

MAA Draft Compliance and Evaluation Plan

CVSALTS TAC

June 17, 2009

RECLAMATION

Management Agency Agreement

- Requirement of the Basin Plan (Salinity and Boron TMDL for the Lower San Joaquin River)
- Executed in November 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

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Basin Plan Requirements

- MAA execution within 2 years
- Load allocation established for salts in DMC irrigation water deliveries
- Load allocation set to offset or reduce all salt loads above “Sierra quality” water
- CVP water supply allowance granted to recipients of DMC water, 50% of water supply load
- Basin divided into 7 subareas, prioritized by salt load contribution, and put on different compliance schedules from 8 to 20 years

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Some details from the TMDL

- Design flows based on DWRSIM modeling of 73 years of flow and on water quality data from 1985 to 1997
- Groundwater contributions treated as static monthly volumes and quality, removed from subareas and accounted for at Vernalis
- Subarea loads and consumptive use allowances calculated based on flow and water quality at most downstream point of subarea
- CVP loads based on DWRSIM modeling and Delta conditions pre-1997

Draft Compliance Evaluation and Monitoring Plan

- First draft of Plan submitted on January 1, 2009
- This draft will go to Executive Director of Regional Board for approval by 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

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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

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Action Plan Elements

- **Providing Flows to the System**
 - New Melones Reservoir Operations
 - Water Acquisition
 - Water Acquisitions Program
 - EWA flows
- **Salt Load Reductions**
 - Grassland Bypass Project
 - Westside Regional Drainage Plan
 - Water Use Efficiency Grant Programs
 - Water Conservation Field Services Program
 - Water 2025 Program
 - CALFED Water Use Efficiency Program

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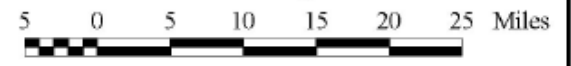
Action Plan Elements (continued)

- **Mitigation**

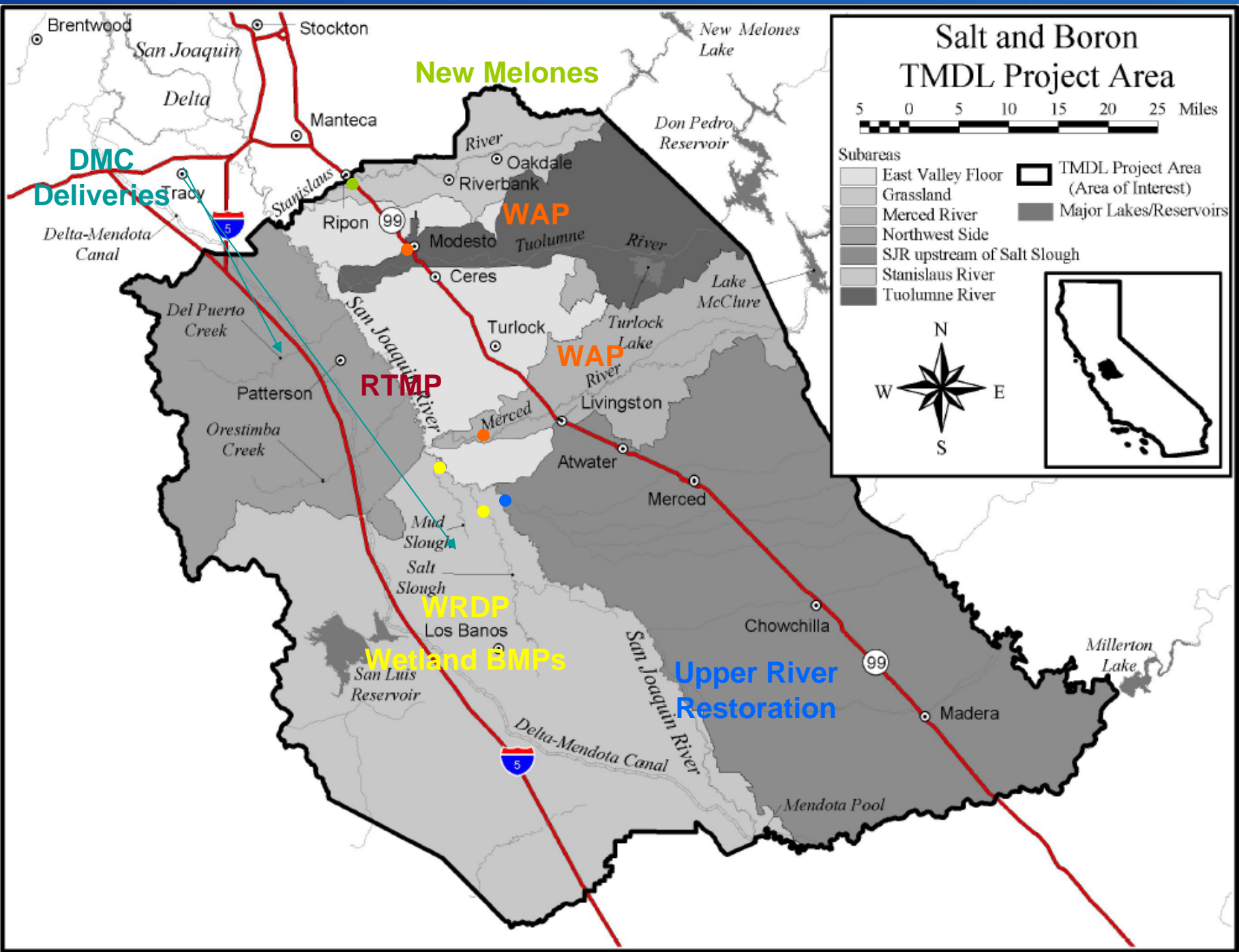
- Develop Stakeholder interest in Real Time Management
 - Lead the effort to revitalize and develop the Real Time Management effort
 - Engage stakeholders in the development of monitoring and modeling work
 - Assist Wetlands in developing and implementing Best Management Plans
- Participate in the work to establish a real time monitoring network
 - Develop a monitoring plan
 - Install and upgrade necessary stations
 - Develop a data management and storage strategy
- Participate in the work to develop a forecast model for Real Time Management
 - Model development
 - Model calibration
 - Model refinement

