

Animation of Salinity in the Estuary with a 1995 Level of Development

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California Department of Water Resources



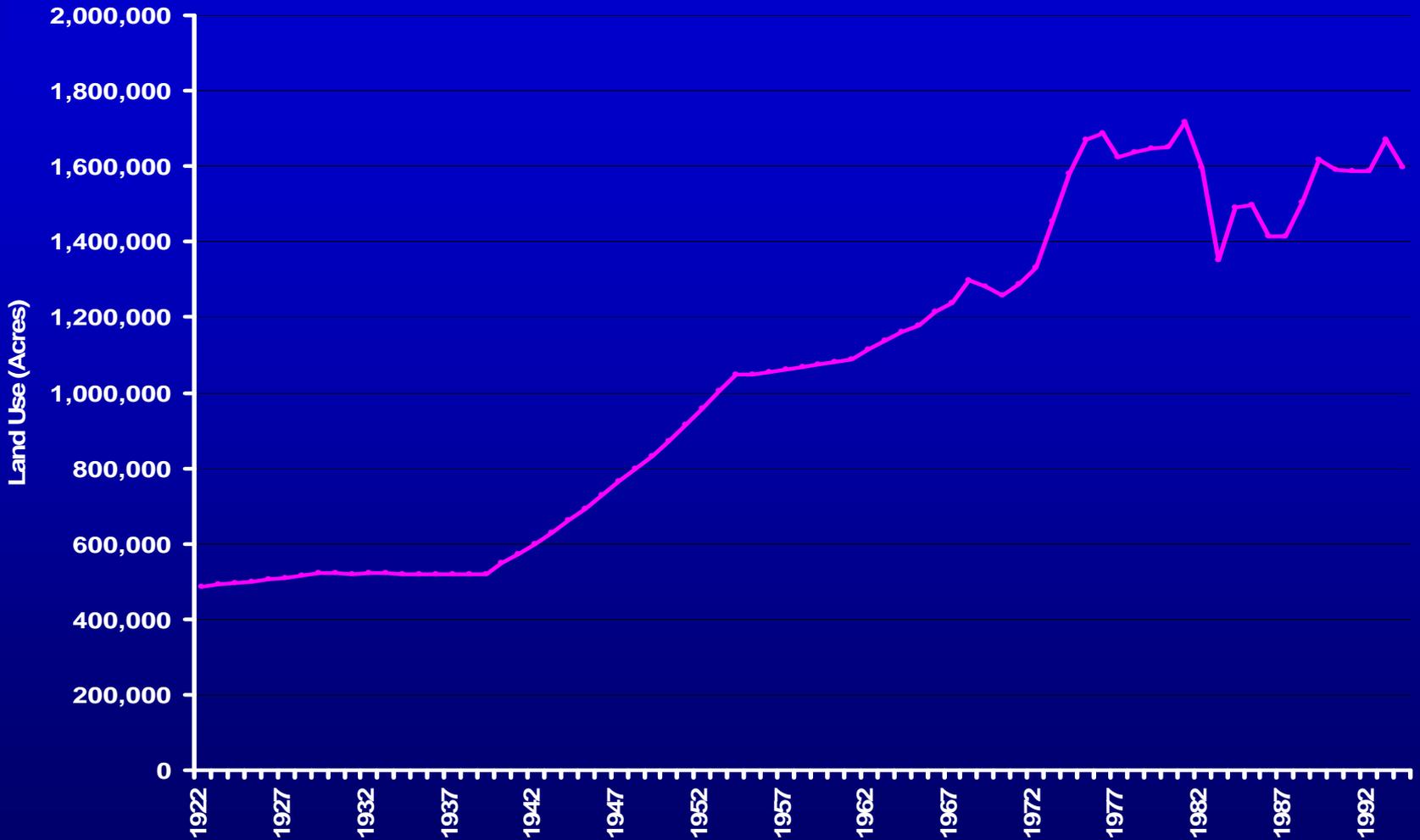
Presentation Outline

- History of Development
 - Land Use
 - Reservoir Storage
 - Exports
- Modeling Study Assumptions
- Results (Water Years 1923-1994)
 - Salinity Animations
 - Box Plots of Salinity

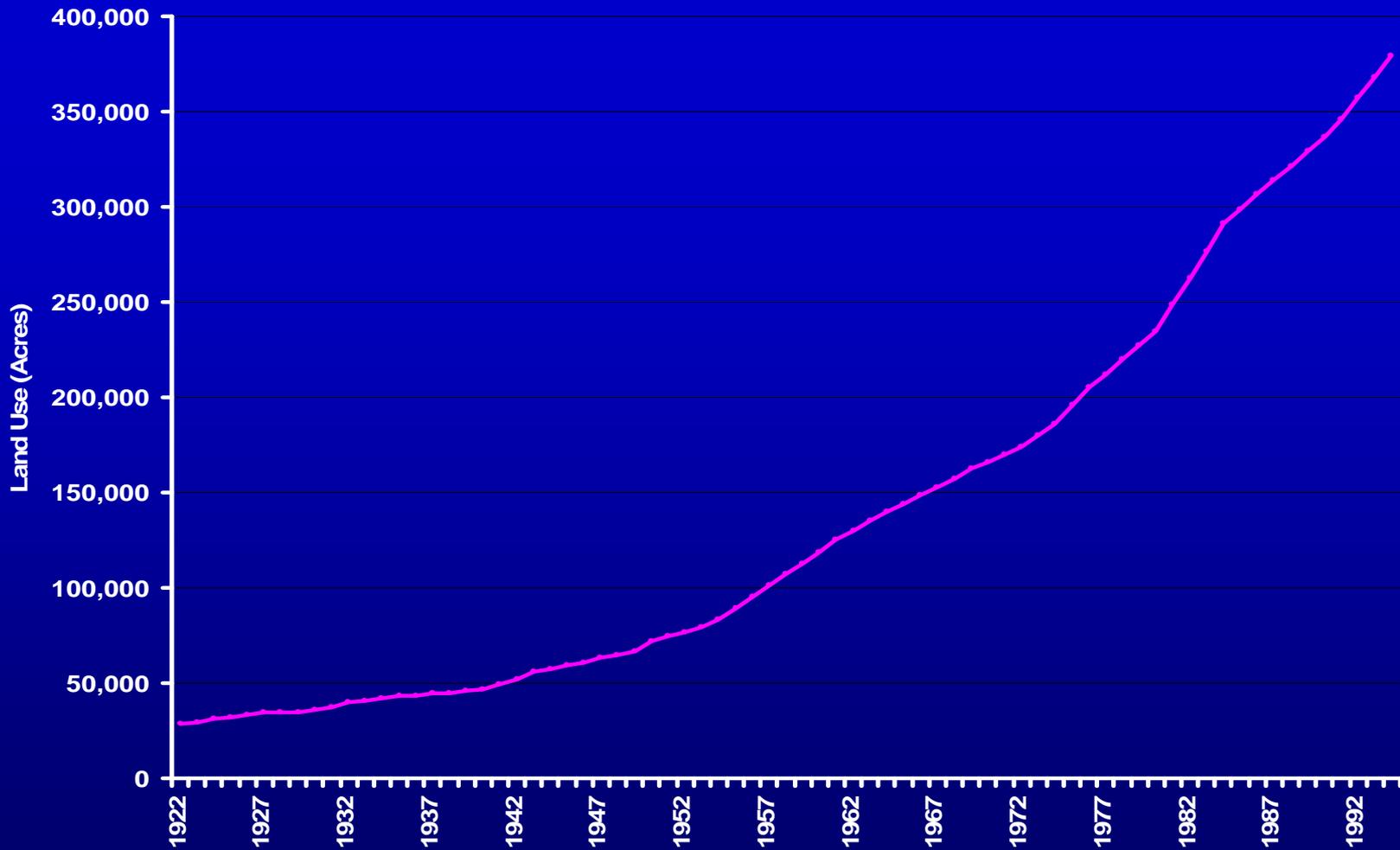
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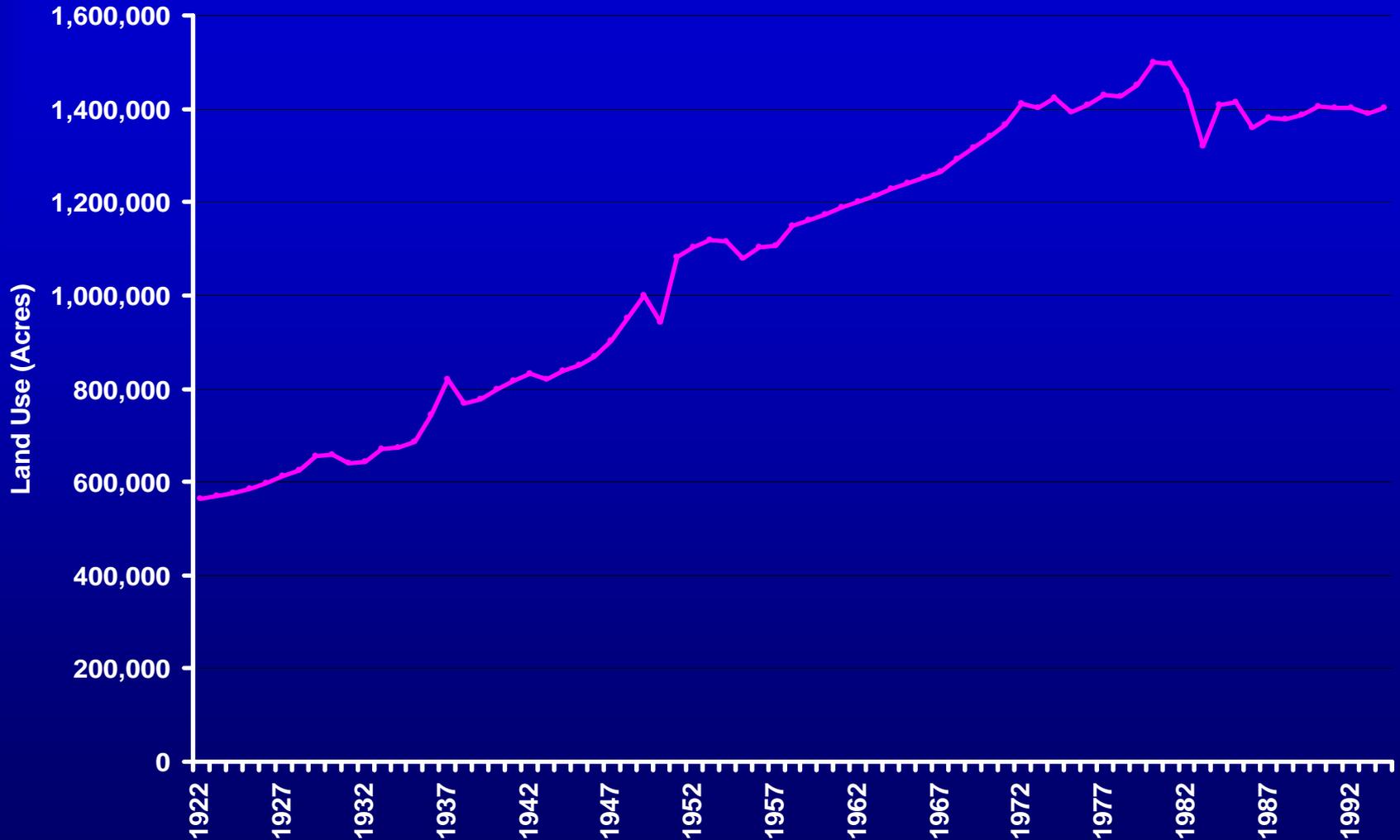
Sacramento River Basin Historical Agricultural Land Use



