

Agricultural & Dairy Operator Nutrient Reduction in the San Jacinto Watershed

LESJWA WATER SUMMIT

May 13, 2014

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Who is WRCAC?

- Western Riverside County Agriculture Coalition (WRCAC), non-profit organization was formed in 3/2004
- Formed by dairy stakeholders to inform, educate and facilitate current environmental issues between dairy and agricultural operators, and County and State regulatory agencies
- WRCAC agreed to be the “single voice” for agricultural and Dairy TMDL Task Force Representation



Environmental Issues in the Beginning

- General Waste Discharge Permit 2007
- Total Maximum Daily Load (TMDL) for nutrients
 - Task Force was meeting/TMDL had not been adopted
 - CAFO under permit/ Ag operators not under any permit(Still not under any permit



Dairy Projects

2004-2014



- Integrated Regional Dairy Management Plan (IRDMP) SJBRCD & WRCAC
 - IRDMP monitoring and BMP demonstration projects
 - Transport and Fate of Nitrate and Pathogens at Dairy Lagoon Water Application Sites: An Assessment of CNMP Performance
 - Vibratory Shear Enhancement Process (VSEP) pilot project
 - Identification of dairy issues of concern
 - Salt offset evaluation, model and data development
 - Recommendations to address dairy issues: Manure manifest system
 - SJ Watershed IRDMP implementation
- Dairy Water Quality Grant
- Updated 2010 CAFO data for salt offset update(2007 & 2010 comparison)
- Three (3) TMDL Collection Cycles for Dairy

Agricultural Projects

2004-2014



- BMPs in the San Jacinto Watershed-UCR Cooperative Extension
- San Jacinto CNMP-UCR Cooperative Extension
- Two (2) TMDL Collection Cycles for Agriculture completed; third cycle expected to be released by end of May 2014
- Stakeholder Identification and land use mapping baseline(TF), WRCAC has completed 2005,2007,2010.
- Develop and implementation of TMDL process for dairy and ag
- Water Quality Trading Pollutant Feasibility Assessment (319 grant)
- Mystic Lake boundary update
- Irrigation Management and efficiency grants and many more
- **TOTAL WRCAC TEAM (ag and dairy) GRANT AWARDS to date: over \$ 5.5 million**

WRCAC's Strategy for TMDL Compliance

- 1. In- lake and watershed BMPs
- 2. Actively engaged in the TMDL Task Force since it's inception. To date-CAFO and Ag **operators** have paid the TMDL Task Force \$818,539
- 3. WRCAC collection process :CAFO & Ag collected different cycles
 - \$'s collected per animal count for CAFOs/ Per acre by agricultural operators
 - WRCAC fees are TMDL allocation and membership
 - Pays for grant matches, administration, TF fees, special projects and more
- 4. Address in-lake BMPs and monitoring through TMDL Task Force
- 5. Watershed BMP's-a wide variety
 - Update land use for accurate assessment of agricultural activity/urban is increasing/agriculture decreasing
 - Identify & quantify ag individual operator BMPs and user friendly weBMP
 - Innovative projects such as Scott Brothers Dairy Farm gasification project

Scott Brothers Dairy Farm Gasification Project



- Converts Manure to Diesel Fuel
- Pilot system processes solid and liquid material (one ton per hour)
- The treatment system is designed to remove 98% of TSS, 40% TDS, 90% phosphorous, 67% of TKN, 40% potassium and salts from onsite dairy wastes
- Provides a process that will address TMDL nutrient reduction and salts
- Project funded through California Energy Commission grant (\$658,220) and NRCS grant (\$450,000) with over \$1,000,000 in match from Scott Brothers Dairy Farms
- The project is expected to start trial burns in 2014
- <http://www.facebook.com/AgWasteSolutions>

Current activities

- AgNMP (submitted to RWQCB in 2013)
- Salt Creek Nutrient Assessment study
- Baseline Load analysis per APN
- Scott Brothers Dairy Farm gasification project
- Updated CAFO data for salt offset update
- Development of CWAD monitoring plan and QAPP
- Mystic Lake sub watershed 7,8,9 ag ownership break-out
- Groundwater monitoring analysis/new CAFO permit requirement
- CIG Grant –Water Quality Trading & soil health survey –submitted 5/5/14
- Task Force participant: Alum application to CL/annual monitoring
- Additional review of new technologies and grant ops
- Stakeholder outreach and education: Agrarian, future BMP workshops

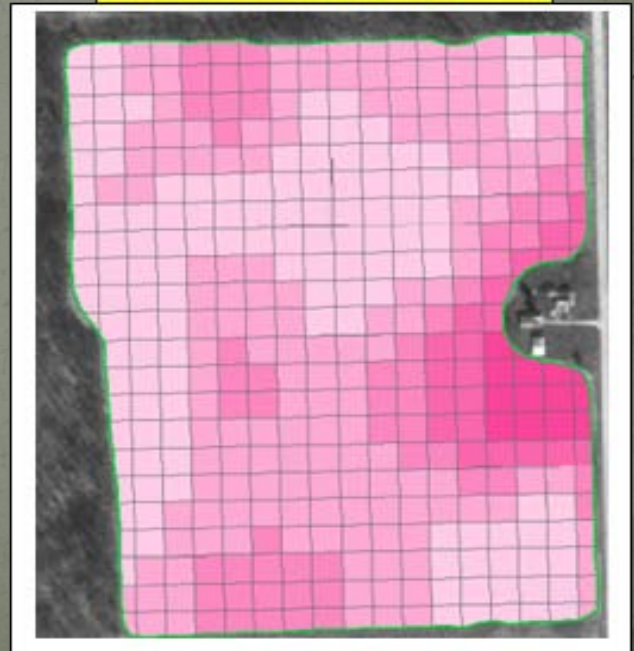


Next Steps

- CWAD implementation with stakeholders
- AgNMP adoption & implementation
- Interim TMDL Compliance date 2015
- New aerial mapping and ownership data (AIS) 2015/2016 and 2018 timeframe
- Final compliance date 2020
- WRCAC website with weBMP tool developed for inputting ag BMPs /CIG grant tie in
- Grant opportunities for funding projects
- CAFO Groundwater monitoring
- AWS system-look at regional component



P Soil test Surface Map



QUESTIONS?

WRCAC website www.sjwrcac.org

