



7/21/11 Public Workshop
WATER DIVERSION MSREMNT
Deadline: 7/5/11 by 12 noon

DIRECTORS
George Biagi, Jr.
Rudy Mussi
Edward Zuckerman

COUNSEL
Dante John Nomellini
Dante John Nomellini, Jr.

CENTRAL DELTA WATER AGENCY

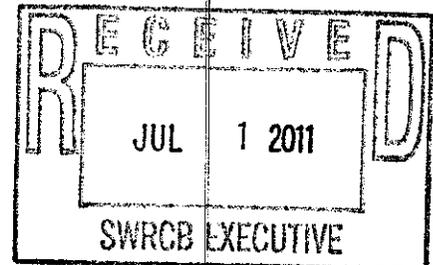
235 East Weber Avenue • P.O. Box 1461 • Stockton, CA 95201
Phone 209/465-5883 • Fax 209/465-3956

July 1, 2011

Via email commentletters@waterboards.ca.gov

State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

Re: Water Diversion Measurement
Public Workshop - July 21, 2011



Dear Ladies and Gentlemen:

Installation of water measuring devices on diversion facilities and reporting the information derived therefrom in the Central Delta and in the lowlands throughout the Delta would appear to provide no significant benefit and result in extraordinary costs. Such an effort is clearly not locally cost effective.

Delta lowlands have historically been defined as lands below five (5) feet above mean sea level. Attached hereto is a copy of the State map depicting the historically recognized lowlands. But for the levees and constant drainage, these lands would be covered with water or revert to swampland.

Seepage/artesian flow significantly contribute to the water supplied for irrigation. There is of course some variability in the characteristics of the soil and elevation of the land which affect the degree of contribution but the issues are the same.

For the areas in question, the only real loss of water is the consumptive use which is primarily due to evaporation and transpiration through growing plants. Consumptive use within the Delta has been extensively studied and modeled by the Department of Water Resources and others and the models provide the best available technology for measuring water use in the Delta. Such models are likely being enhanced with the improving satellite imagery.

Meter installation estimates appear to be in the range of about \$5,000.00 to \$6,000.00 per typical diversion. With over 1600 diversions in the Delta, installation costs are in the range of \$8,000,000.00 to \$9,600,000.00. The cost of monitoring, reporting and maintenance would be in addition to the cost of installation.

July 1, 2011

The Delta diversions are particularly exposed to vandalism and theft in that the waterways are navigable and open to the public.

Attached hereto are copies of water surface elevation charts for the San Joaquin River at Venice Island and Grantline Canal at Tracy Road. These charts show that there are two (2) high tides and two (2) low tides approximately every 25 hours. There is a low high, a high high, a low low and a high low tide. Water diversions whether by siphon, pump or floodgate vary with the tide. Recording a maximum rate of diversion obviously does not provide a meaningful representation of the diversion and is of no significant value. The impact of tides on the rates of seepage and diversion necessitates some overflow in the Delta irrigation practices and efficiency is best achieved as a result of the drainage pumping which is controlled by water level floats or sensors.

We appreciate the SWRCB's interest and concern in addressing the diversion measurement issues.