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Salt and Boron TMDL Project Area



- Subareas
- East Valley Floor
 - Grassland
 - Merced River
 - Northwest Side
 - SJR upstream of Salt Slough
 - Stanislaus River
 - Tuolumne River
 - TMDL Project Area (Area of Interest)
 - Major Lakes/Reservoirs

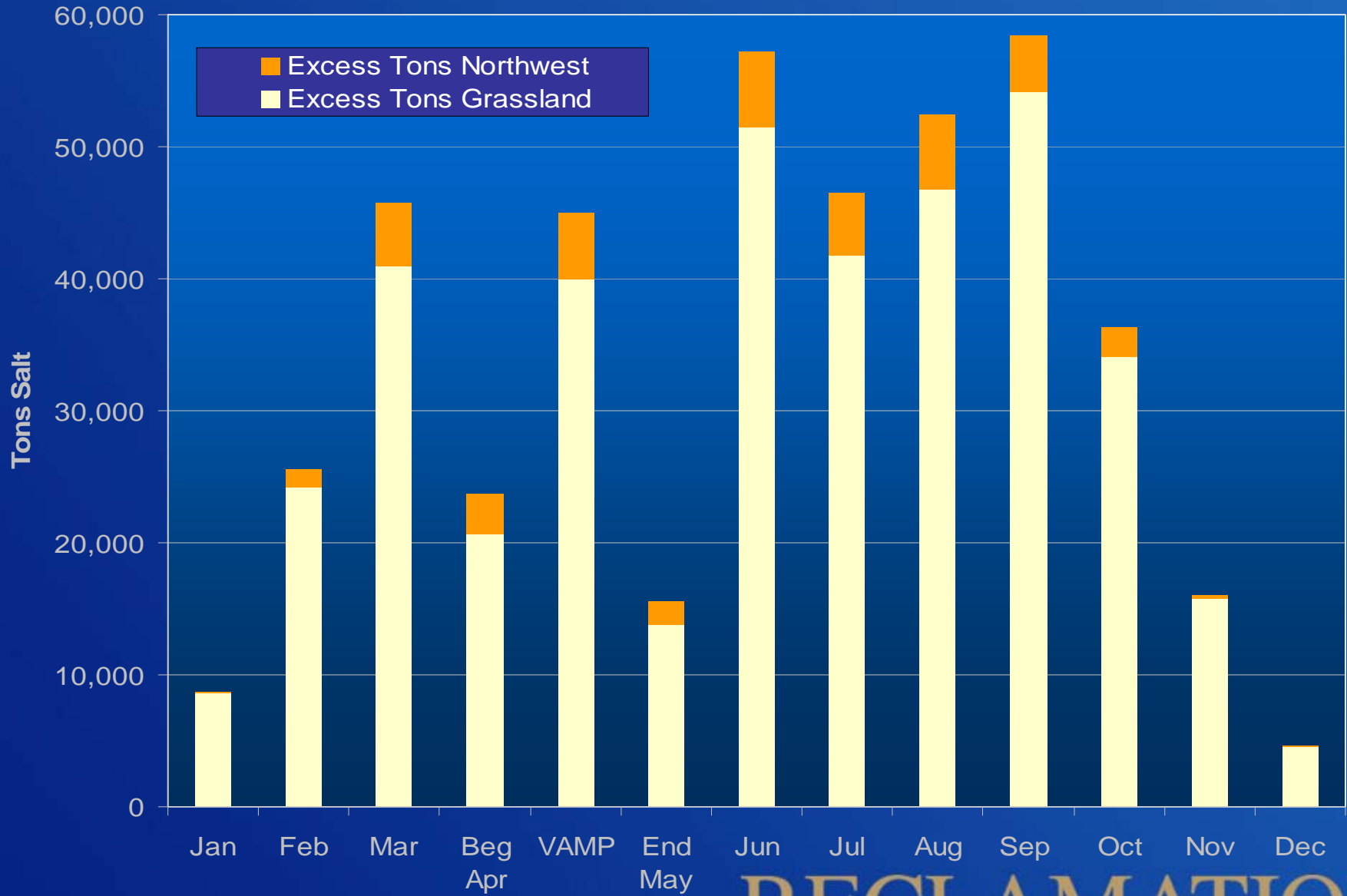


DMC Water Supply Salt Loads

- Reclamation Central Valley Operations Office prepares monthly water supply delivery reports and monitors daily water quality at several points in the DMC
