DSM2-SJR Modeled Travel Time

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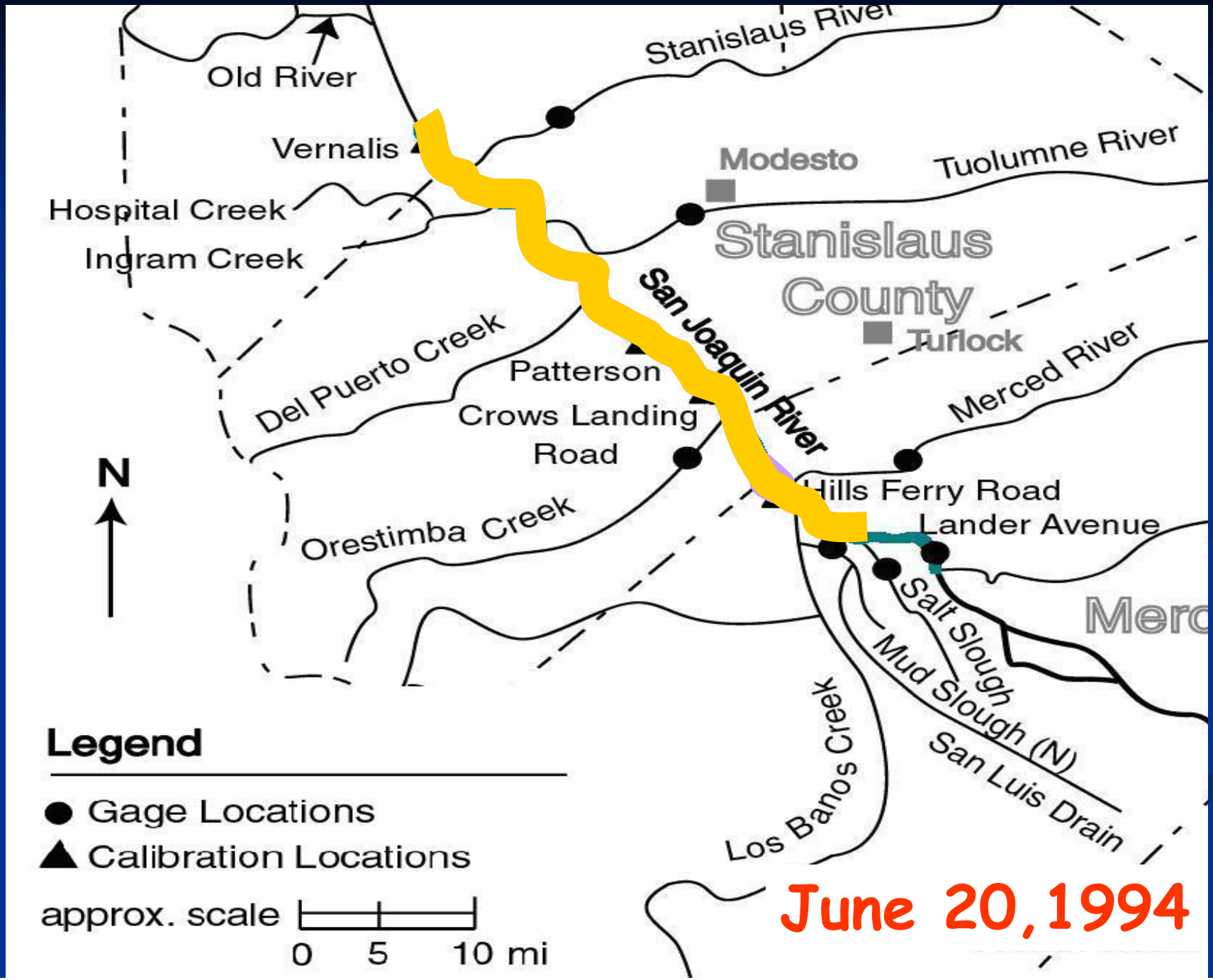
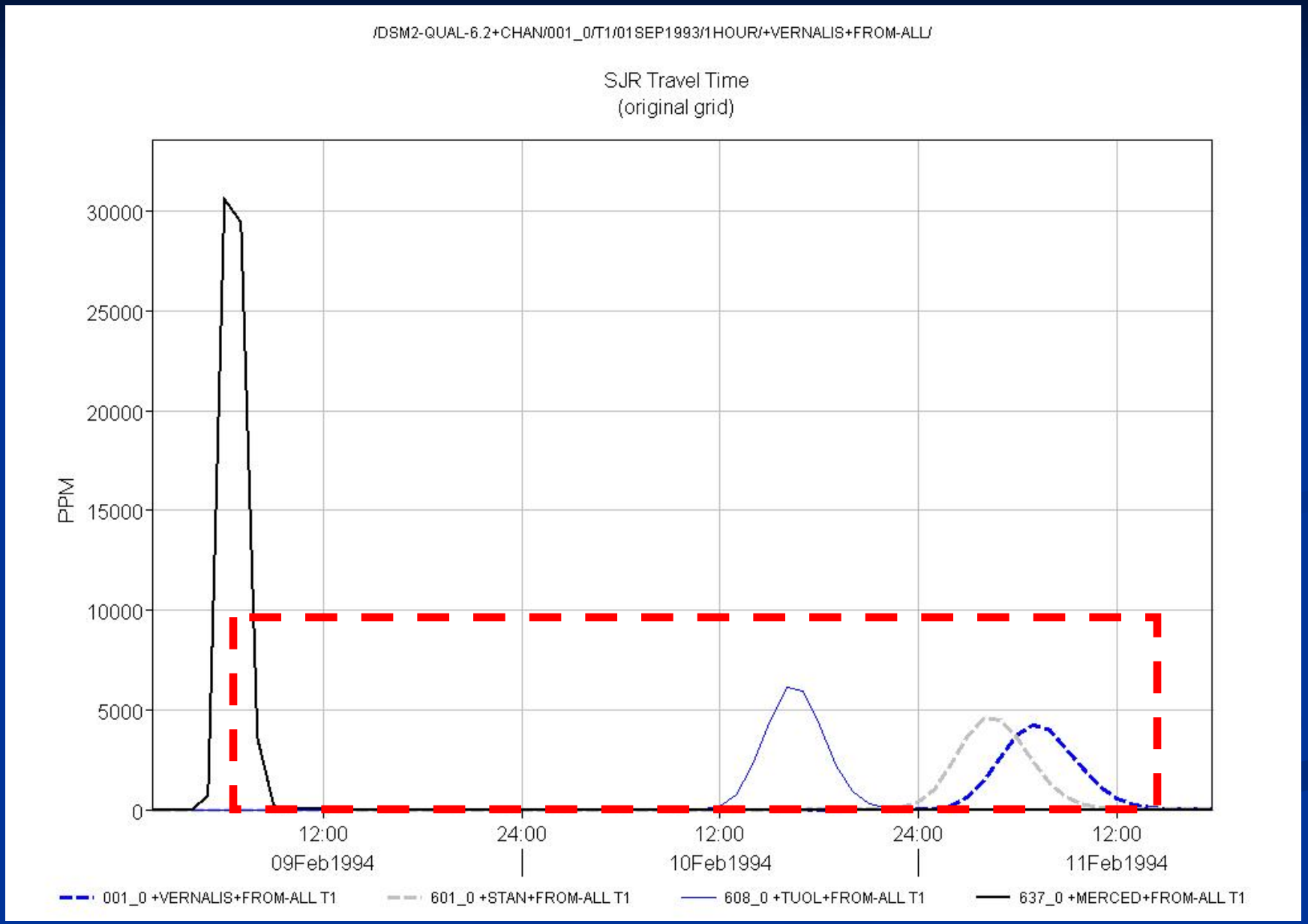
Information presented is preliminary and subject to revision. 2/16/05

Travel Time Issue

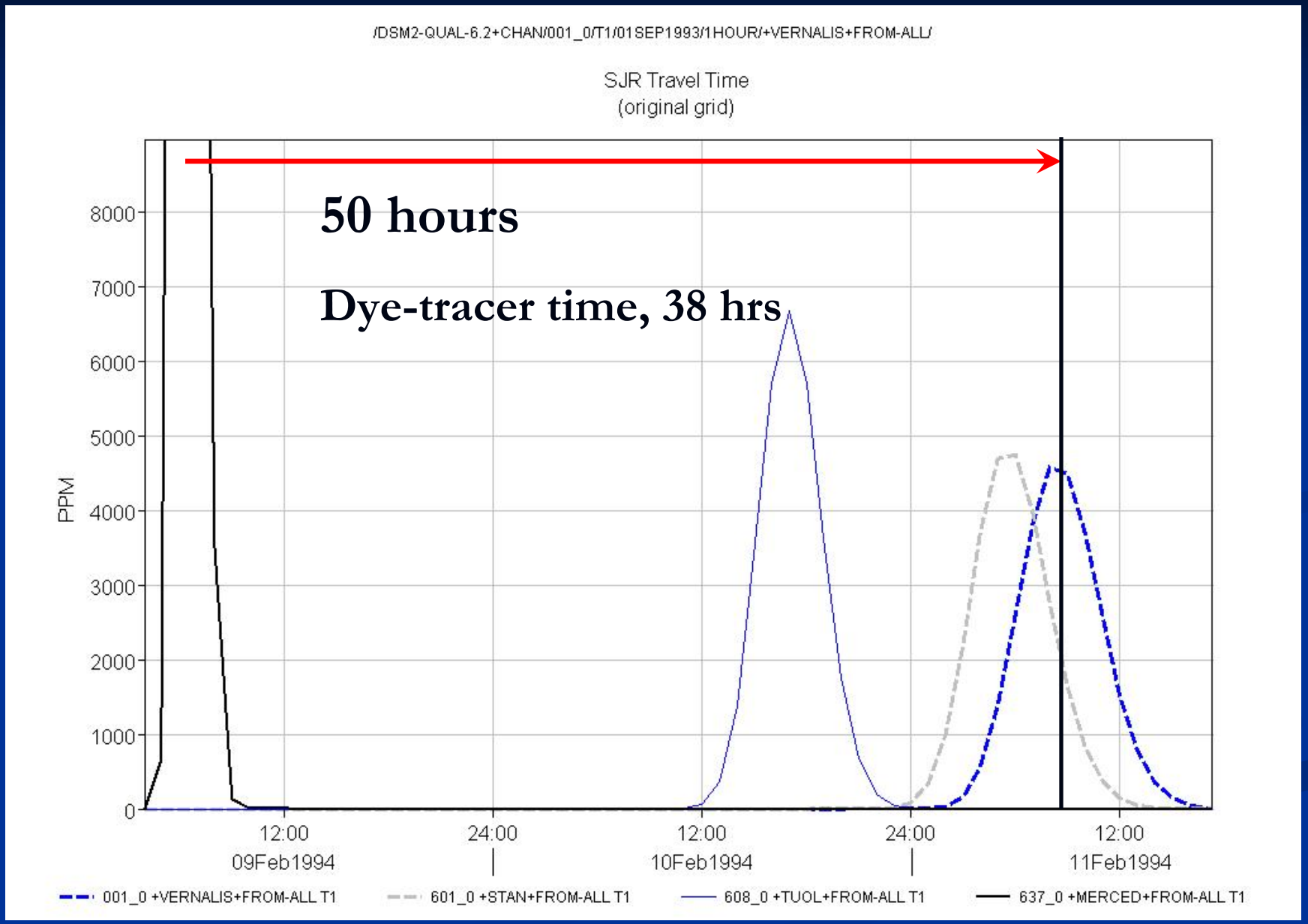
- 1994 Dye-Tracer Studies in the 1997 report by Charles Kratzer.
- Travel time in DSM2-SJR is 50% longer than the field study.
- Possible issues with water quality modeling of non-conservative constituents such as DO and temperature.