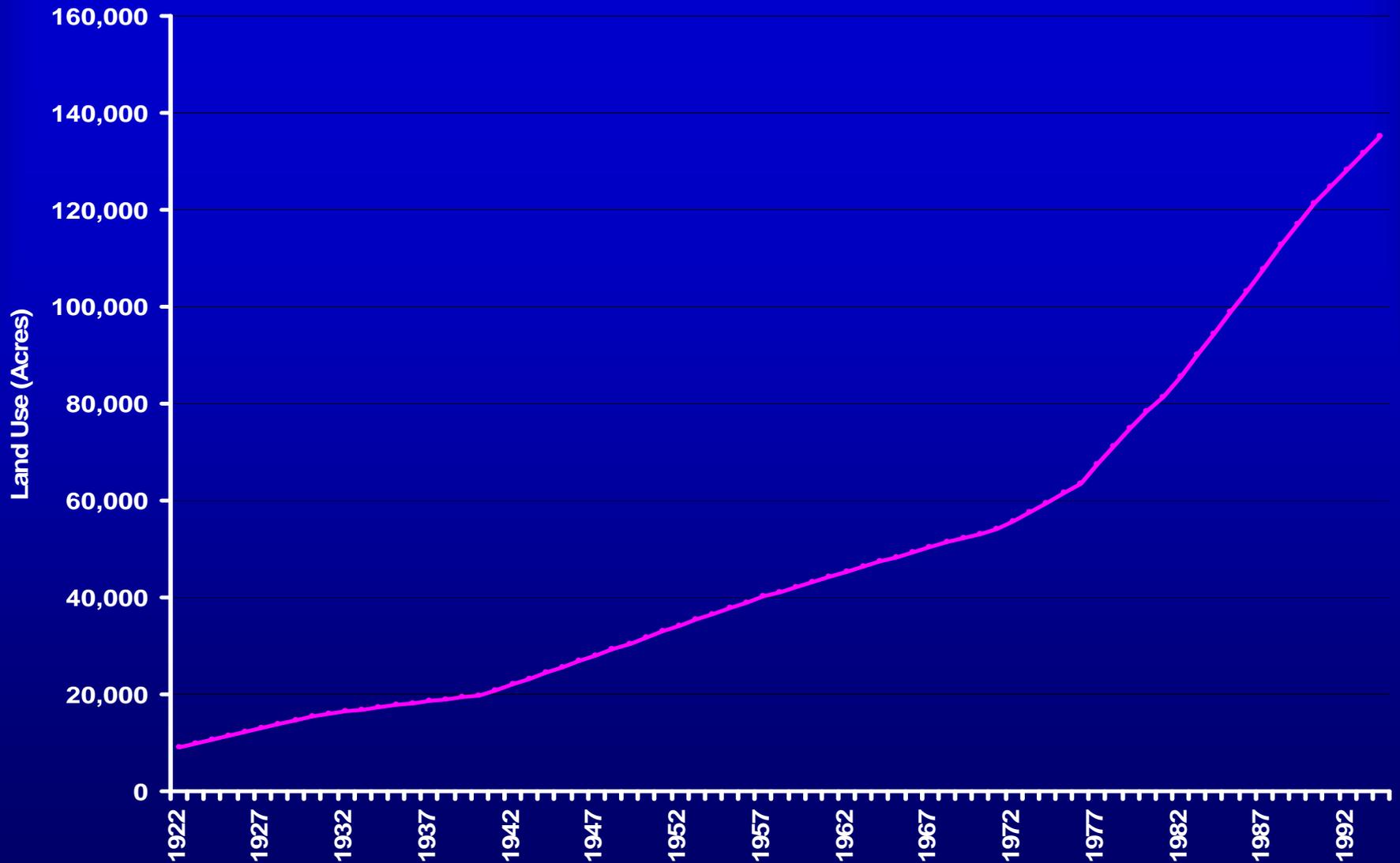
Sacramento River Basin Historical Urban Land Use



