

**Calculations of Unquantified Subareas
(in support of
RTMP and Potential Offsets)
MAA Draft Compliance and Evaluation Plan**

August 17, 2009
1:30 pm – 3:30 pm

1

RECLAMATION

Management Agency Agreement

- Requirement of the Basin Plan (Salinity and Boron TMDL for the Lower San Joaquin River)
- Executed in December 2008 by Regional Water Board and Reclamation
- Cooperative implementation, initially a 2 year monitoring, assessment and reporting program
- Contains several reporting agreements
- Contains a goal of 25 percent reduction and/or offset of salts transported to basin by CVP
- Refers to Reclamation Action Plan

2

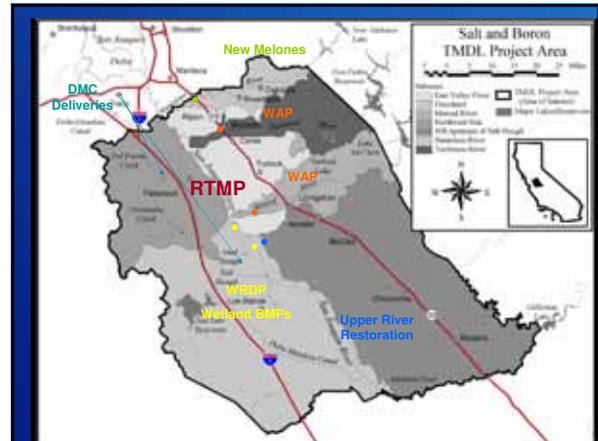
RECLAMATION

**Draft Compliance Evaluation and
Monitoring Plan
Contents (2008 monthly data)**

- Action Plan Elements
 - Status
 - Quantification of Potential Load Offsets
- DMC Supply Water Load
 - Methodology for Calculations
- Future Reclamation Actions
 - Status
 - Quantification of Potential Load Offsets
- Vernalis Water Quality
- Summary of Potential Offsets to DMC Loads
- Proposal for Continuing Public Participation

3

RECLAMATION



**Draft Compliance Evaluation and
Monitoring Plan**

- First draft of Plan submitted on January 1, 2009
- Second draft submitted to Executive Director of Regional Board for approval on July 1, 2009
- Next draft will be submitted on January 1, 2010
- Final Compliance Evaluation and Monitoring Plan due to Regional Board by July 1, 2010

5

RECLAMATION

**Unquantified Subareas
-Agenda-**

- Importance of these areas
- East Valley Floor Subarea
 - TMDL Details
 - Data Sources
 - TMDL Methodology for Calculating
- Northwest Subarea
 - TMDL Details
 - Data Sources
 - TMDL Methodology for Calculating
 - Allocations, "Actual" Loads
- Estimating East Valley Floor through Subtraction

6

RECLAMATION

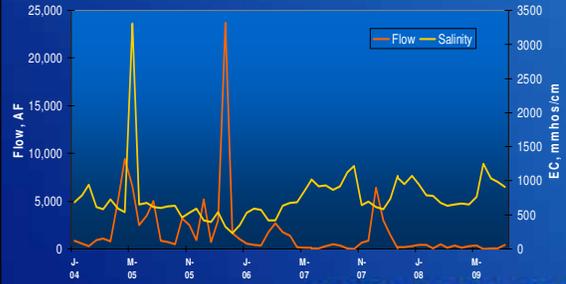
Northwest Subarea -Actual Data-

- Flow and EC data at Orestimba Creek at River Road near Crows Landing (7/13/04 to present, USGS)

19

RECLAMATION

Northwest Subarea (Orestimba Creek) -Actual Data-



20

RECLAMATION

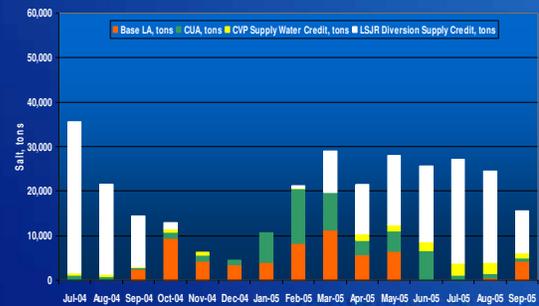
Northwest Subarea -TMDL Allocation-

- Load allocations established for salts in Northwest Subarea (not currently in effect)
- Load allocation set to allow Consumptive Use increase in salts (based on actual flow)
- CVP water supply allowance granted to recipients of DMC water, 50% of water supply load (static numbers)
- SJR water supply allowance granted to Northwest Subarea users, 50% of water supply load (static numbers)