Stanislaus River
Old River
Vernalis
Modesto
Tuolumne River
Hospital Creek
Ingram Creek
Stanislaus
County
San Joaquin River
Turlock
Del Puerto Creek
Patterson
Crows Landing
Road
Merced River
N
Hills Ferry Road
Lander Avenue
Orestimba Creek
Salt Slough
Mud Slough (N)
San Luis Drain
Los Banos Creek
Legend
Gage Locations
Calibration Locations
approx. scale
0 5 10 mi
June 20,1994

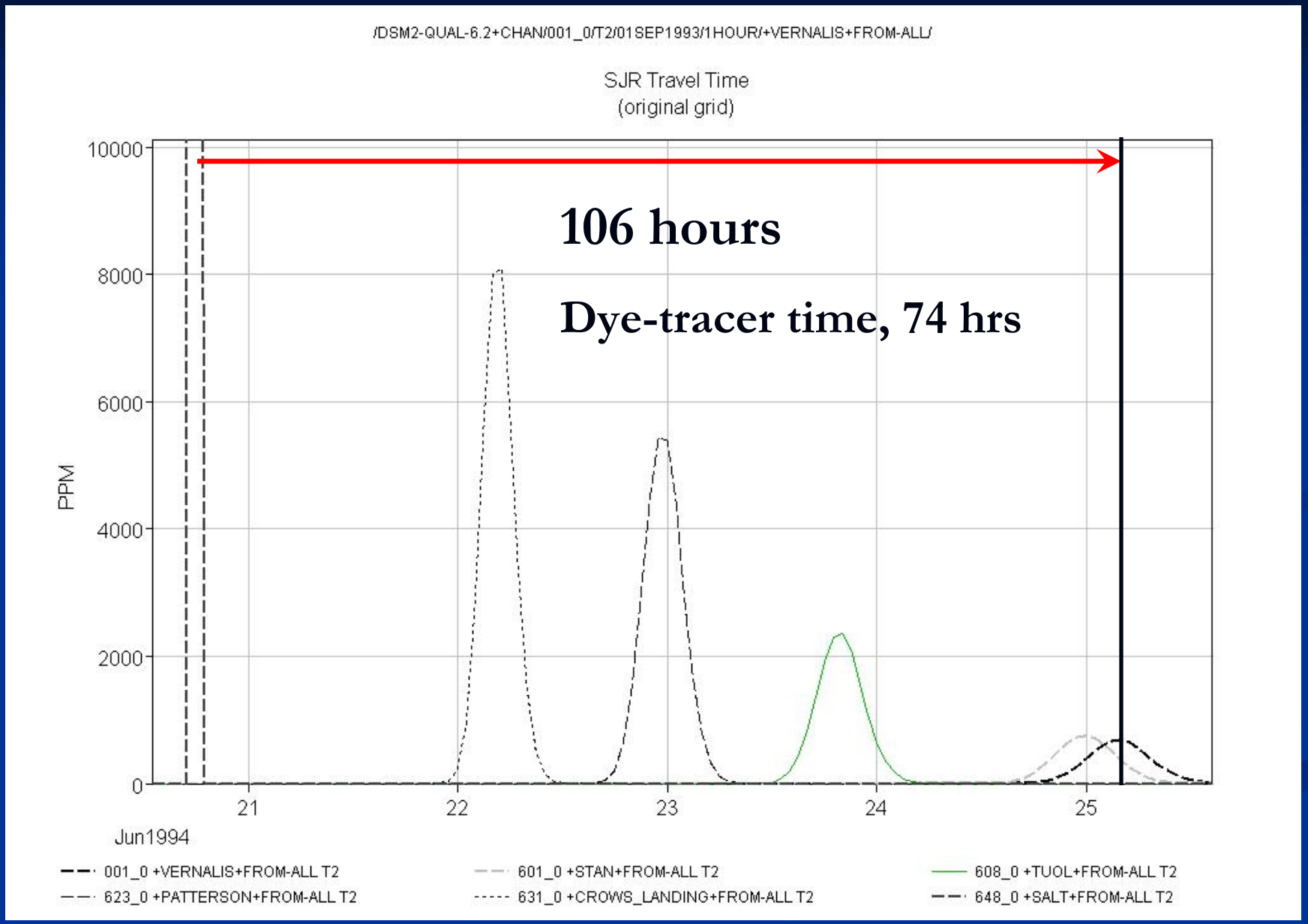
Original Cross Sections and Manning's n



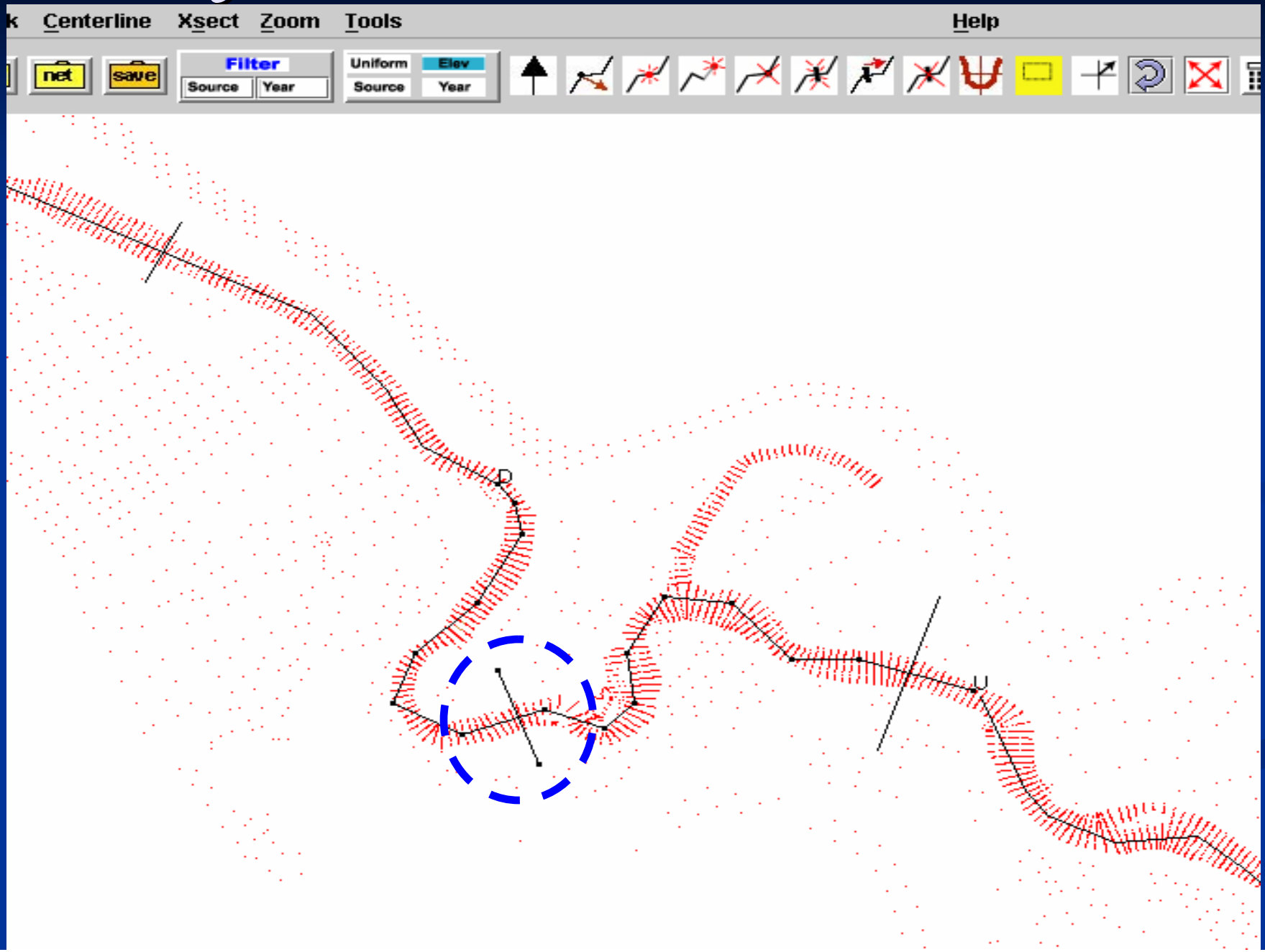
Original Cross Sections and Manning's *n*



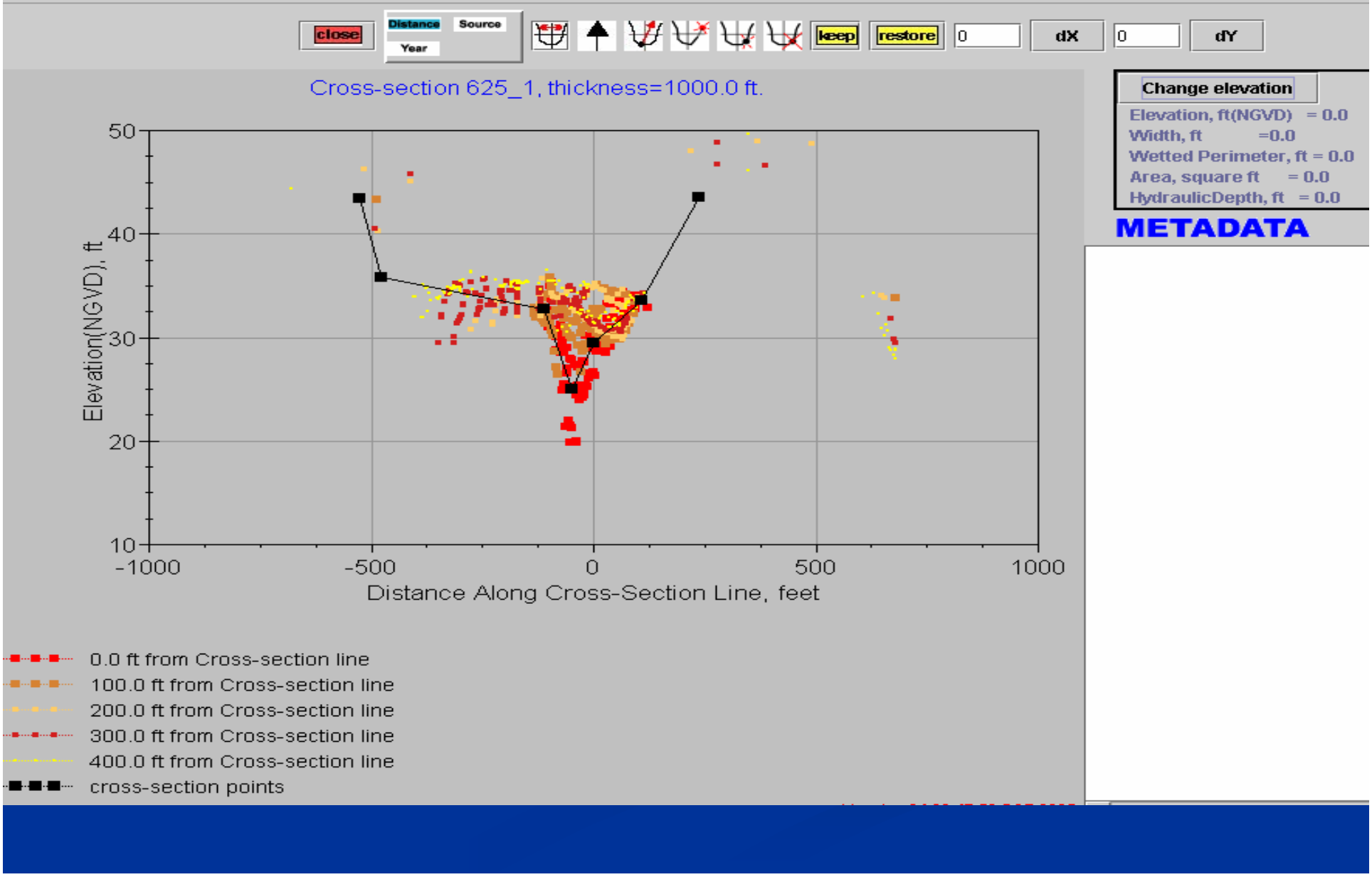
Original Cross Sections and Manning's *n*