- Diversion locations are characterized by three separate water quality monitoring stations
- Monthly water deliveries are multiplied by monthly average salinity to determine monthly salt loads
- Excess salt loads are those loads above a water quality of 52 mg/L TDS

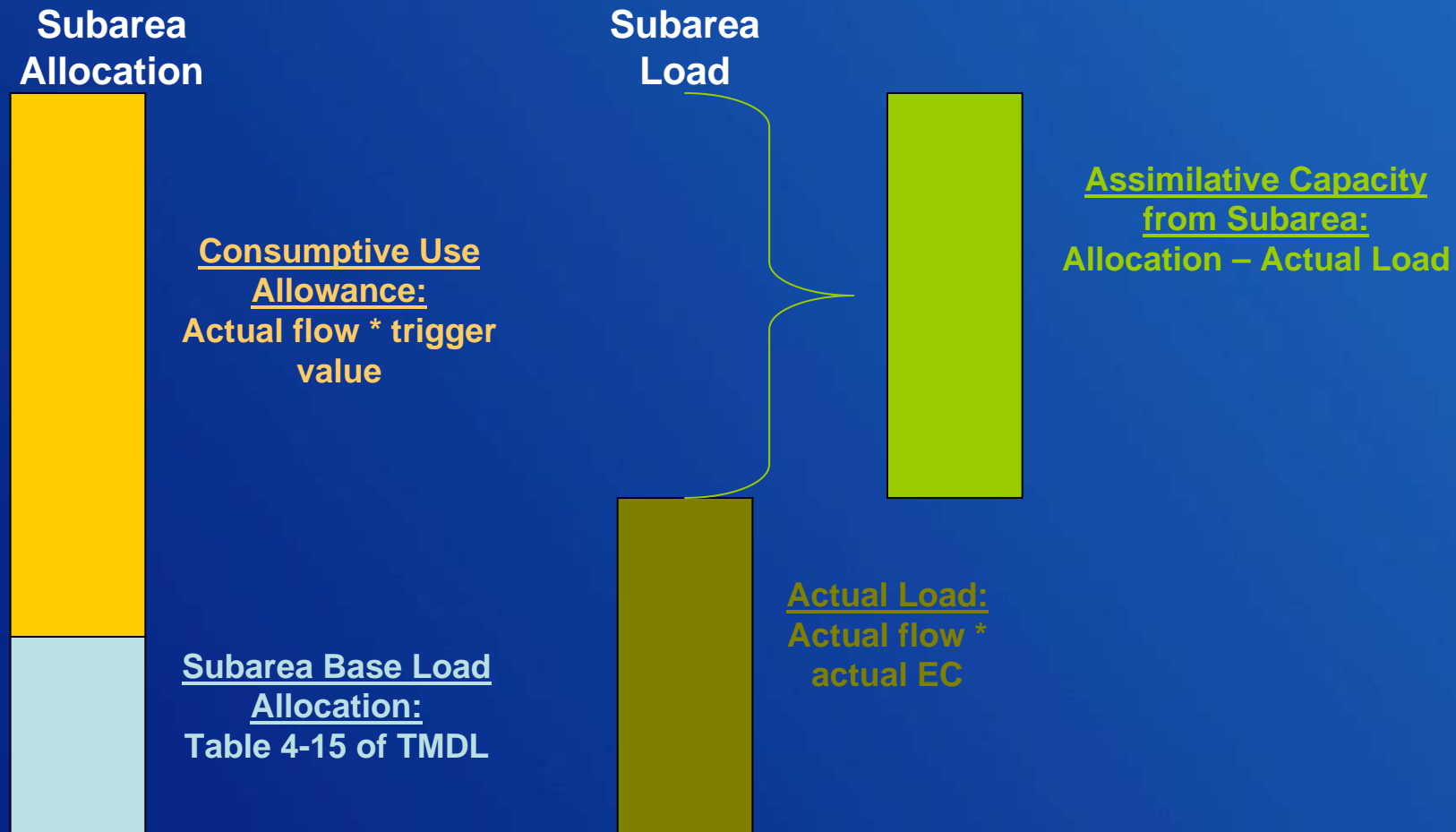
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2008 DMC Water Supply “Excess” Loads