21

RECLAMATION

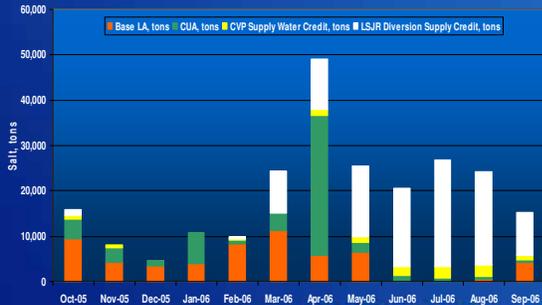
Northwest Subarea Allocations 2005 (W)



22

RECLAMATION

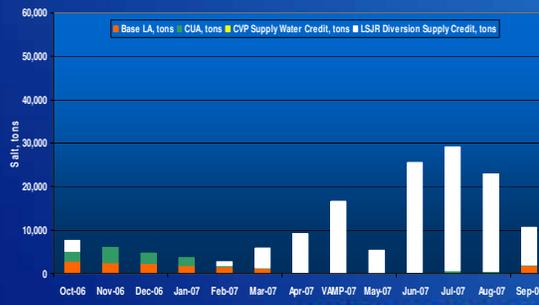
Northwest Subarea Allocations 2006 (W)



23

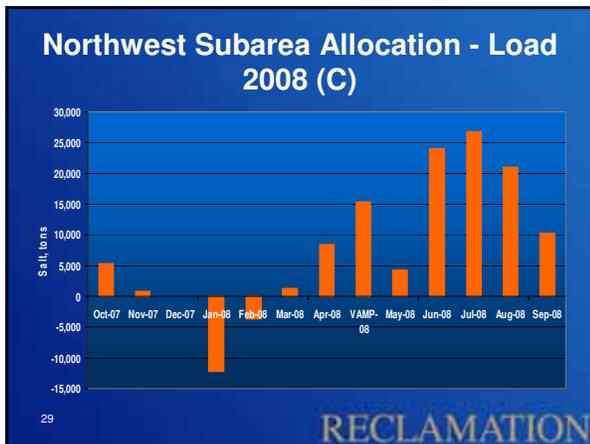
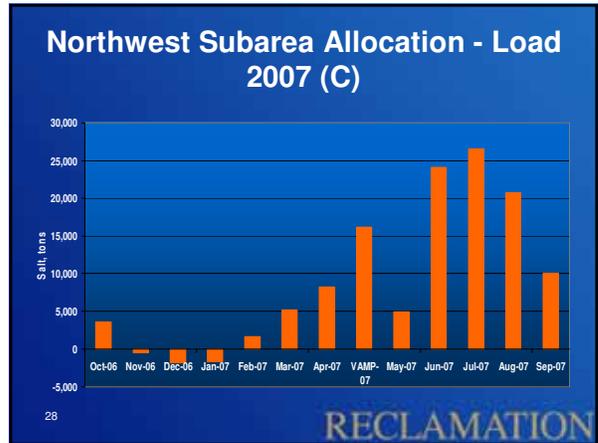
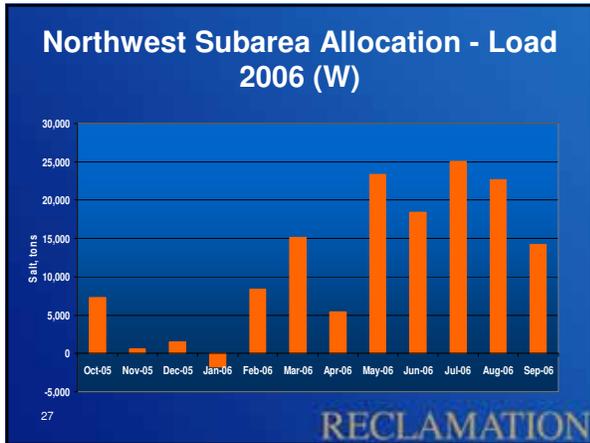
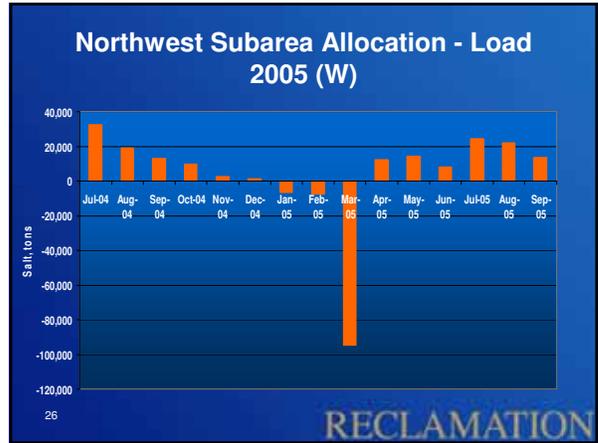
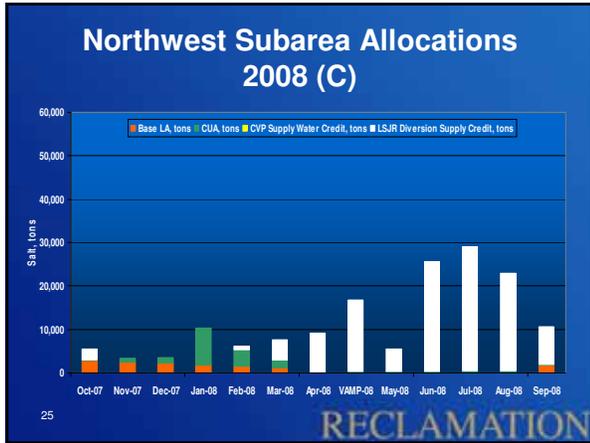
RECLAMATION