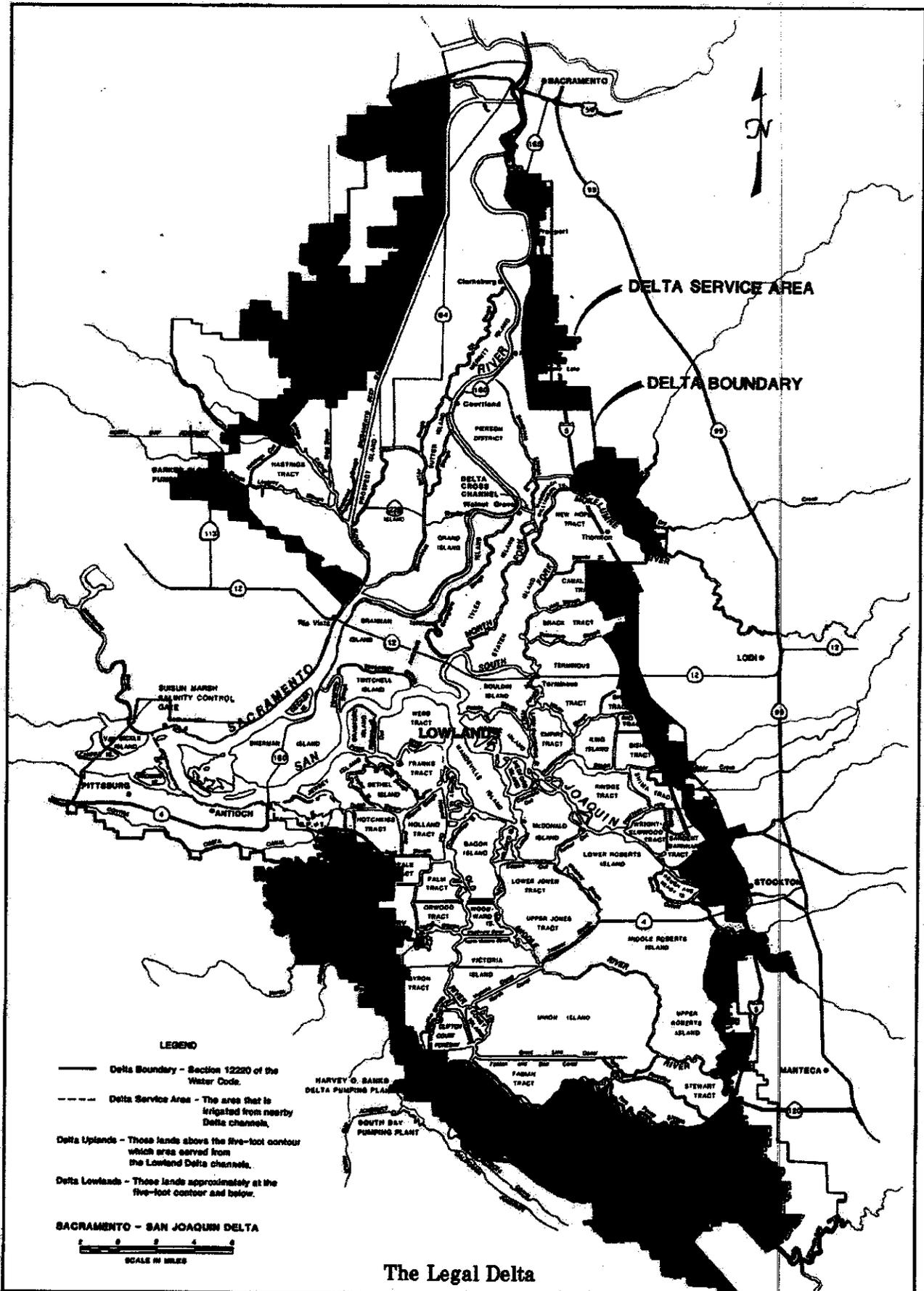
I have not attempted to attach the numerous studies relating to diversions in the Delta but can provide copies of those in our possession.

Yours very truly,



DANTE JOHN NOMEILLINI
Manager and Co-Counsel

DJN:ju
Enclosures



LEGEND

— Delta Boundary - Section 12220 of the Water Code.

- - - Delta Service Area - The area that is irrigated from nearby Delta channels.

Delta Uplands - These lands above the five-foot contour which area carved from the Lowland Delta channels.

Delta Lowlands - These lands approximately at the five-foot contour and below.

SACRAMENTO - SAN JOAQUIN DELTA

SCALE IN MILES

0 1 2 3 4

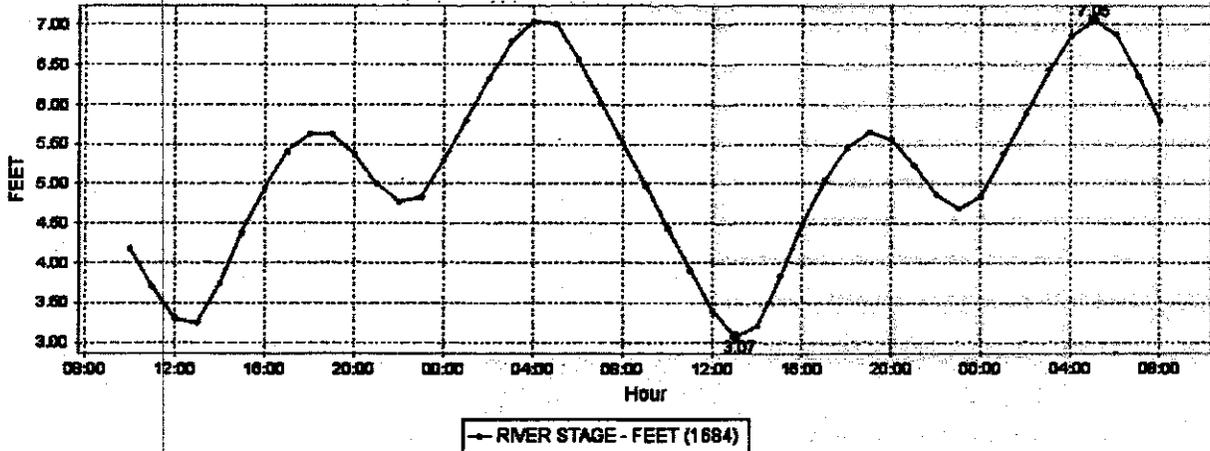
The Legal Delta

Department of Water Resources California Data Exchange Center

SAN JOAQUIN RIVER AT VENICE ISLAND (VNI)

