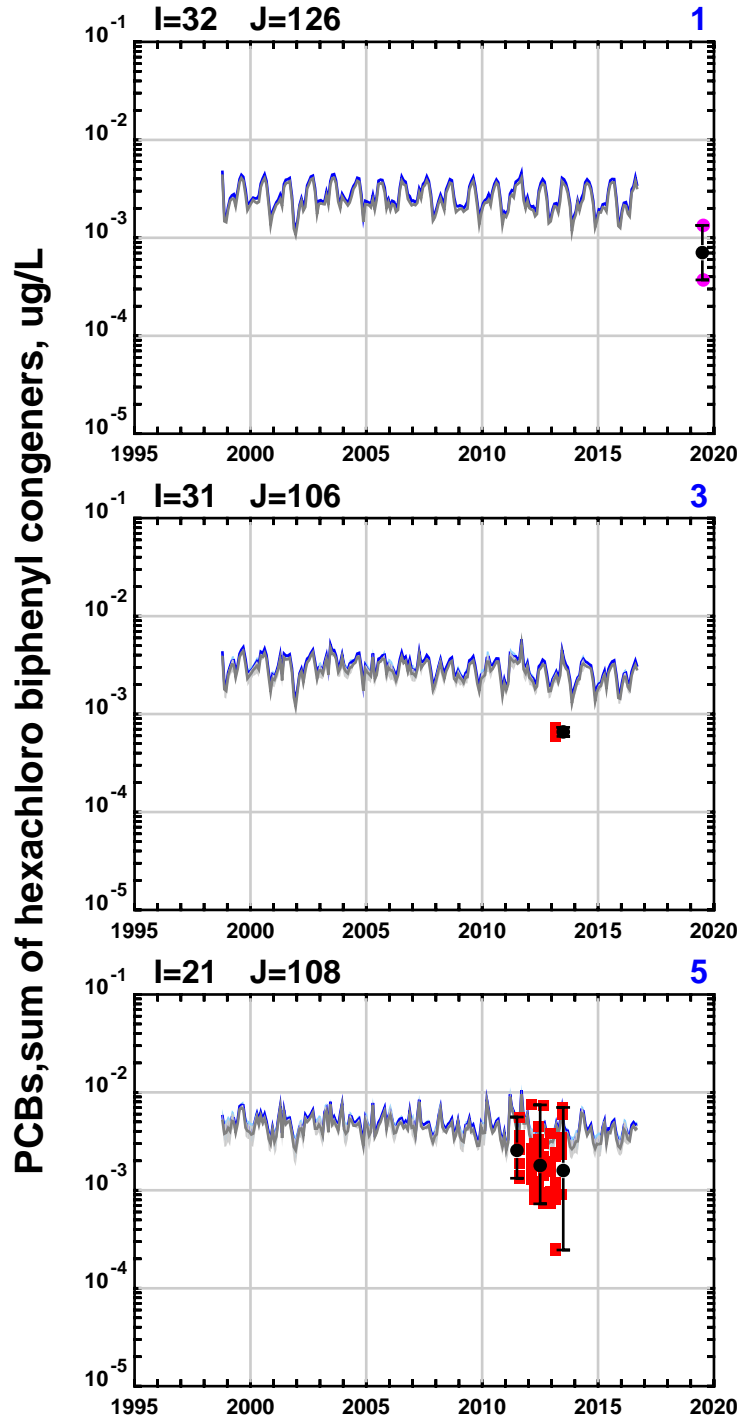
Update of CARP Models
Lower Passaic River - IV



Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

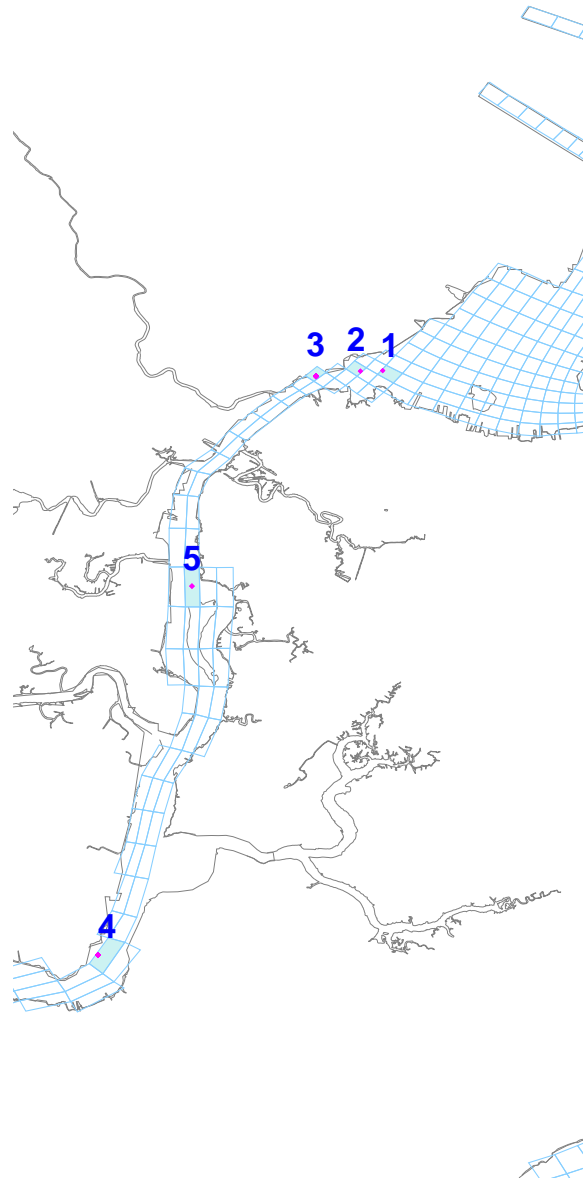
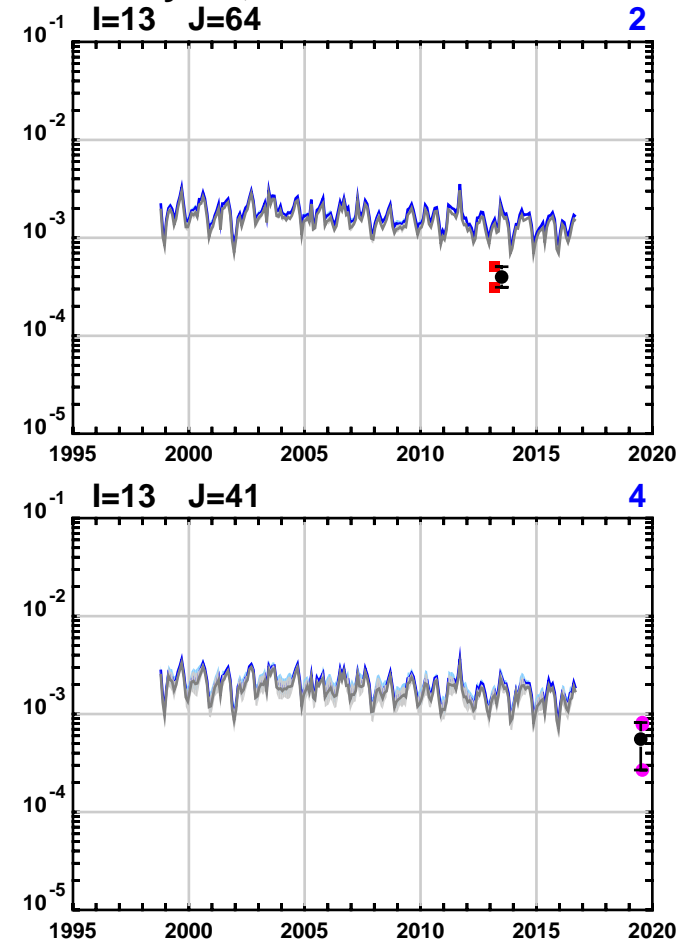
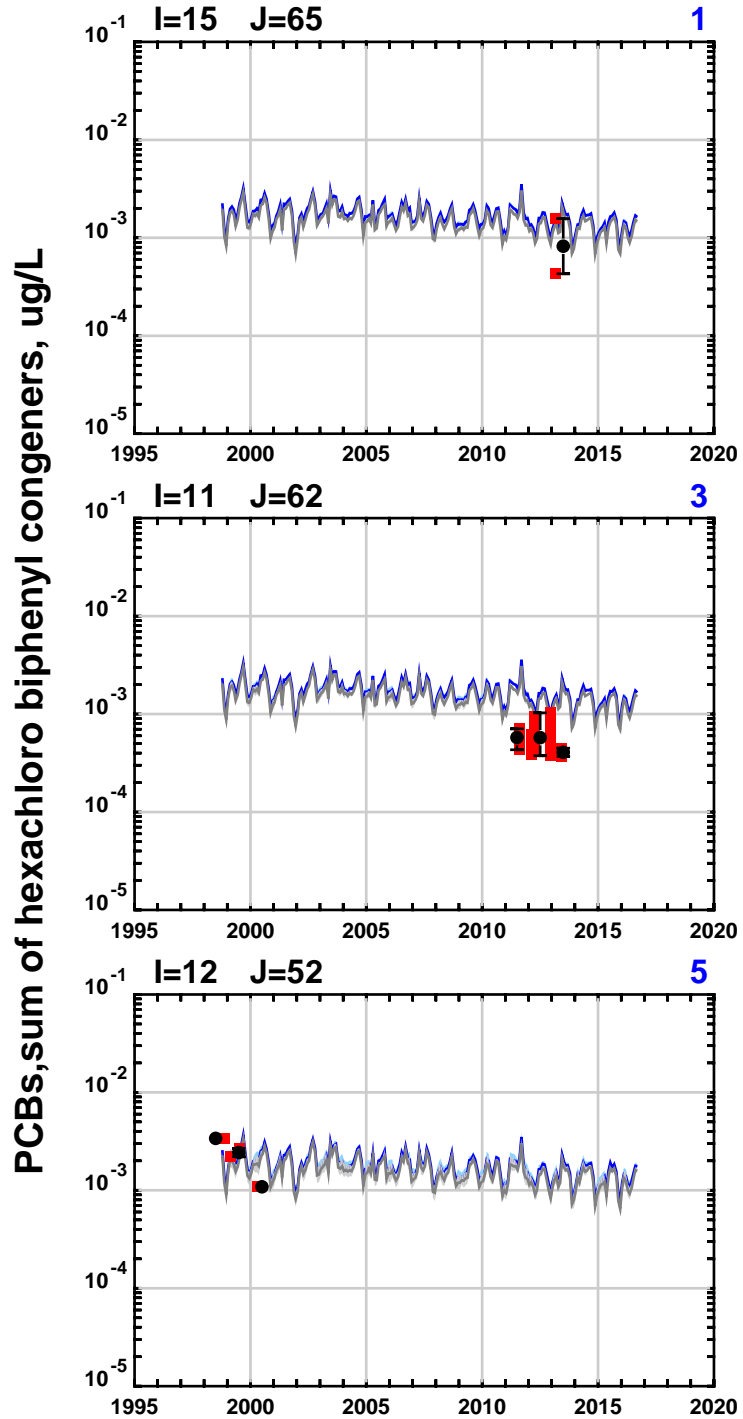


Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

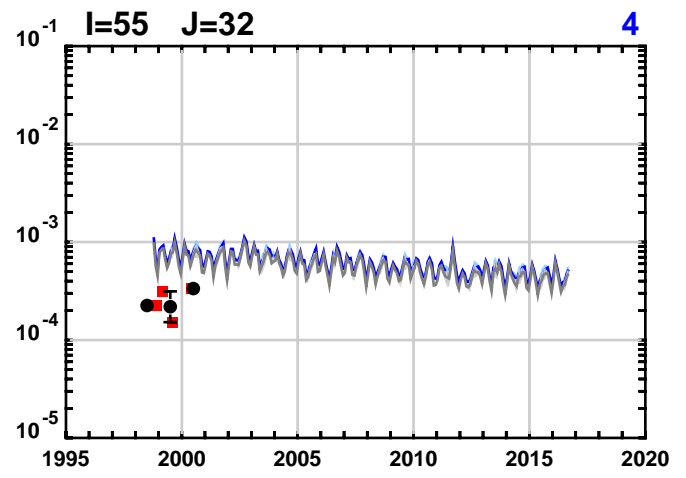
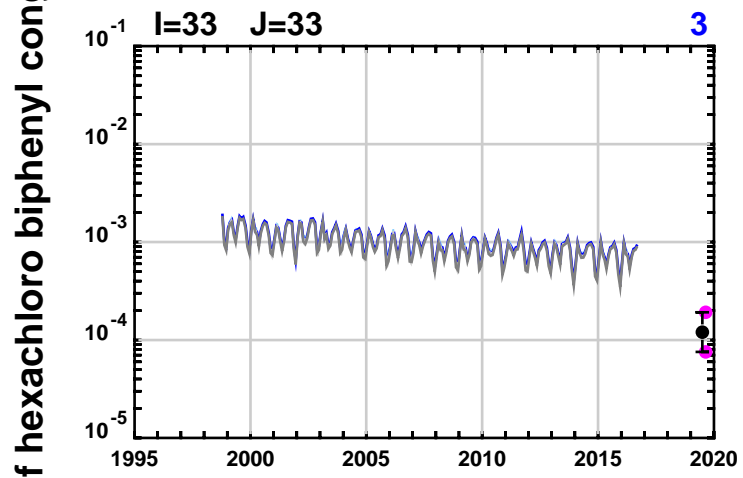
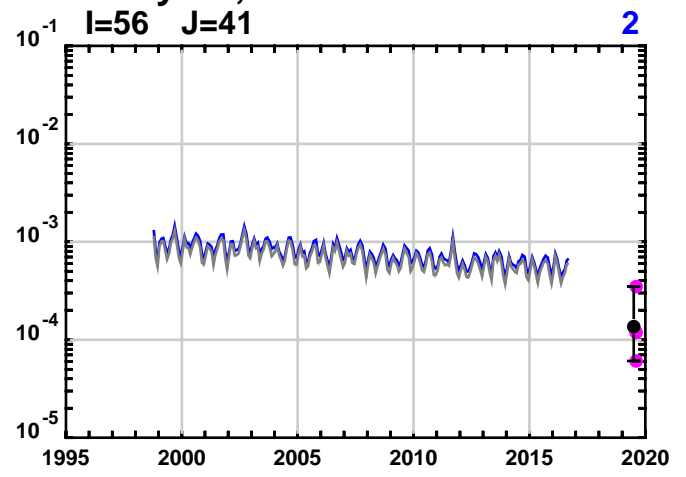
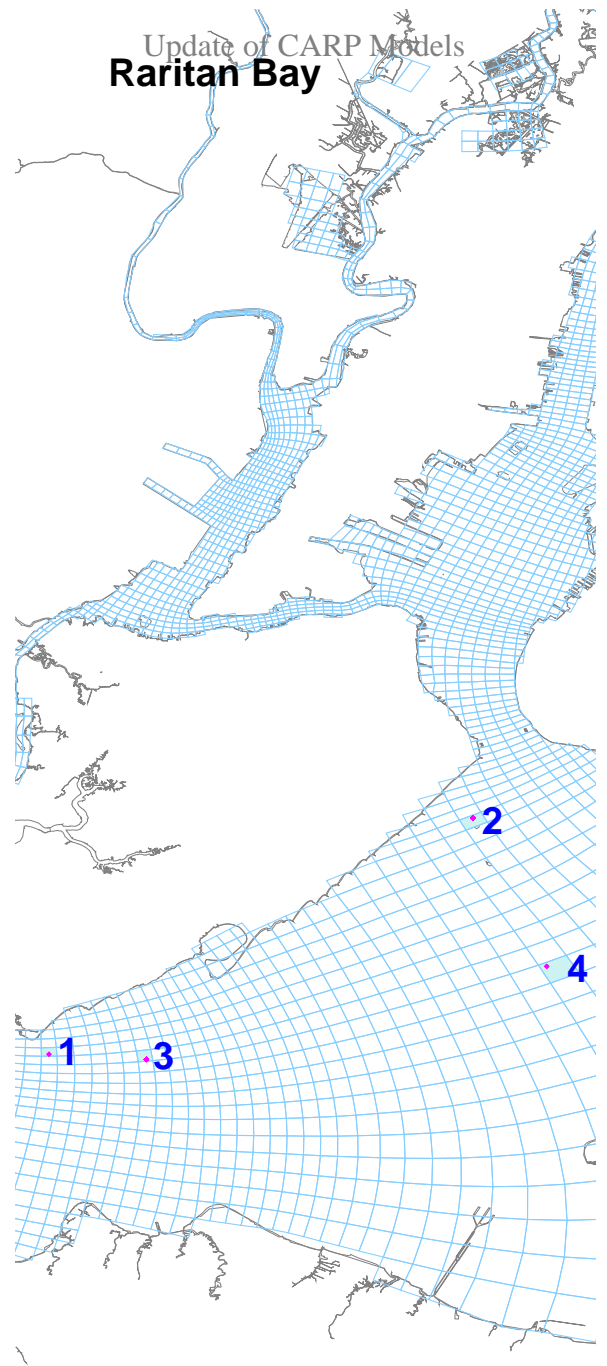
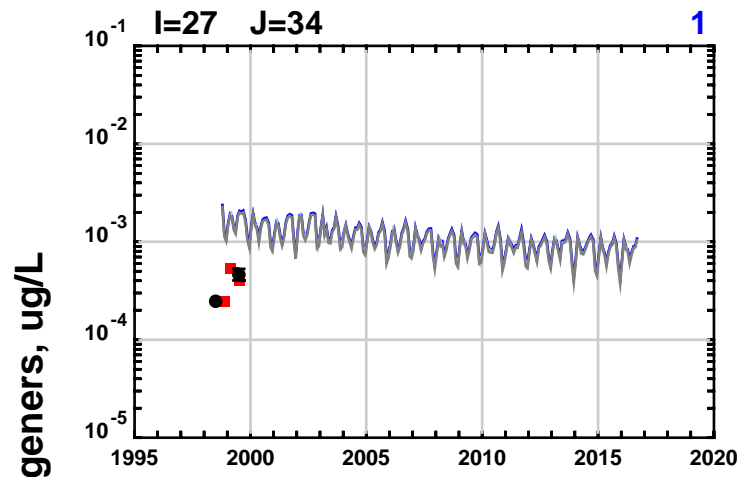
Update of CARP Models
Arthur Kill



● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
— Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

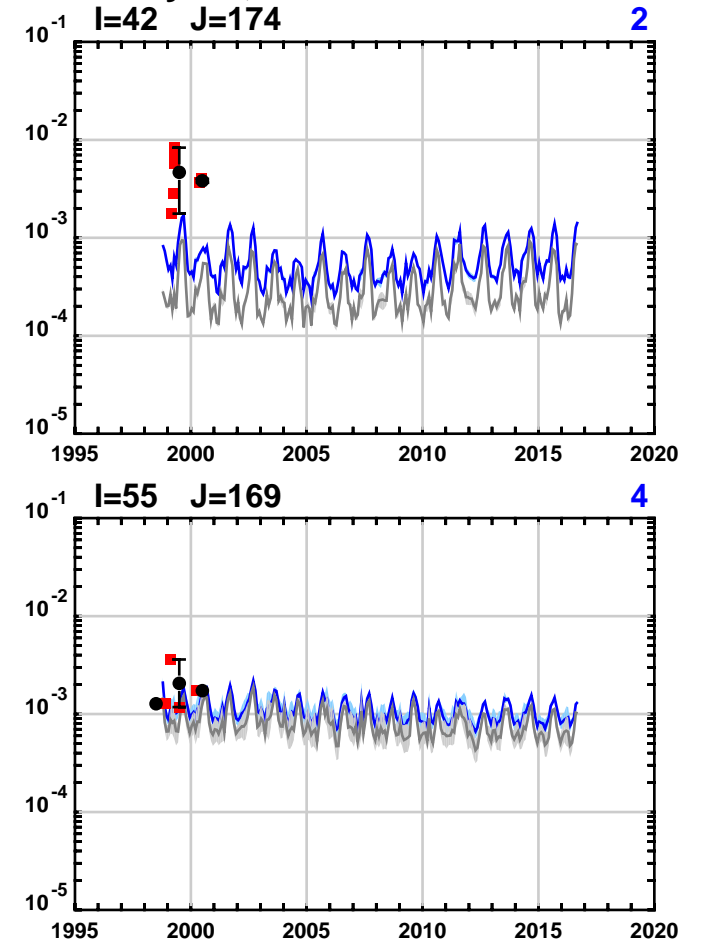
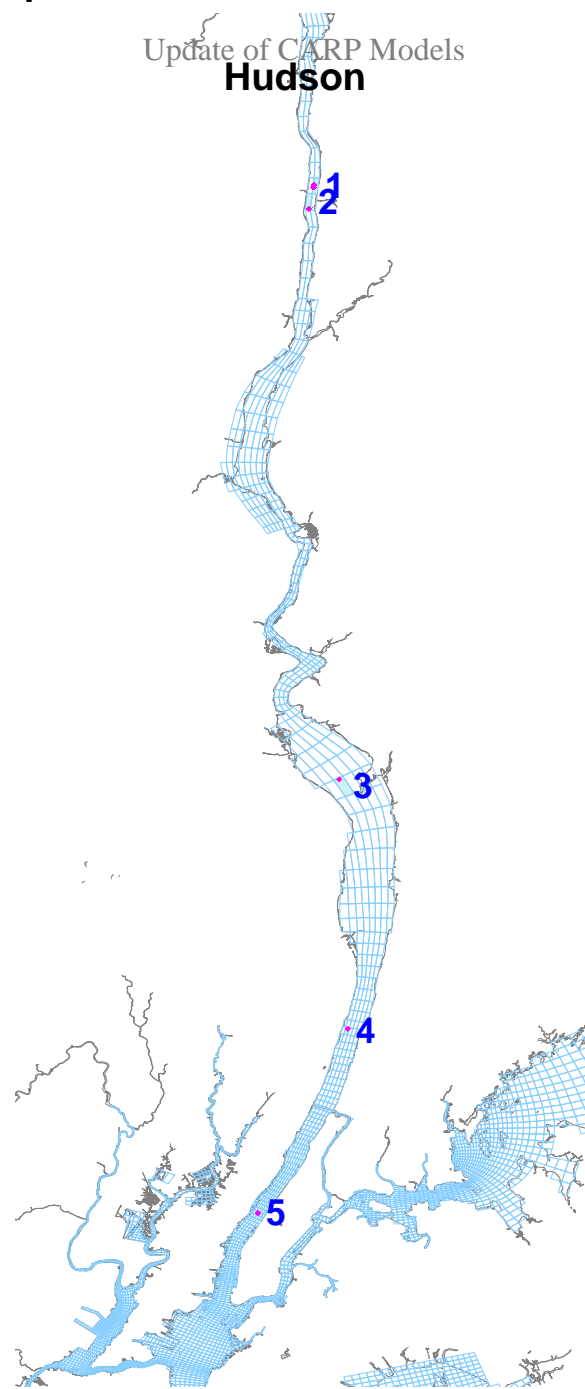
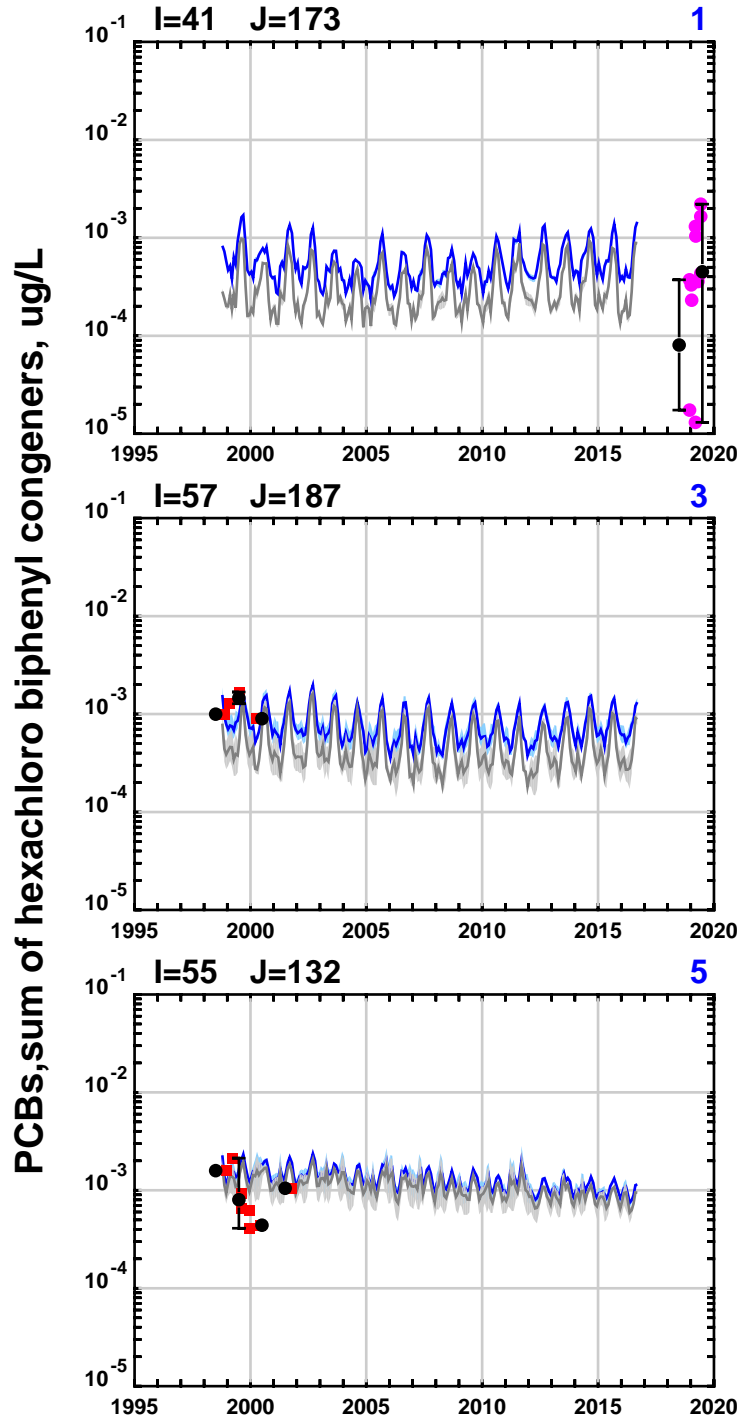
Water Column Data Comparison With Model All Water Column Layers, RUN18



Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

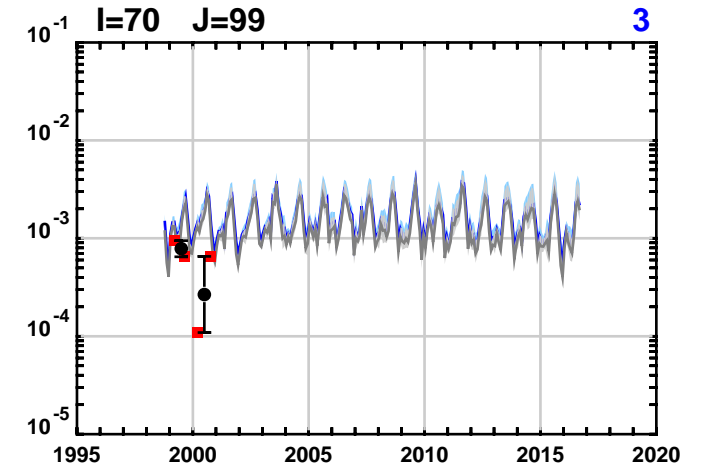
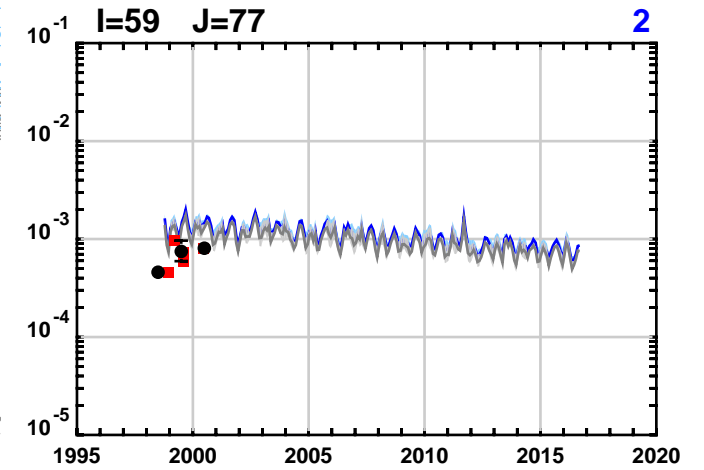
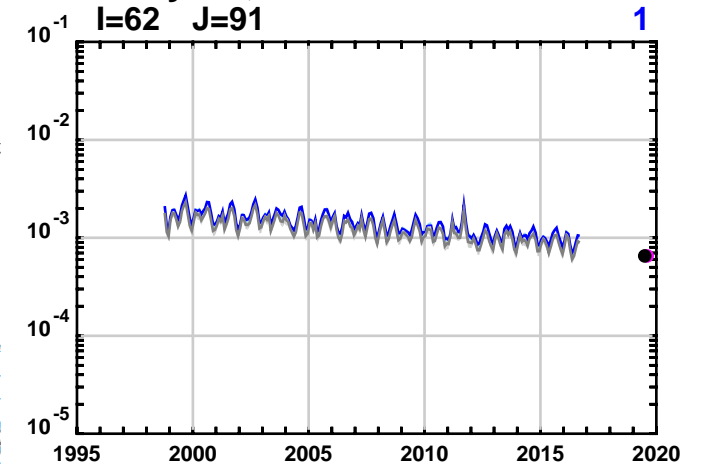
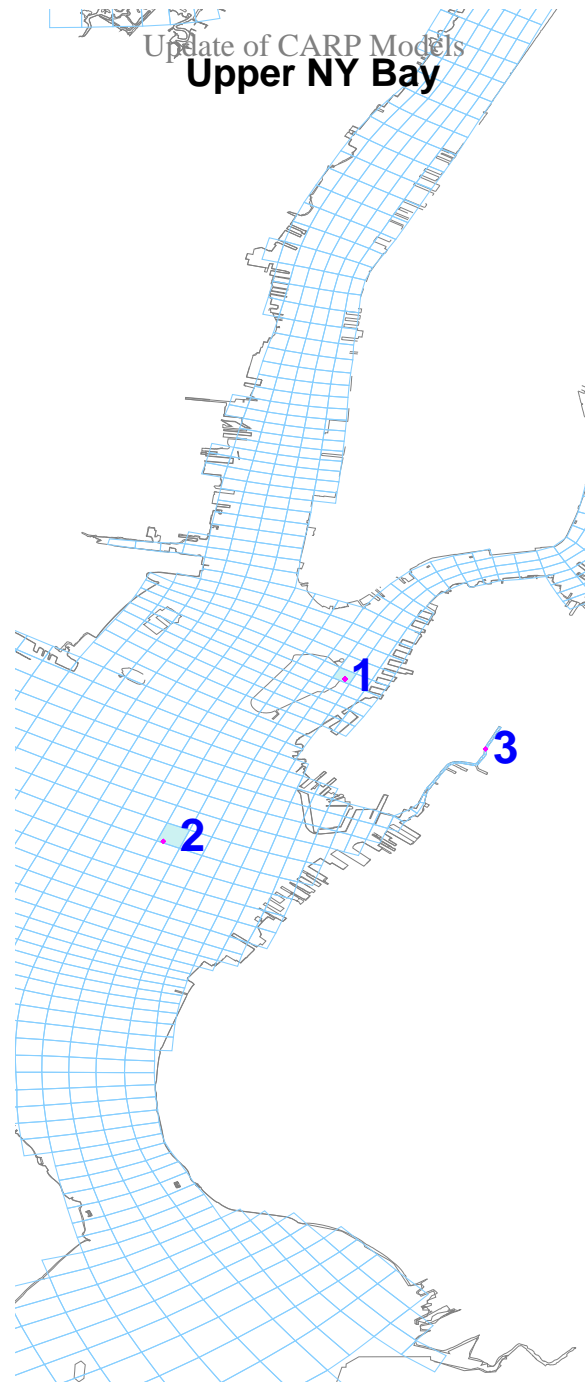


● Detect Data ● Non-Detect Data
— Model: mean and range of values in Water Column
— Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

PCBs, sum of hexachloro biphenyl congeners, ug/L

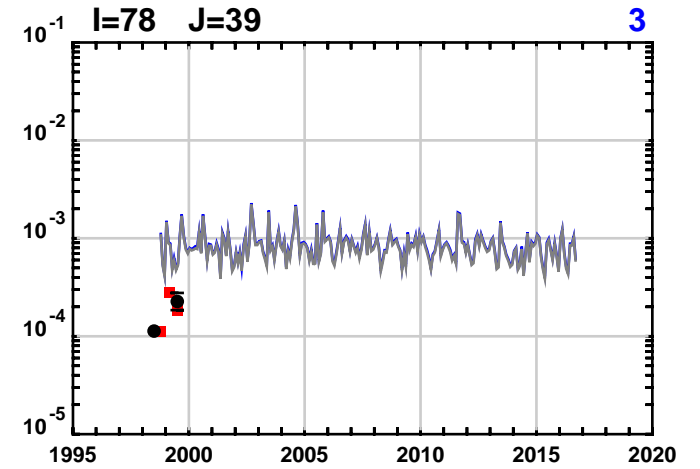
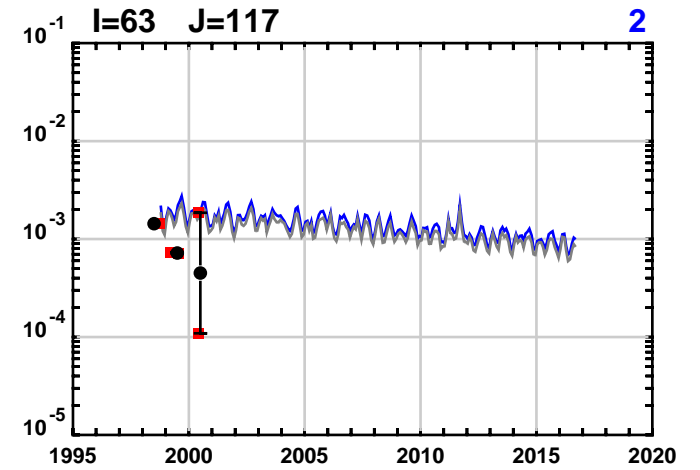
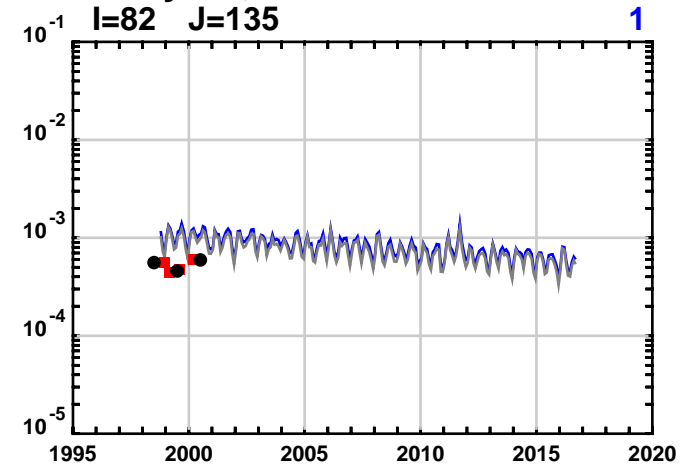
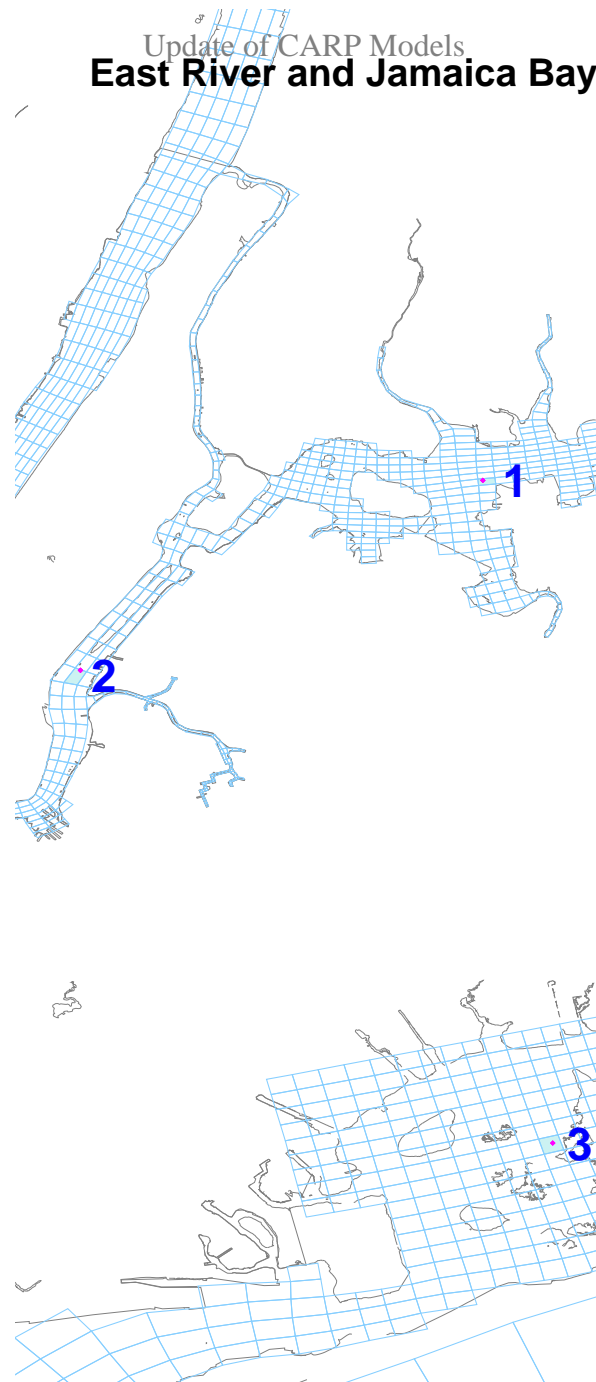


Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

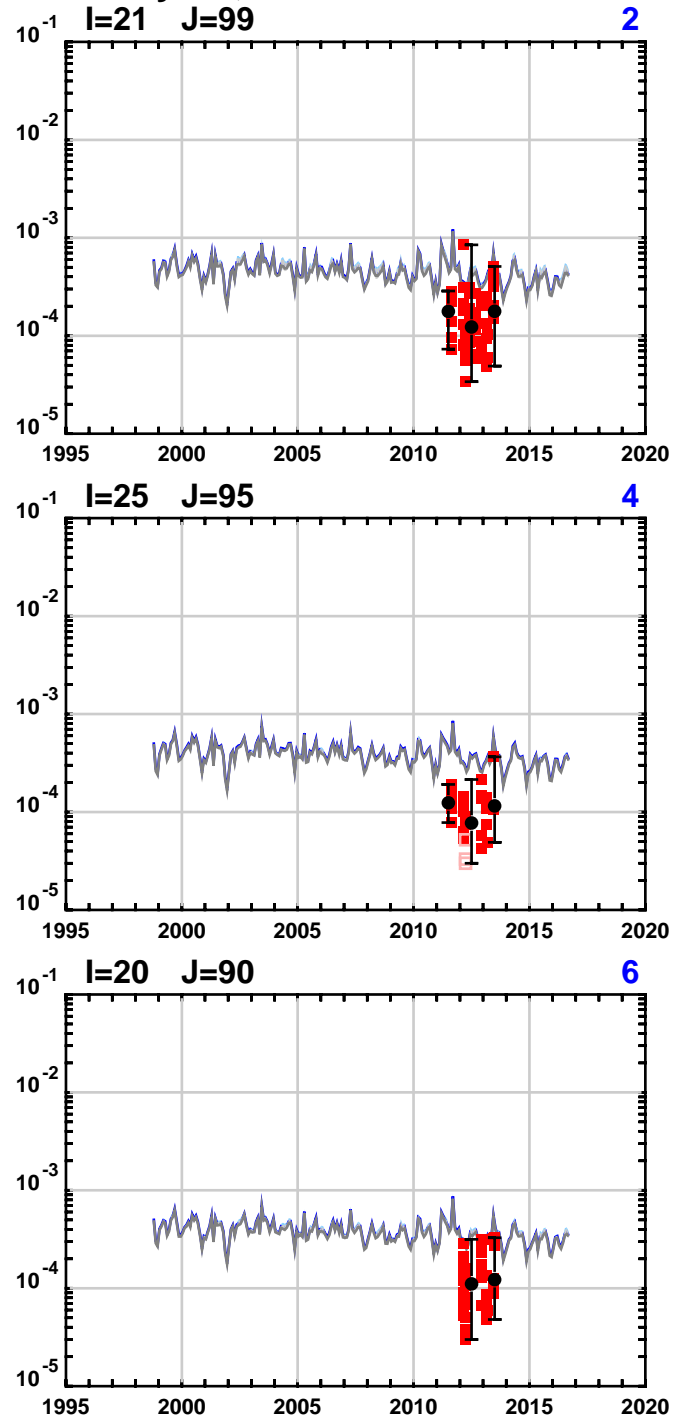
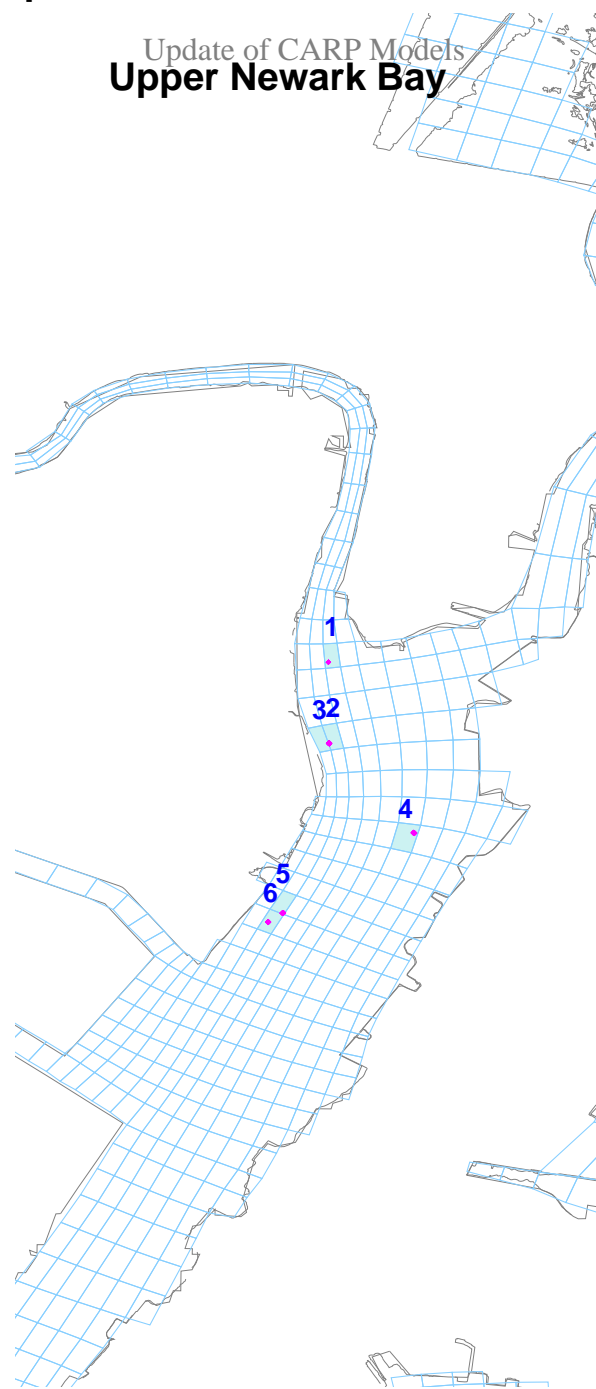
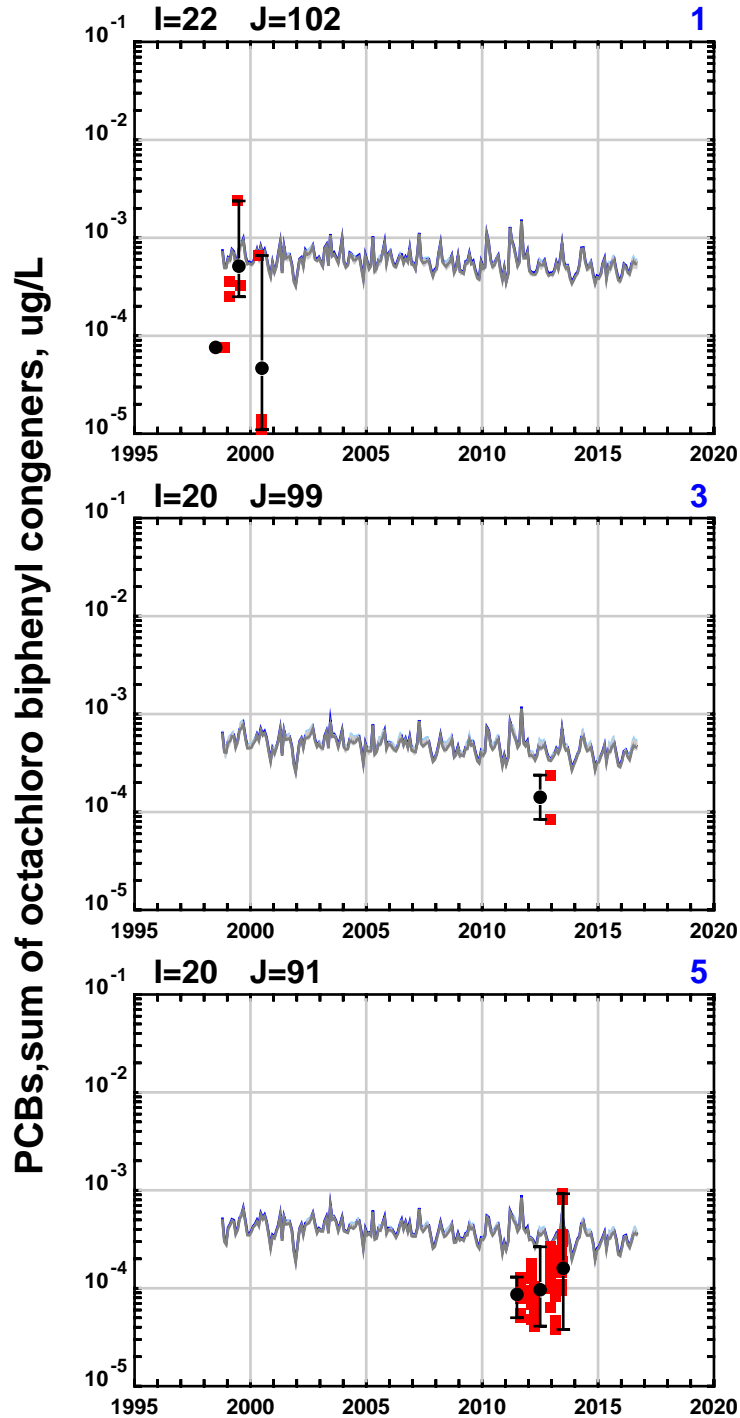
PCBs, sum of hexachloro biphenyl congeners, ug/L



Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

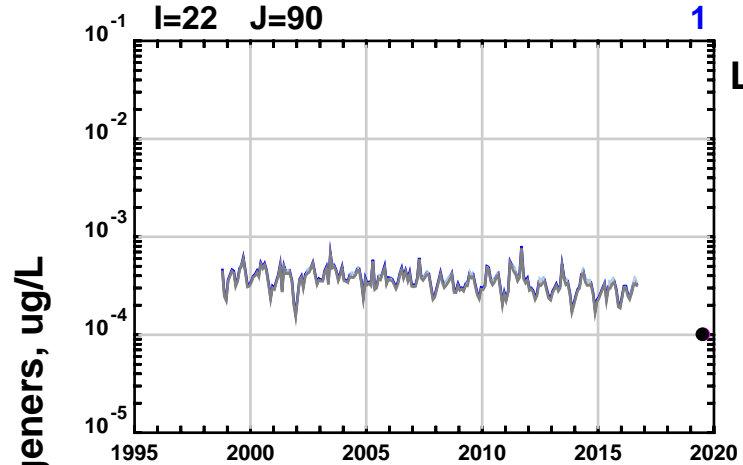
Water Column Data Comparison With Model All Water Column Layers, RUN18