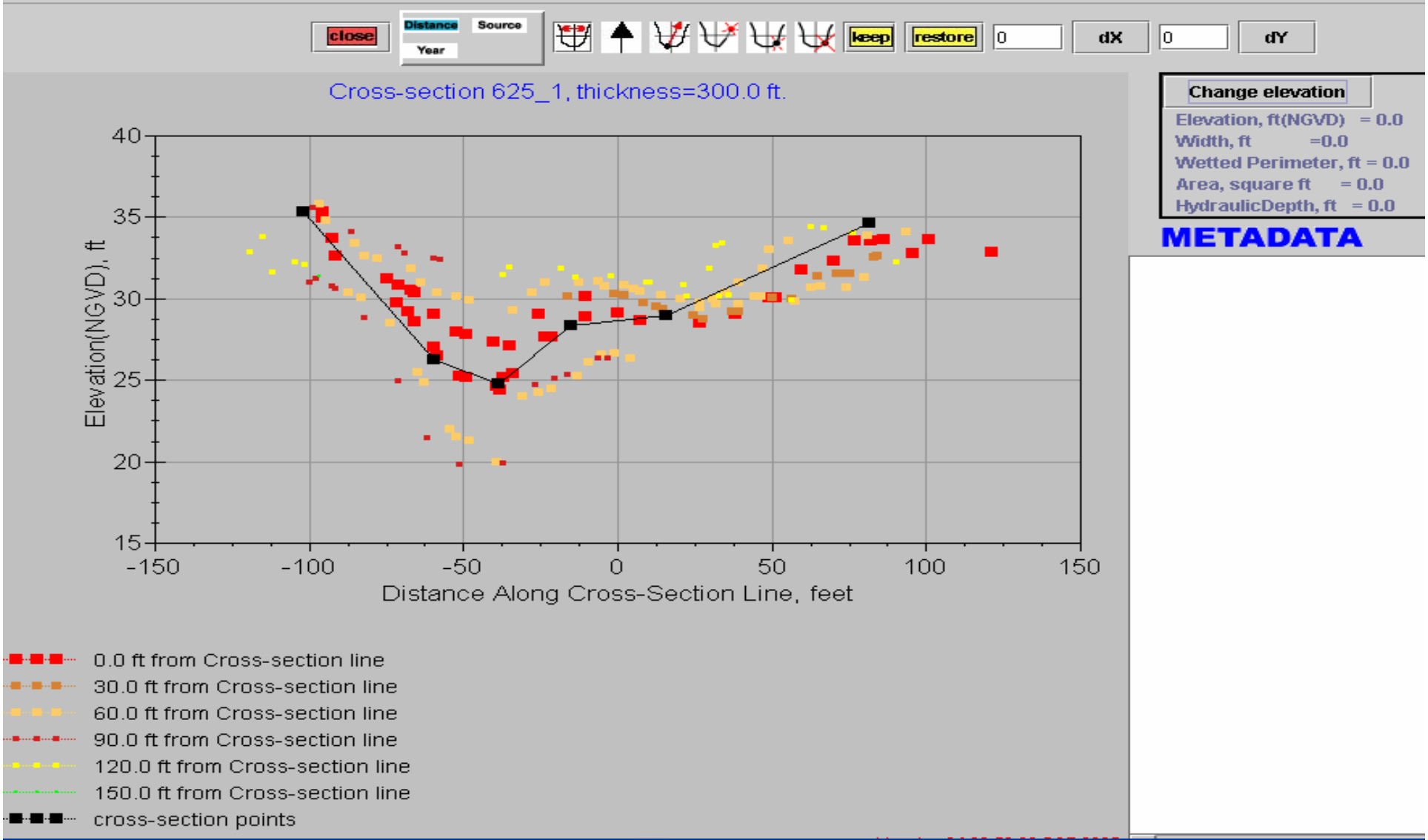
SJR Elevation Data in CSDP



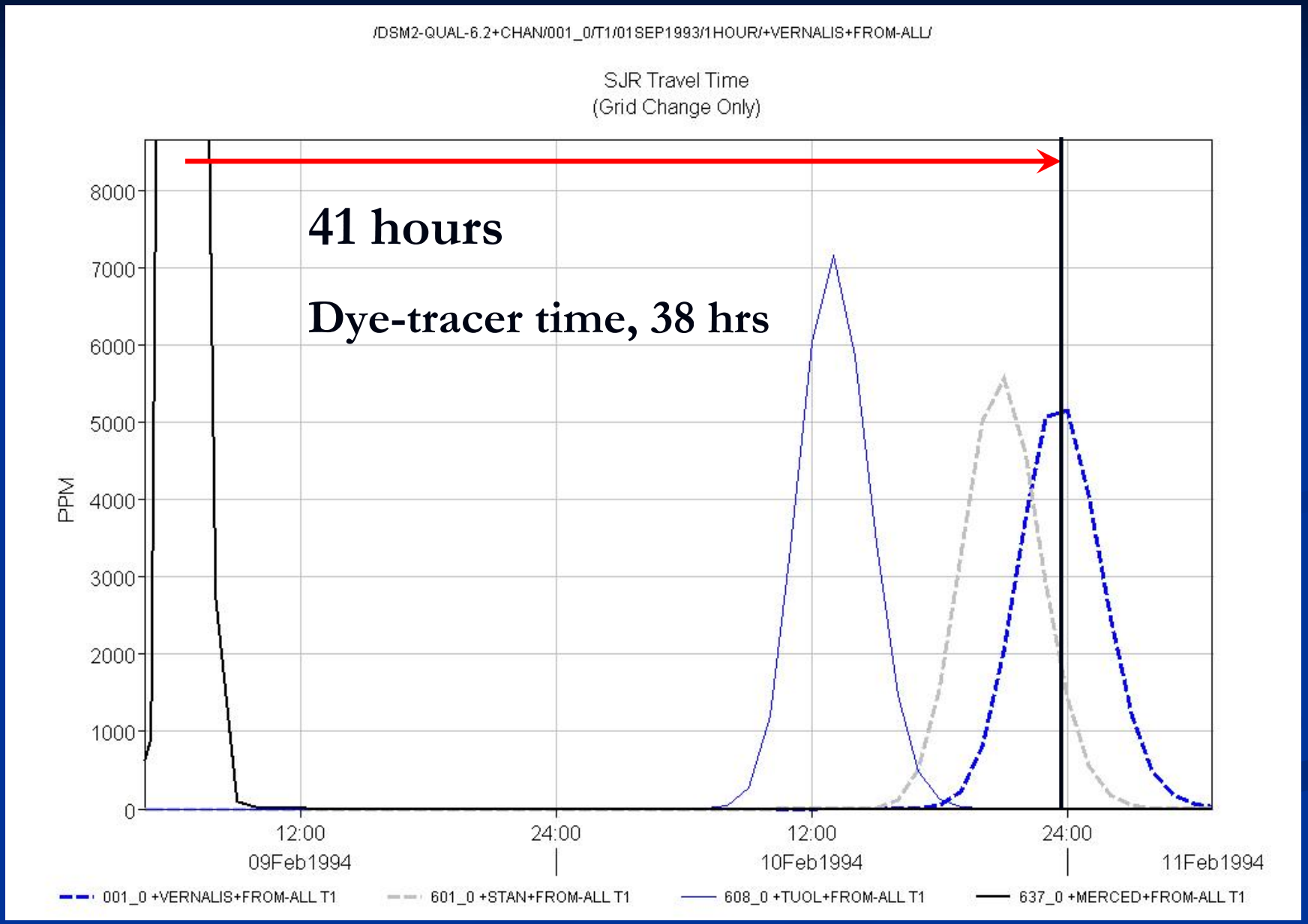
Old Irregular Cross Section near Patterson



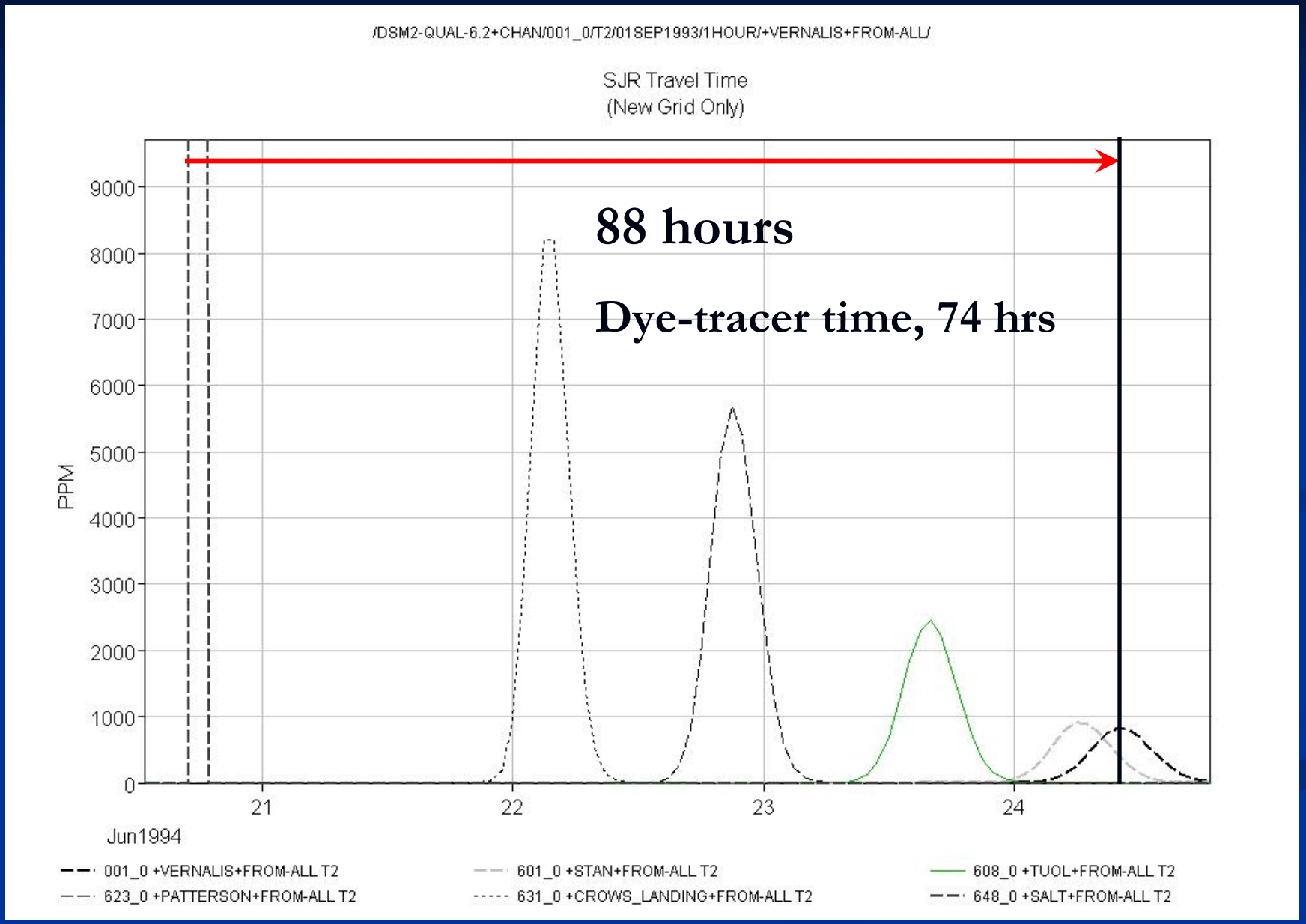
New Irregular Cross Section near Patterson