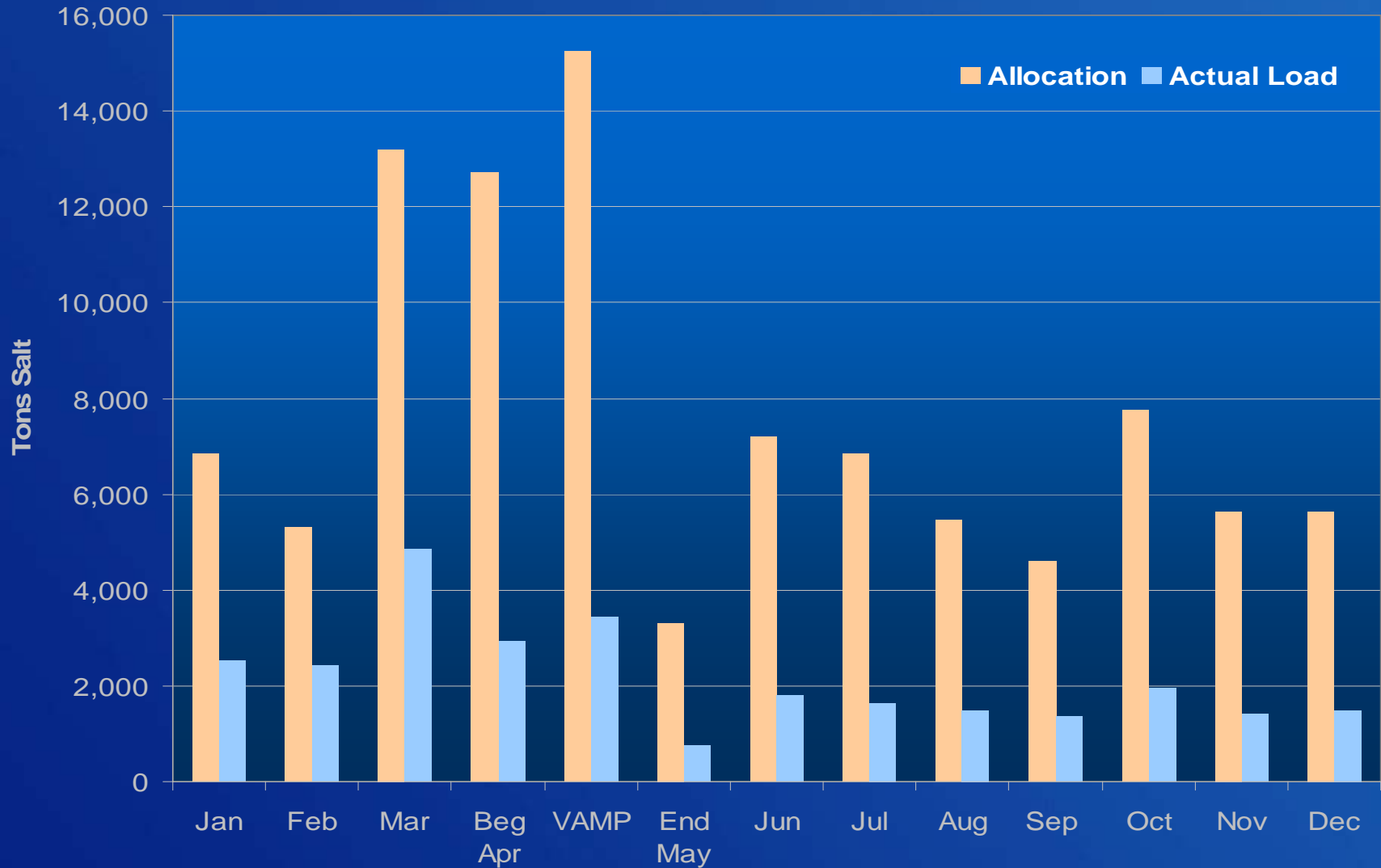
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Calculating Potential Offsets: Dilution Flows