Northwest Subarea Allocations 2007 (C)



24

RECLAMATION



Difference between TMDL and Now

- East Valley Floor data not publicly available
- Orestimba Creek regularly monitored
- Also, TMDL treatment of groundwater complicates simple summation methods

30 RECLAMATION

Potential Estimation Method -CUA for Unquantified Subareas-

Flow at Vernalis (Actual, monthly)

- Flow from all Known Subareas (Actual)
- Groundwater Flows from LSJR (Table)

= Unquantified Subarea Flow

* Trigger Value (TDS) = CUA_{subareas}

31

RECLAMATION

Potential Estimation Method -Actual Loads for Unquantified Subareas-

Actual Load at Vernalis (after MOS, monthly)

Load from all Known Subareas (Actual, including Groundwater in Grassland area)

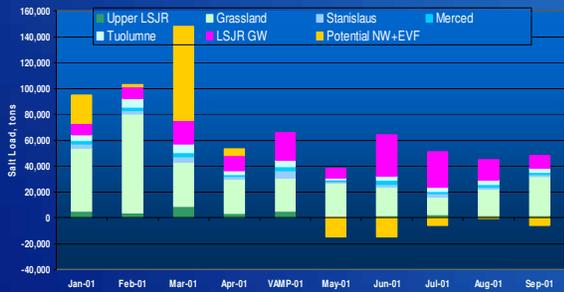
- LSJR Groundwater Load
- = Remaining Load (Unquantified Subarea?)

Following graphs show this is not a good method

32

RECLAMATION

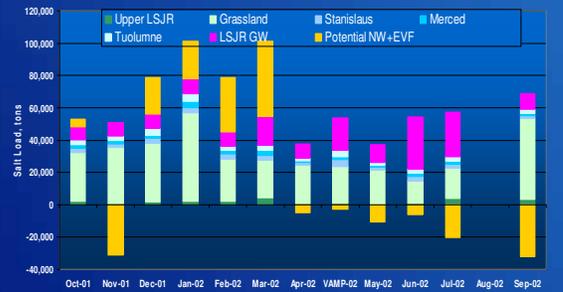
Unquantified Subareas Load 2001 (D)



33

RECLAMATION

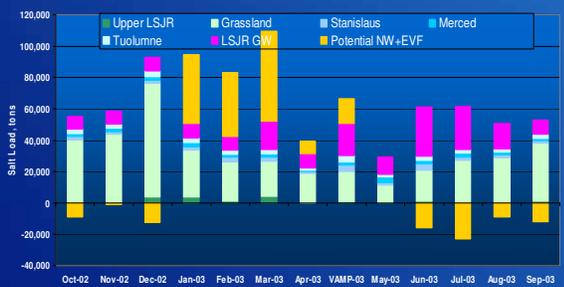
Unquantified Subareas Load 2002 (D)