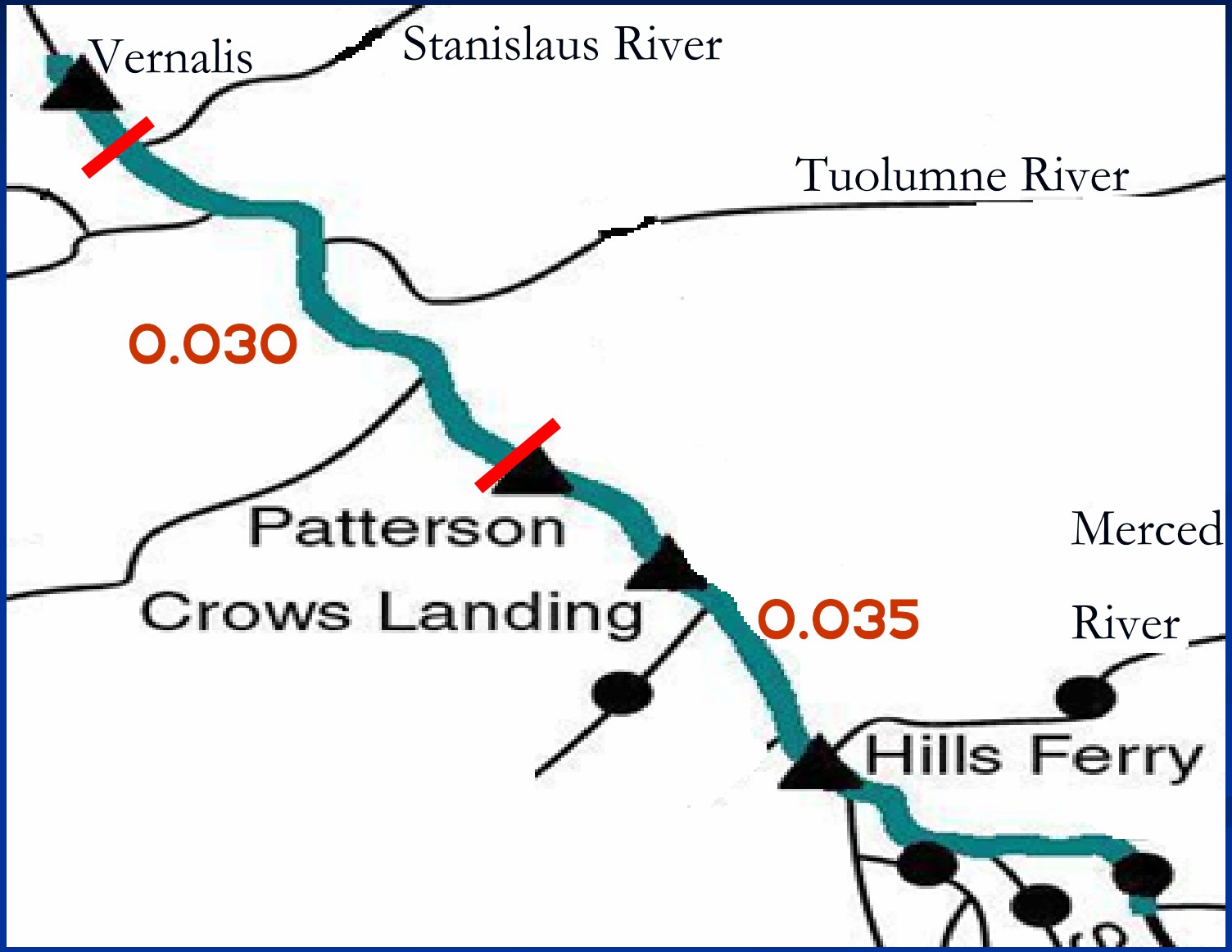
Irregular Cross Section Adjustments Only



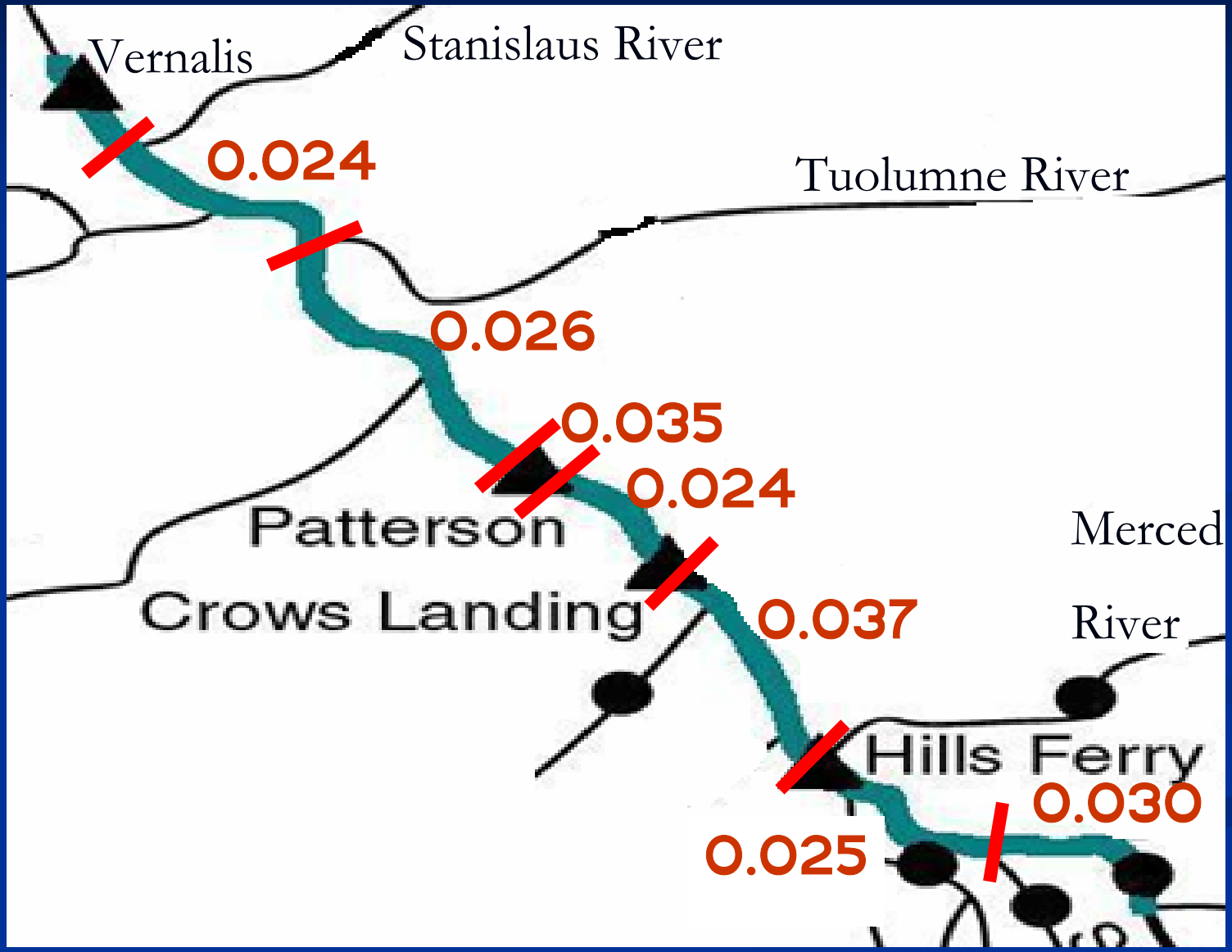
Irregular Cross Section Adjustments Only