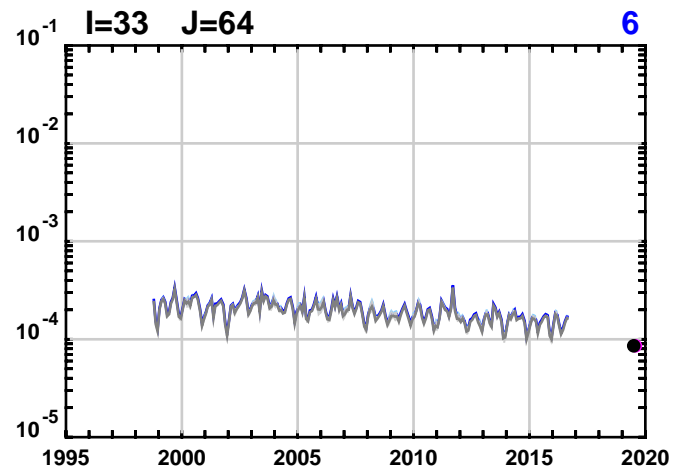
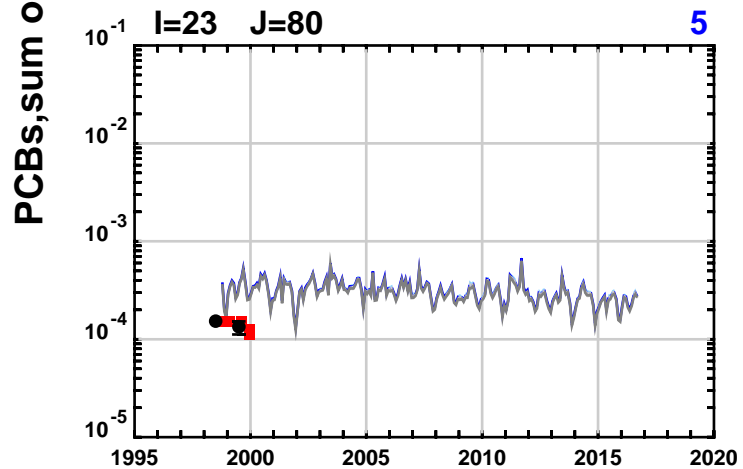
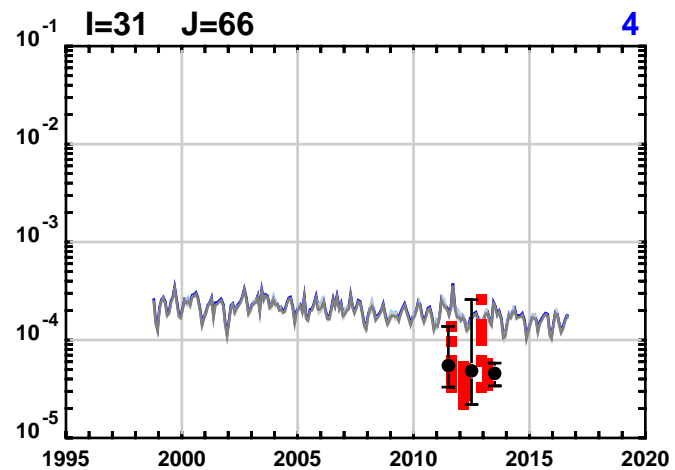
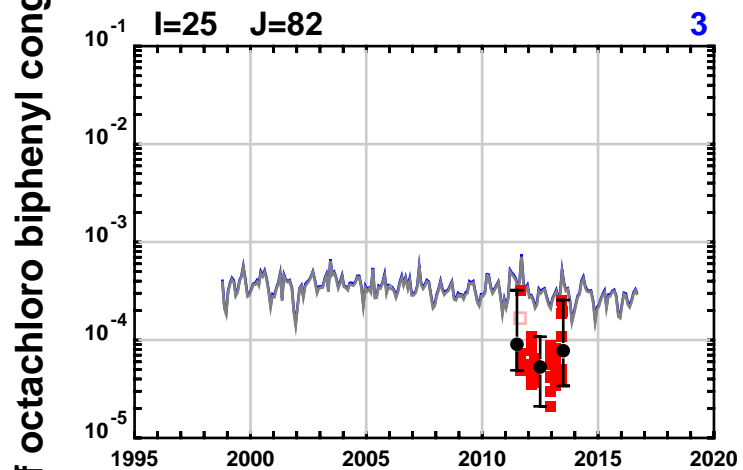
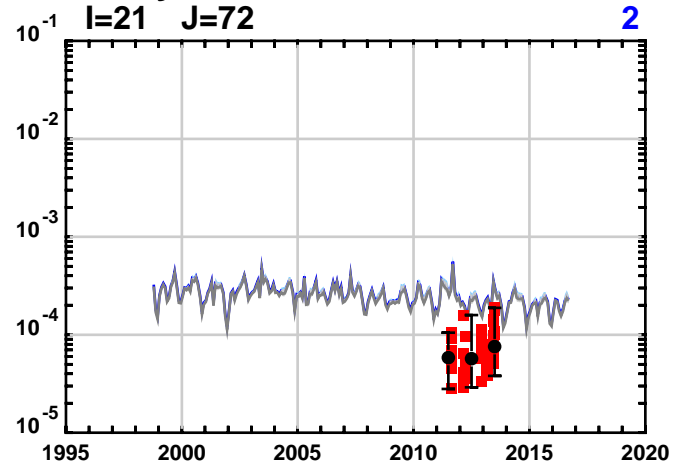
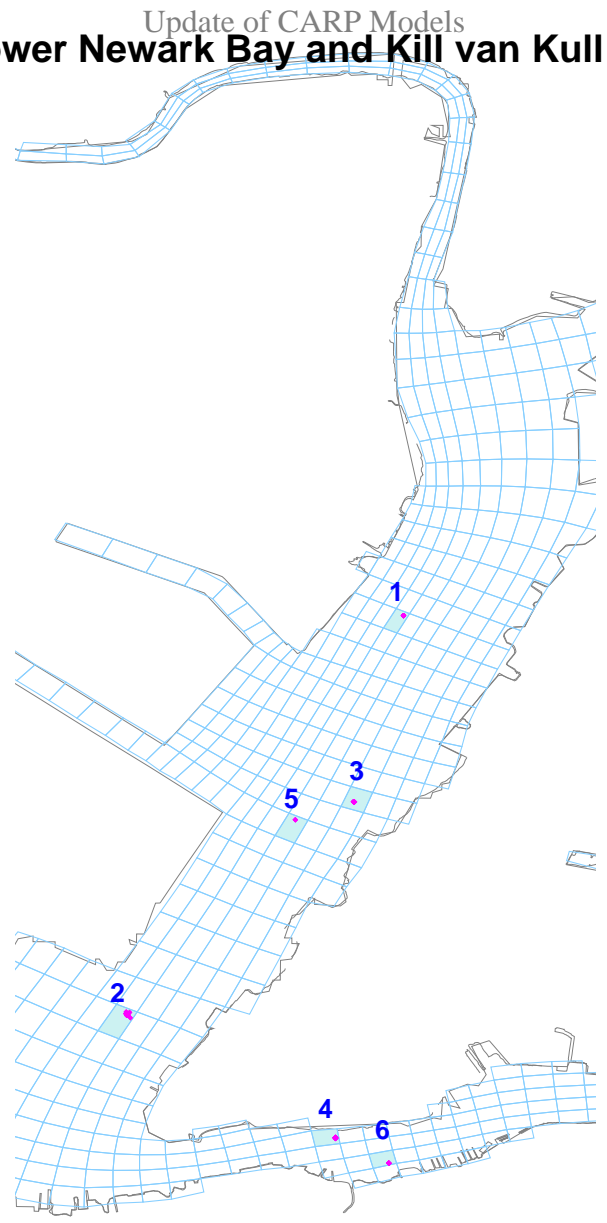
● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18



Update of CARP Models Lower Newark Bay and Kill van Kull

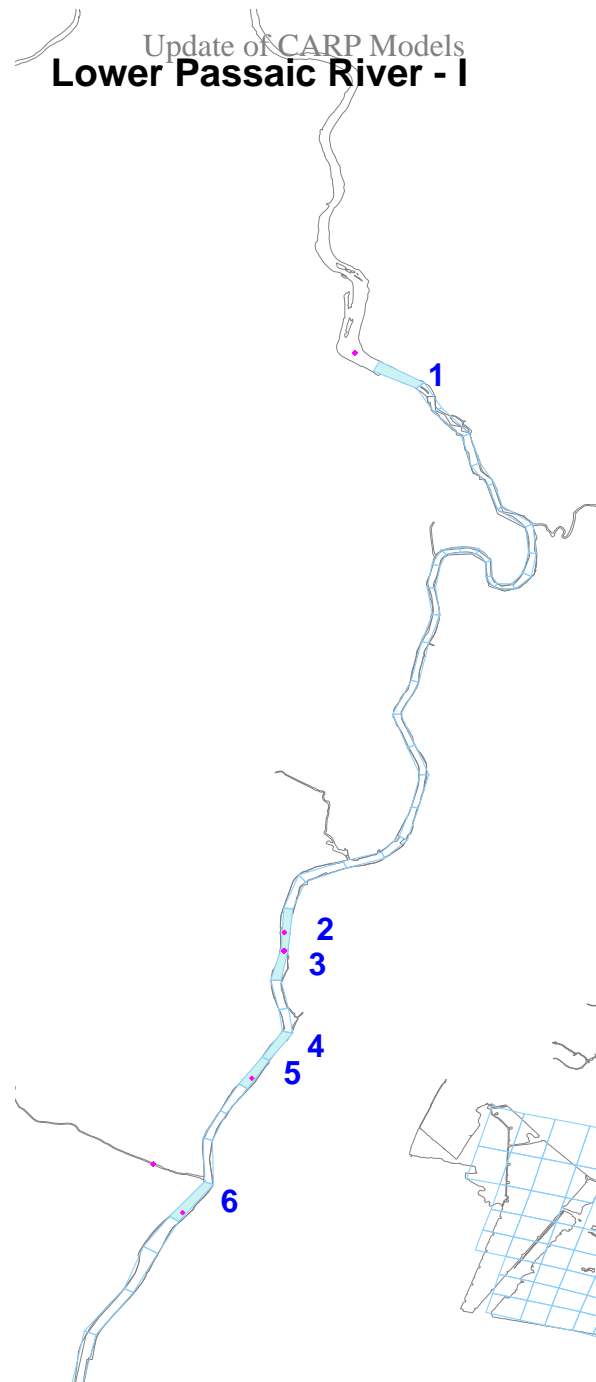
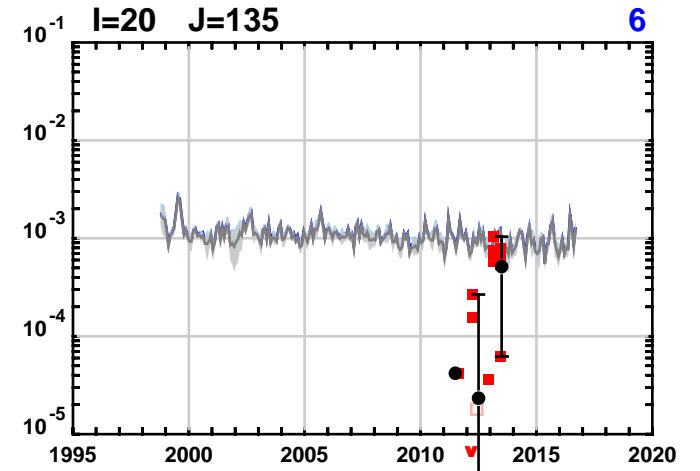
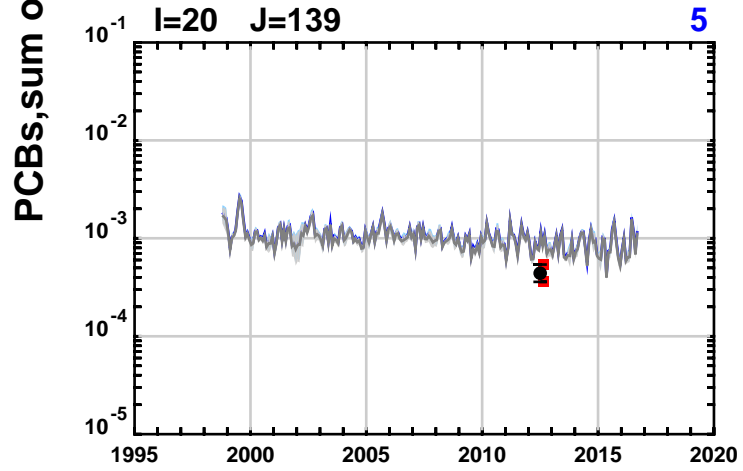
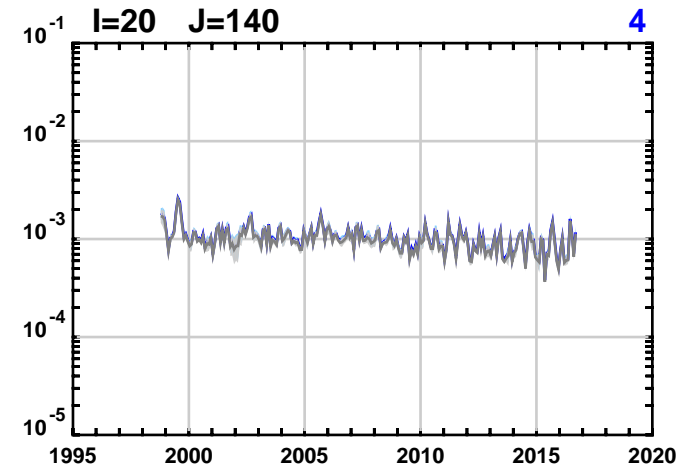
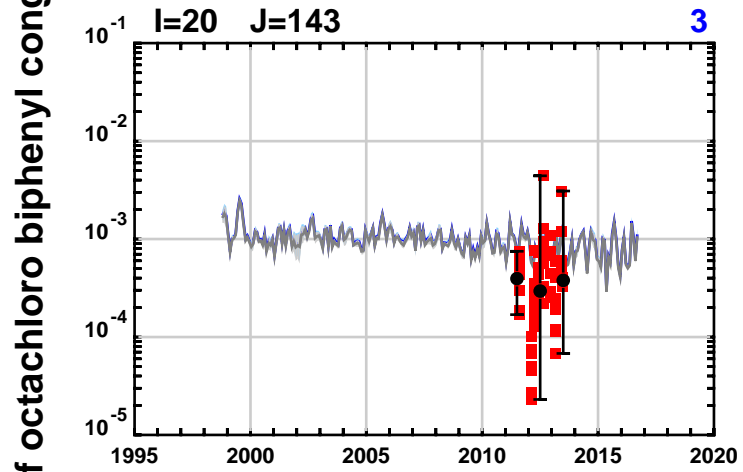
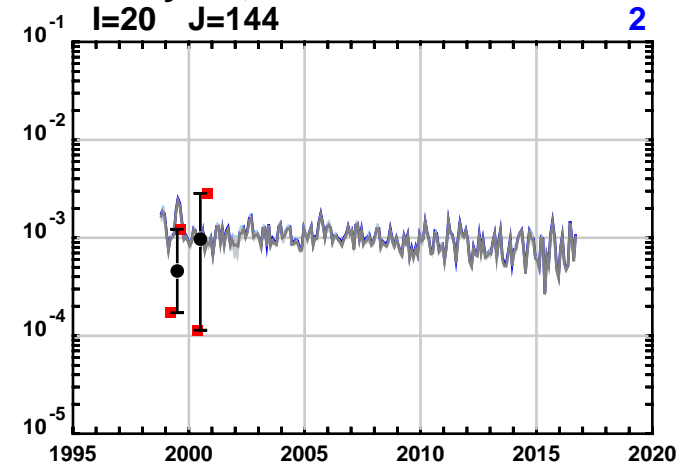
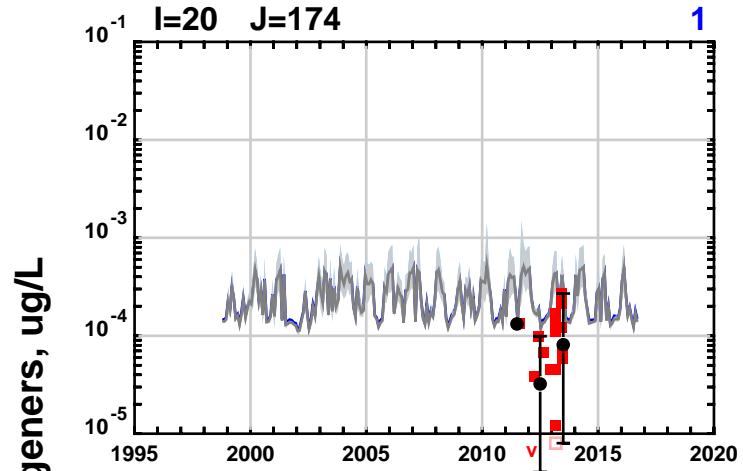


● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

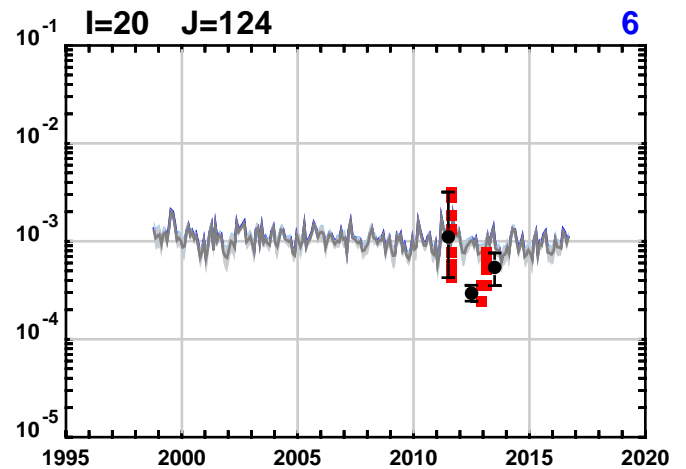
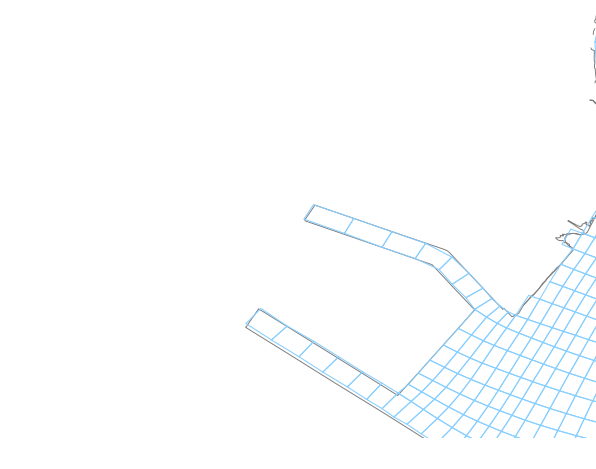
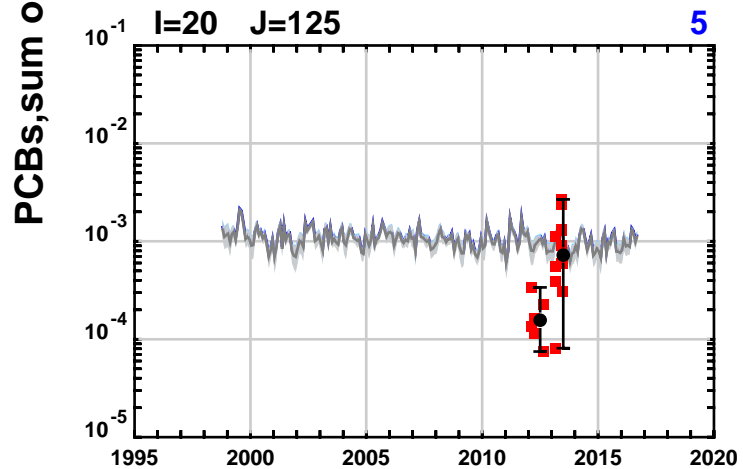
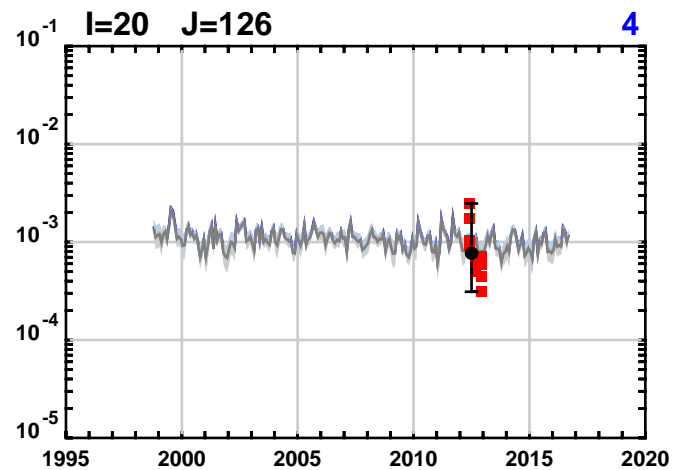
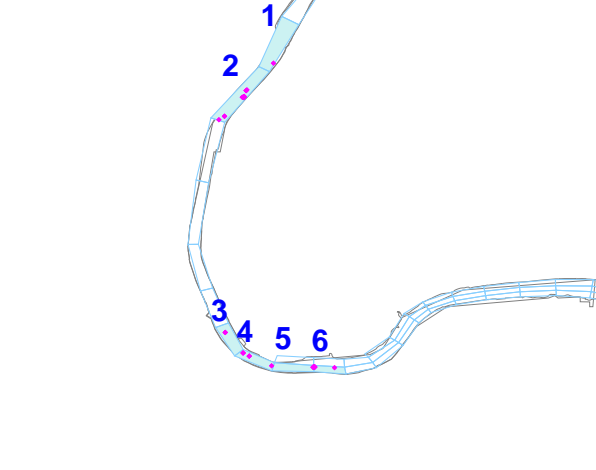
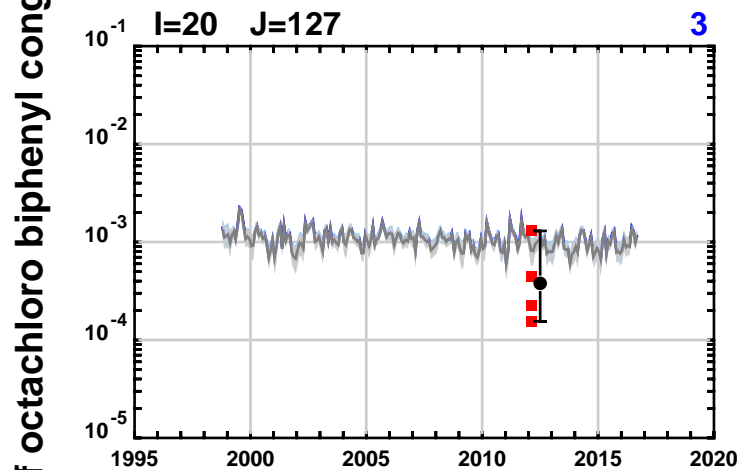
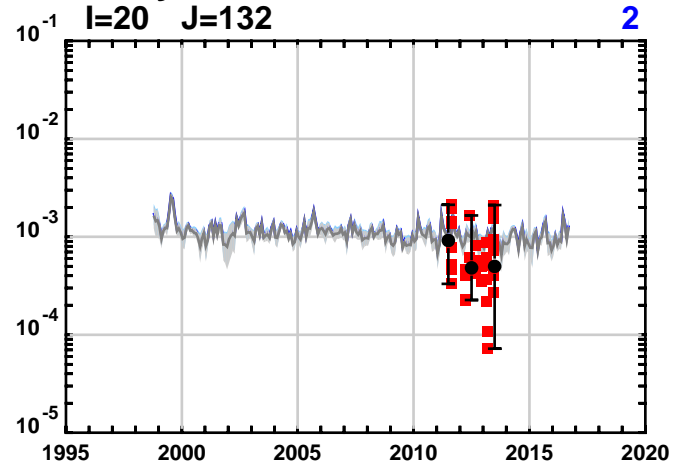
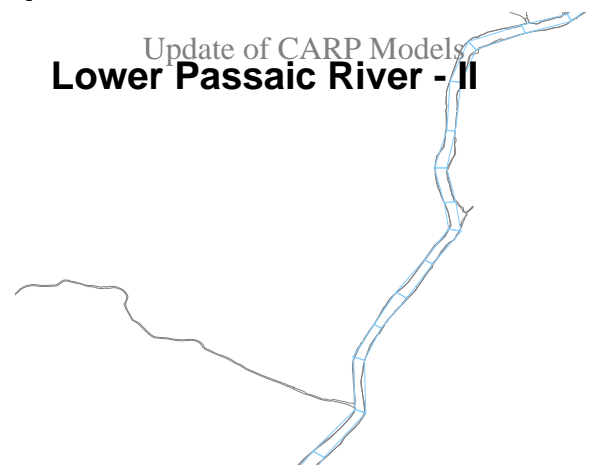
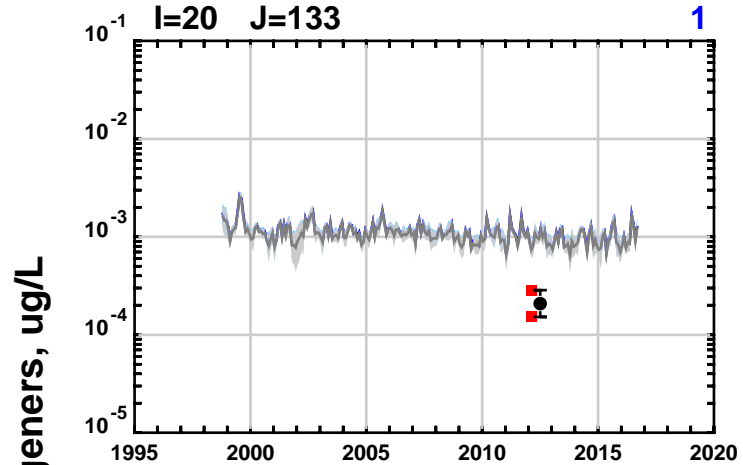
Update of CARP Models Lower Passaic River - I



● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

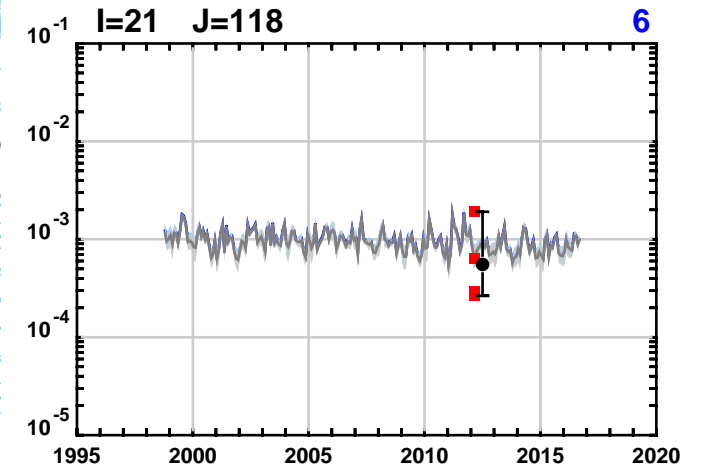
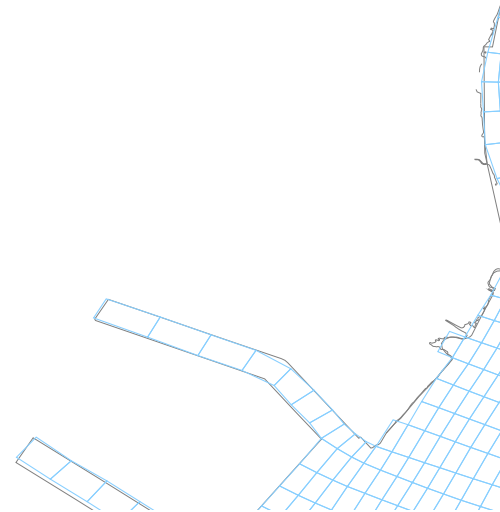
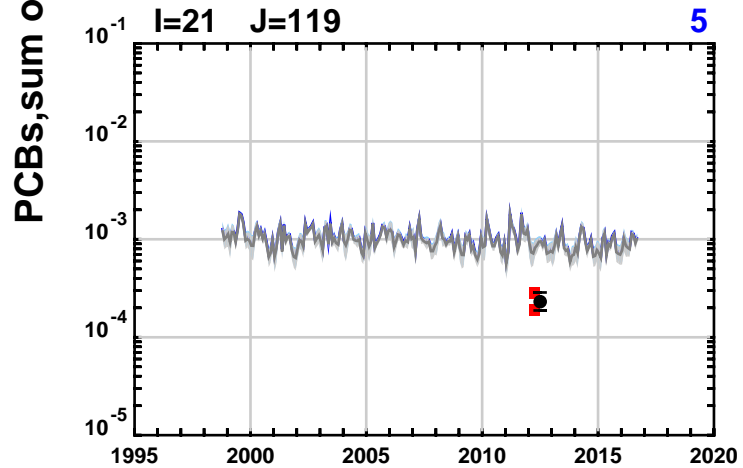
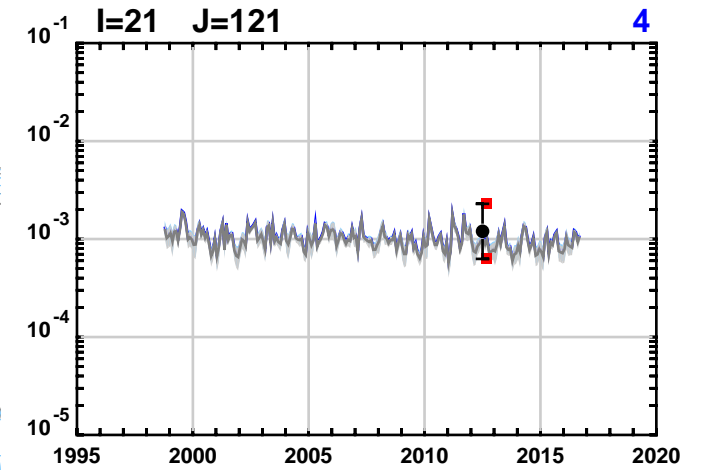
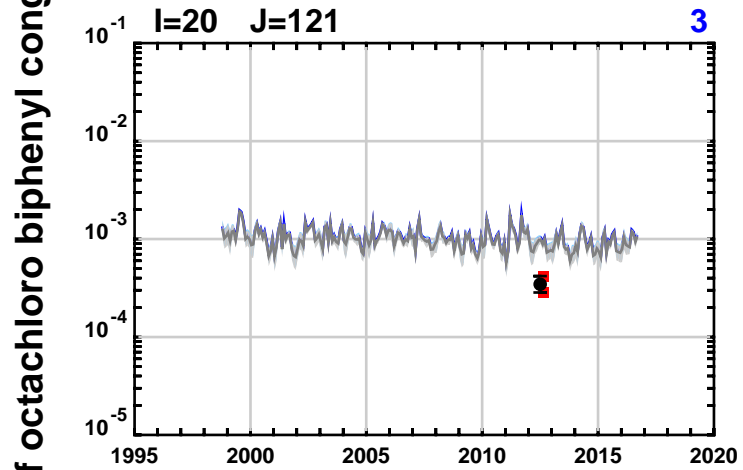
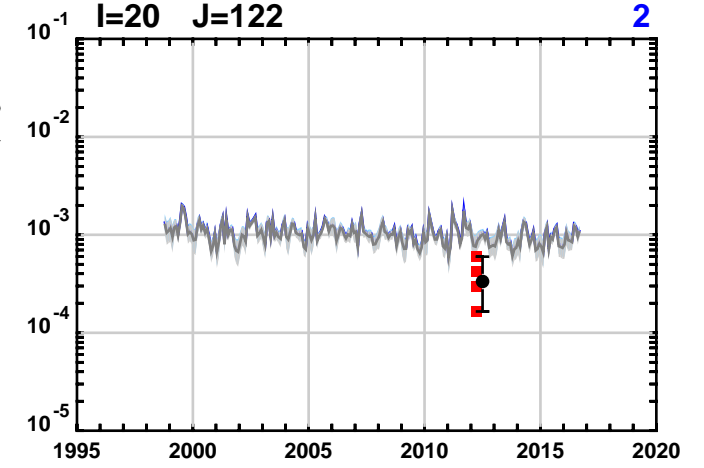
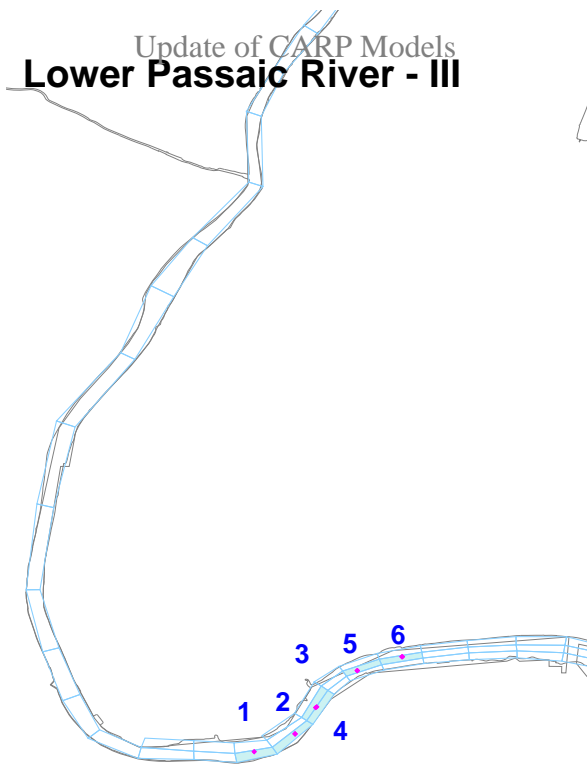
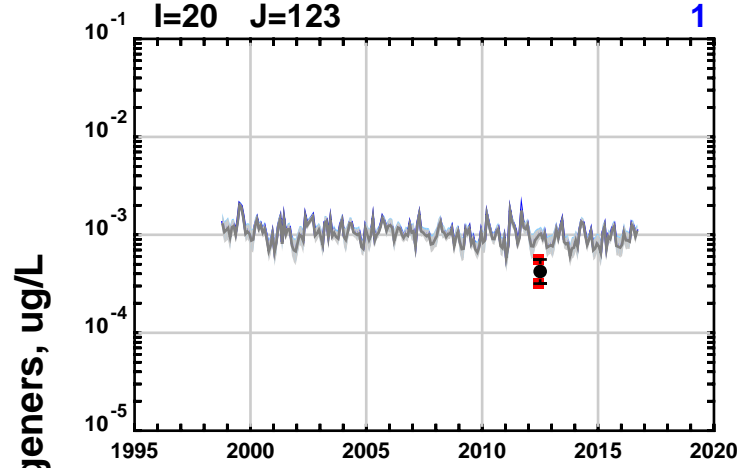
Water Column Data Comparison With Model All Water Column Layers, RUN18



● Detect Data ■ Non-Detect Data
■ Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

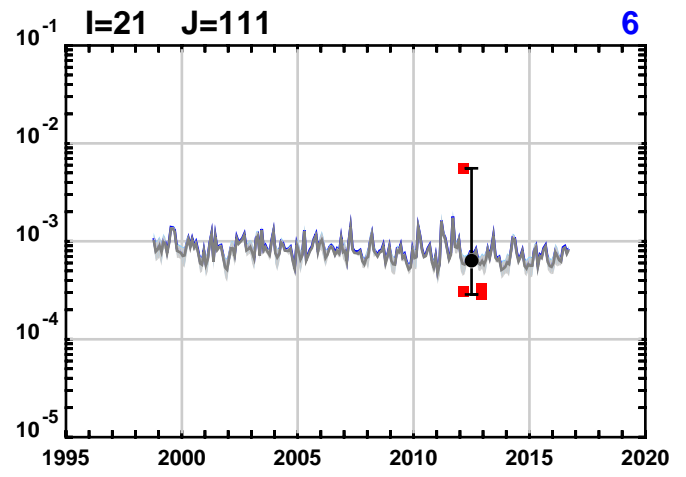
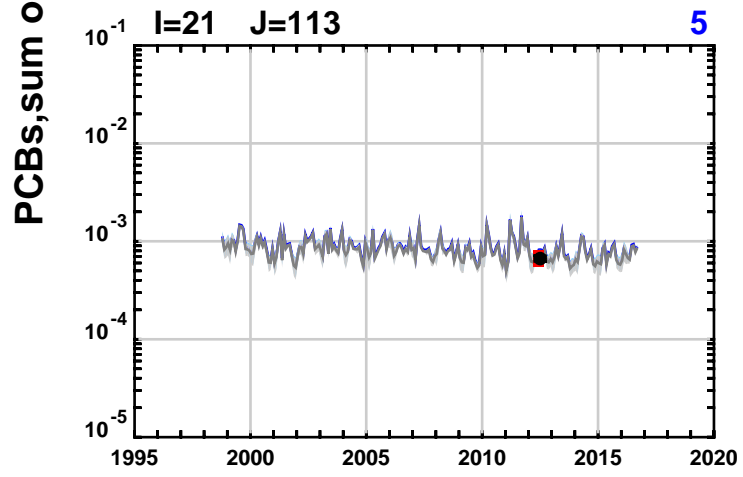
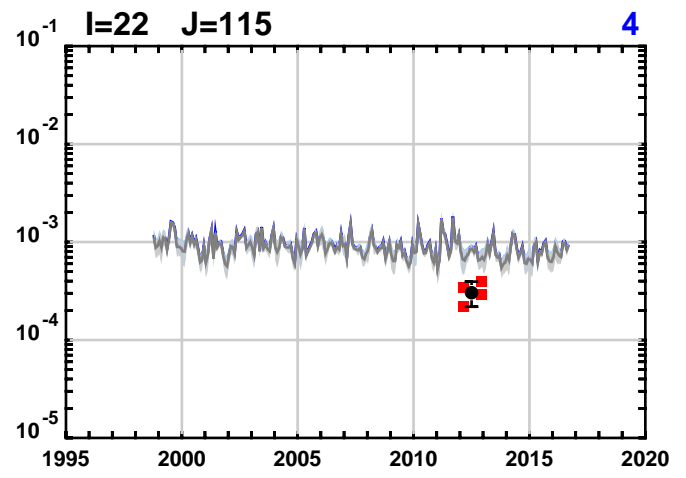
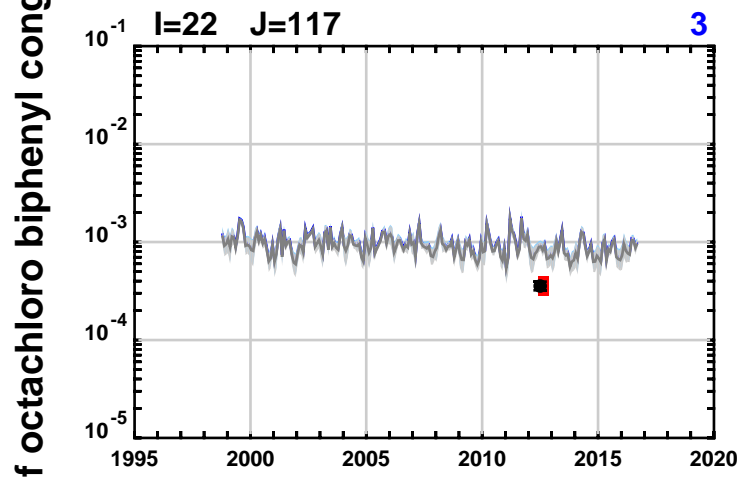
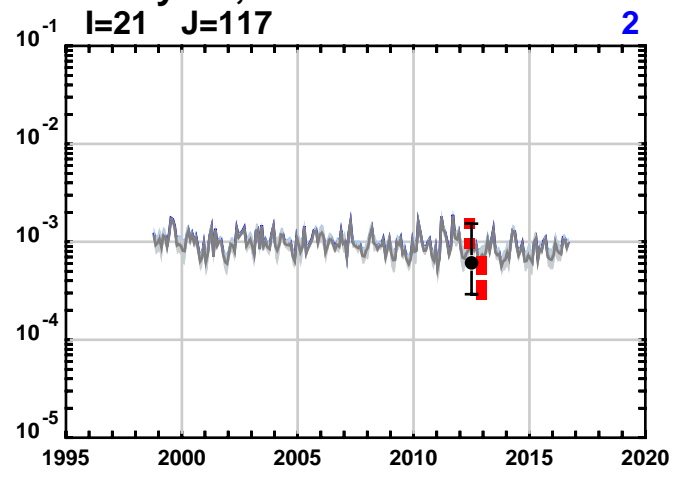
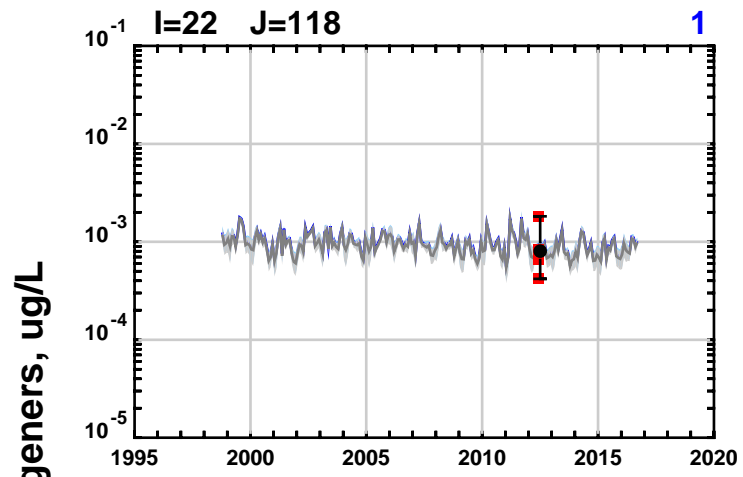
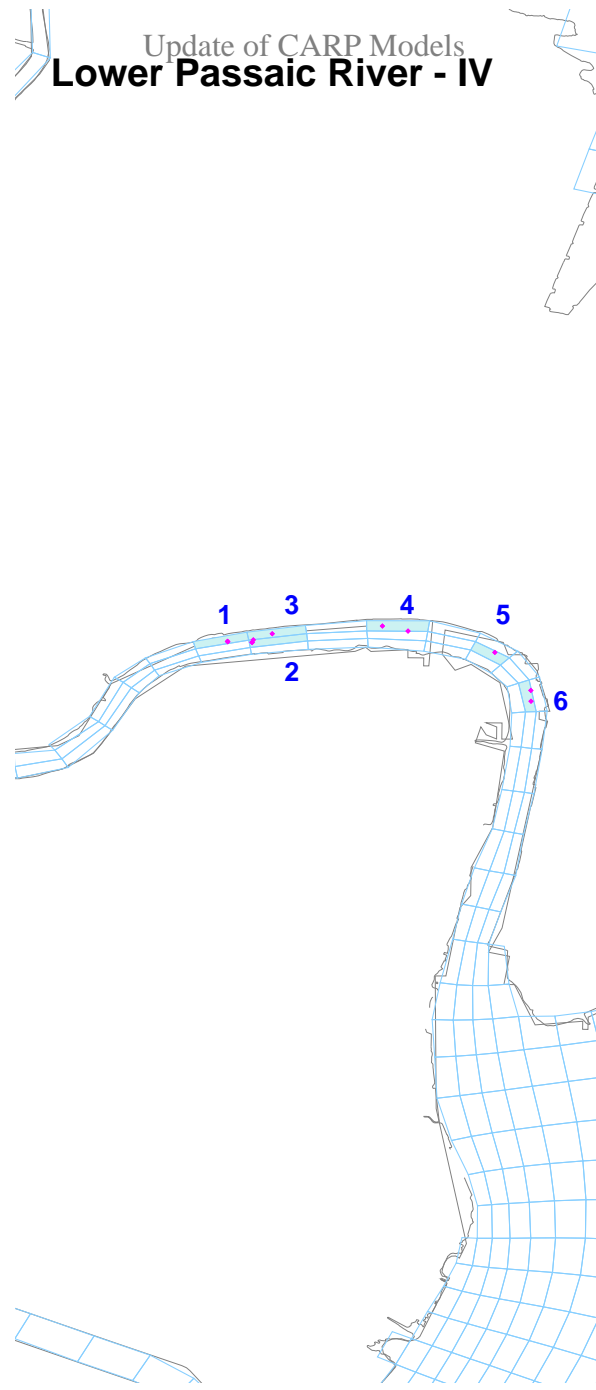
Water Column Data Comparison With Model All Water Column Layers, RUN18



● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

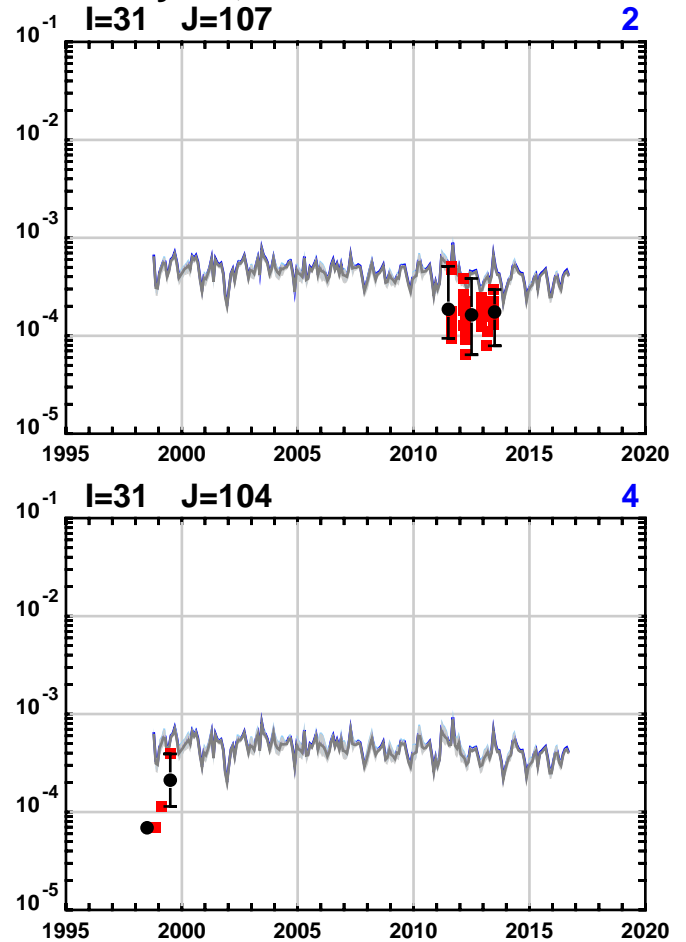
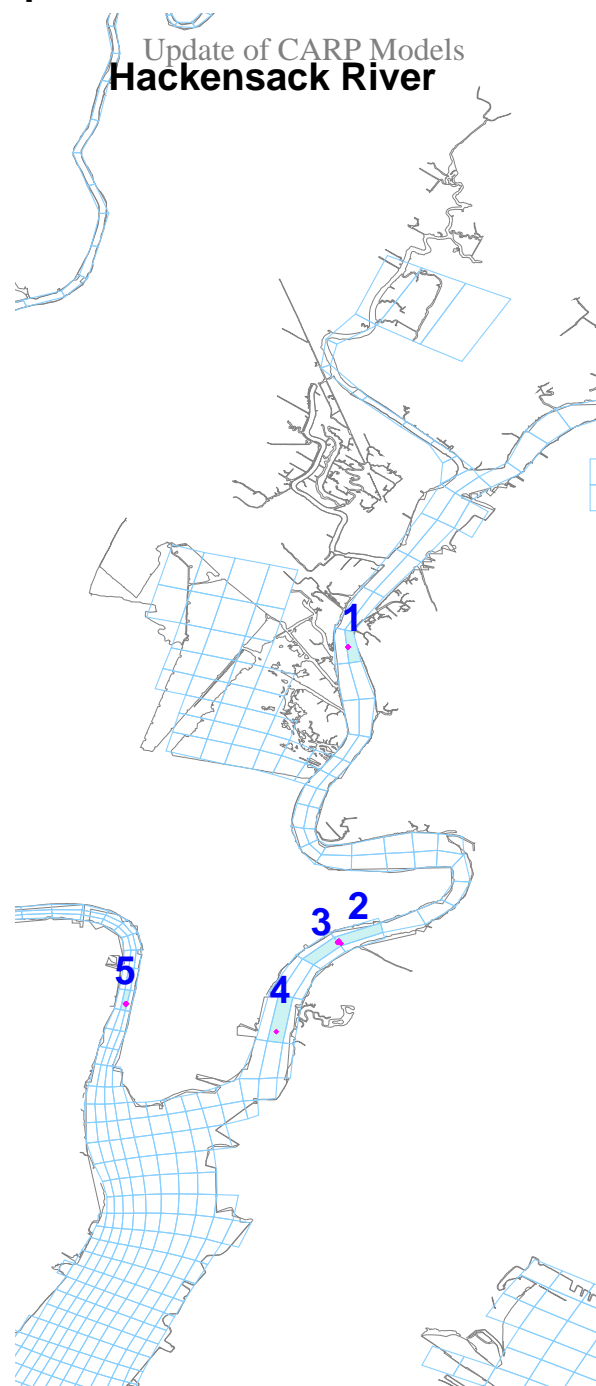
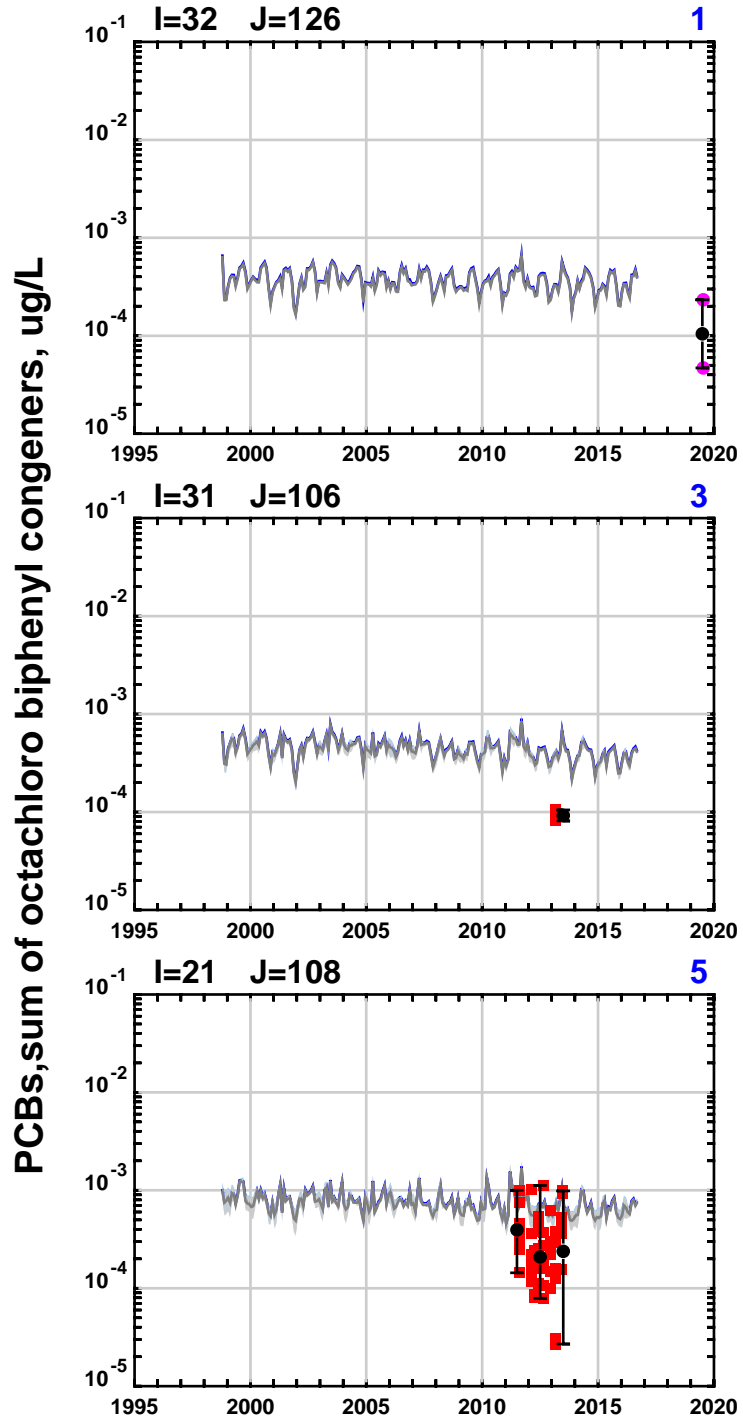
Water Column Data Comparison With Model All Water Column Layers, RUN18



● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
— Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

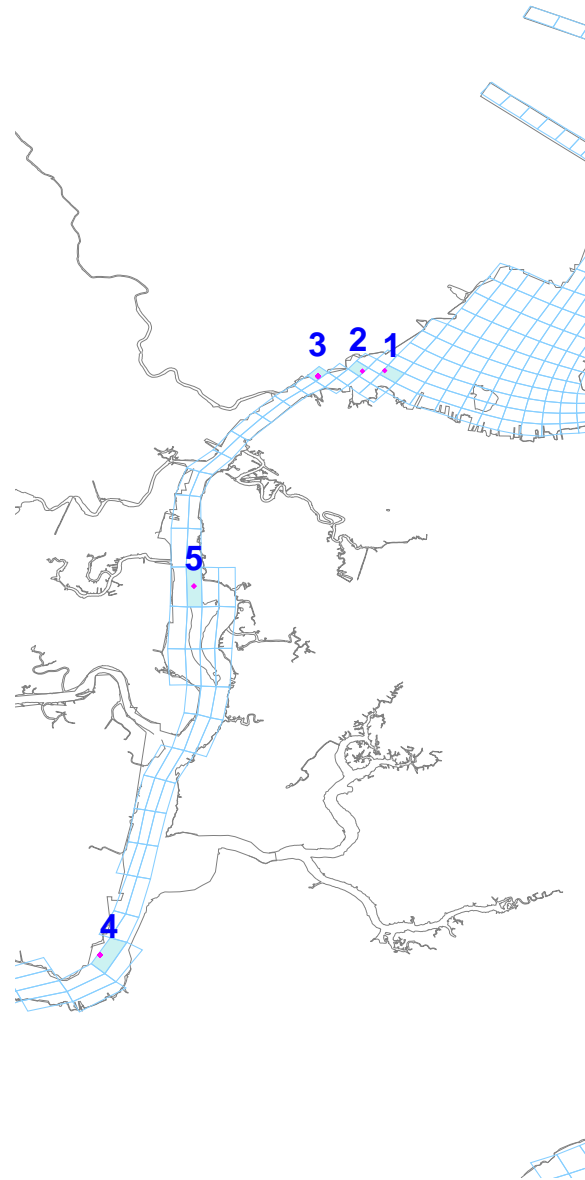
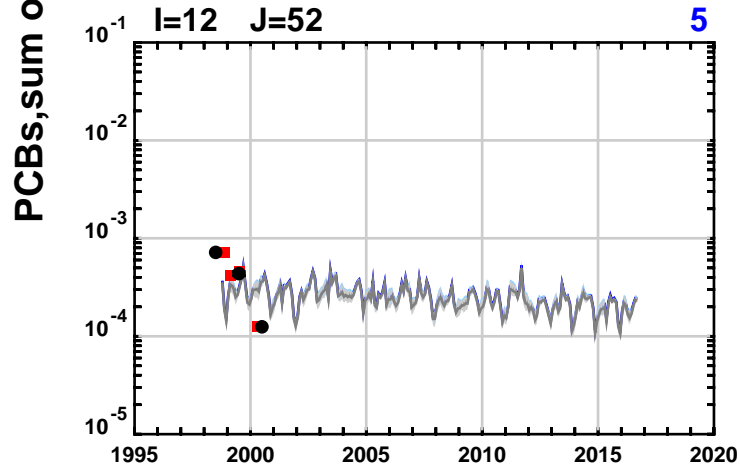
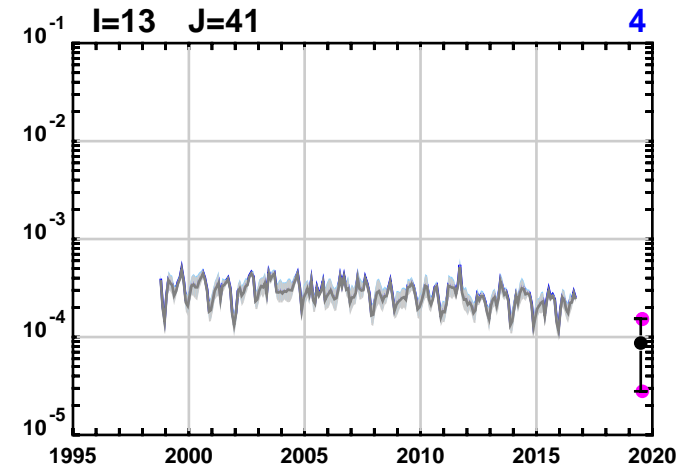
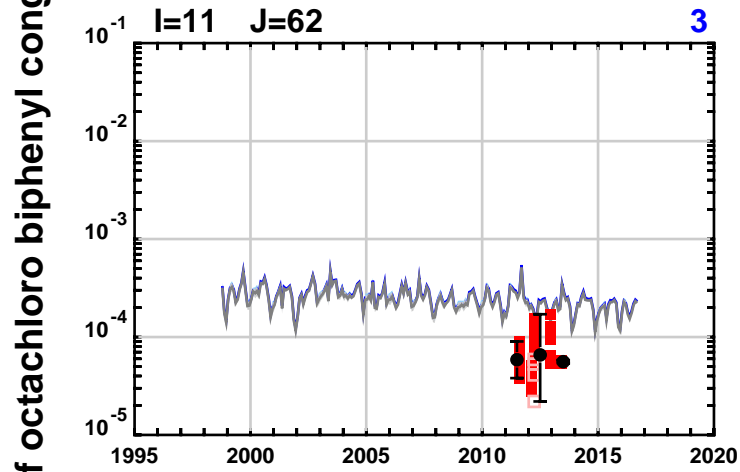
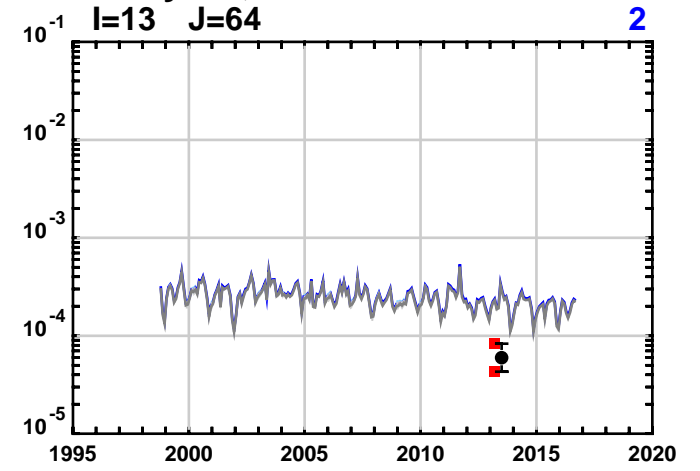
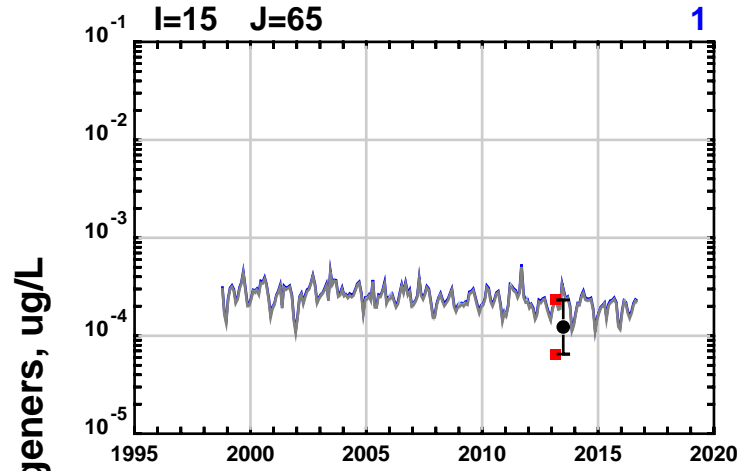


● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

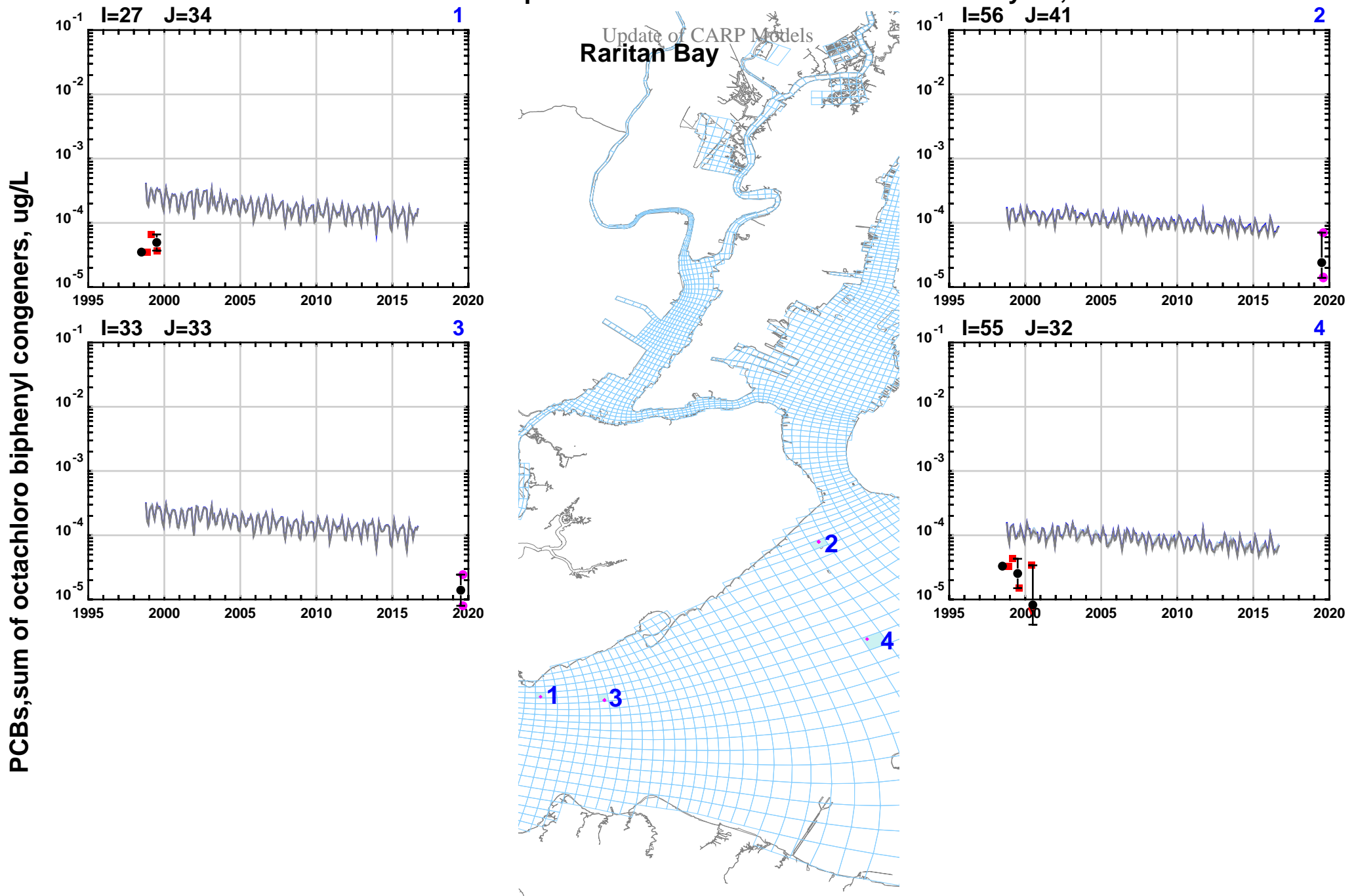
Update of CARP Models
Arthur Kill



● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
— Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

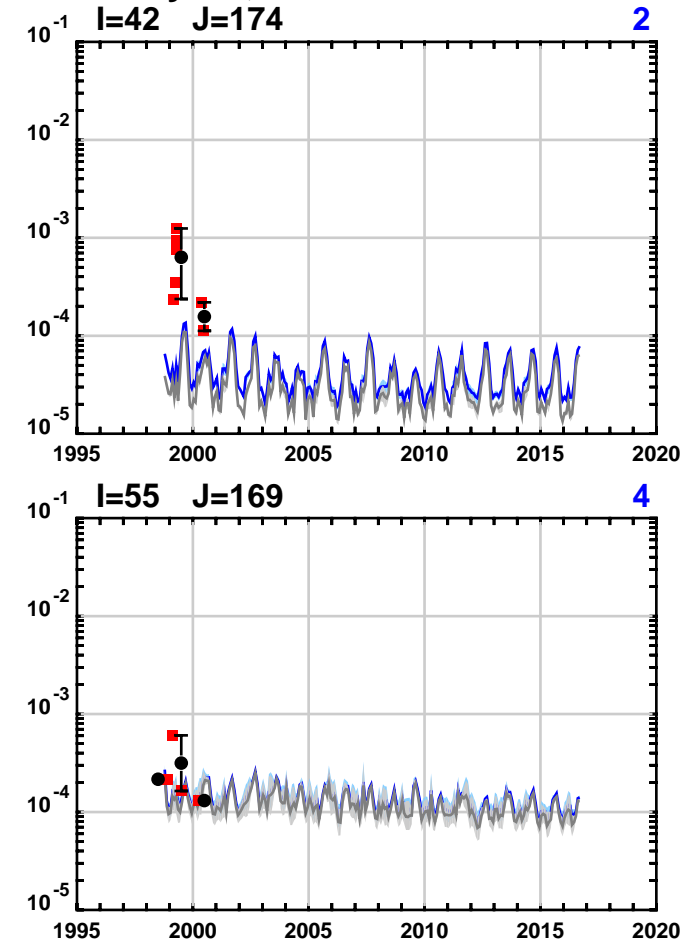
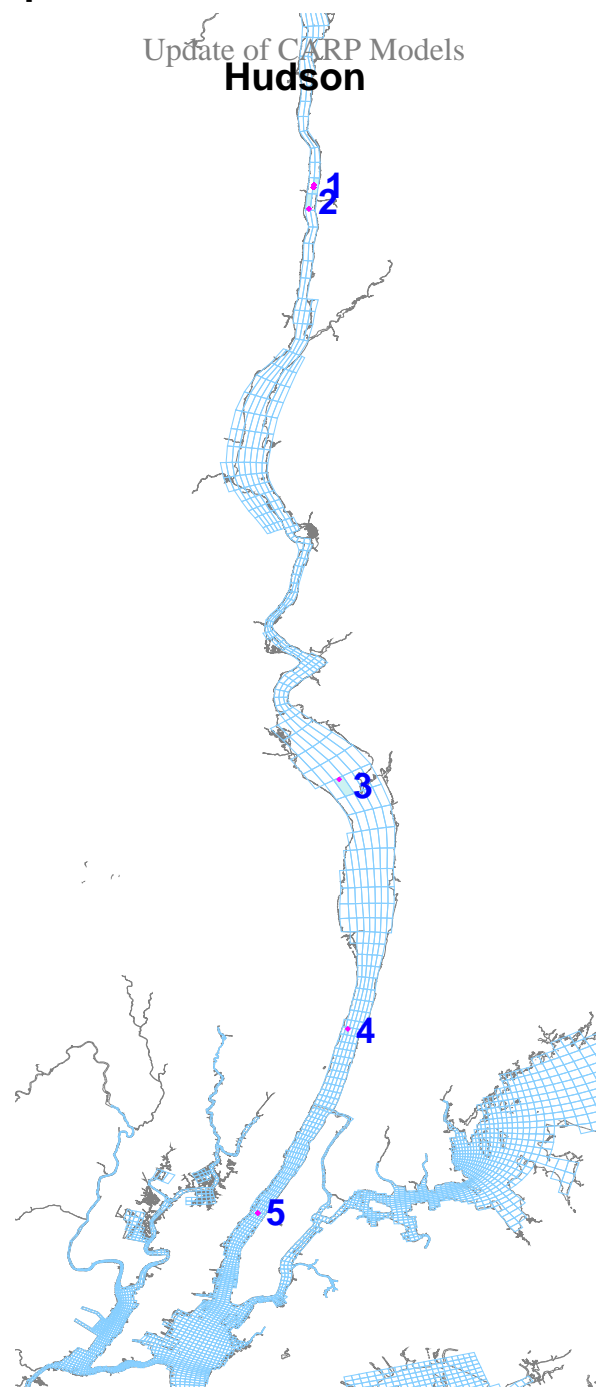
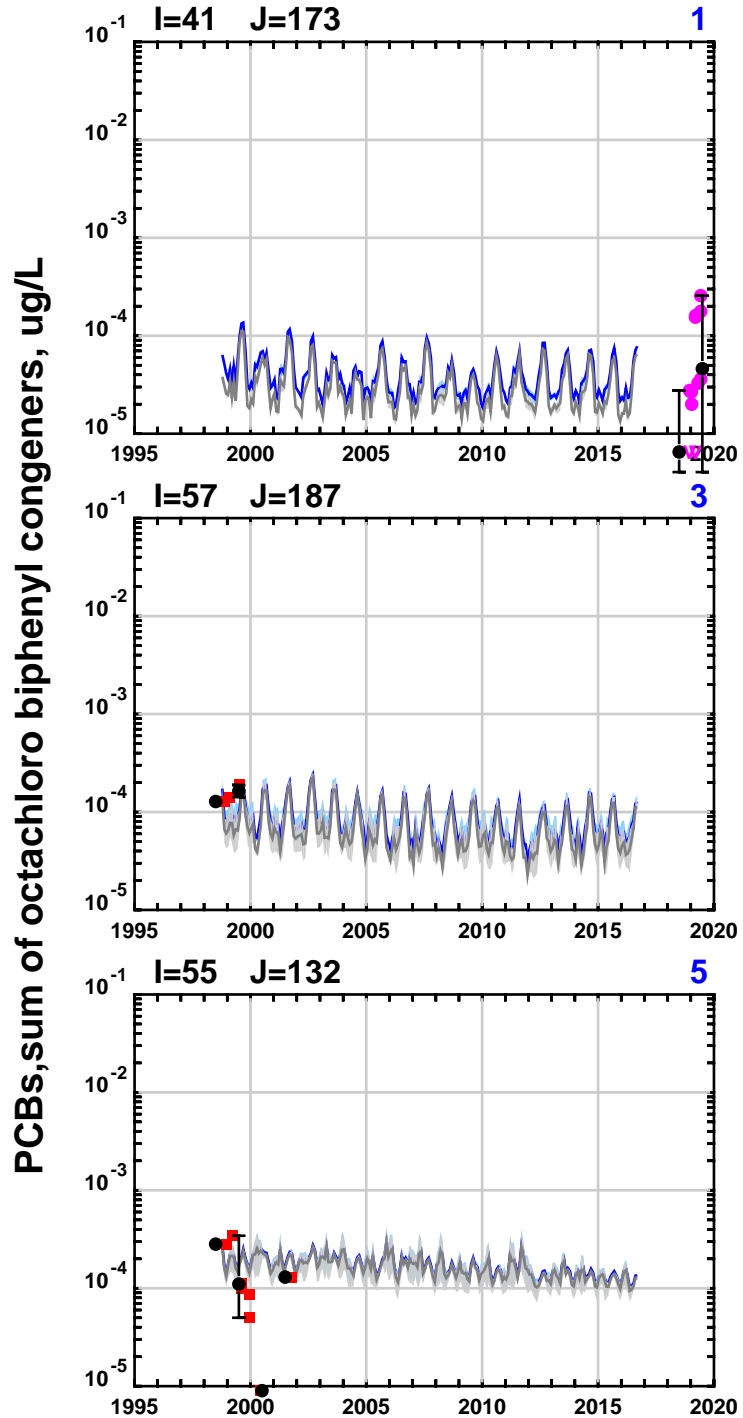
Water Column Data Comparison With Model All Water Column Layers, RUN18



● **Detect Data** ■ **Non-Detect Data**
— **Model: mean and range of values in Water Column**
— **Model: Particulate Phase mean and range of values in Water Column**