San Joaquin River Basin Historical Agricultural Land Use

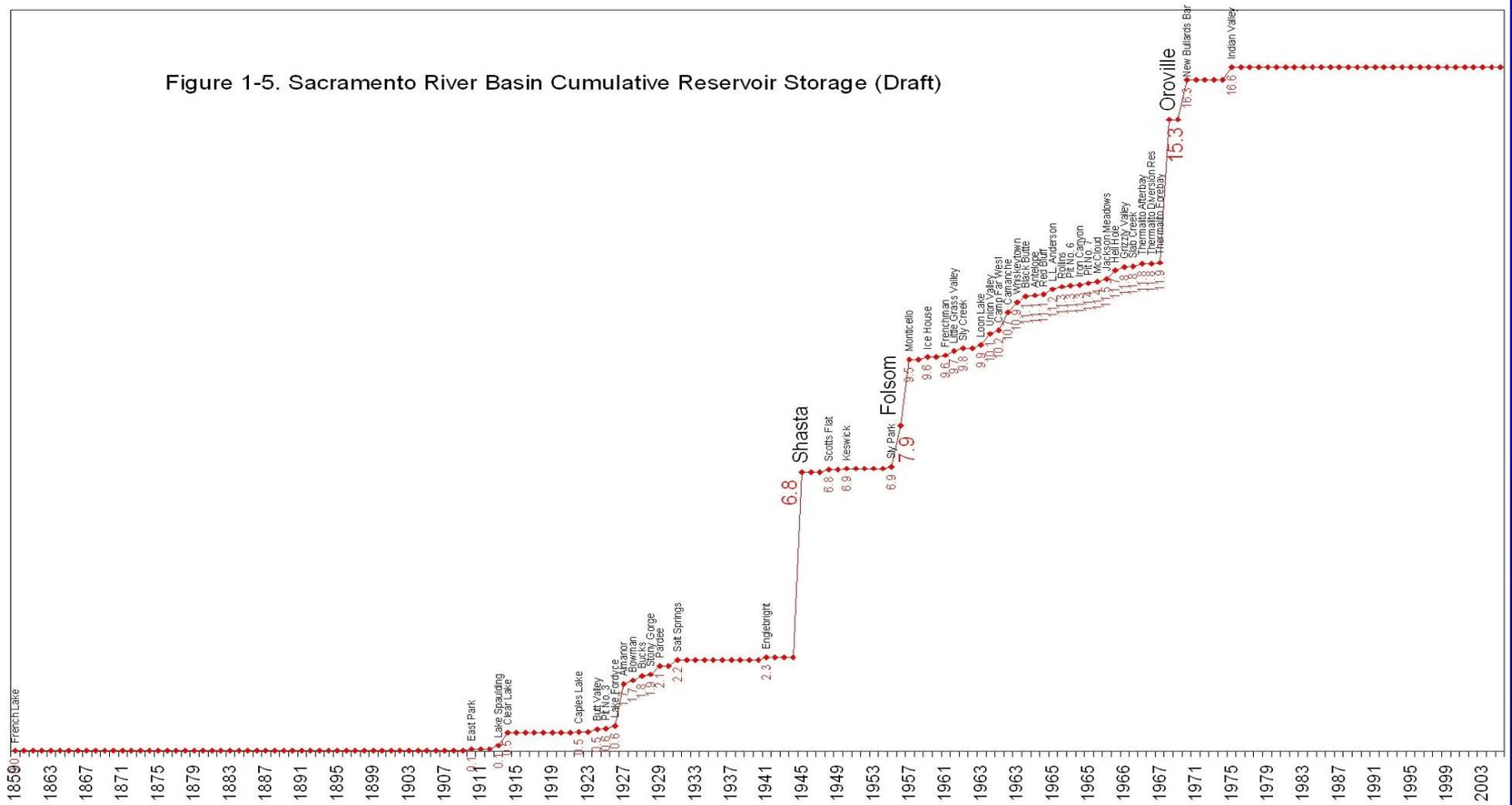


San Joaquin River Basin Historical Urban Land Use



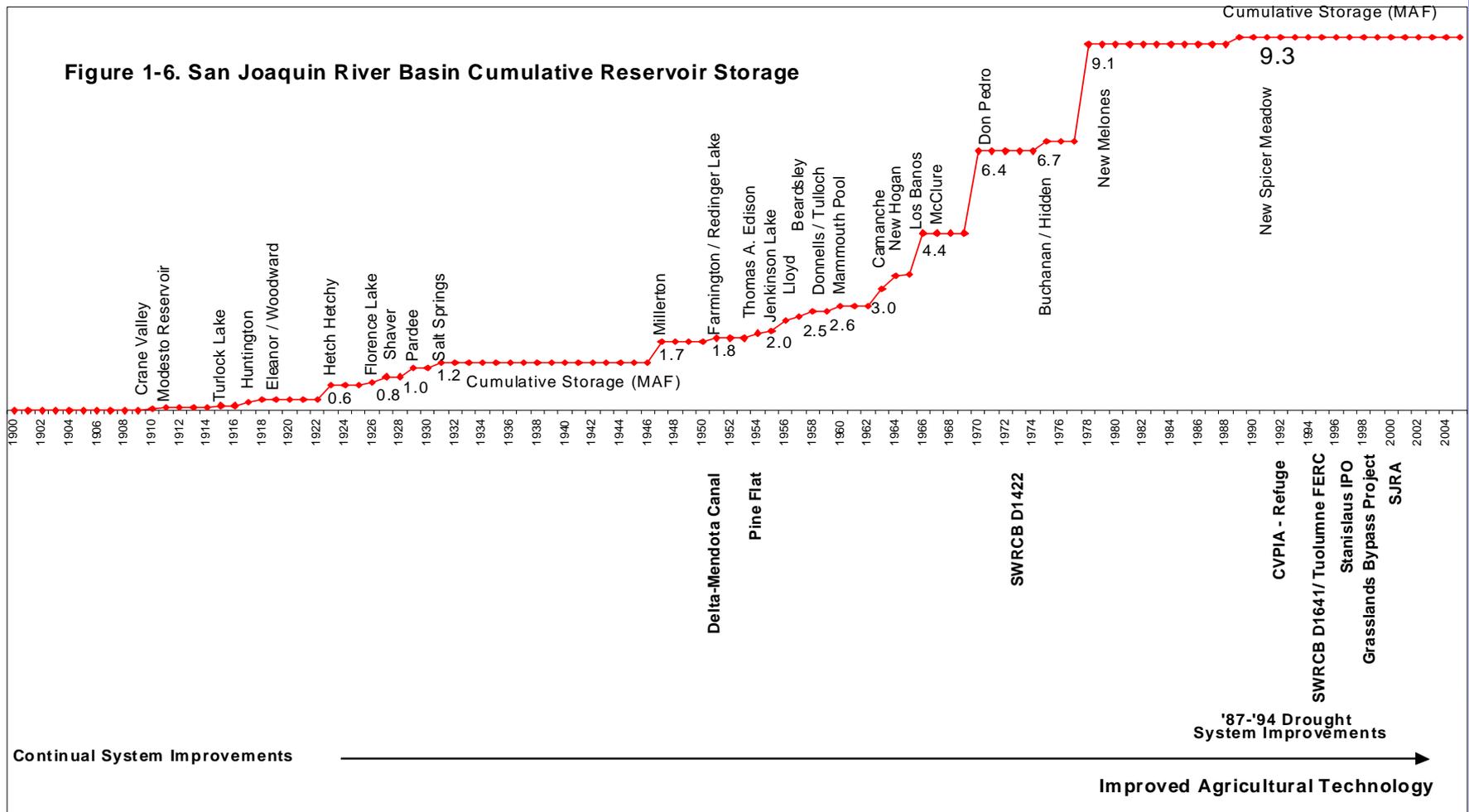
Sacramento River Basin Cumulative Reservoir Storage

Figure 1-5. Sacramento River Basin Cumulative Reservoir Storage (Draft)



San Joaquin River Basin Cumulative Reservoir Storage

Figure 1-6. San Joaquin River Basin Cumulative Reservoir Storage



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Study Assumptions - Hydrology

- 1995 Level of Development with Projects
 - Reflects SWP/CVP projects
 - Assumes agricultural land use and urban development fixed at 1995 level of development
 - Monthly average inflows and exports
 - 1923-1994

Study Assumptions – DSM2

- Monthly flows converted to daily input and smoothed
- Martinez Stage is adjusted to reflect current sea levels
- Sacramento River boundary EC is set to a constant value
- San Joaquin River boundary EC varies
- Temporary Barriers are installed according to the time of year and the magnitude of flow in the San Joaquin River.

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Animation of Salinity

[Click here to show the entire animation
for 1923 through 1994](#)