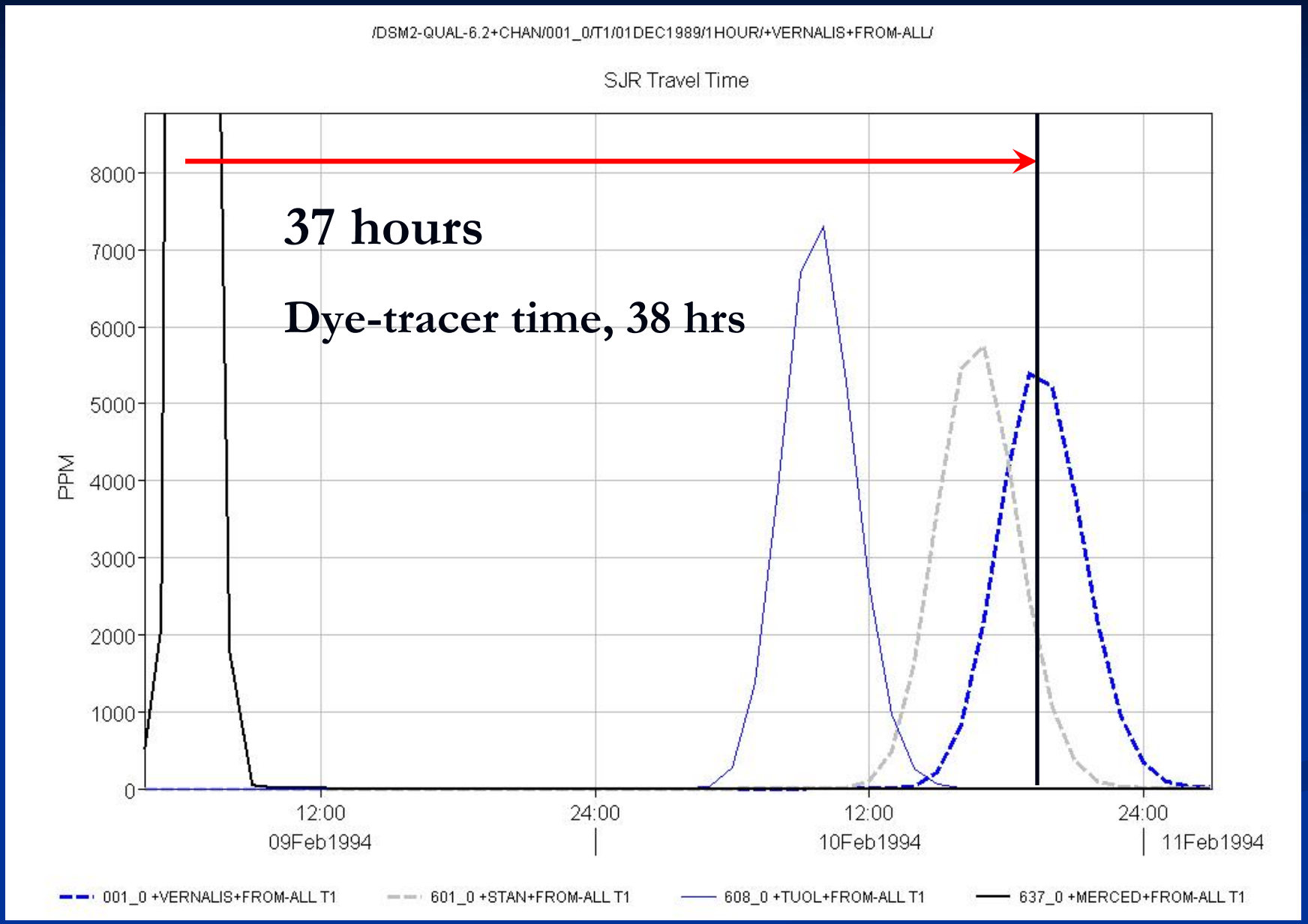
Original Manning's *n* Values



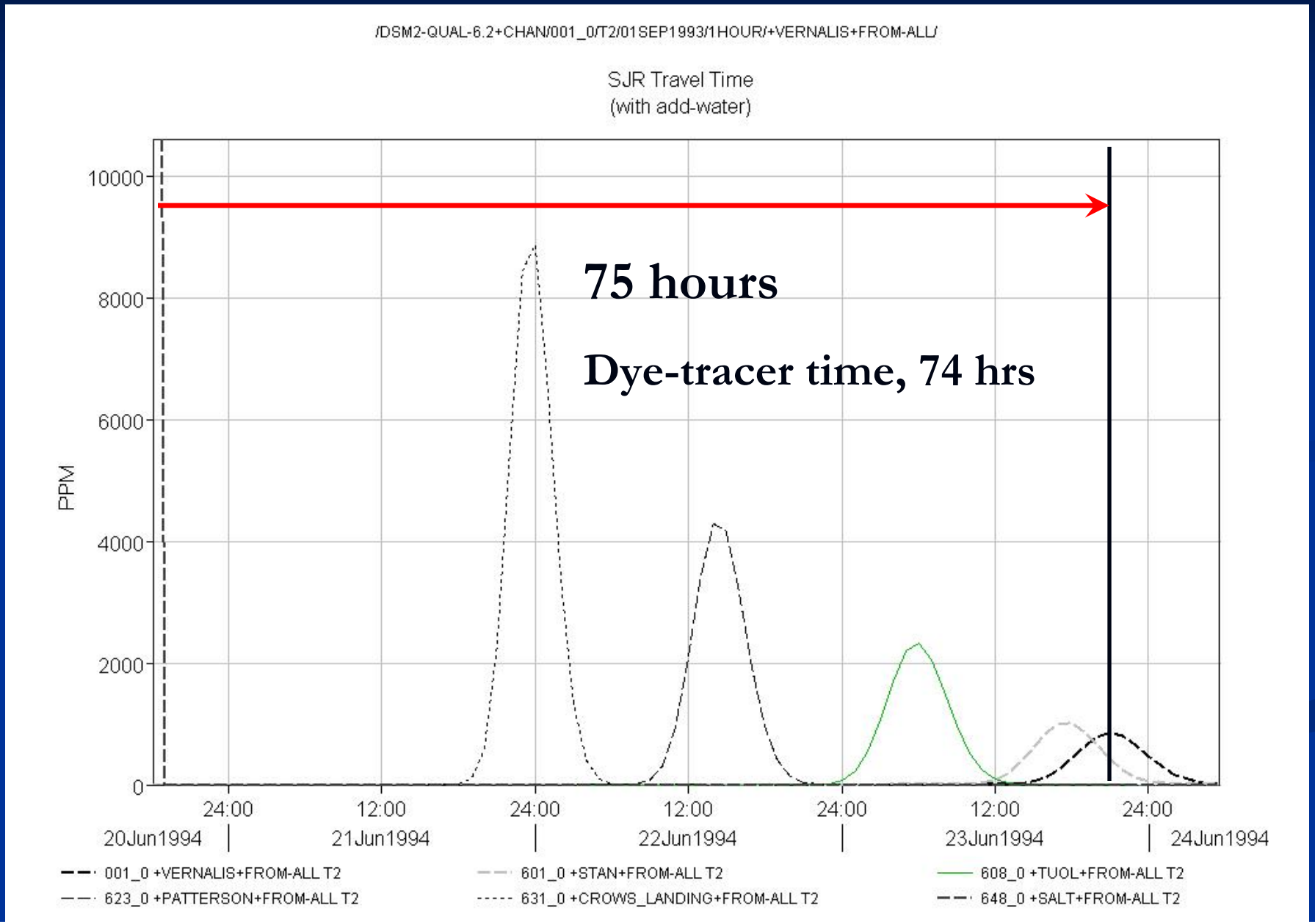
Manning's *n* Adjustments



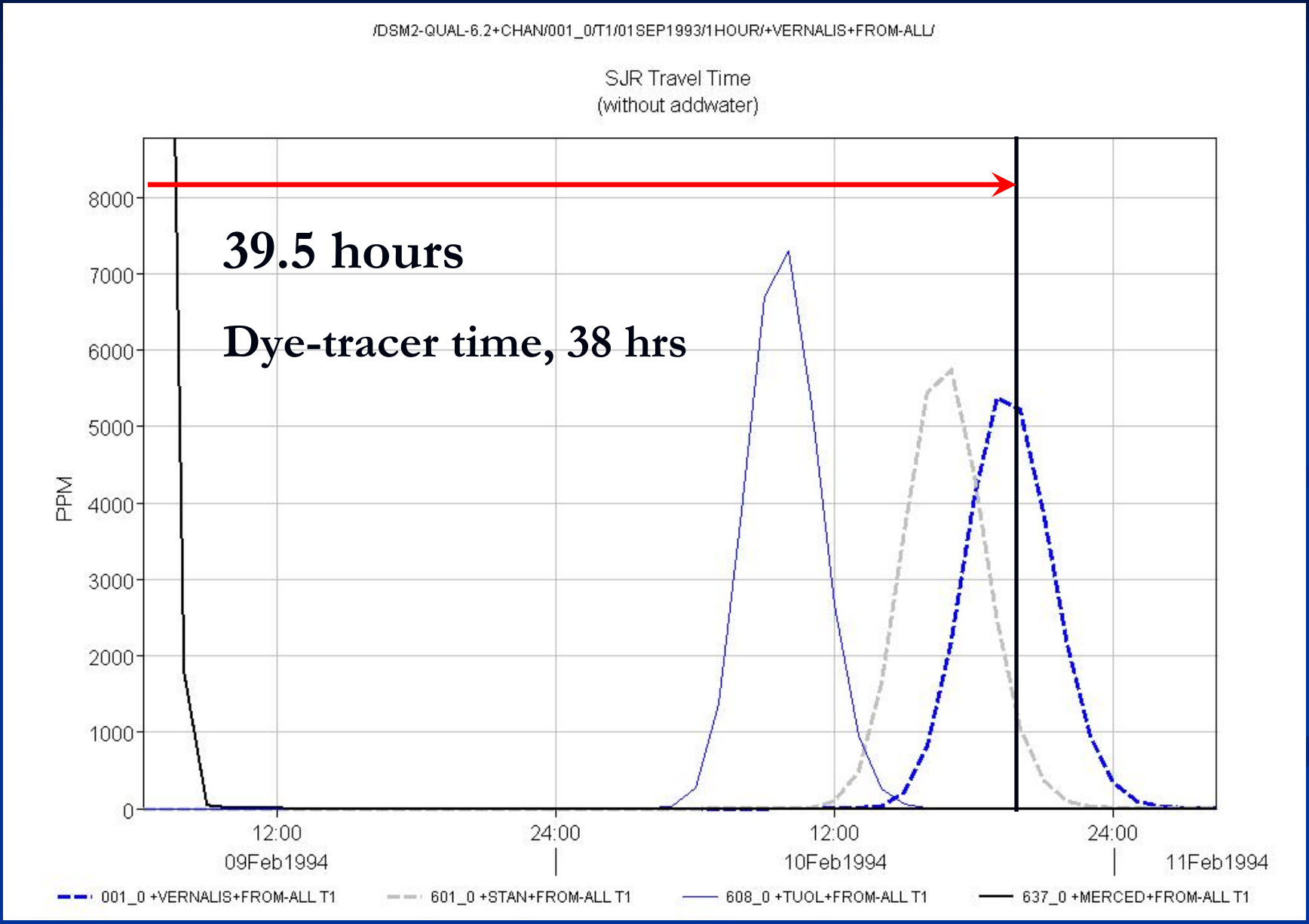
Final Grid and Manning's *n* Adjustments