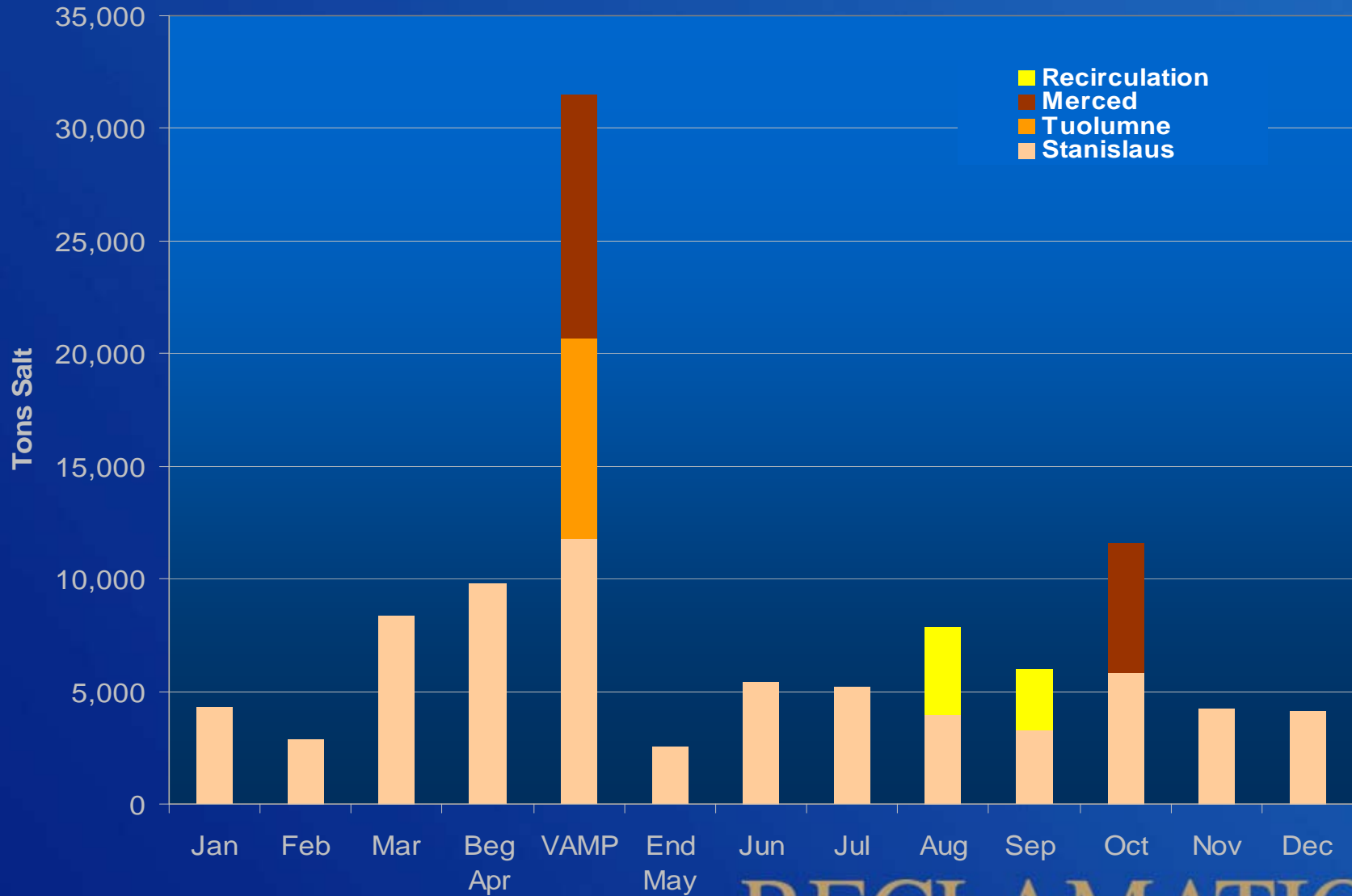
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Example: Stanislaus Allocation vs. Load



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Potential “Dilution Flow” Offsets