Selected Periods for Animation

- Dry Periods

- 1929-1934

- 1976/1977

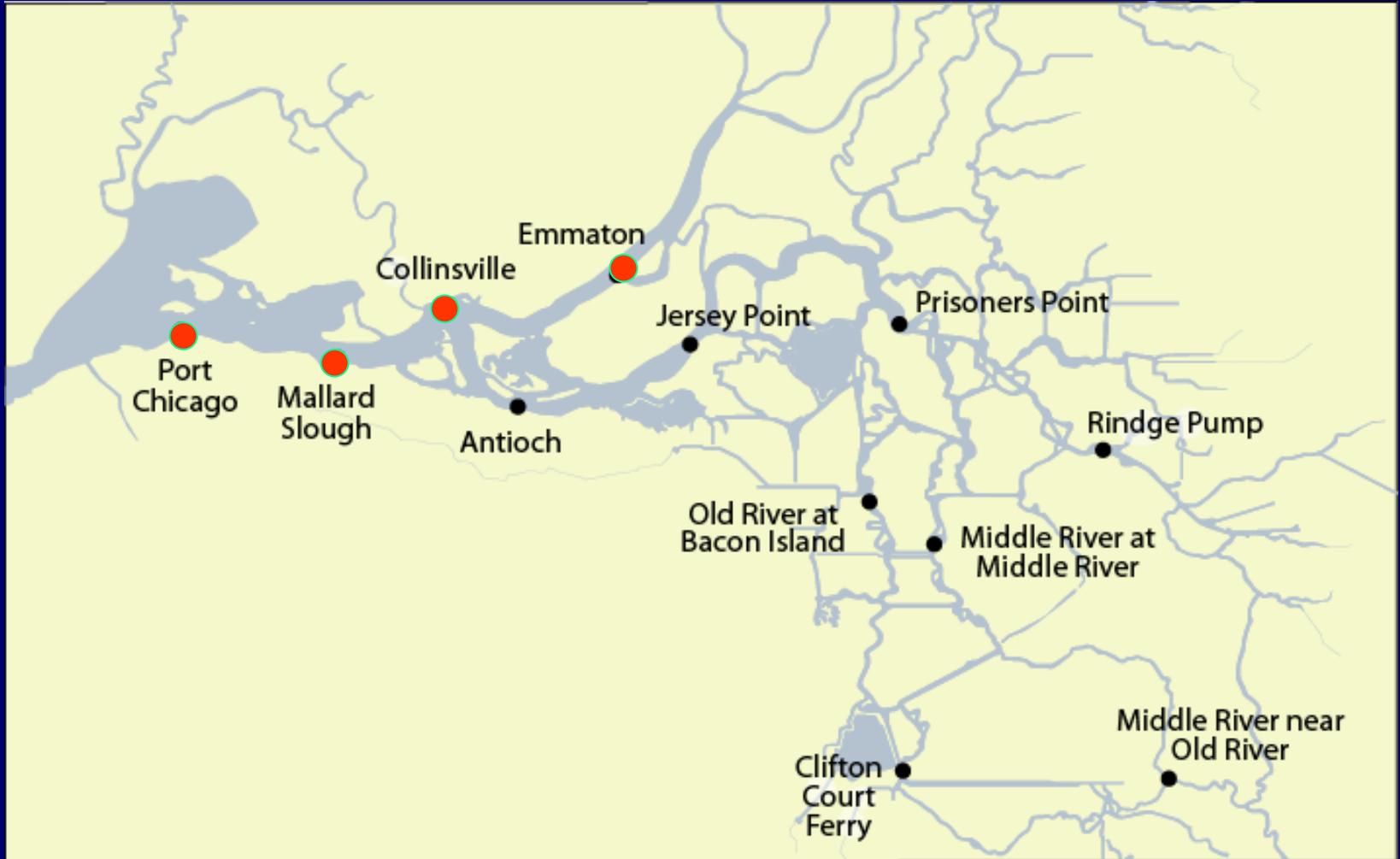
- 1989-1992

- Wet Periods

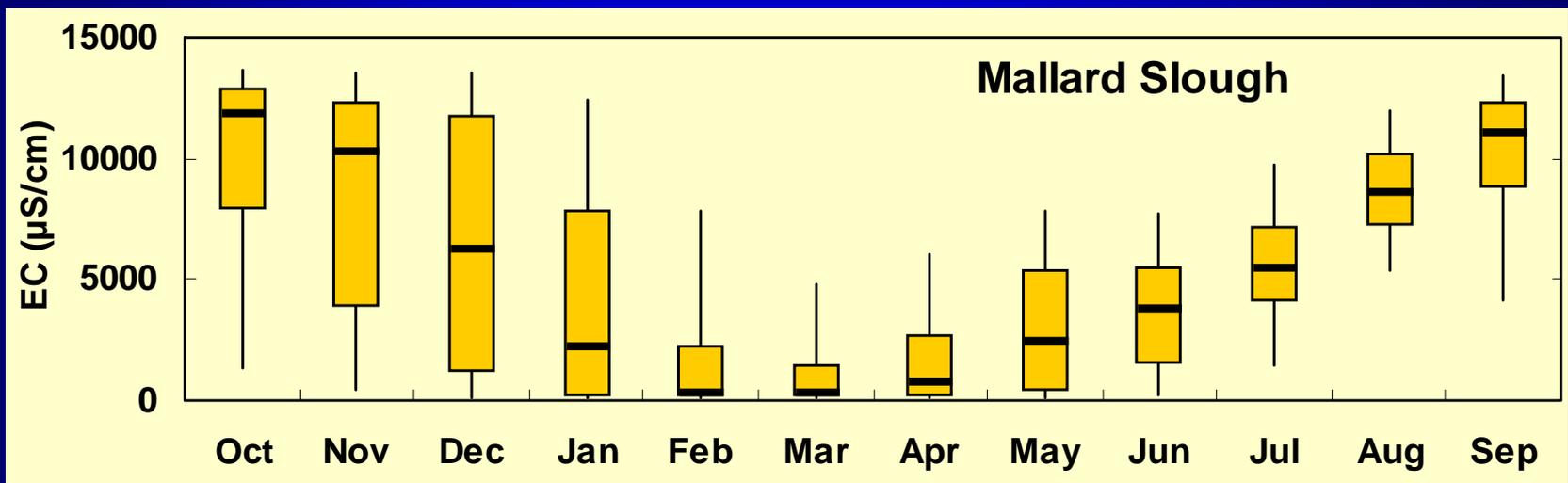
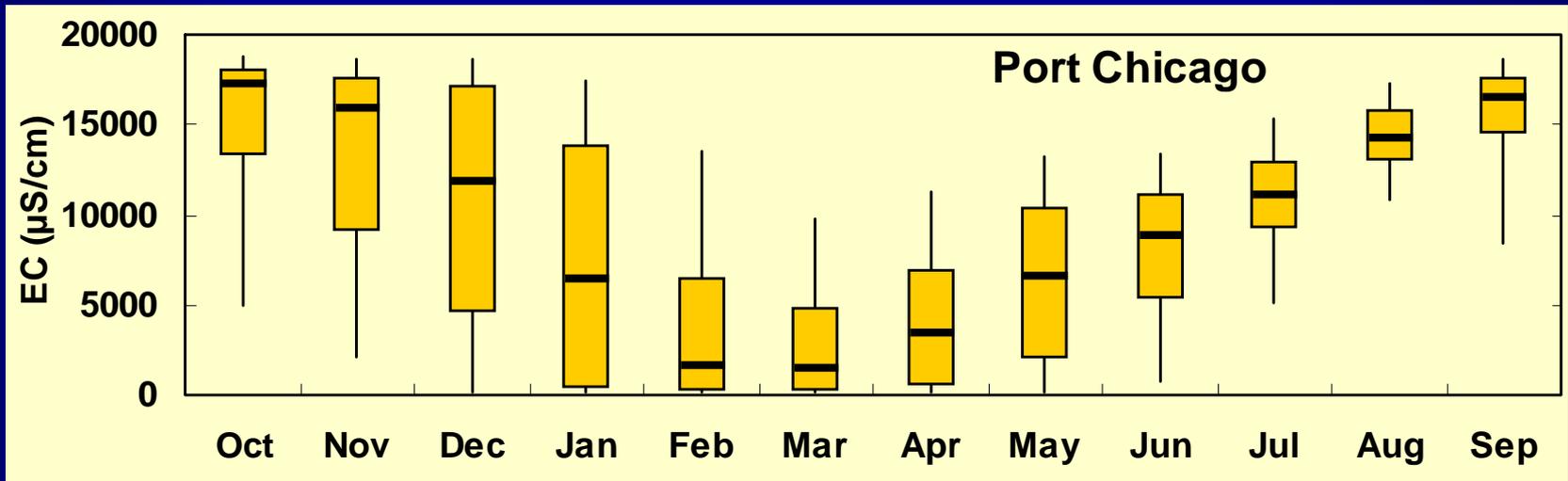
- 1941-1943

- 1982-1984

Locations Distribution of EC Presented DSM2 Simulation of 1923 – 1994, DWRSIM Study 1995 LOD w/Projects

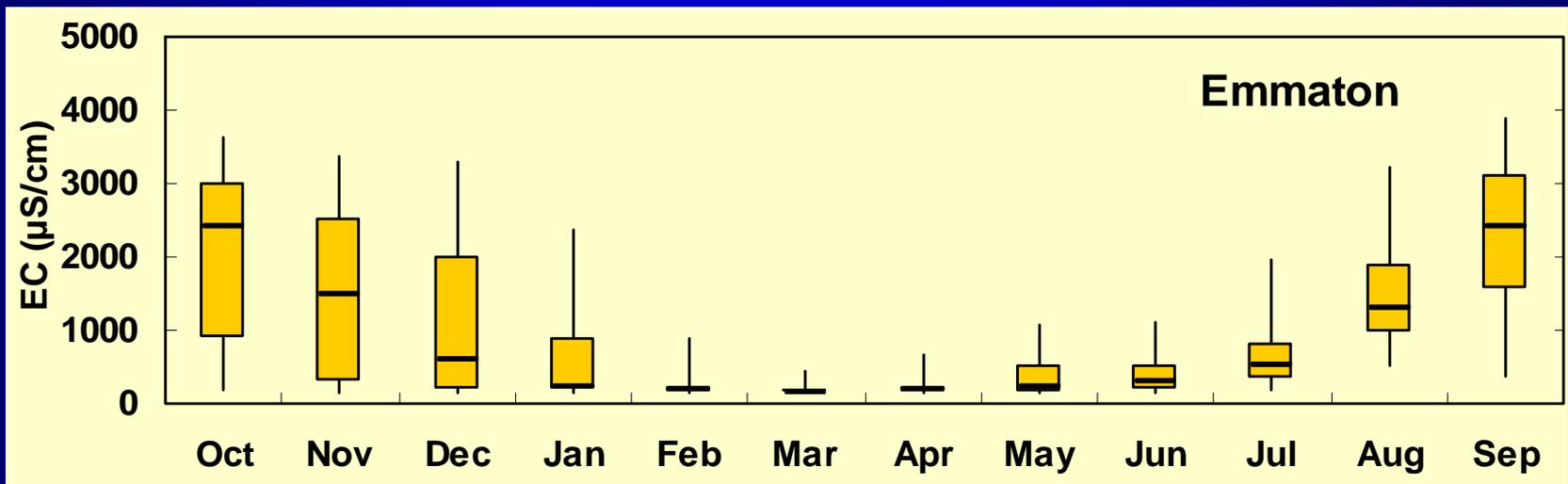
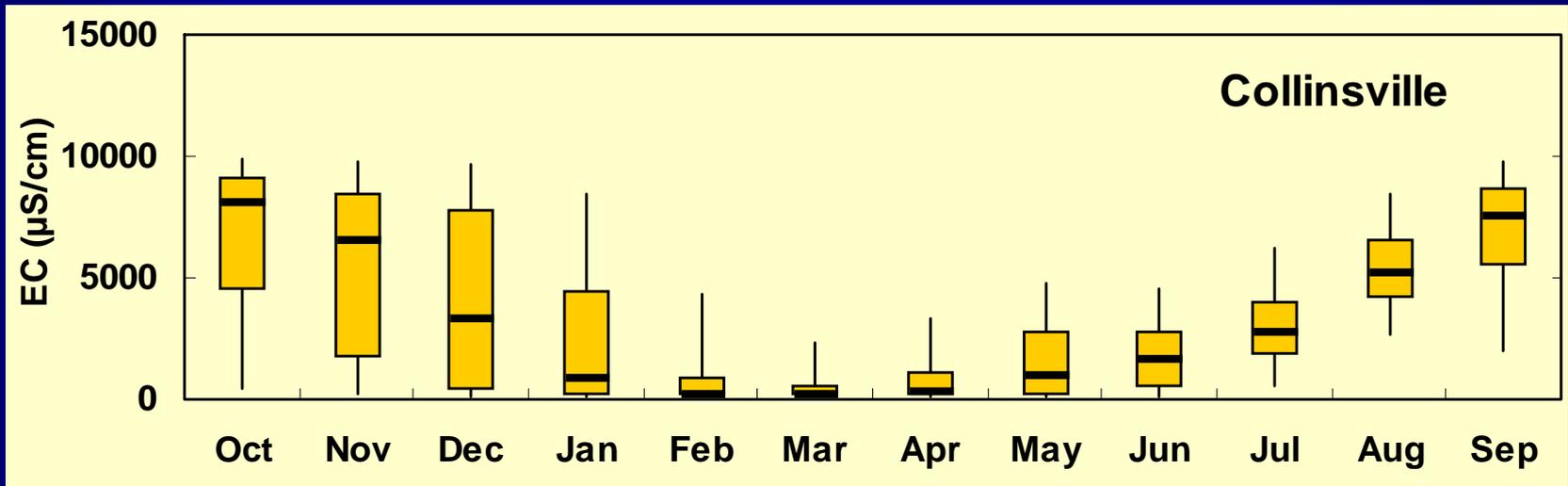


Distribution of Daily Average EC 1995 LOD with Projects, 1923 – 1994 Lower Sacramento River