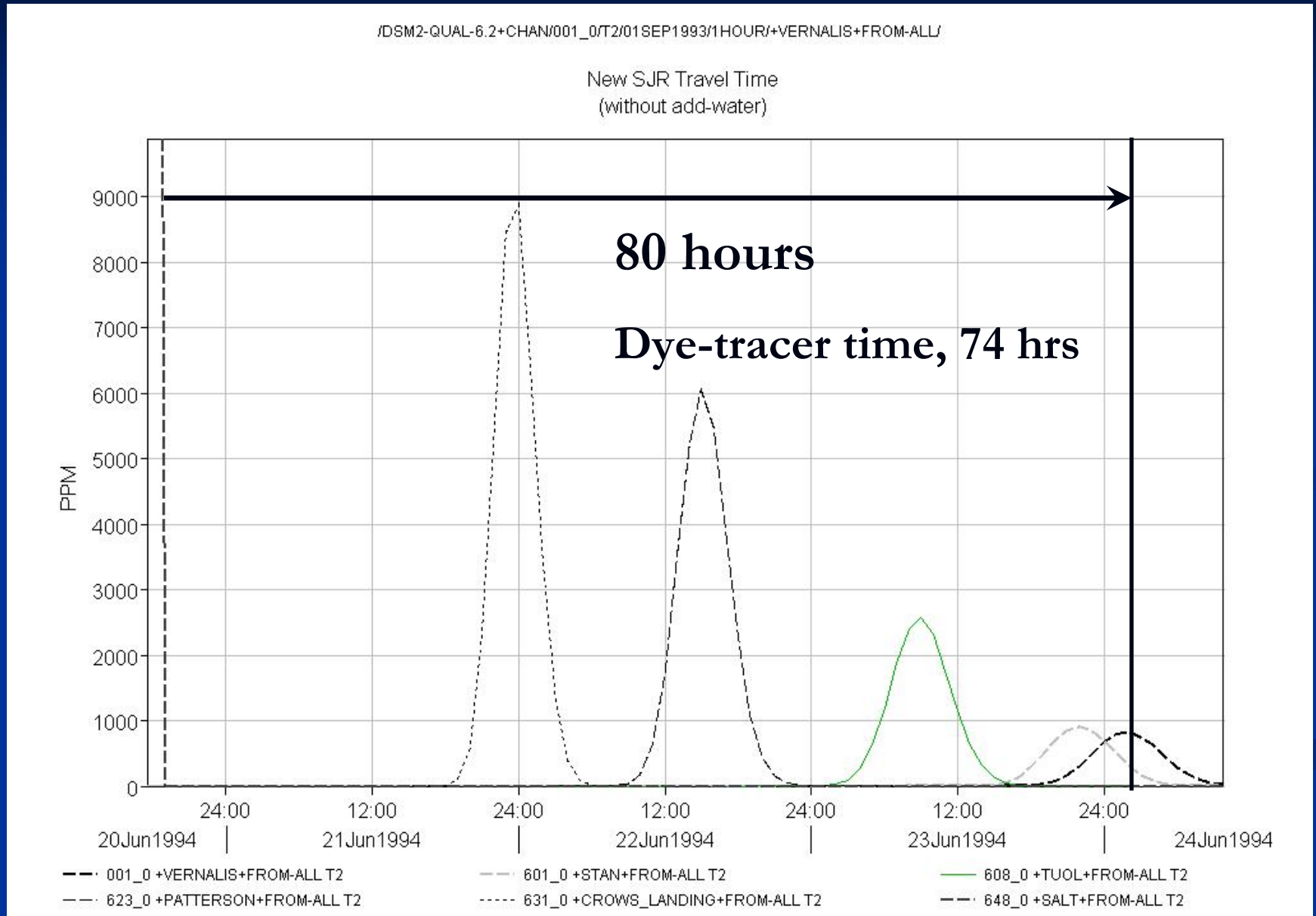
Final Grid and Manning's *n* Adjustments