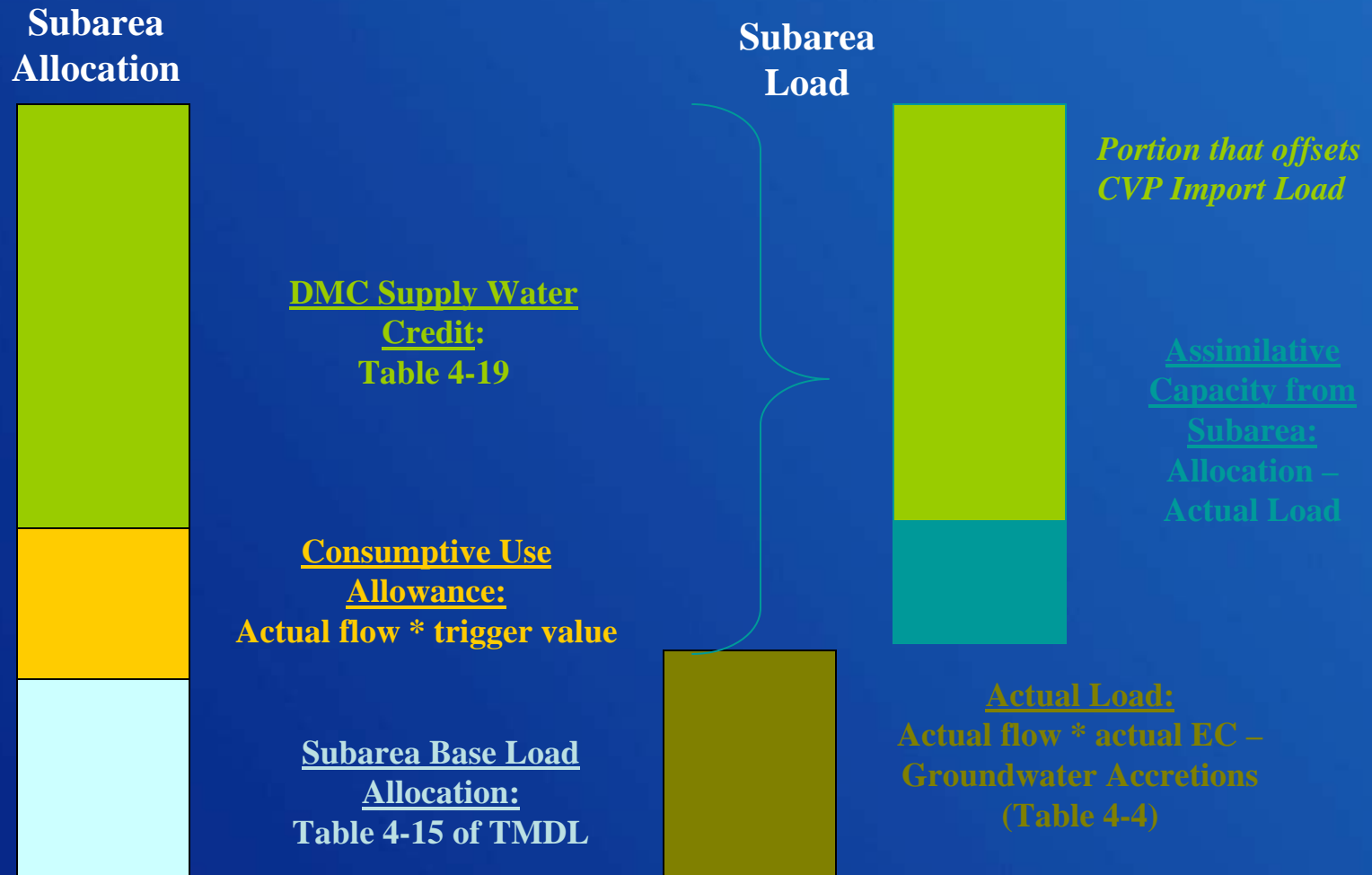


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Calculating Potential Offsets: Salt Load Reductions

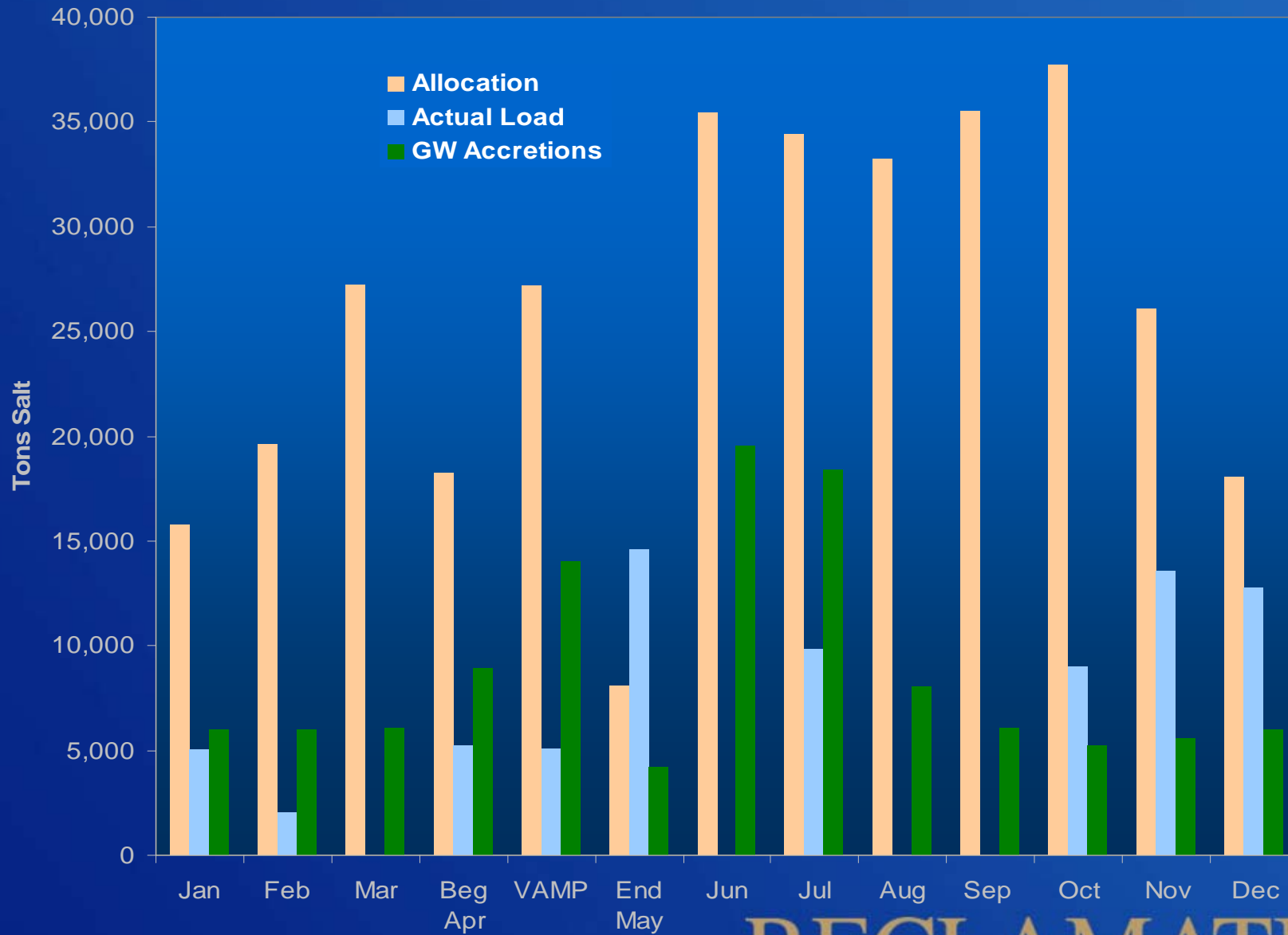
- Grassland Bypass Project/Westside Regional Drainage Plan implementation measures the amount of drainage released to the San Luis Drain
- Estimates avoided drainage based on a historical baseline
- Instead, Draft Plan examines the amount of assimilative capacity or excess salt loads generated by the entire Grassland subarea in 2008
- Could not obtain enough data to examine Northwest subarea
- Desire to base ongoing discussions/efforts on current information (calculations for discussions are for 2000-2008)