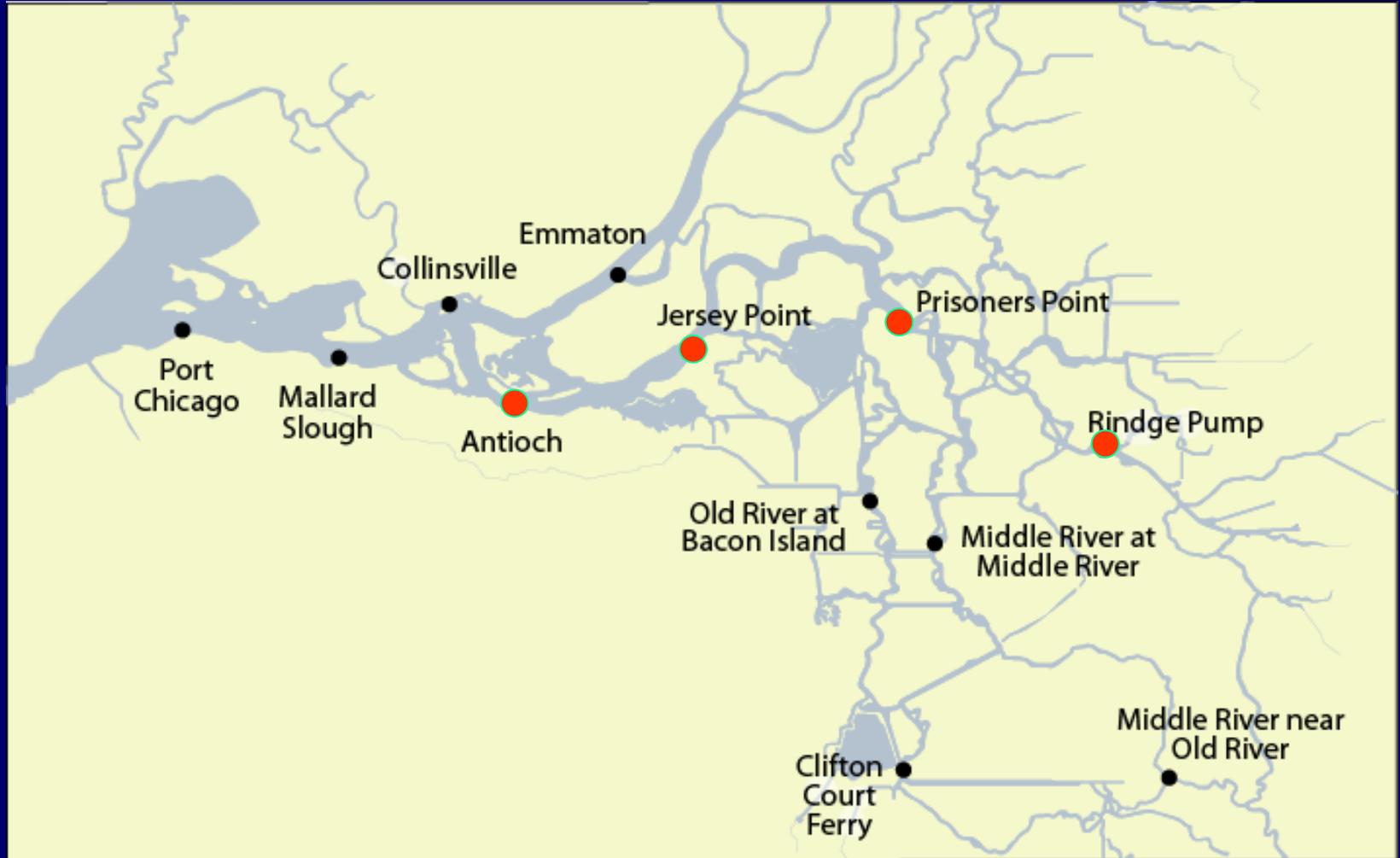
Values correspond to 5%, 25%, median, 75%, and 95% by rank

Distribution of Daily Average EC 1995 LOD with Projects, 1923 – 1994 Sacramento River

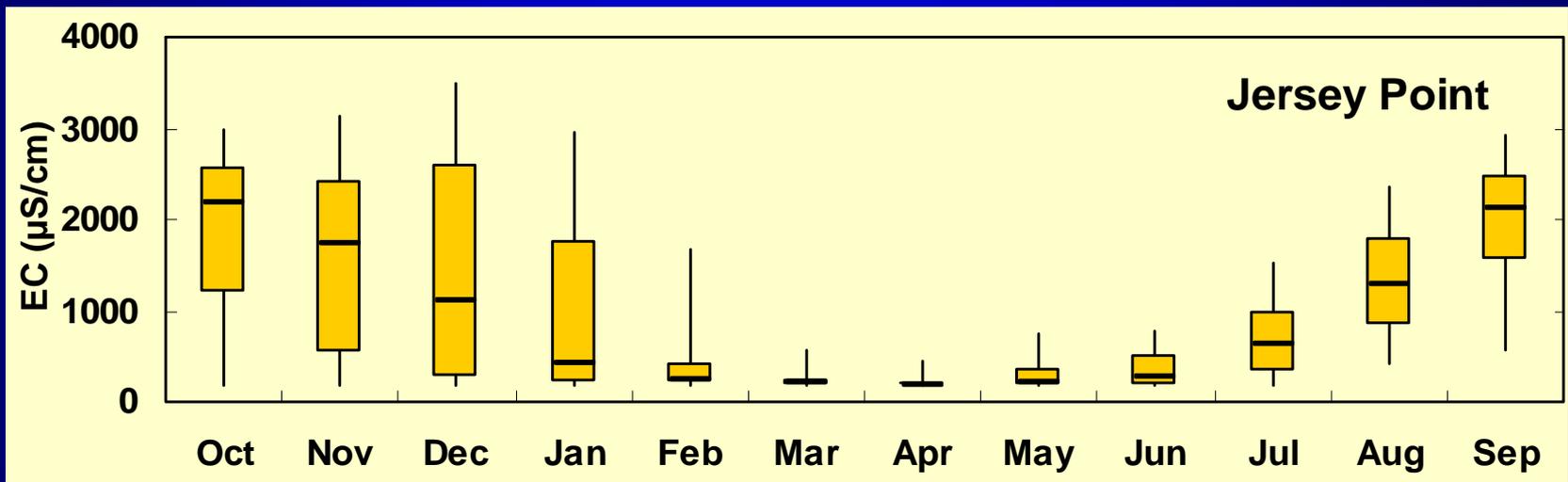
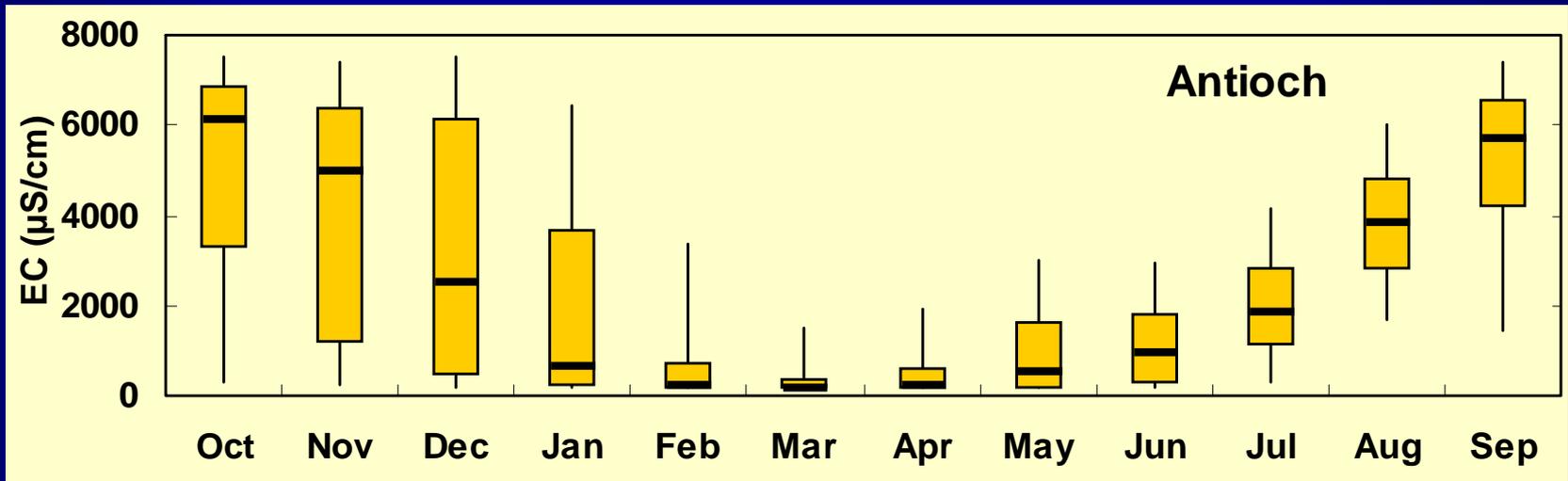


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Locations Distribution of EC Presented DSM2 Simulation of 1923 – 1994, DWRSIM Study 1995 LOD w/Projects