Date from 06/29/2011 09:46 through 07/01/2011 09:46 Duration : 2 days

Max of period : (07/01/2011 05:00, 7.05) Min of period : (06/30/2011 13:00, 3.07)



Generated on Fri Jul 01 09:46:40 PDT 2011

[Plot all VNI Sensors](#) | [Real-Time VNI Data](#) | [VNI Data](#) | [Daily VNI Data](#) | [Show VNI Map](#) | [VNI Info](#)

Plot from ending date: 07/01/2011 09:46 Span: 2 days

Station Comments:

- 05/08/2008 Site converted to satellite only. Microwave equipment was removed.
- 09/30/2006 The vertical datum has changed for this station as of October 1, 2006. Please see [\[Datum Change 2006\]](#) for details.
- 02/02/2006 Added river stage sensor for data with NAVD88 datum.
- 09/06/2005 River stage data will displayed in NGVD29 datum until Oct.1, 2006. The station is sending data with datum NAVD88 as of 9/06/2005 10:30AM. Conversion factor to NGVD29 was applied (factor = 0.50).

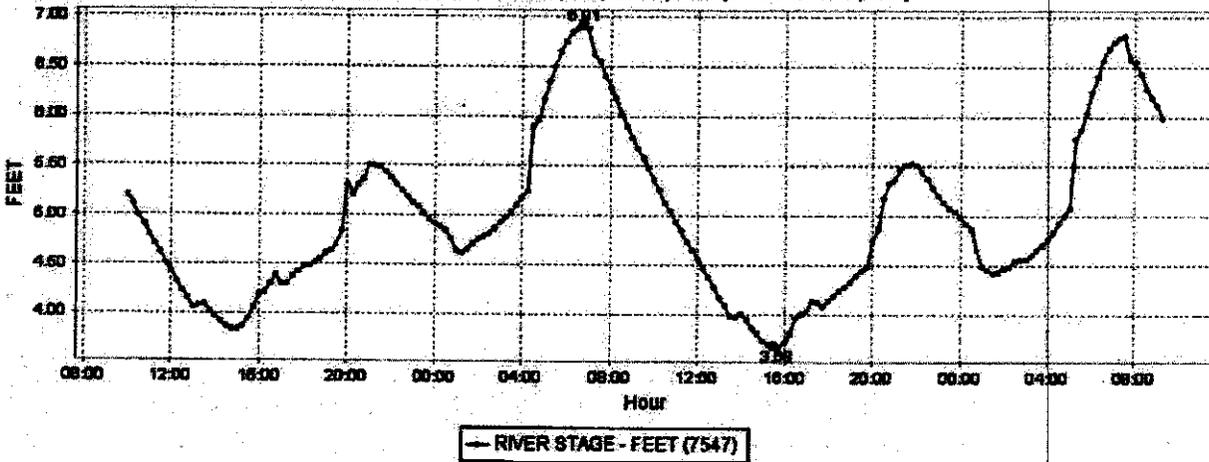
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Department of Water Resources California Data Exchange Center

GRANTLINE CANAL AT TRACY RD BRIDGE (GCT)

Data from 06/29/2011 09:50 through 07/01/2011 09:50 Duration : 2 days

Max of period : (06/30/2011 08:45, 6.91) Min of period : (06/30/2011 15:30, 3.68)



Generated on Fri Jul 01 09:50:31 PDT 2011

[Plot all GCT Sensors](#) | [Real-Time GCT Data](#) | [GCT Data](#) | [Daily GCT Data](#) | [Show GCT Map](#) | [GCT Info](#)

Plot from ending date: 07/01/2011 09:50 Span: 2 days

Station Comments:

- 09/30/2006** The vertical datum has changed for this station as of October 1, 2006. Please see [\[Datum Change 2006\]](#) for details.
- 02/02/2006** Added river stage sensor for data with NAVD88 datum.
- 08/23/2005** River stage data will displayed in NGVD29 datum until Oct. 1, 2006. The station is sending data with datum NAVD88 as of 8/17/2005 12:00AM. Conversion factor to NGVD29 was applied (factor = 0.48).

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