Calculating Potential Offsets: Salt Load Reductions



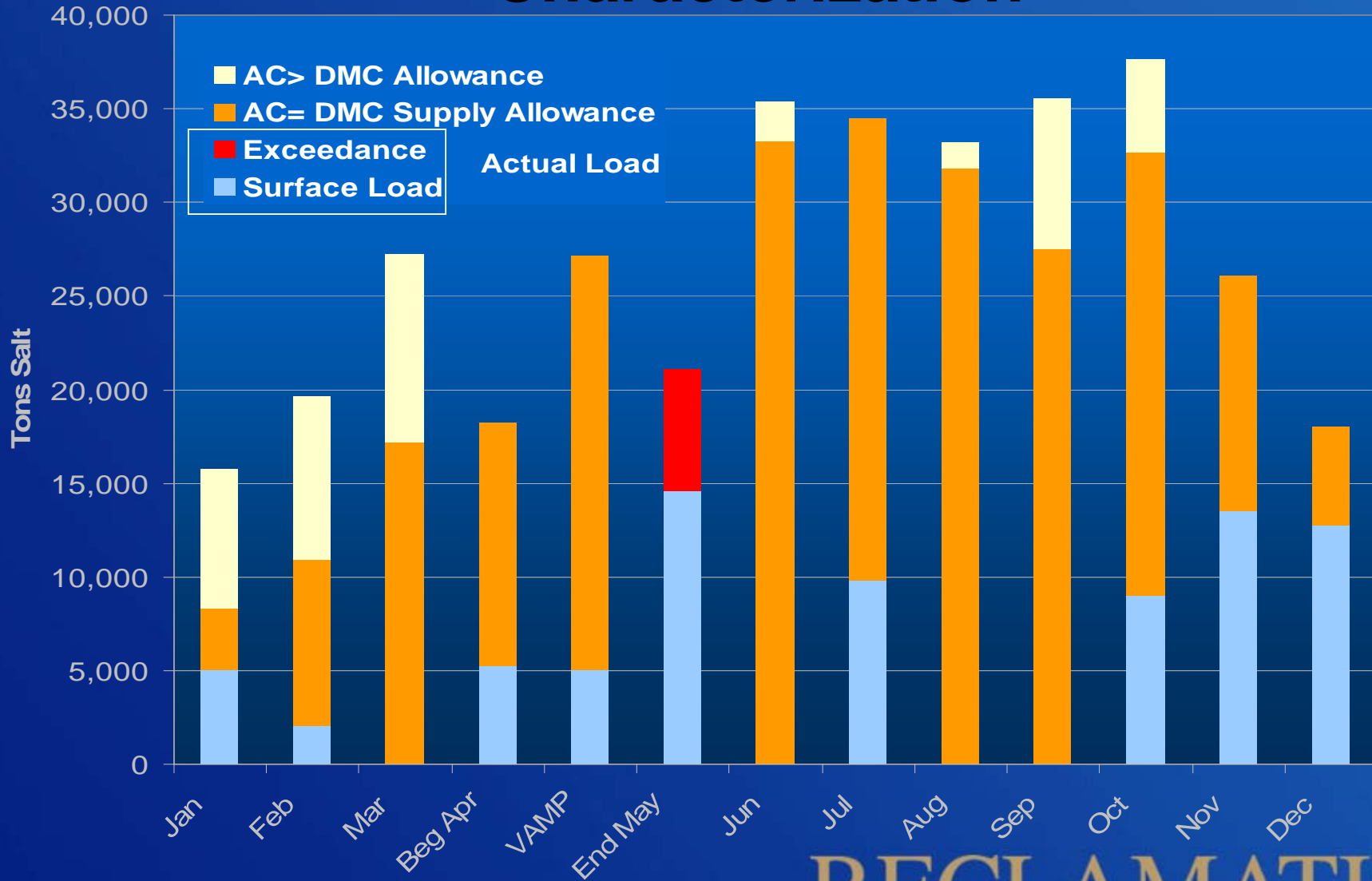
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Grassland Subarea: Allocation v. Load