34

RECLAMATION

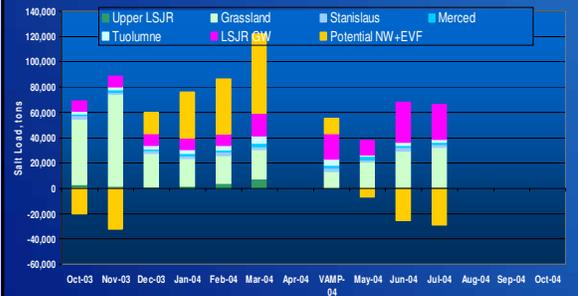
Unquantified Subareas Load 2003 (BN)



35

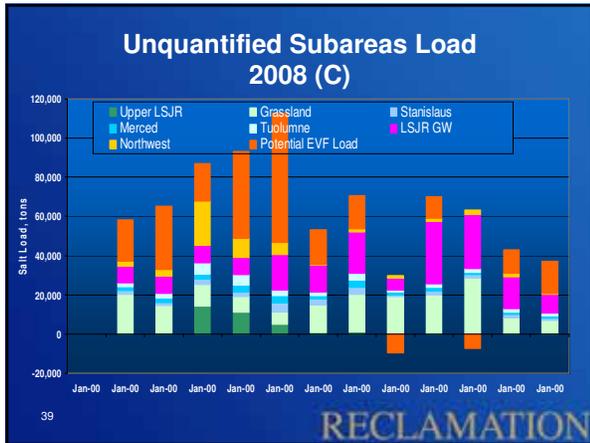
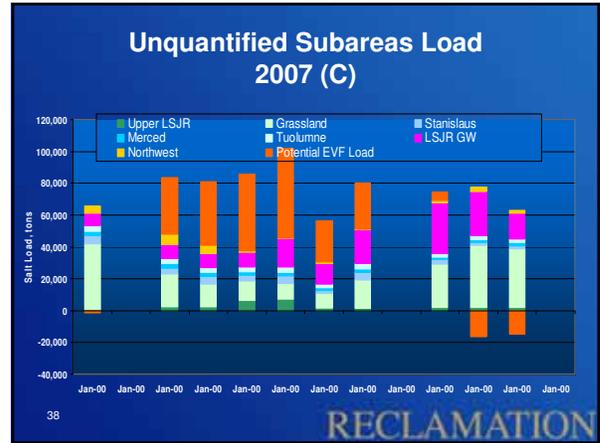
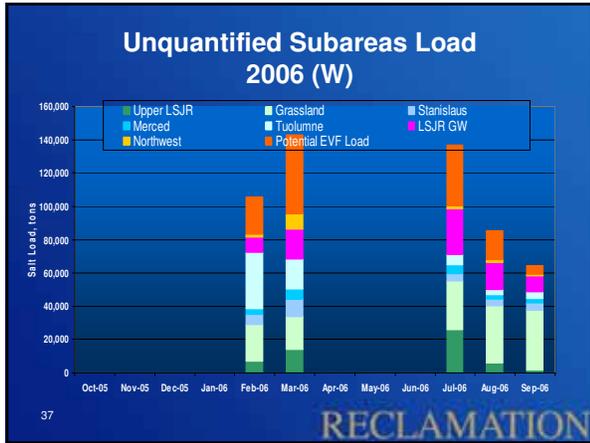
RECLAMATION

Unquantified Subareas Load 2004 (D)



36

RECLAMATION



Meeting Schedule

- July 28:** CVP Delivered Load
Data Sources, Calculations
- August 4:** Westside Regional Drainage Plan
Subarea Load Calculations, Groundwater Load
CVP Water Supply Credit, Assimilative Capacity
- August 17 :** Unquantified Subareas
Data Availability, Subarea load quantification
- August 24:** Eastside Tributary Dilution Flows
Subarea Load Calculations, Assimilative Capacity
- TBD:** Real-Time Management Program
Status of Efforts, Assimilative Capacity, Potential Uses
- TBD:** Offsets, Credits, Trading
Application of Potential Offsets, Credits to CVP-Delivered Loads

40 RECLAMATION

Contacts

Draft Plan is posted at:
http://www.waterboards.ca.gov/centralvalley/water_issues/fmdl/central_valley_projects/varmalls_salt_baran

Reclamation Contact:
 Lisa Holm (lholm@usbr.gov)

Regional Water Board Contact:
 Gail Cismowski (gcismowski@waterboards.ca.gov)

41 RECLAMATION