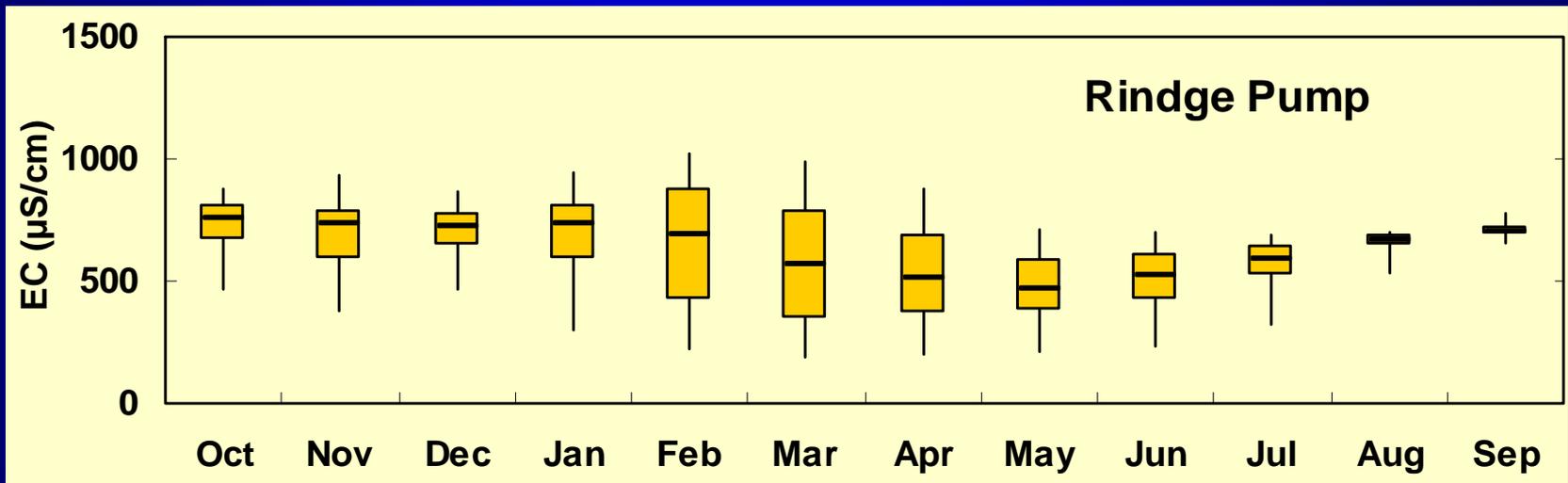
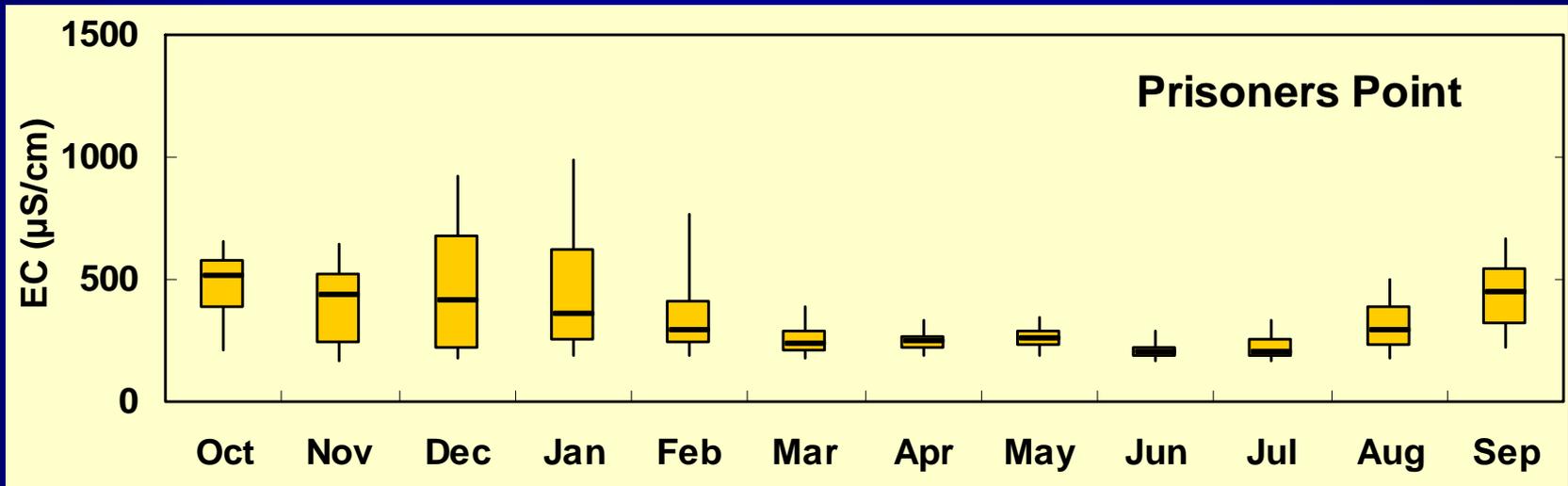


Distribution of Daily Average EC 1995 LOD with Projects, 1923 – 1994 Lower San Joaquin River



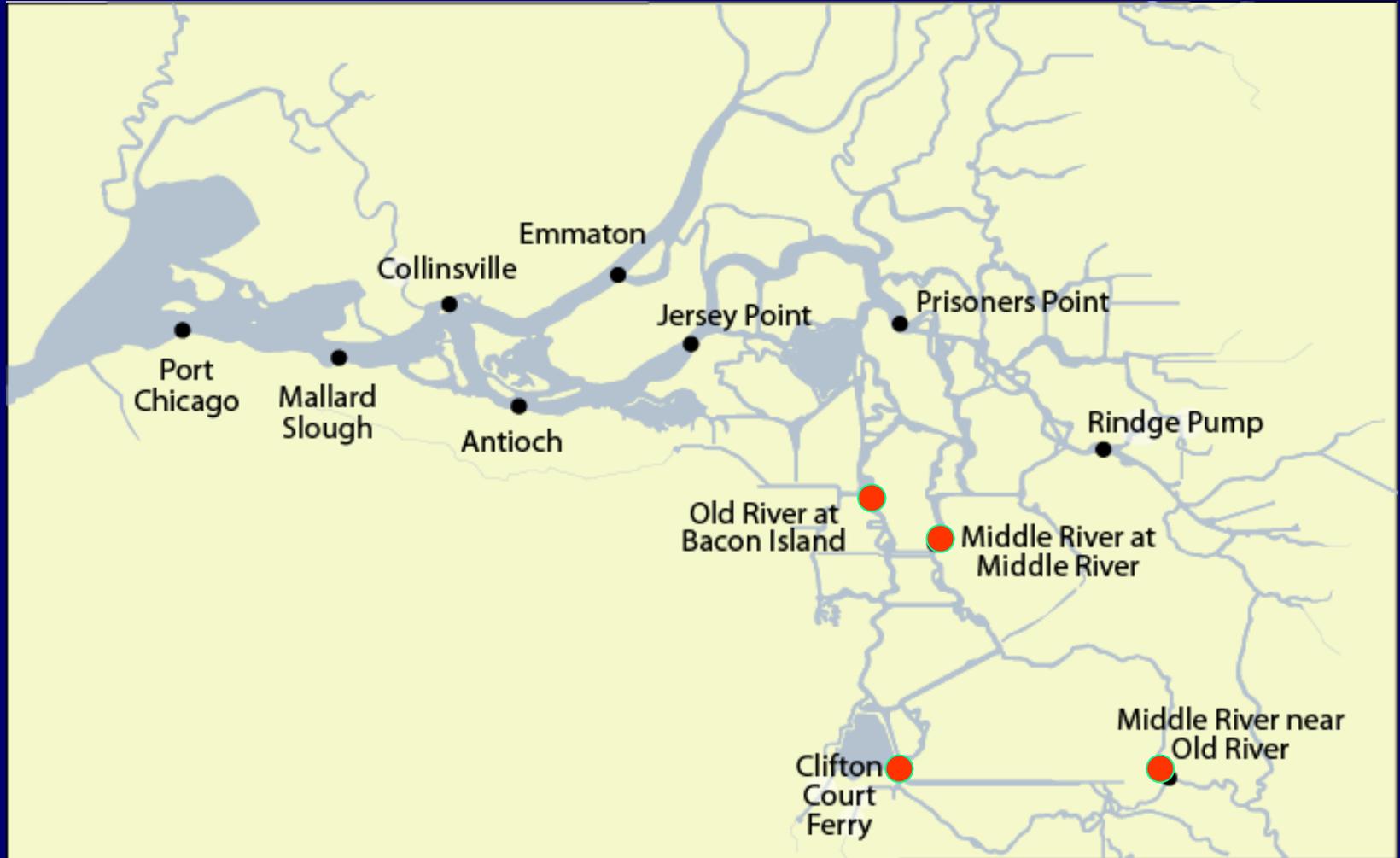
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Distribution of Daily Average EC 1995 LOD with Projects, 1923 – 1994 San Joaquin River