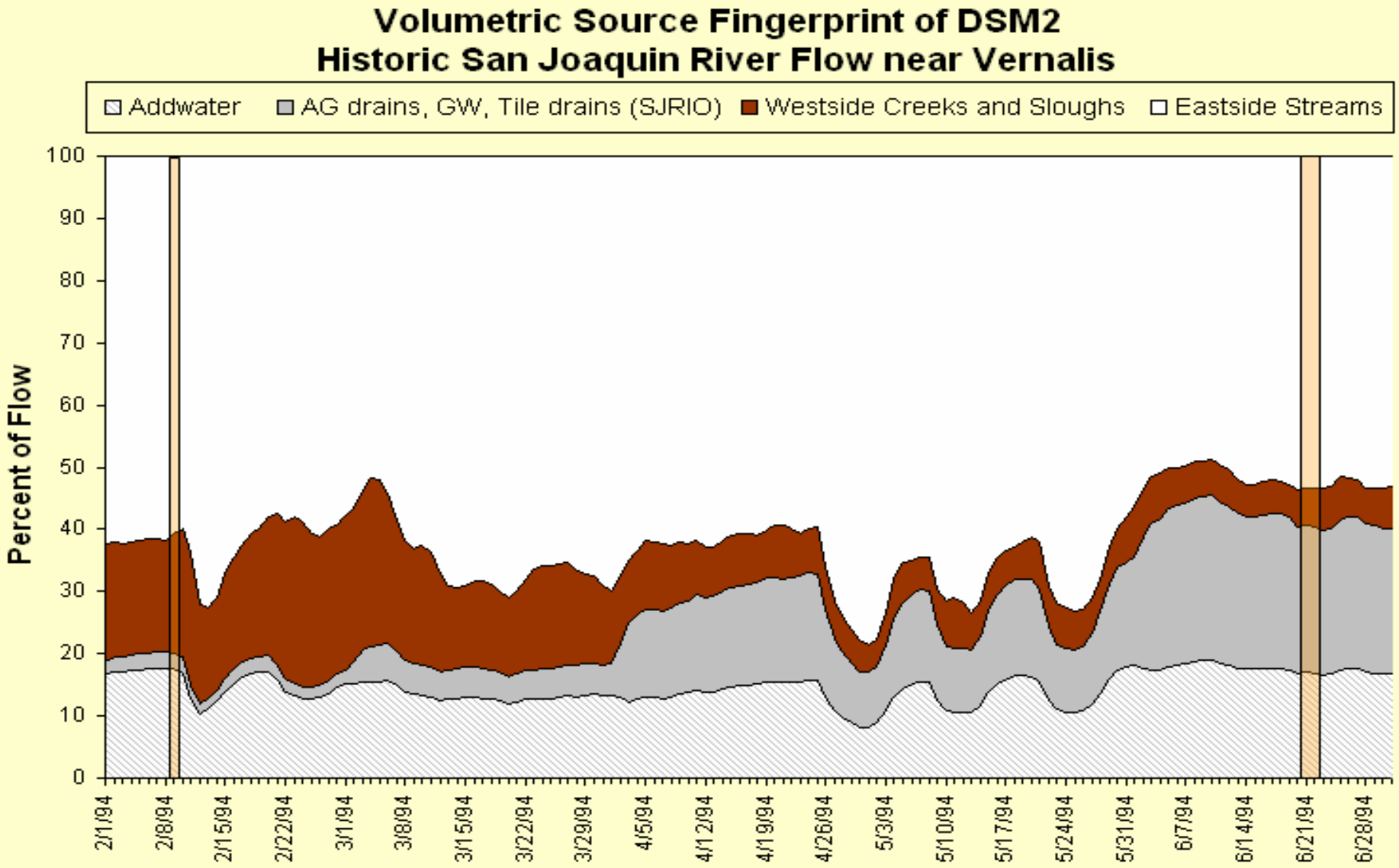
SJR without Add-water



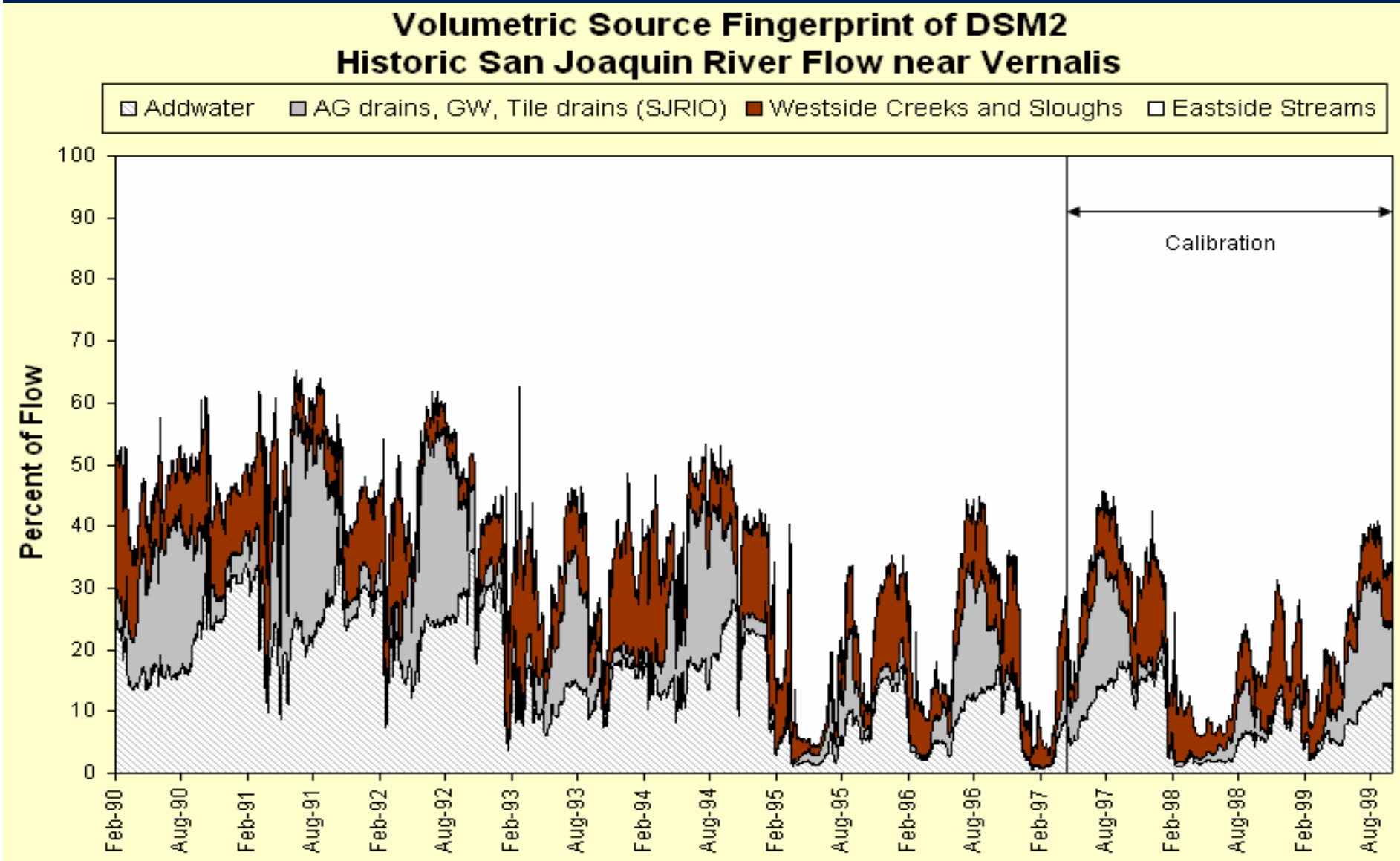
SJR without Add-water



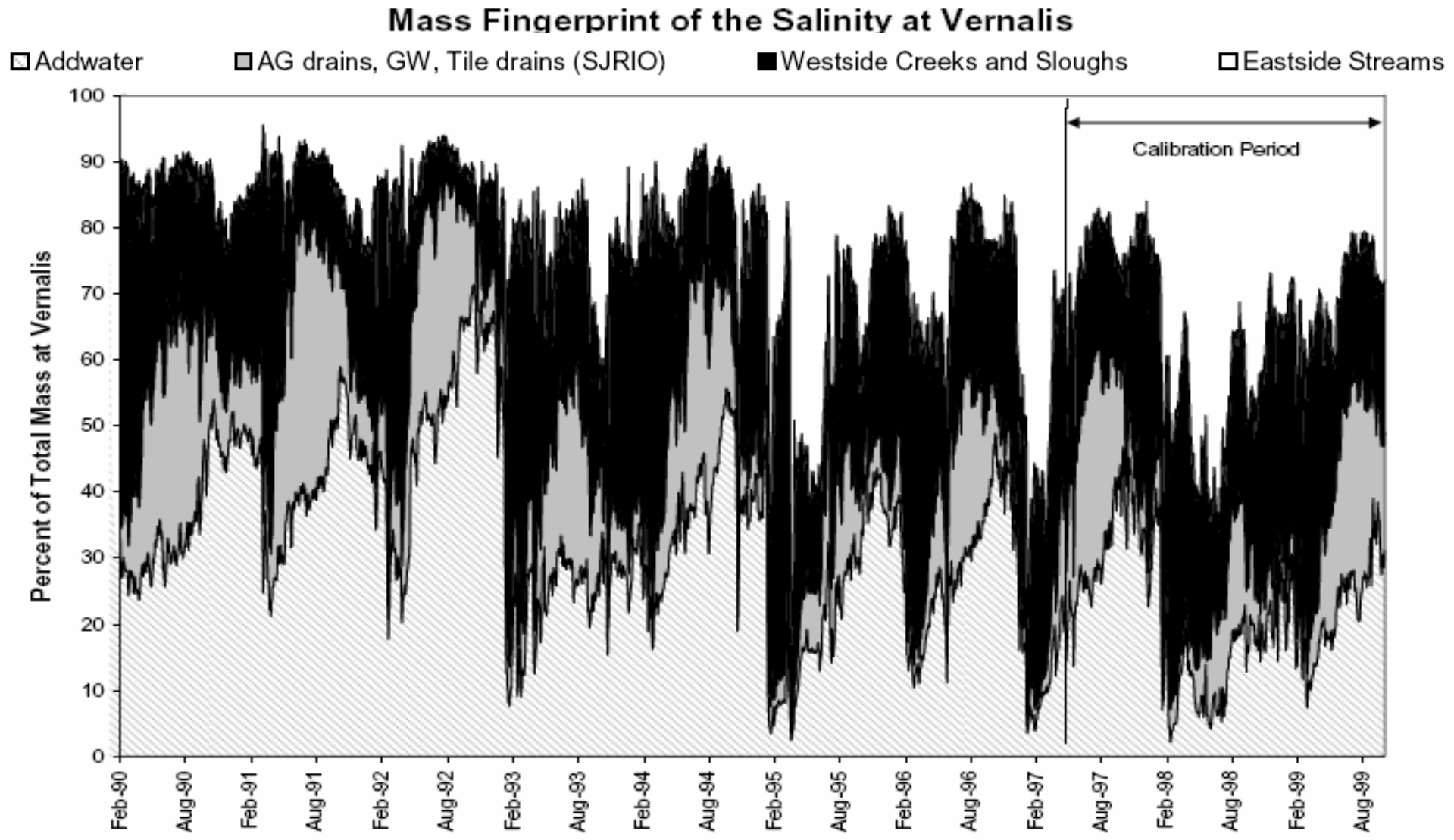
Volumetric Fingerprint of SJR at Vernalis



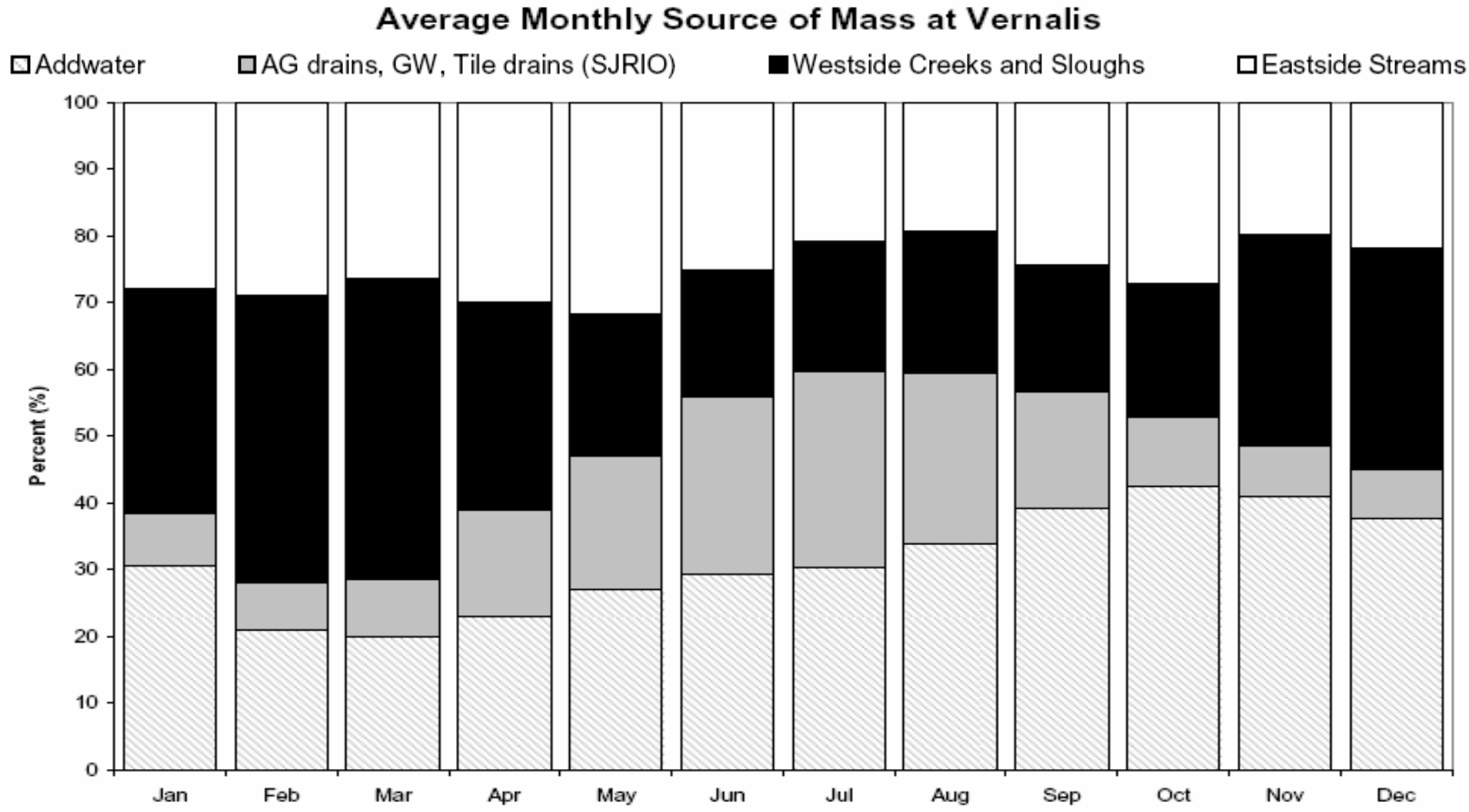
Volumetric Fingerprint of SJR at Vernalis