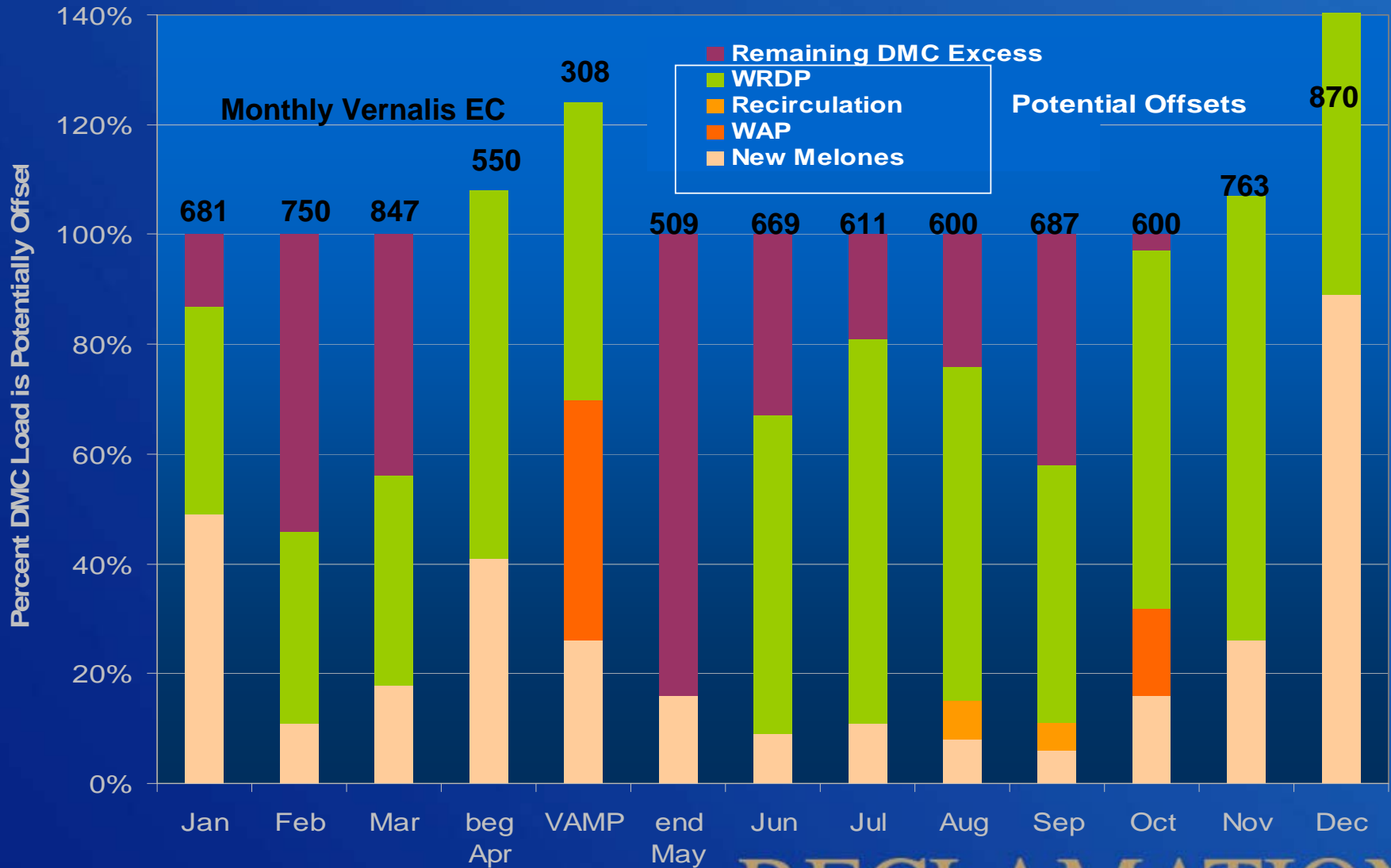
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Grassland Subarea Load Characterization



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Summary of Offset Potentials



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Proposed Ongoing Review Process

July 1: CVP Delivered Load

Data Sources, Calculations

July 22: Westside Regional Drainage Plan

Subarea Load Calculations, Groundwater Load
CVP Water Supply Credit, Assimilative Capacity

August 13: Eastside Tributary Dilution Flows

Subarea Load Calculations, Assimilative Capacity

September 2: Unquantified Subareas

Data Availability, Subarea load quantification

September 23: Real-Time Management Program

Status of Efforts, Assimilative Capacity, Potential Uses

October 21: Offsets, Credits, Trading

Application of Potential Offsets, Credits to CVP-Delivered Loads

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Contacts

Draft Plan is posted at:

http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/vernalissalt_boron/

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