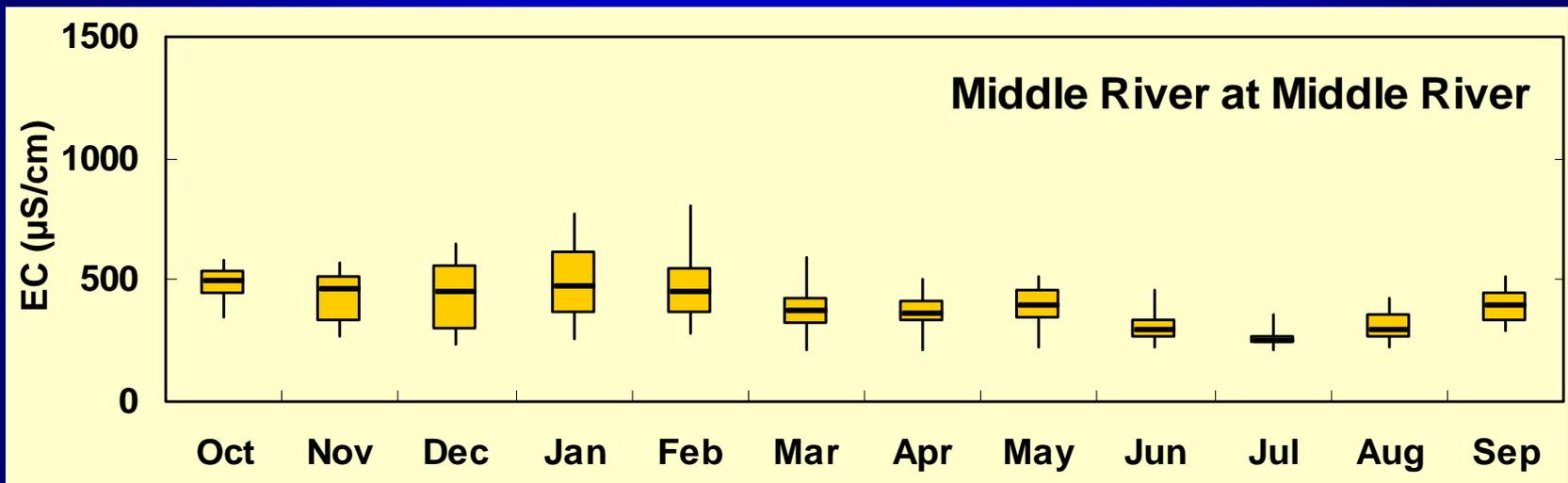
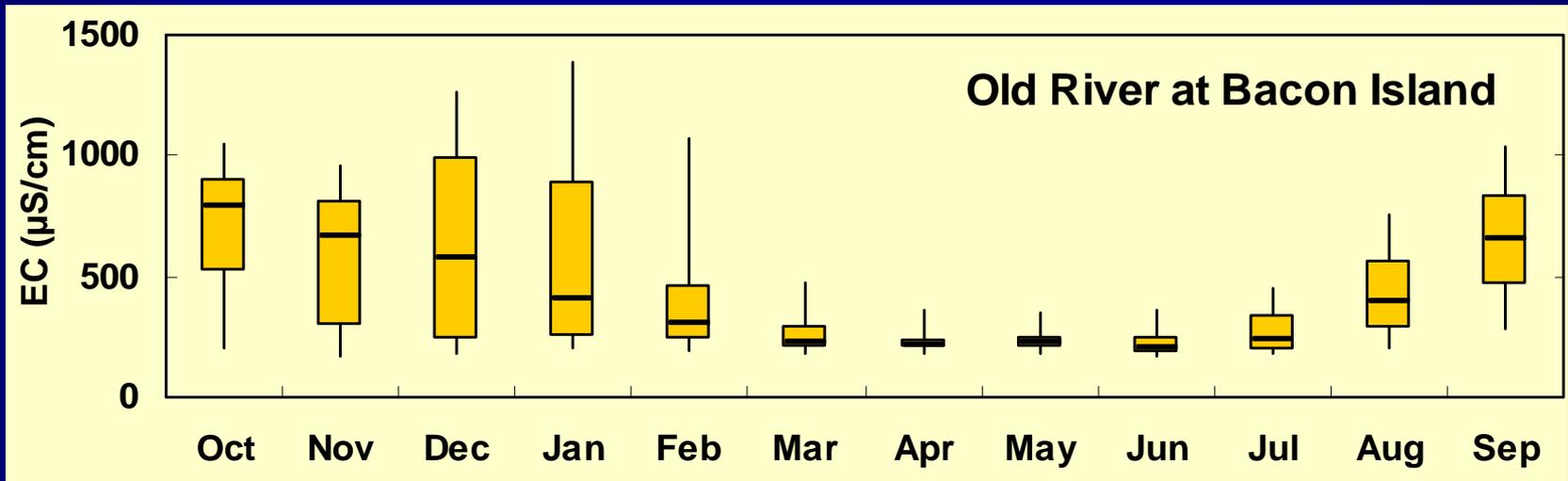


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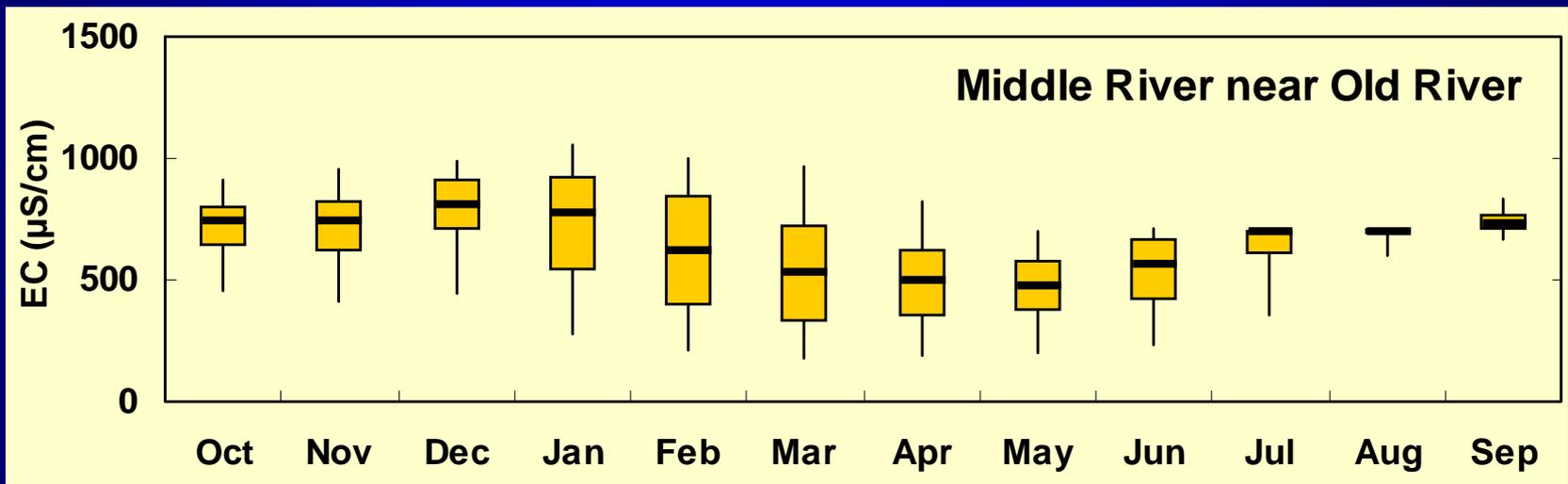
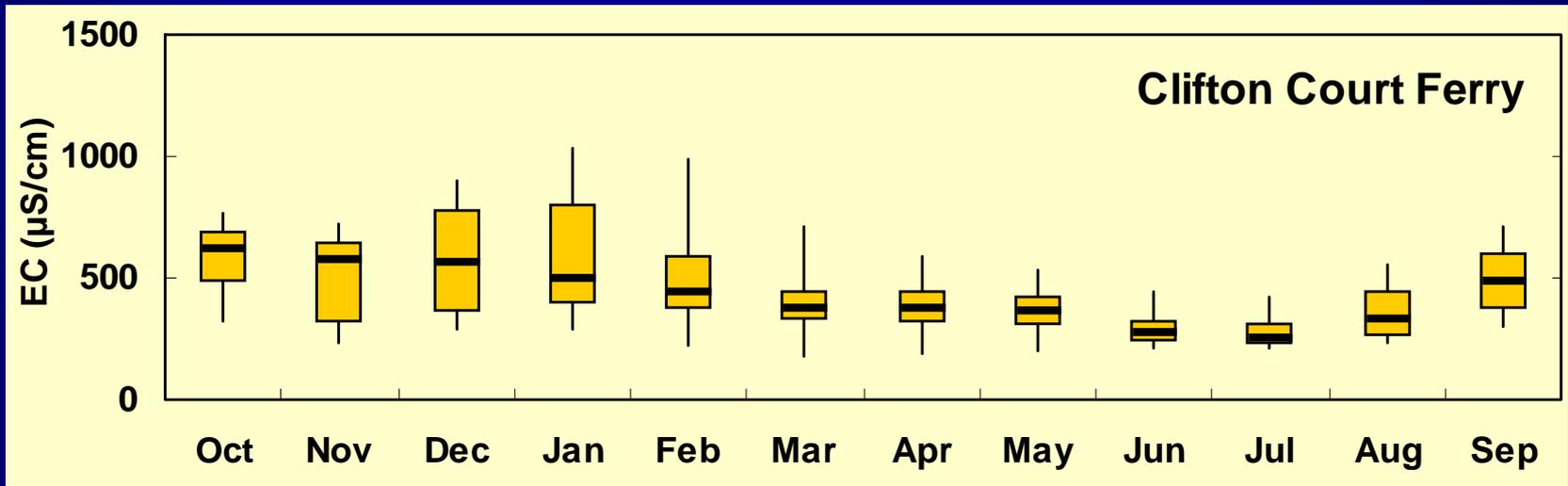


Distribution of Daily Average EC 1995 LOD with Projects, 1923 – 1994 Central Delta Locations



Values correspond to 5%, 25%, median, 75%, and 95% by rank

Distribution of Daily Average EC 1995 LOD with Projects, 1923 – 1994 South Delta Locations