● **Water Column Data: yearly mean and range**
● **CARP2 Data**

Water Column Data Comparison With Model All Water Column Layers, RUN18

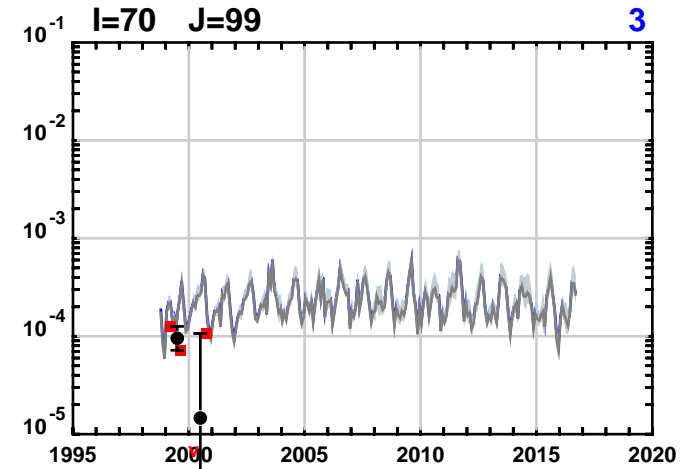
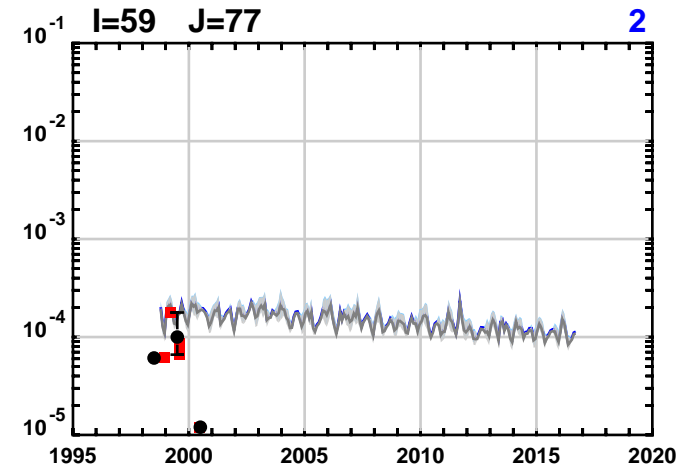
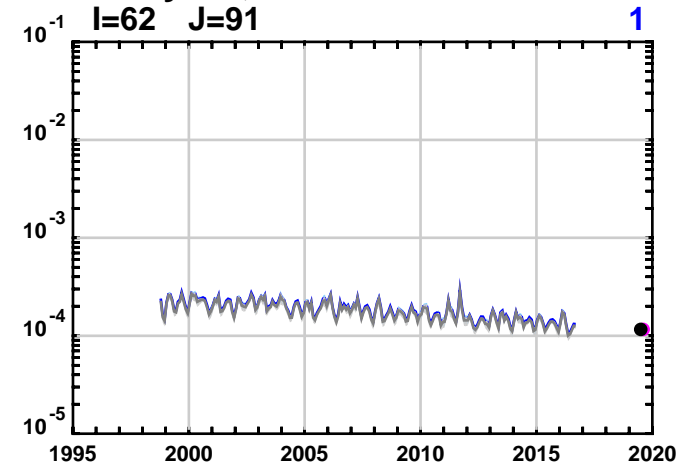
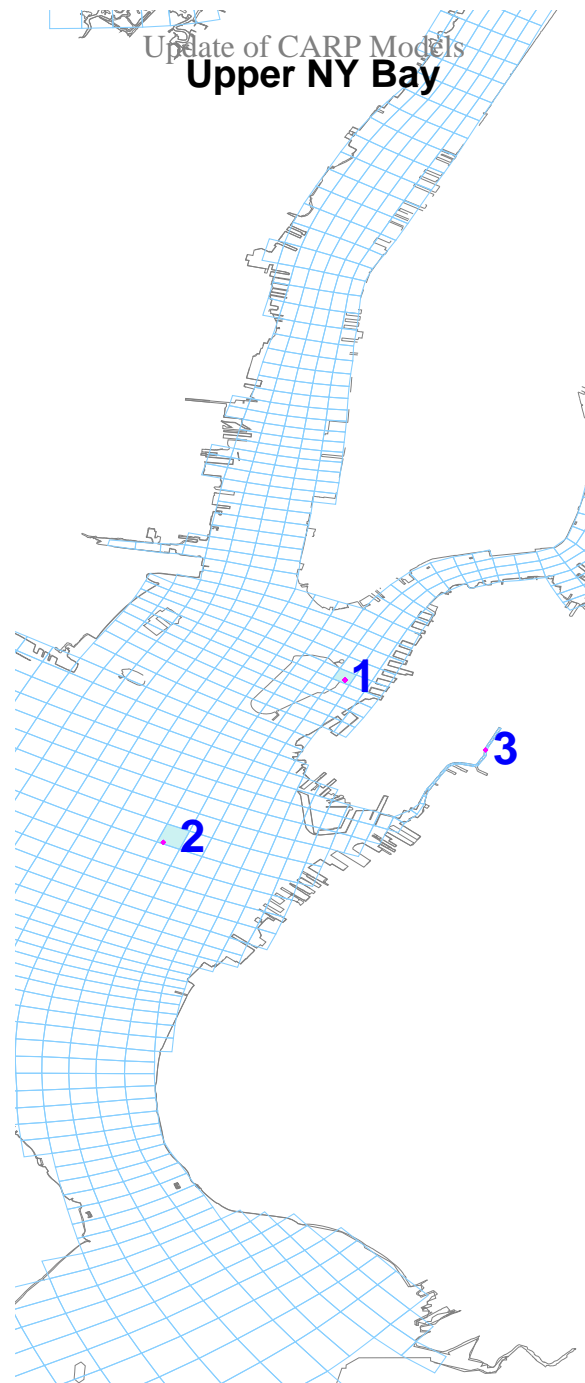


● Detect Data ● Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

PCBs, sum of octachloro biphenyl congeners, ug/L

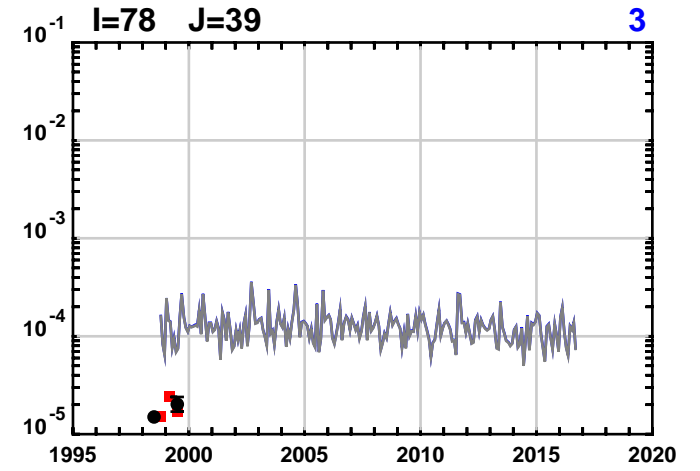
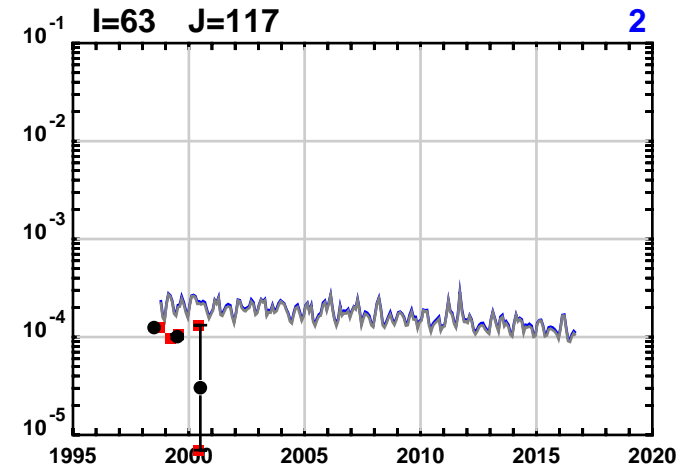
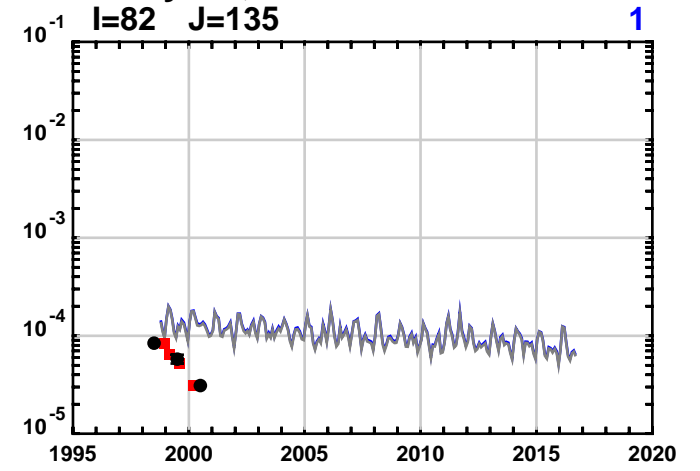
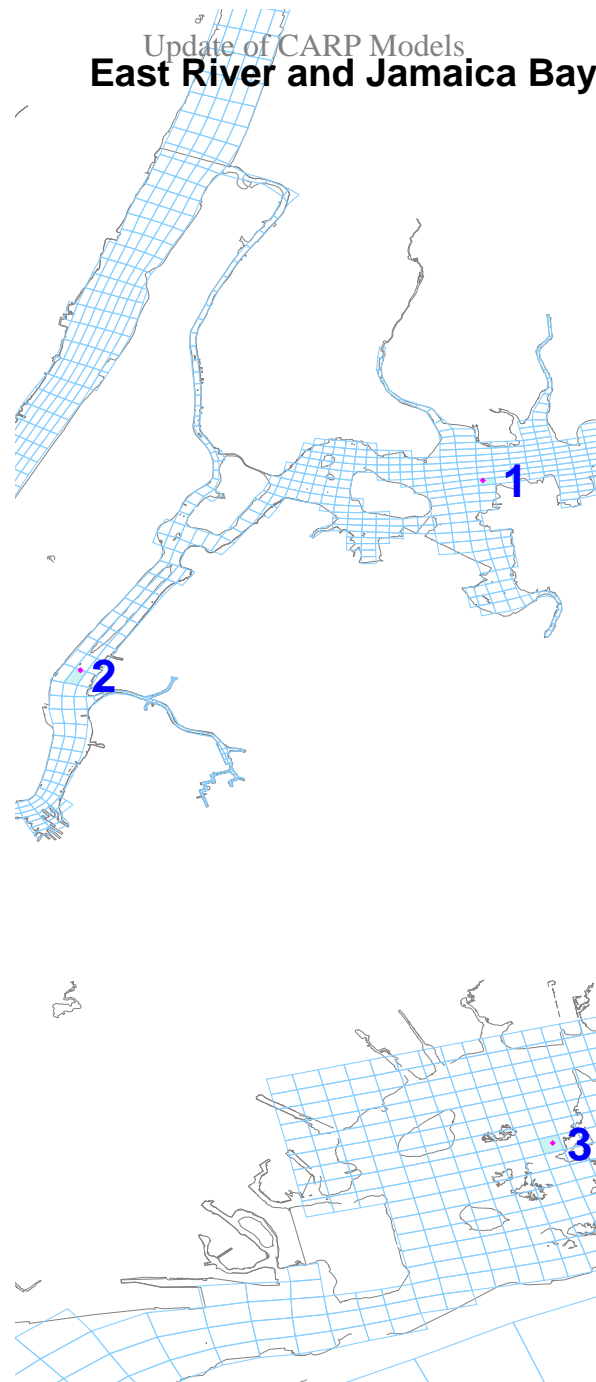


Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

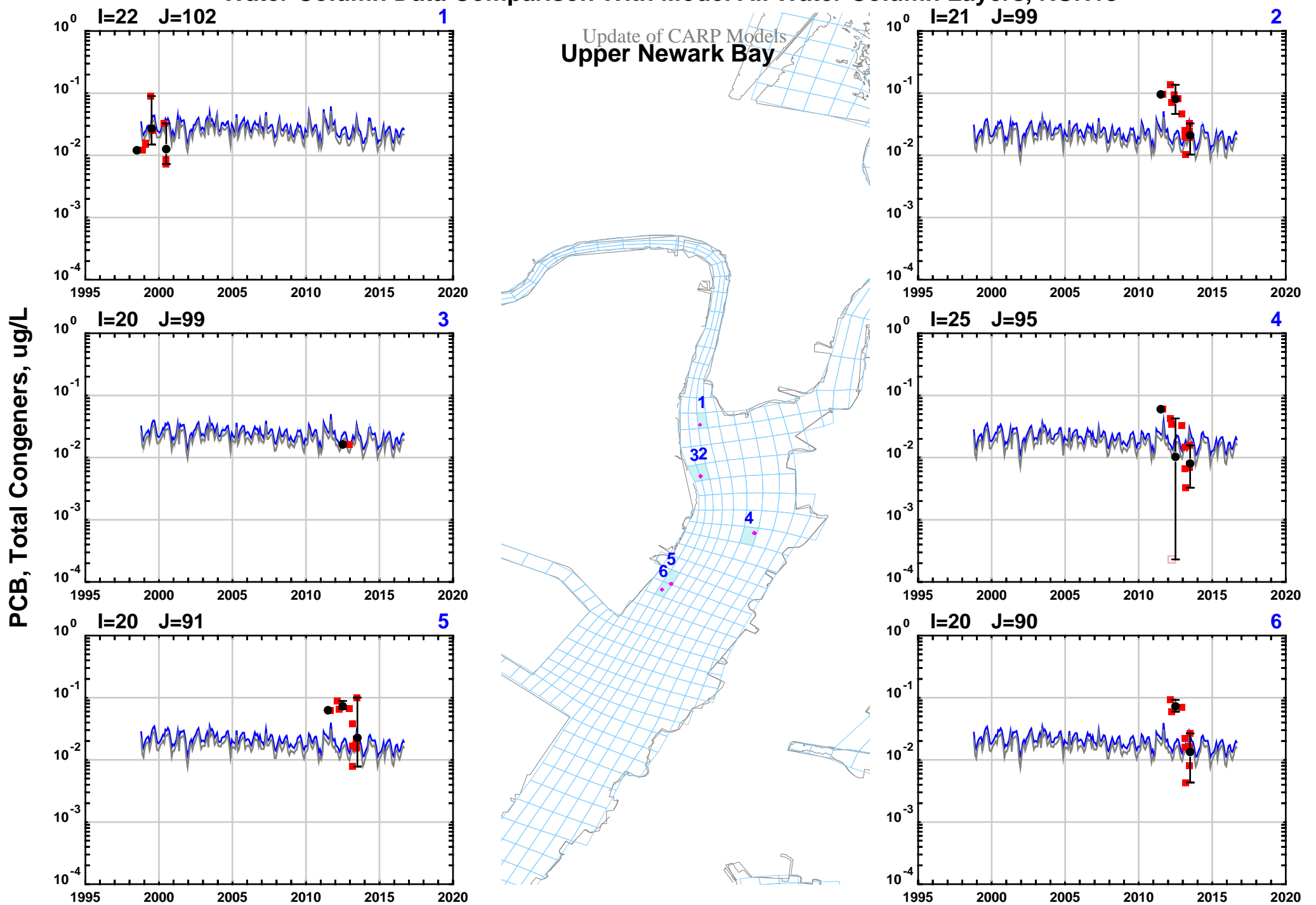
PCBs, sum of octachloro biphenyl congeners, ug/L



Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18



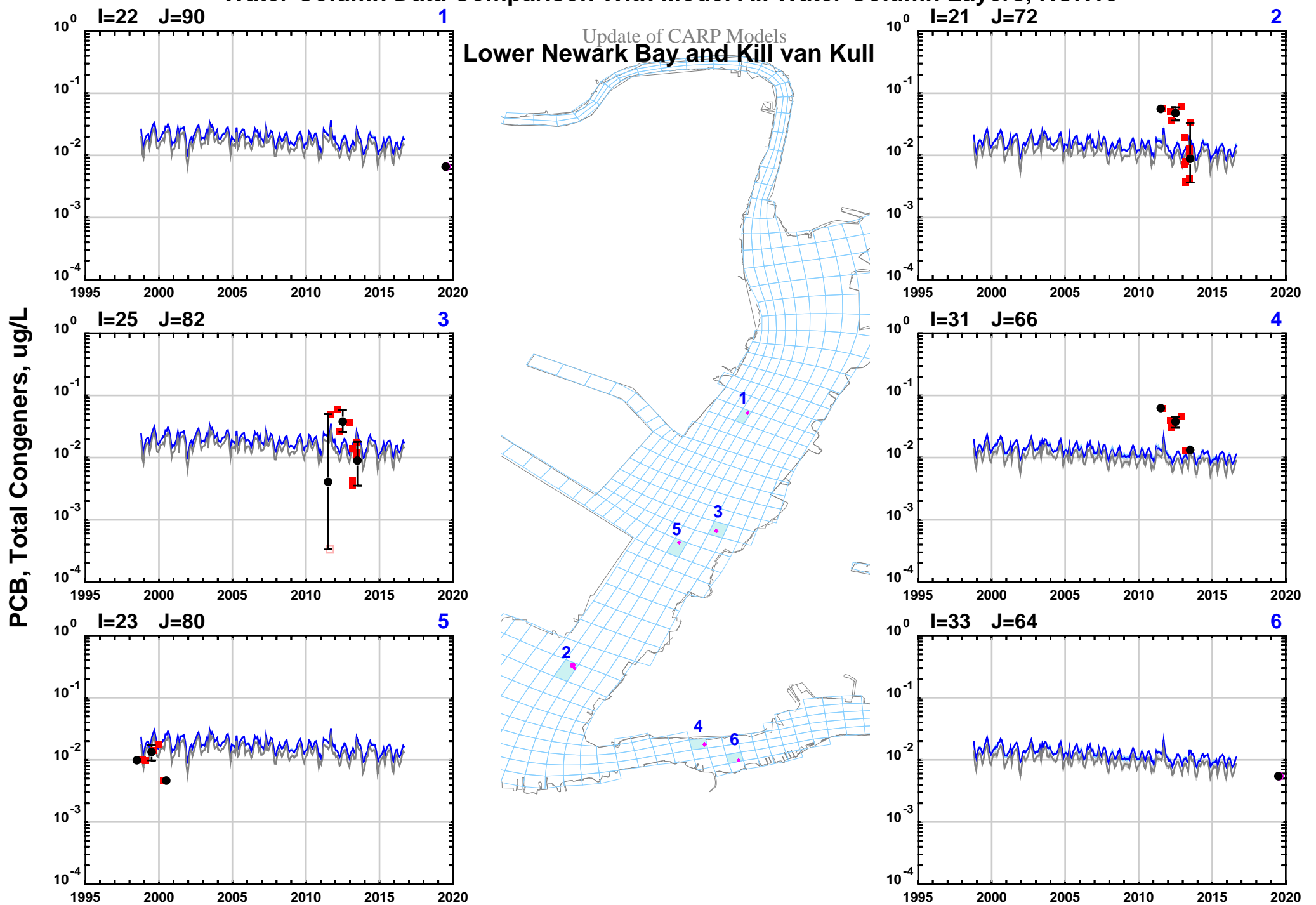
Update of CARP Models
Upper Newark Bay

● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

Update of CARP Models Lower Newark Bay and Kill van Kull

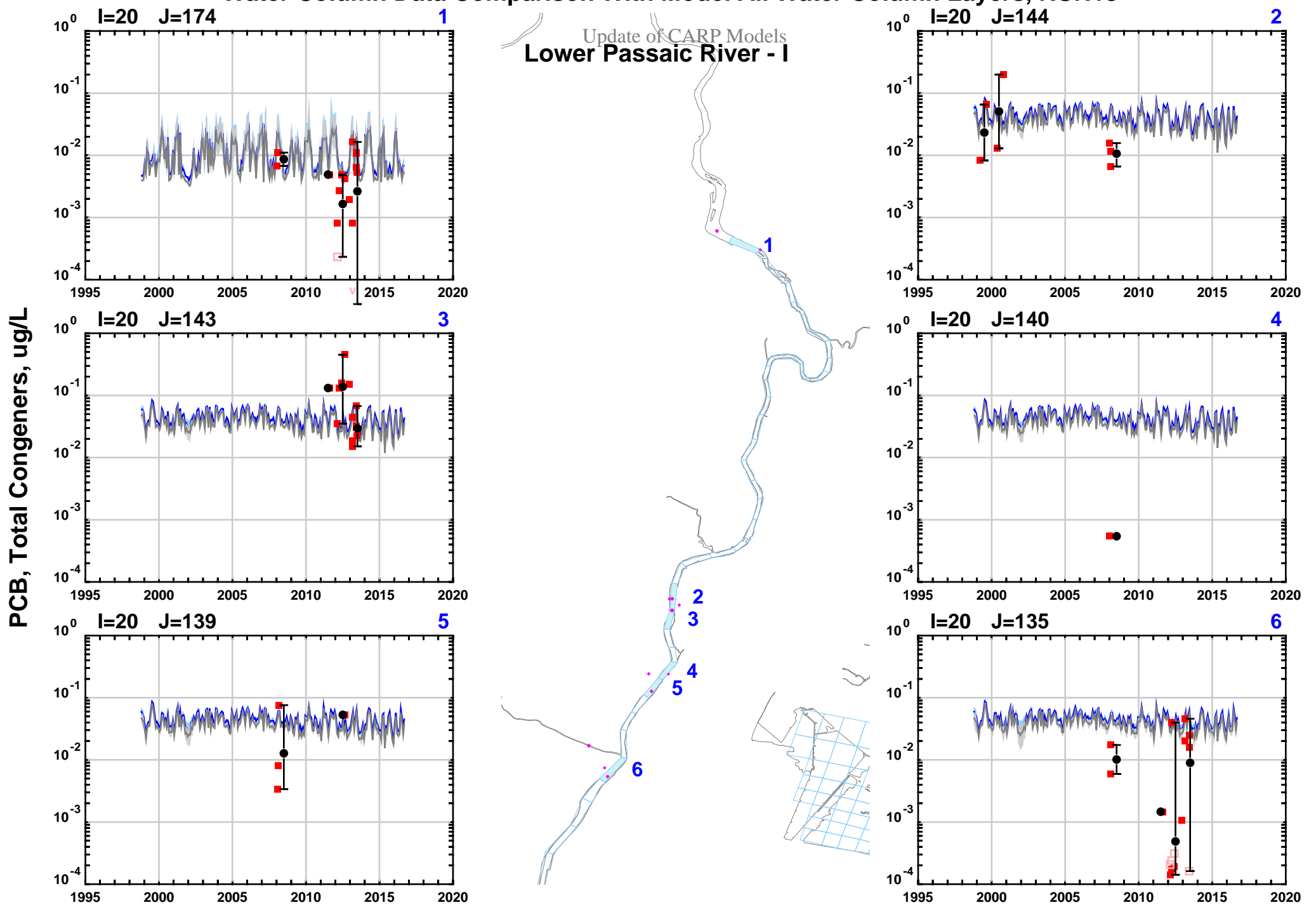


● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

Update of CARP Models Lower Passaic River - I



Detect Data

Non-Detect Data

Model: mean and range of values in Water Column

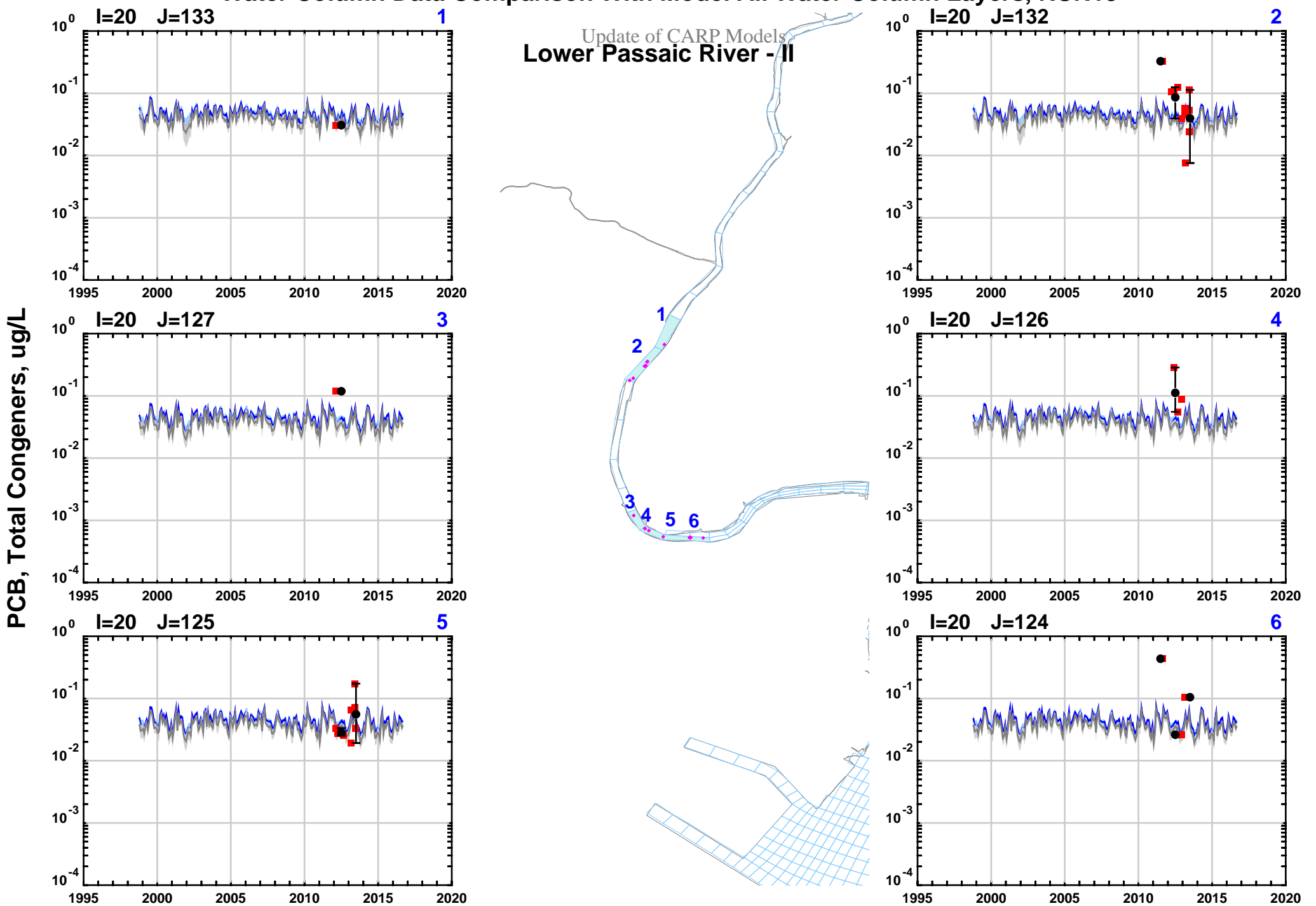
Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range

● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

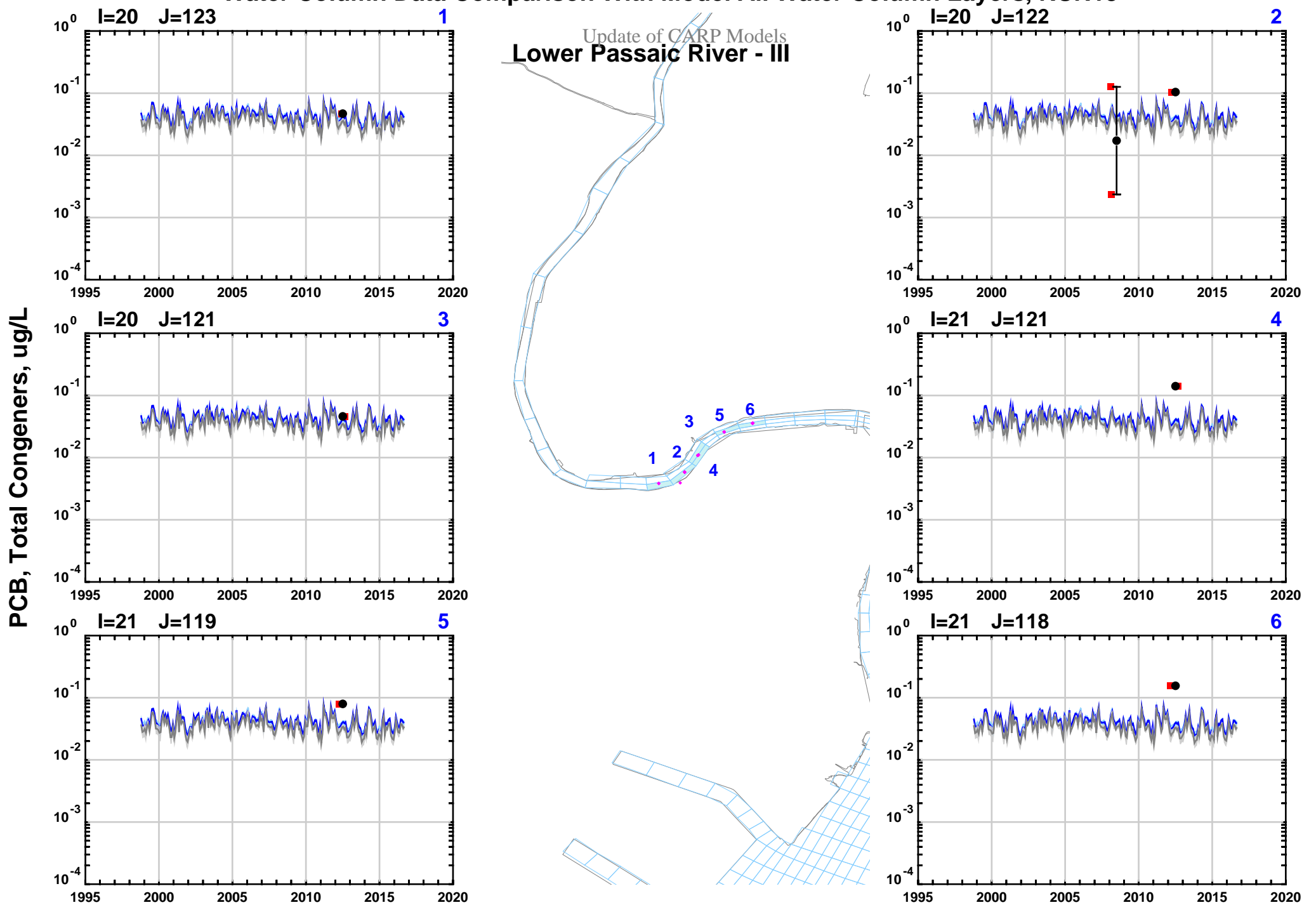
Update of CARP Models Lower Passaic River - II



● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

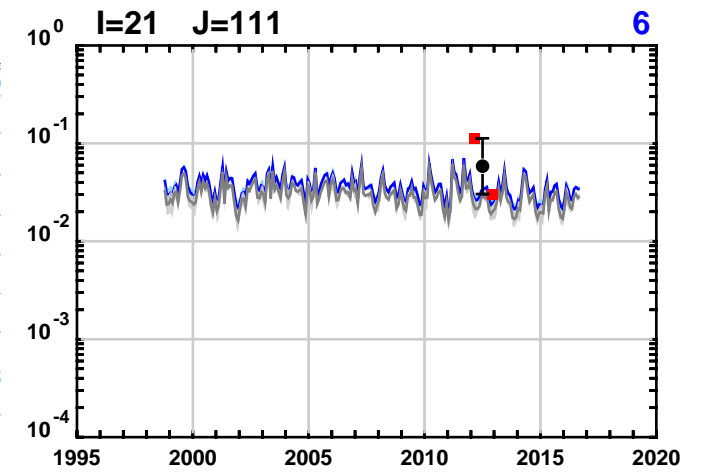
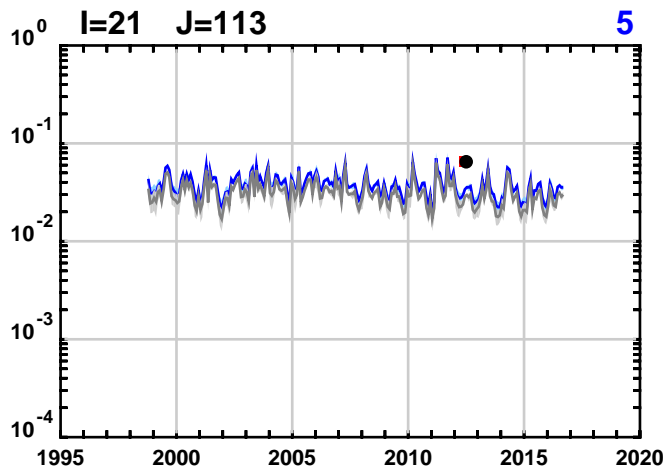
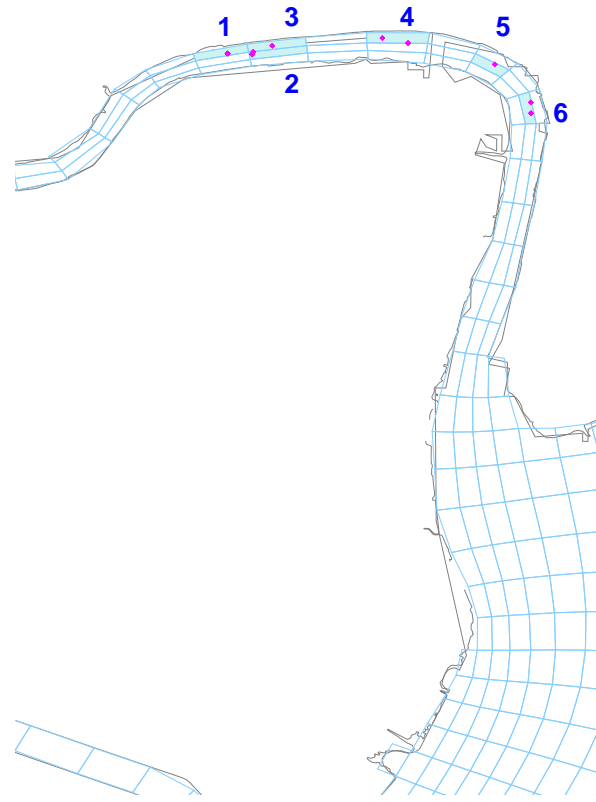
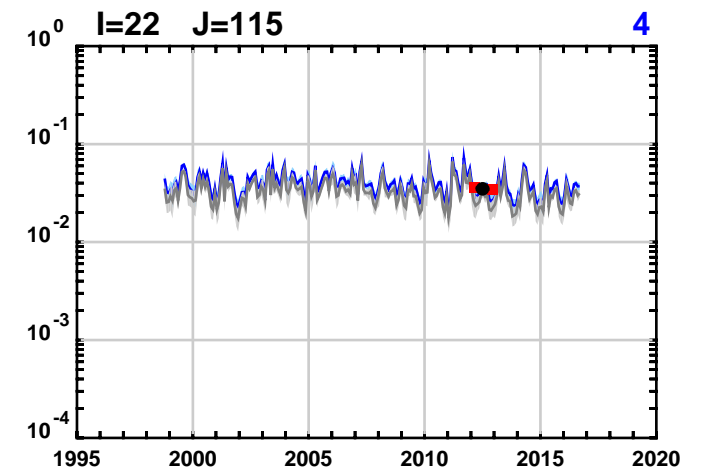
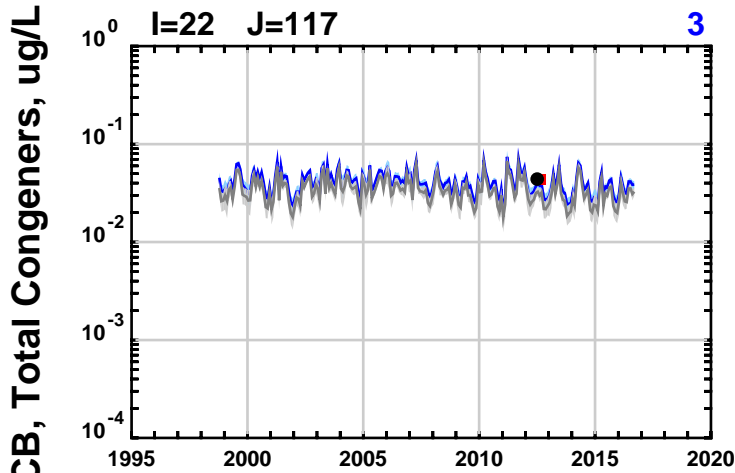
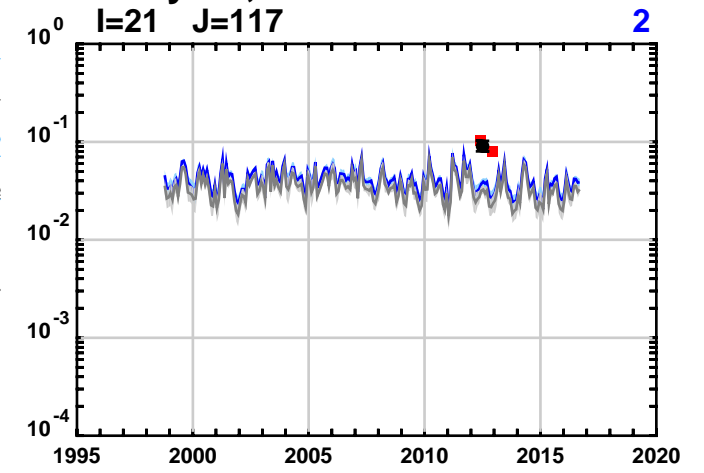
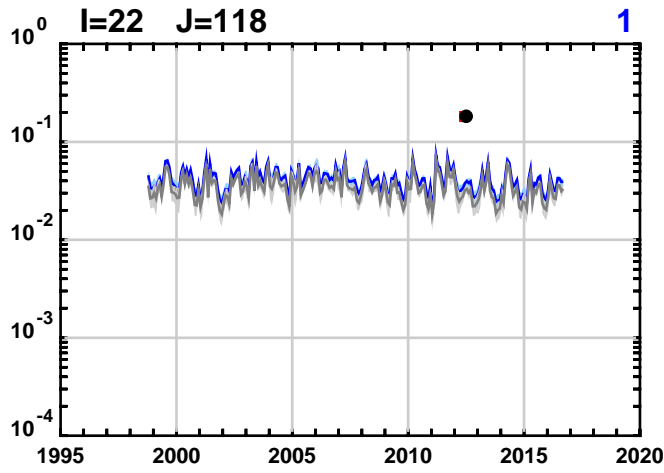
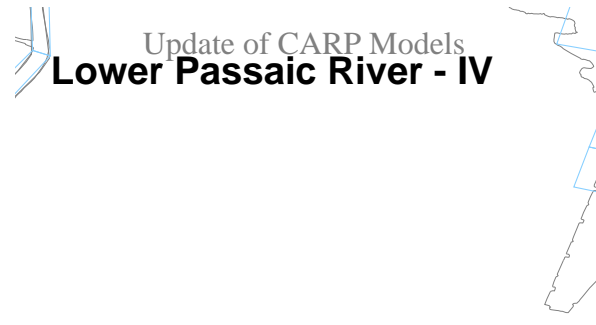
Water Column Data Comparison With Model All Water Column Layers, RUN18



● Detect Data ● Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

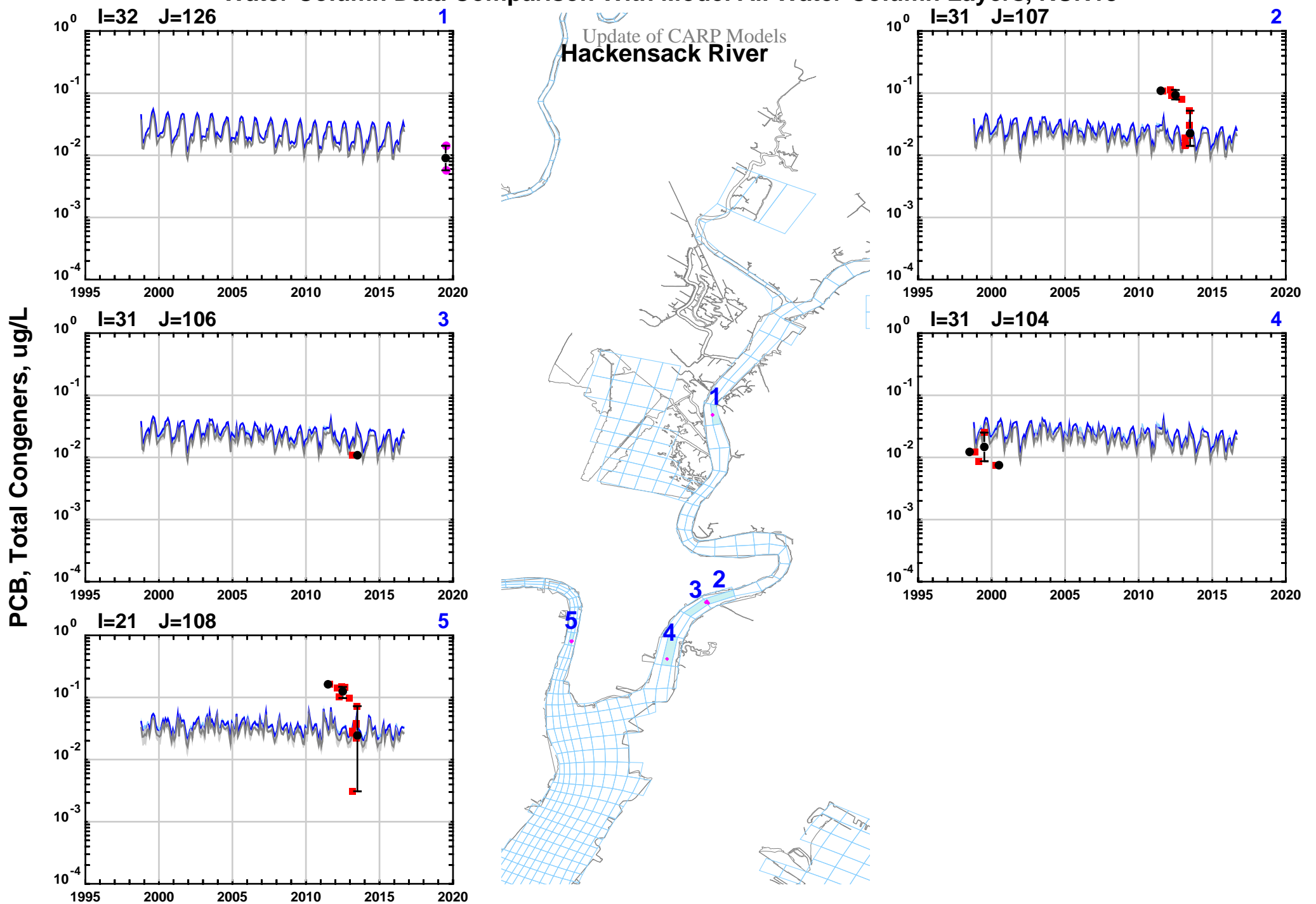
Water Column Data Comparison With Model All Water Column Layers, RUN18



● Detect Data ● Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18



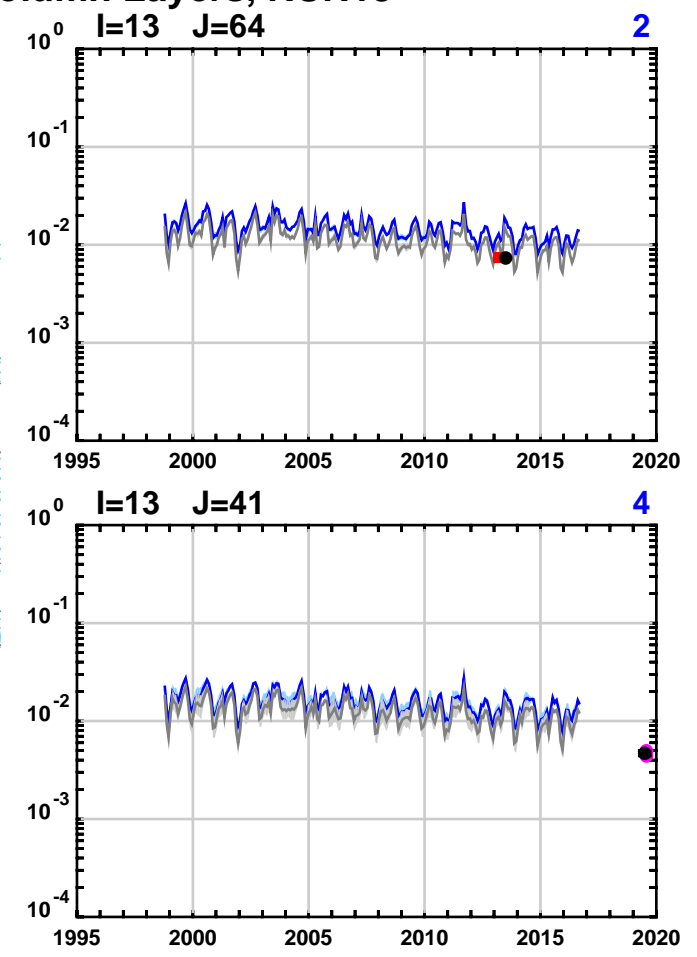
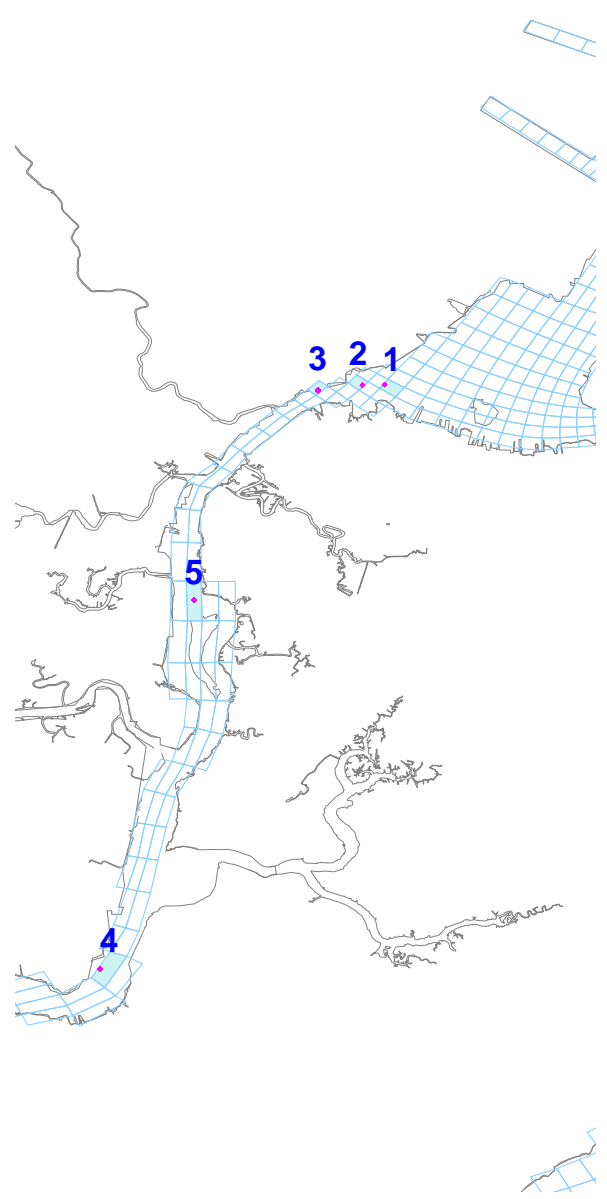
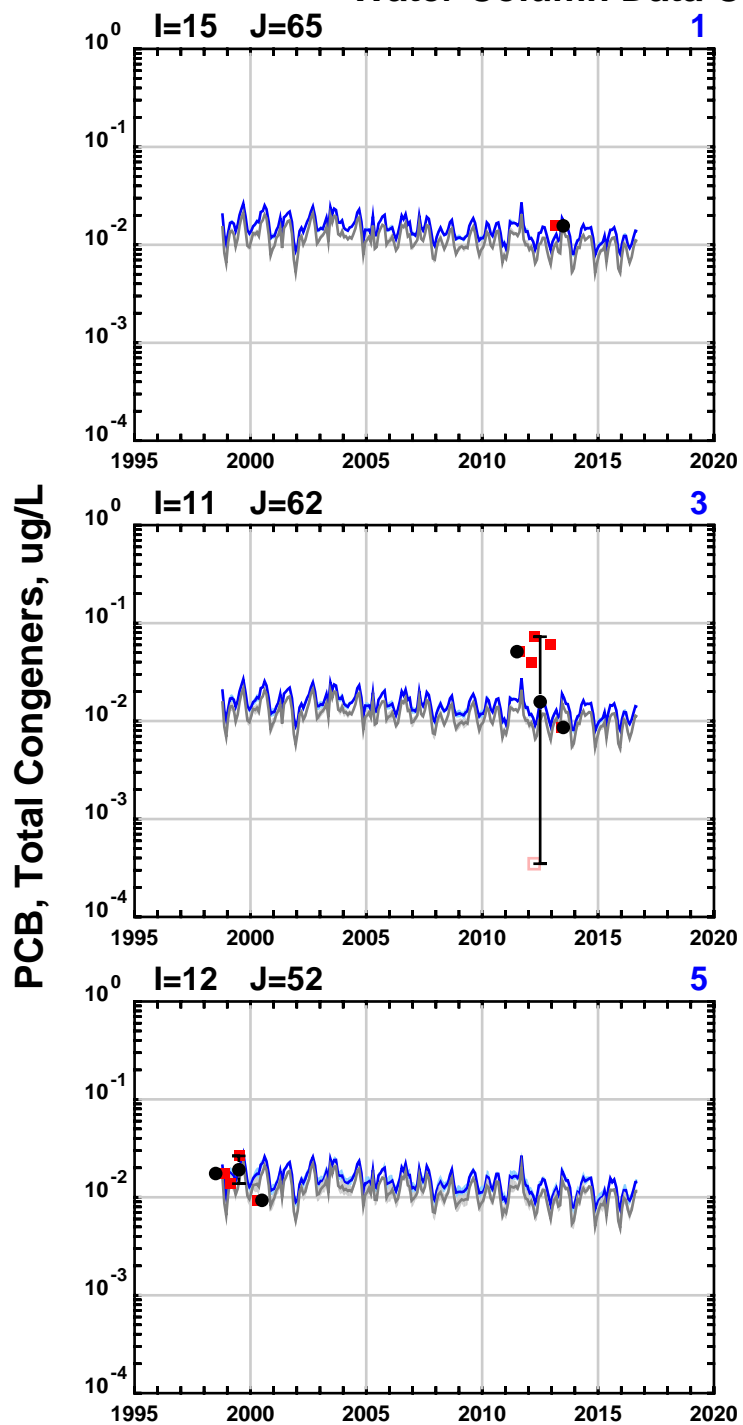
Update of CARP Models
Hackensack River