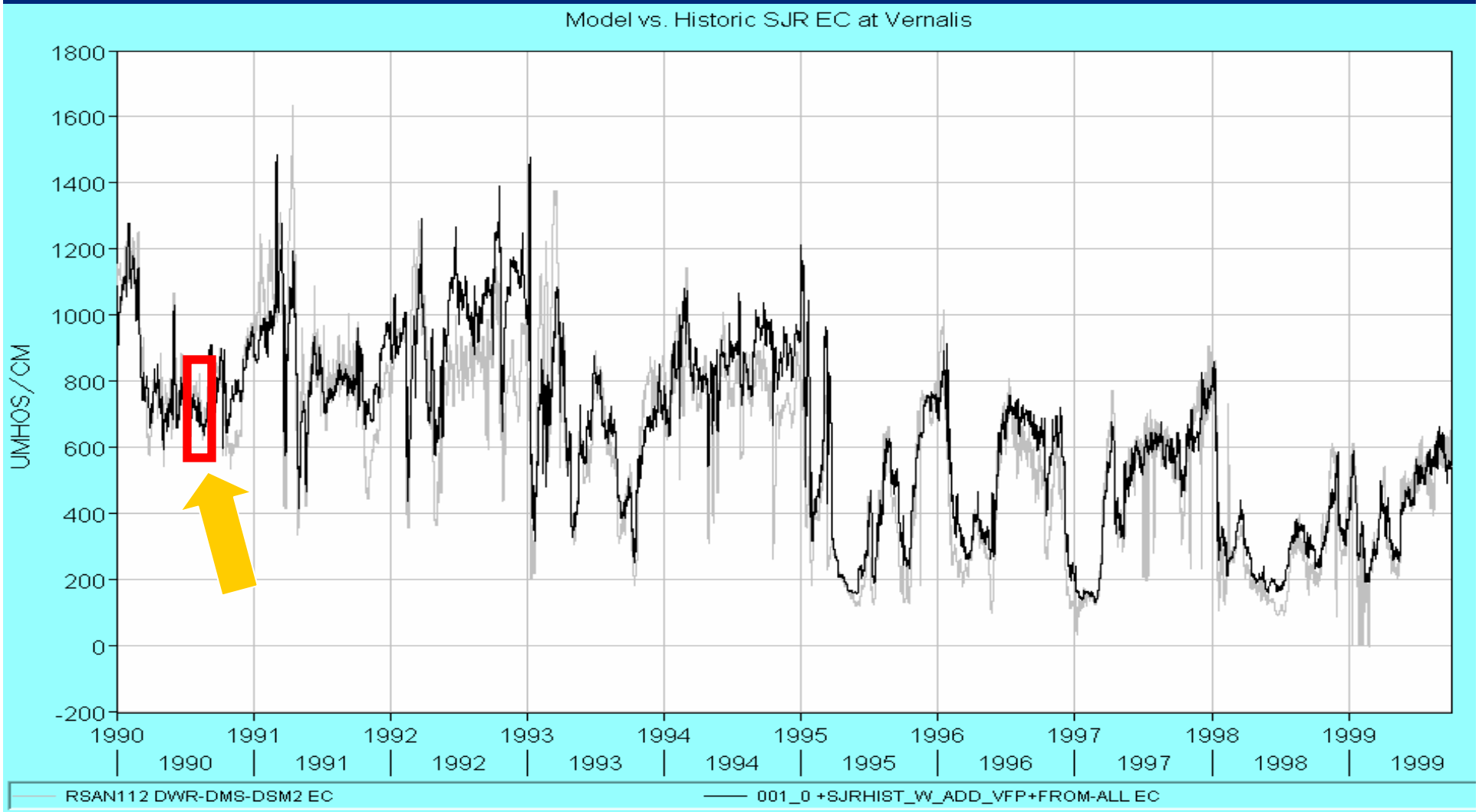
Sources of EC Mass Loads



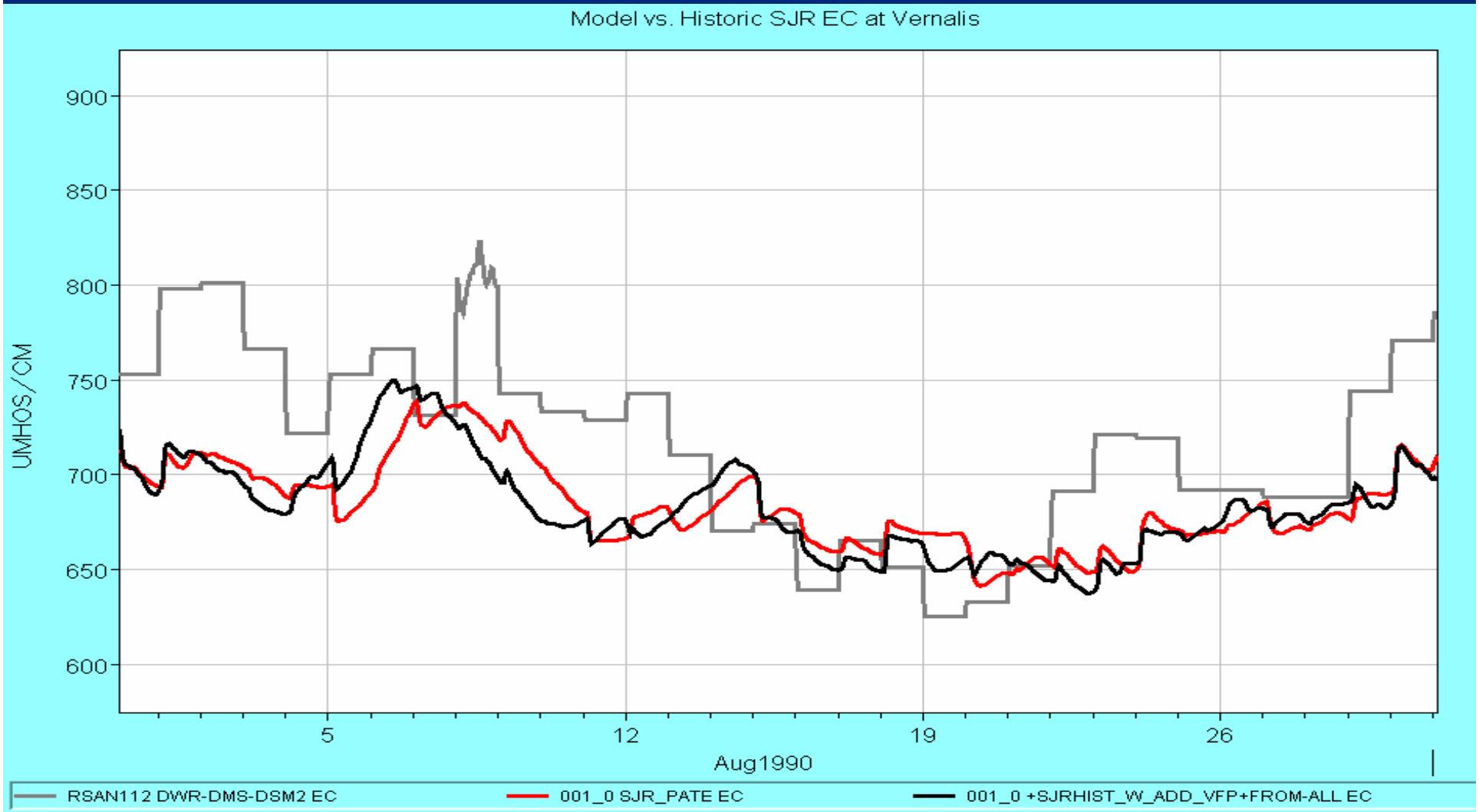
EC at Vernalis



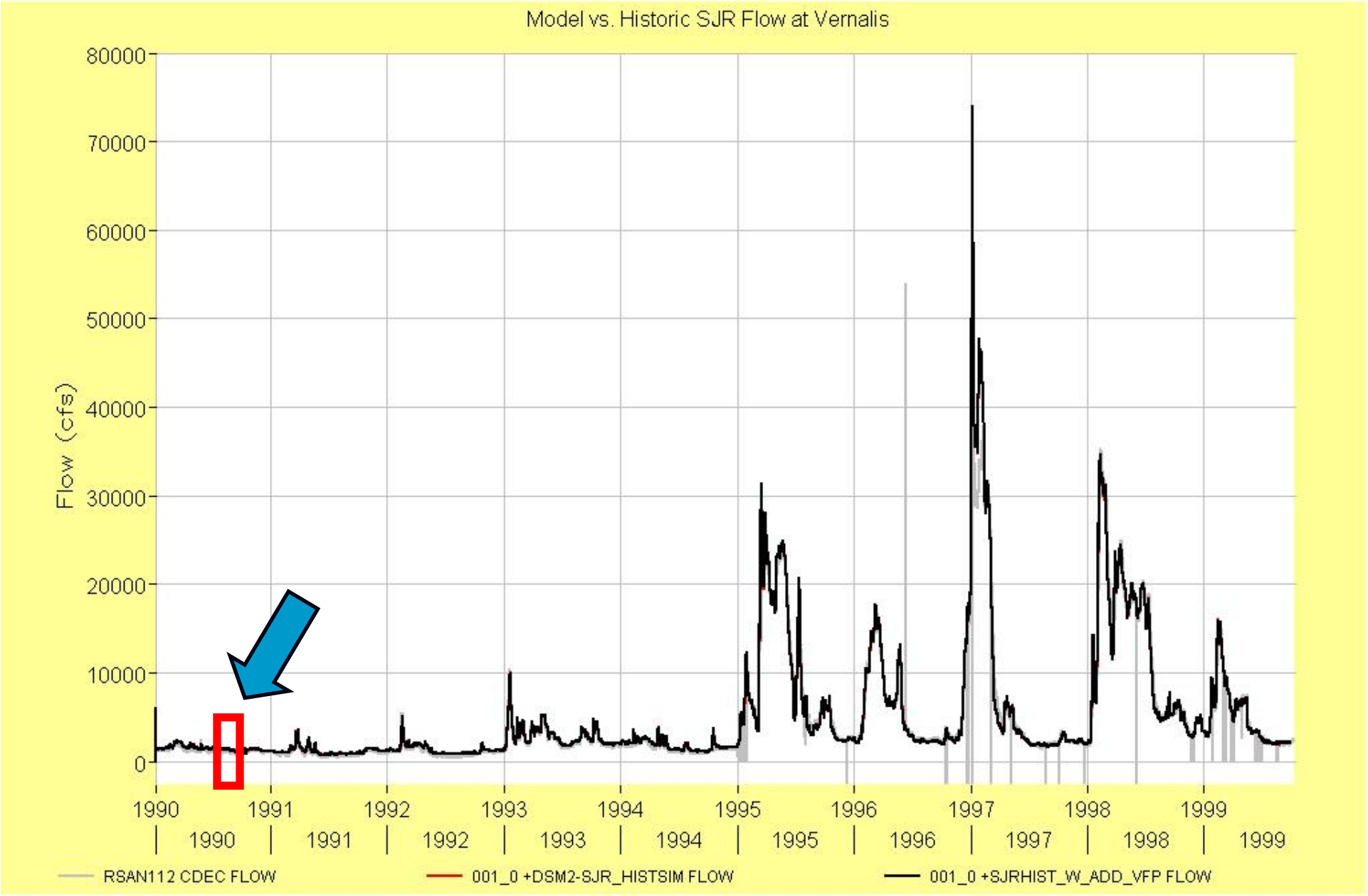
EC at Vernalis



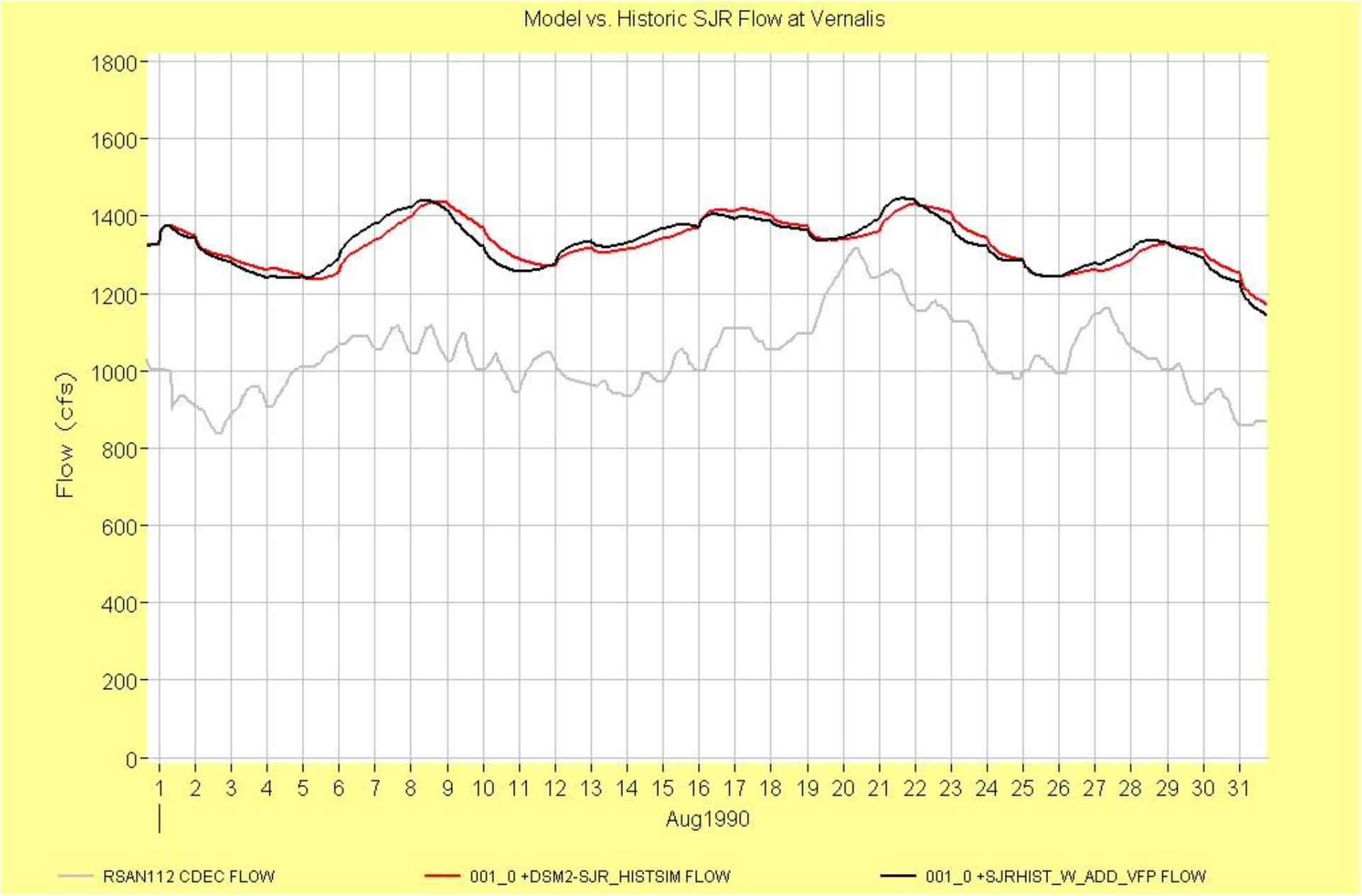
EC at Vernalis



SJR Flow at Vernalis



SJR Flow at Vernalis



References

Brown R. and Huber A, Initial Simulations of 2000–2003 Flows and Water Quality in the San Joaquin River Using the DSM2-SJR Model, Jones and Stokes 04118, November 2004

Kratzer C.R. and R.N. Biagtan. 1997. Determination of Traveltimes in the Lower San Joaquin River Basin, California, from Dye-Tracer Studies During 1994-1995. USGS Water-Resources Investigations Report 97-4018 National Water Quality Assessment Program, Sacramento Ca.

Pate T. 2001 Chapter 5: DSM2 San Joaquin boundary extension in Methodology for flow and salinity estimates in the Sacramento-San Joaquin Delta and Suisun Marsh. Twenty-second annual progress report from the California Department of Water Resources to the State Water Resources Control Board.

Wilde J. and Suits B., DSM2-San Joaquin River Extension simulation over the 1990-1999 period, CADWR, Bay-Delta Office, Modeling Support, September 2004 http://baydeltaoffice.water.ca.gov/modeling/deltamodeling/dsm2sjrextension.cfm