Values correspond to 5%, 25%, median, 75%, and 95% by rank

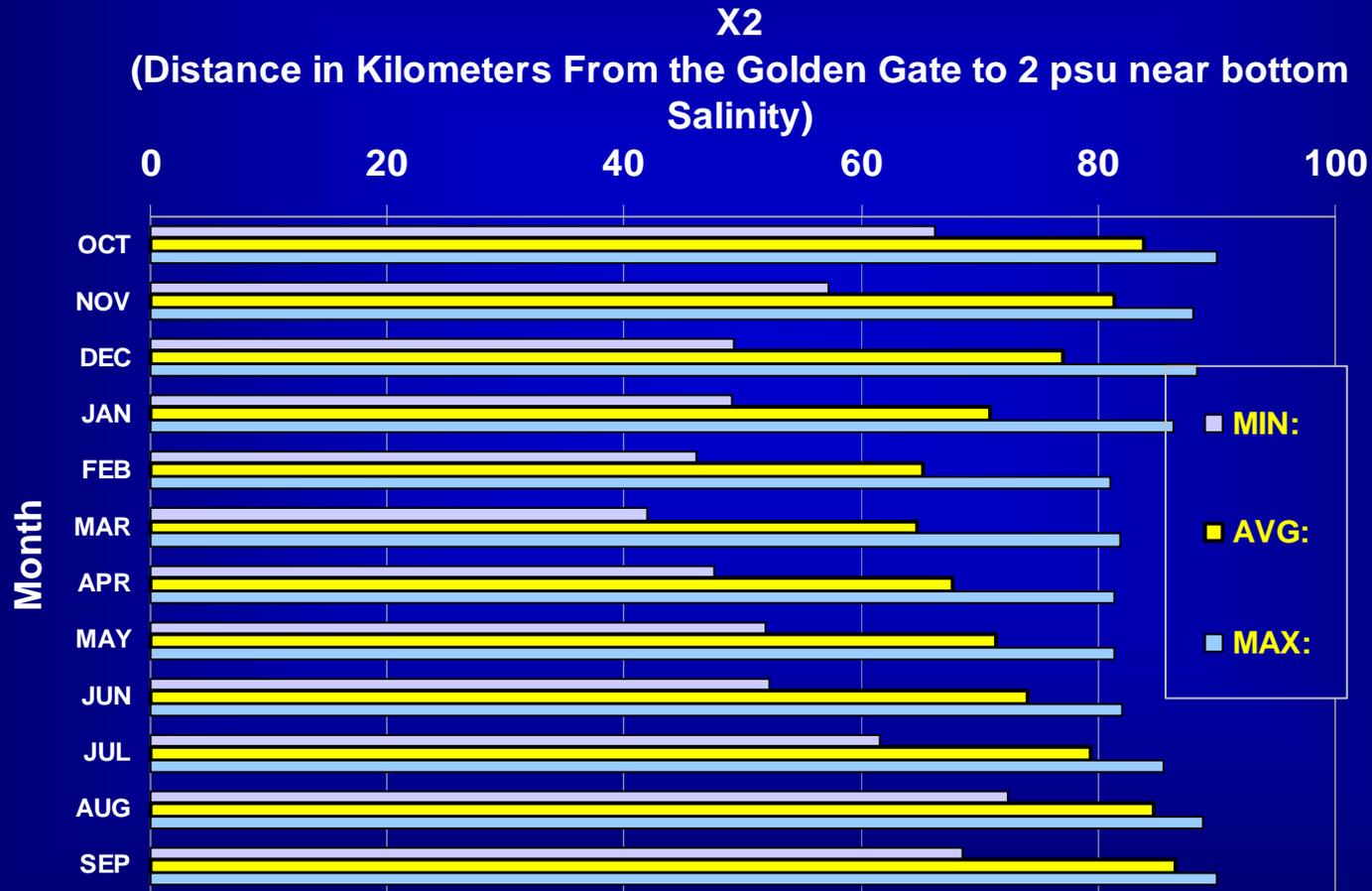
Acknowledgements

- Francis Chung
- Bob Suits
- Jim Wilde
- Yiguo Liang
- Sushil Arora
- Tariq Kadir

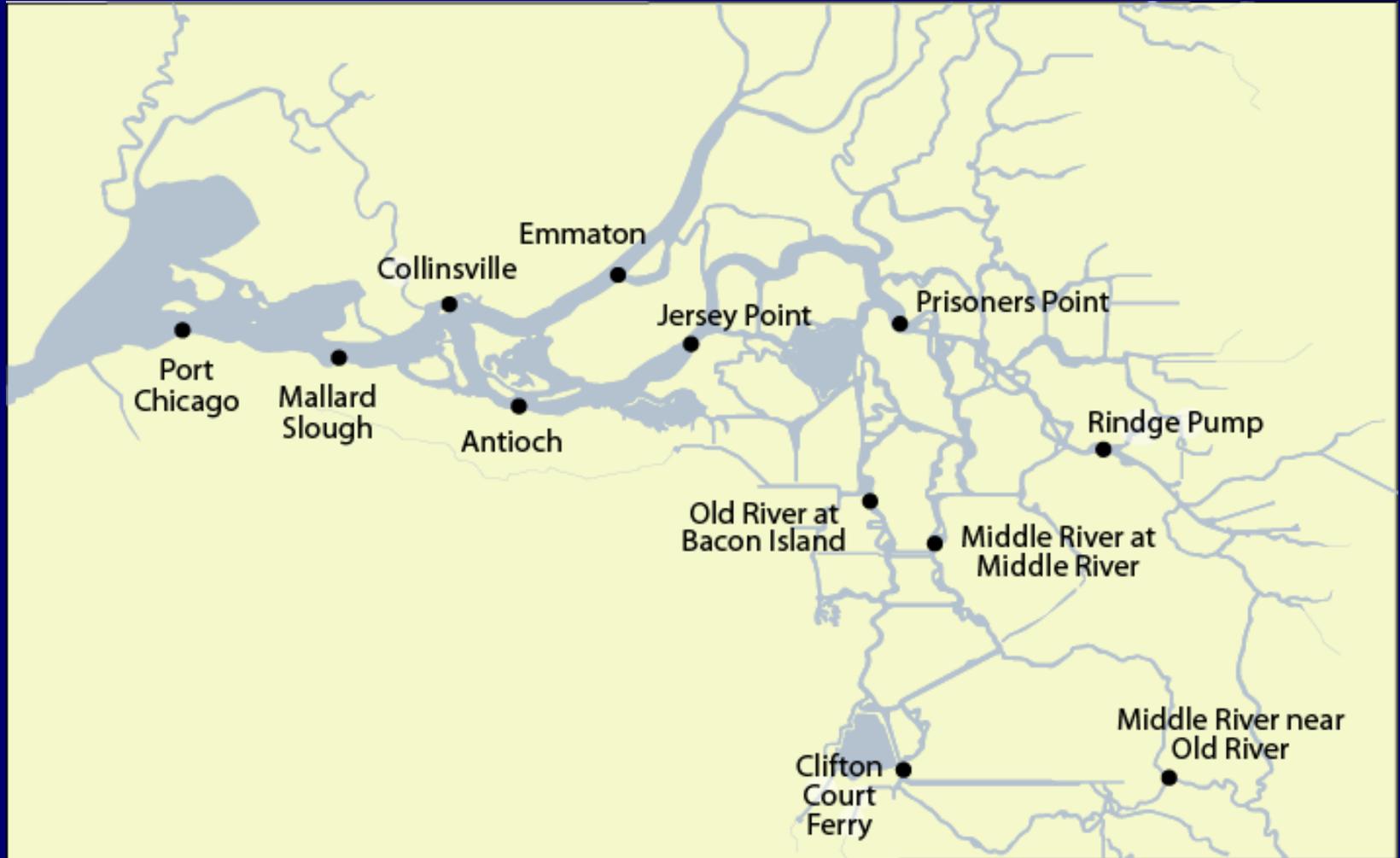
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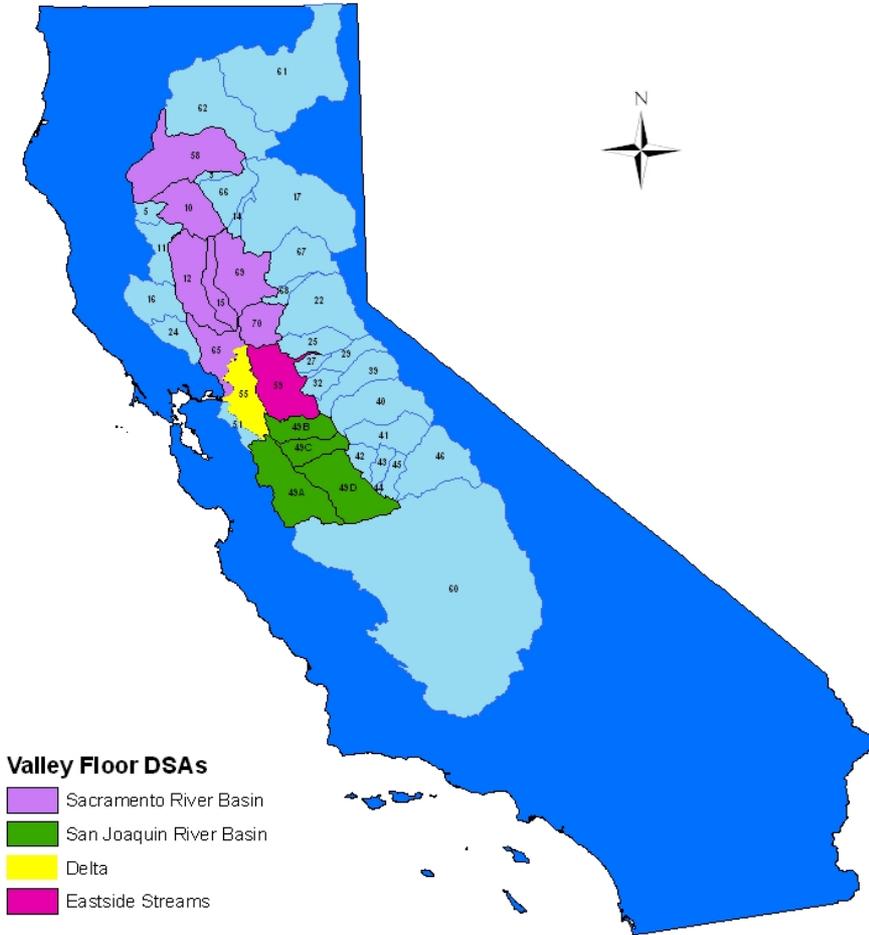
Monthly Average, Maximum, and Minimum X2 (1923-1994)



Locations Distribution of EC Presented DSM2 Simulation of 1923 – 1994, DWRSIM Study 1995 LOD w/Projects



Depletion Study Areas



Valley Floor DSAs

-  Sacramento River Basin
-  San Joaquin River Basin
-  Delta
-  Eastside Streams