● Detect Data ■ Non-Detect Data
— Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

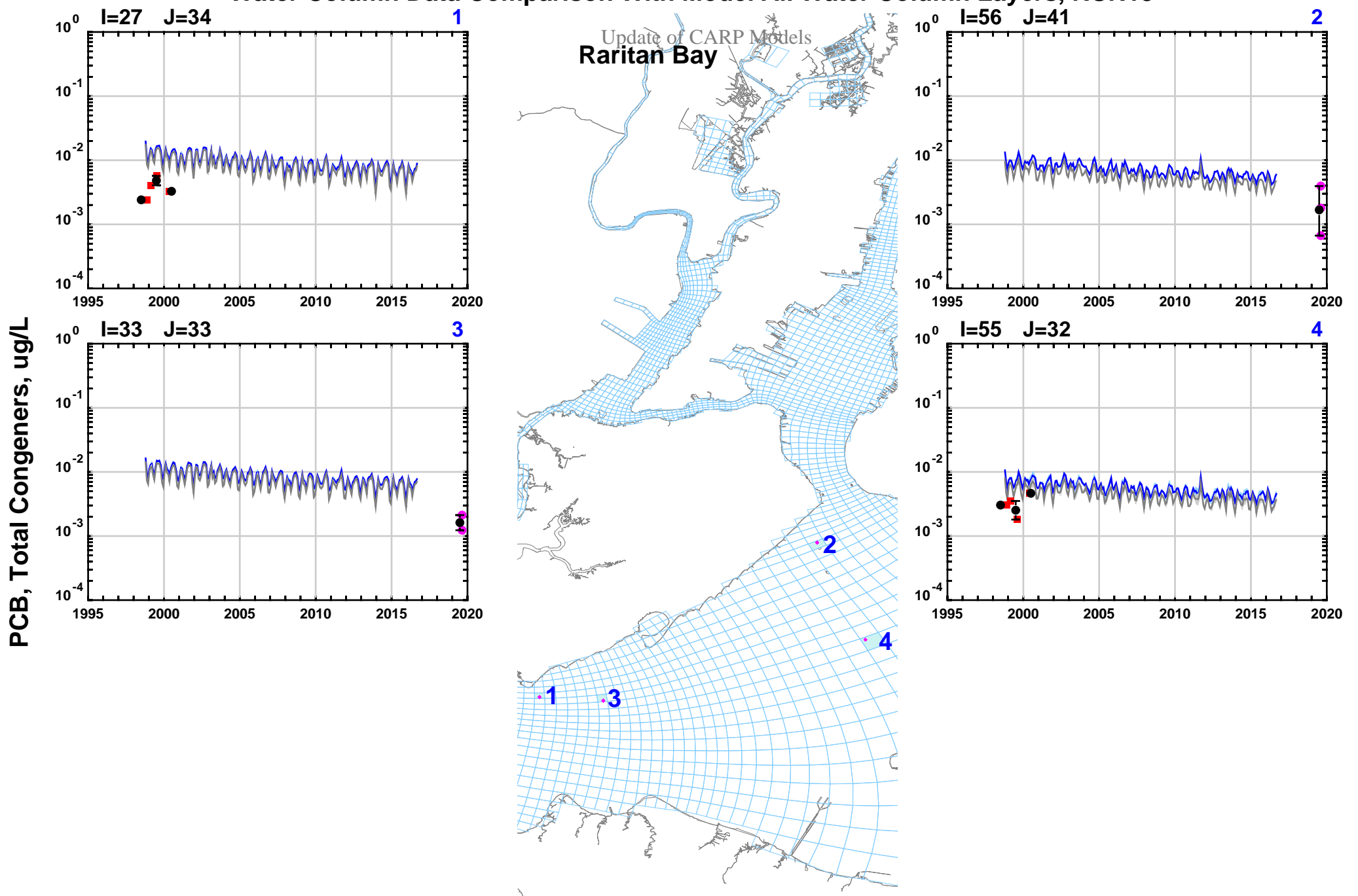
Update of CARP Models
Arthur Kill



Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

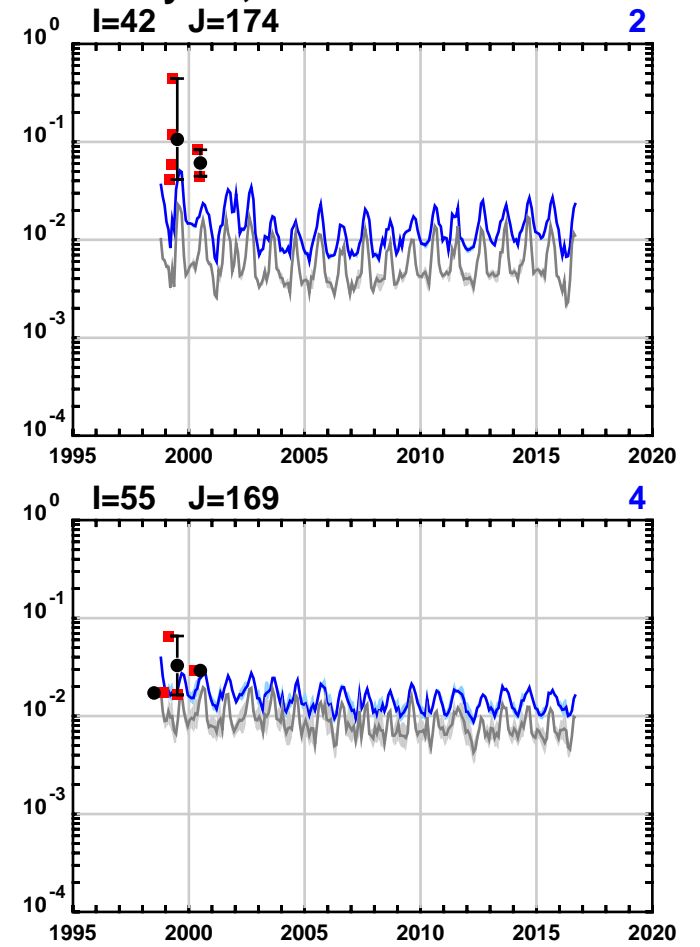
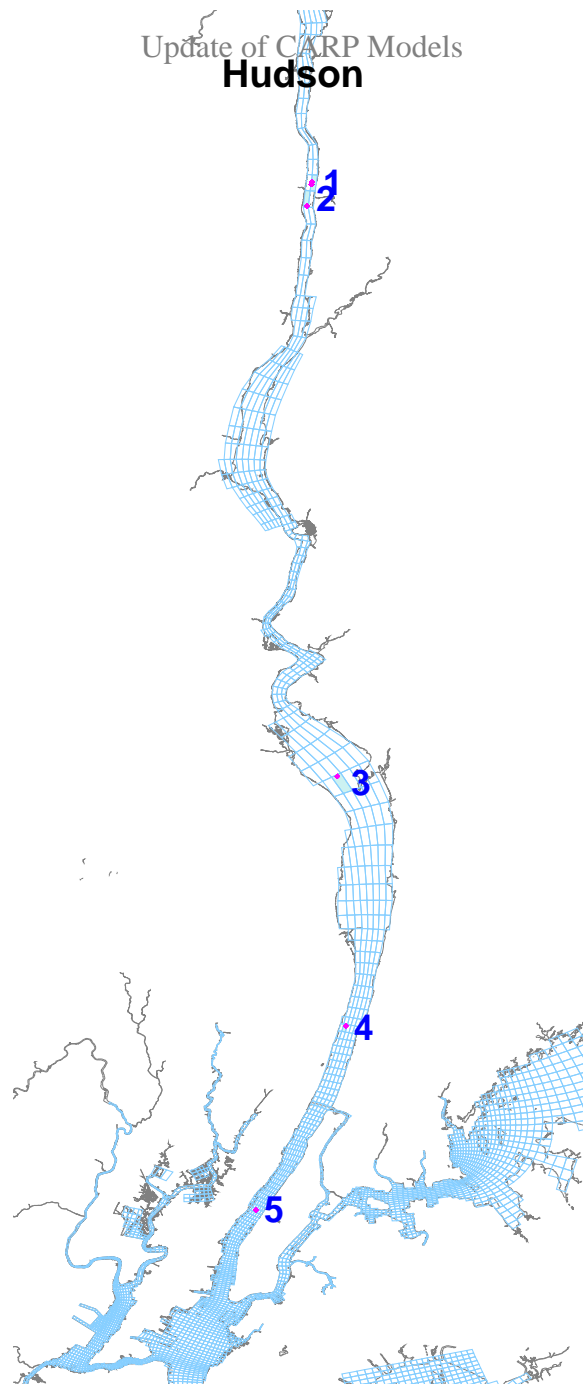
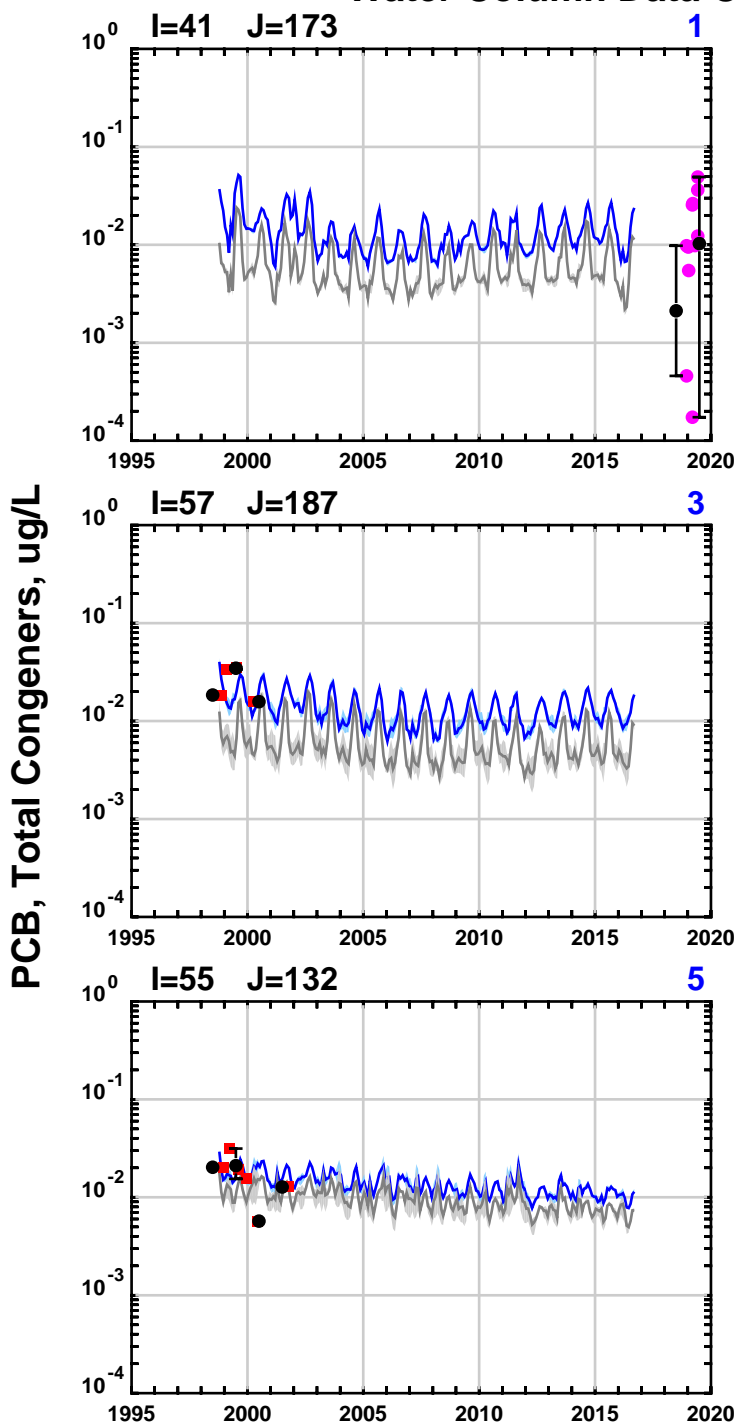


Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
Model: Particulate Phase mean and range of values in Water Column

● **Water Column Data: yearly mean and range**
 ● **CARP2 Data**

Water Column Data Comparison With Model All Water Column Layers, RUN18

Update of CARP Models
Hudson

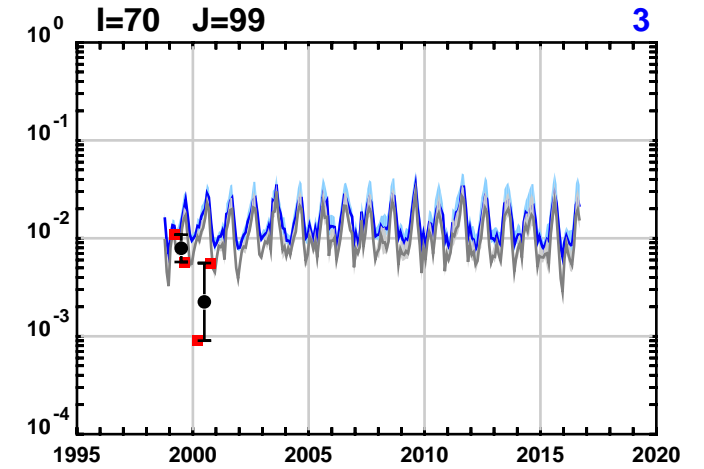
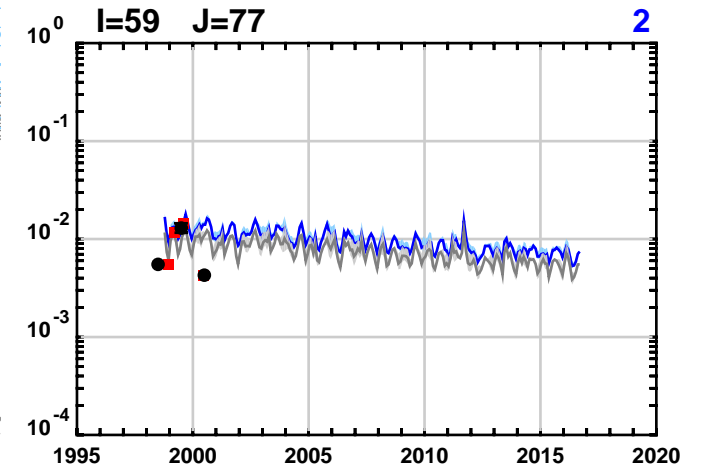
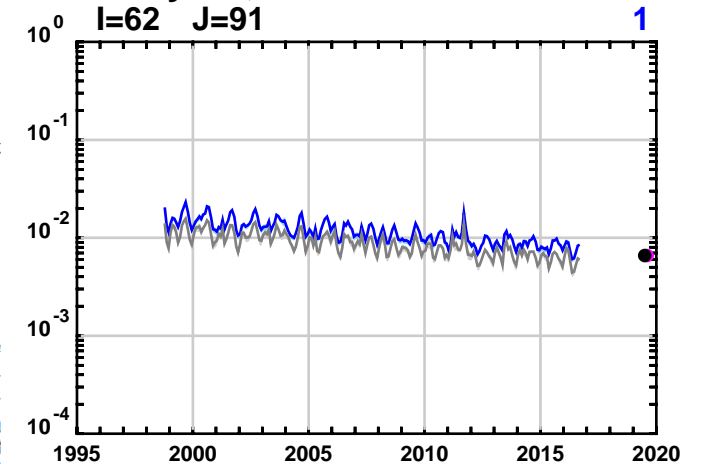
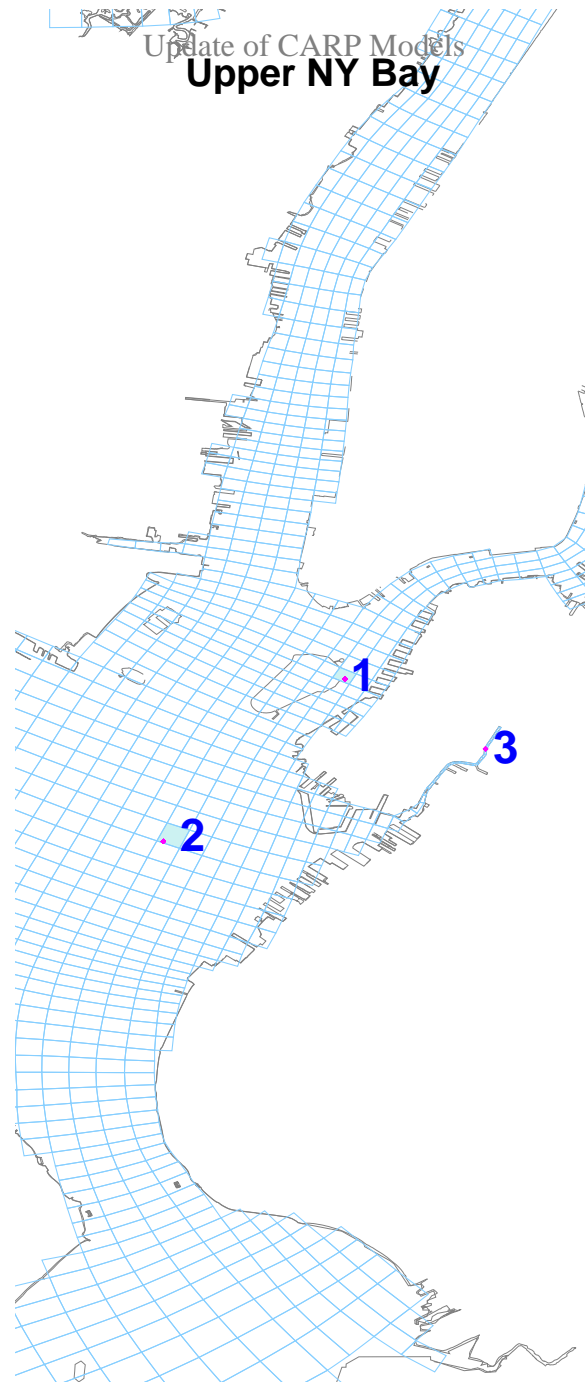


Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

PCB, Total Congeners, ug/L



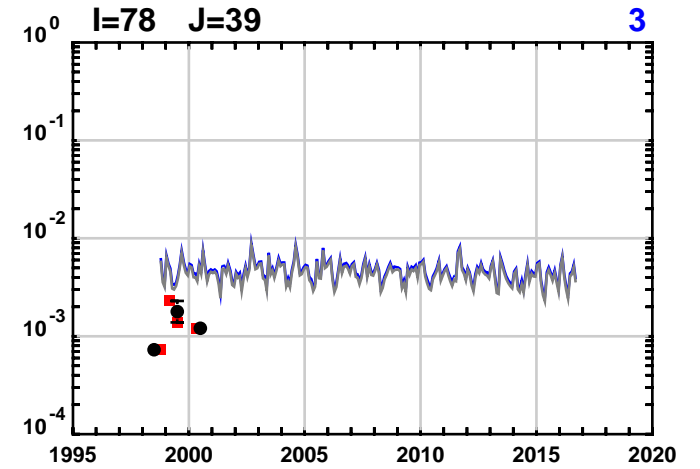
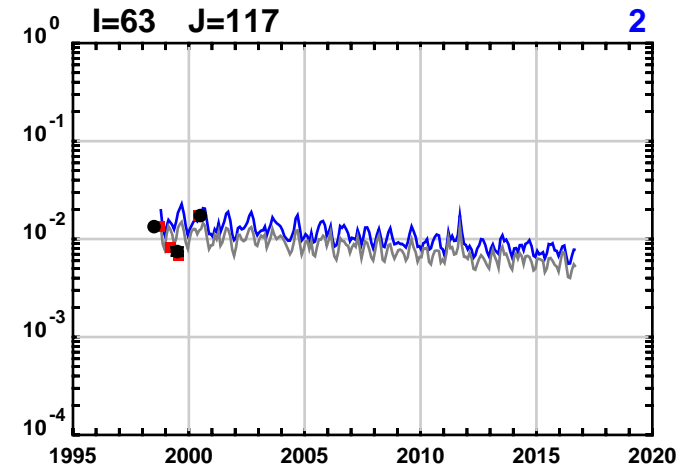
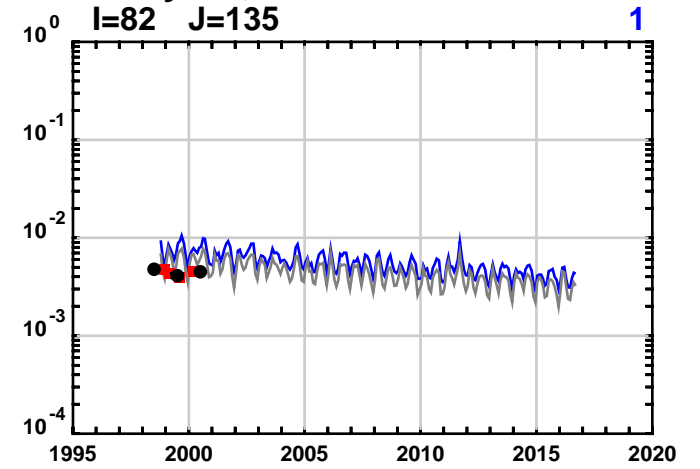
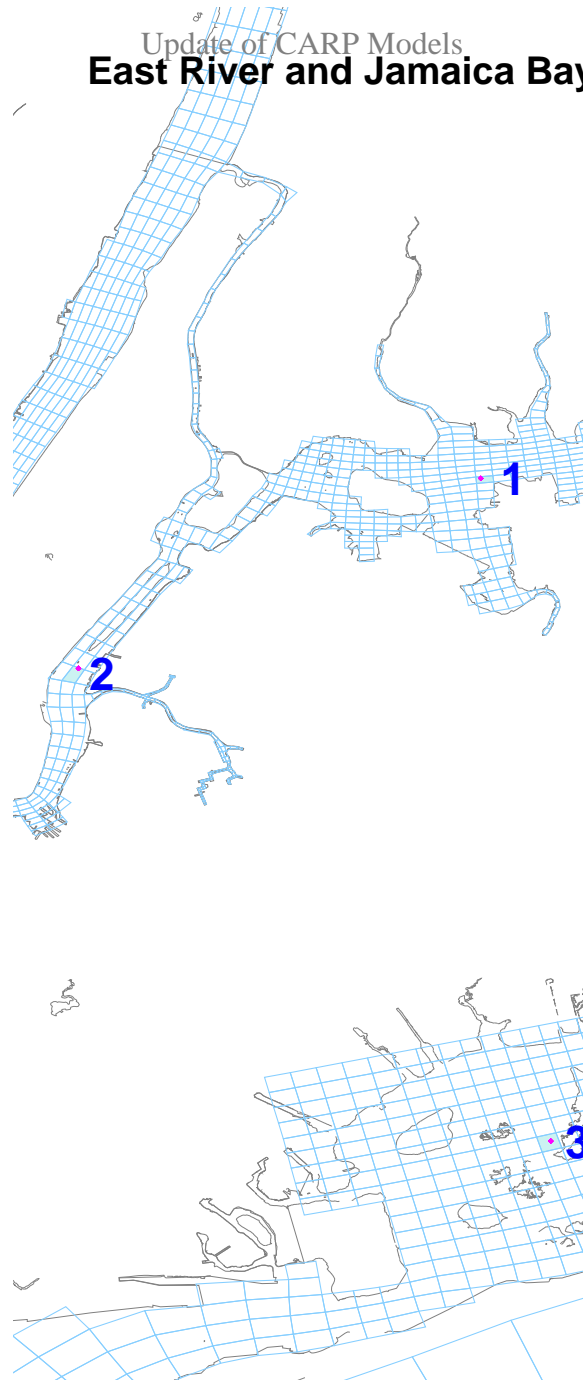
Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data

Water Column Data Comparison With Model All Water Column Layers, RUN18

Update of CARP Models East River and Jamaica Bay

PCB, Total Congeners, ug/L



Detect Data **Non-Detect Data**
Model: mean and range of values in Water Column
 Model: Particulate Phase mean and range of values in Water Column

● Water Column Data: yearly mean and range
 ● CARP2 Data