Agricultural & Dairy Operator Nutrient Reduction in the San Jacinto Watershed

LESJWA WATER SUMMIT

April 27, 2016

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LE/CL Task Force Vice Chair

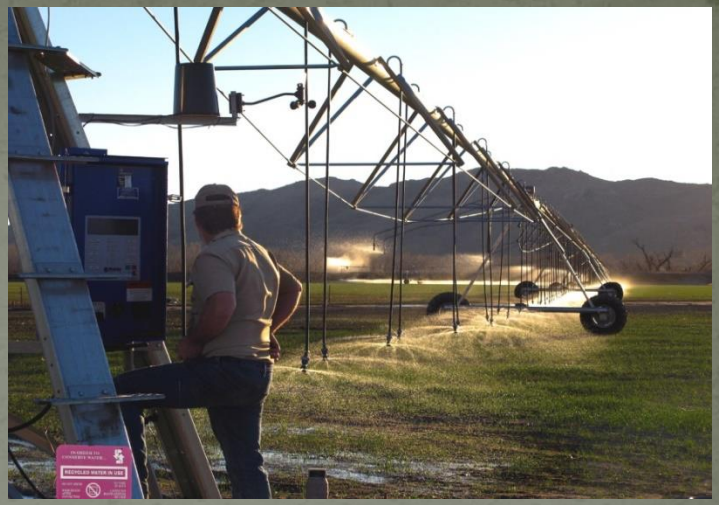
Who is WRCAC?

- Western Riverside County Agriculture Coalition (WRCAC), non-profit 501 (c) 3 organization was formed in 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
- Significant progress over the past 13 years assisting dairy operators with permit compliance and voluntary stewardship with agricultural operators
- Coordinated watershed-wide 2014 land use mapping effort

Dairy Projects 2004-2016

- Integrated Regional Dairy Management Plan (IRDMP) SJBRCD & WRCAC
  - -Encouraged backhaul BMP
- Dairy Water Quality Grant
- CAFO data for salt offset update(2007 & 2010 comparison)
- Four (4) TMDL Multi year Collection Cycles for Dairy. Moving to Annual in 2018
- Groundwater /TDS Analysis Report 2015 & 2016
  - -Individual dairy site assessments
- Assistance in permit renewal process

Agricultural Projects 2004-2016



- BMPs in the San Jacinto Watershed-UCR Cooperative Extension
- San Jacinto CNMP-UCR Cooperative Extension
- Three (3) TMDL Collection Cycles for Agriculture completed; fourth cycle expected to be released June/July 2016
- Stakeholder Identification and land use mapping baseline(TF), WRCAC has completed 2005,2007,2010 and 2014.
- Develop and implementation of TMDL process for dairy and ag
- Water Quality Trading Pollutant Feasibility Assessment (319 grant)
- Conservation Innovation Grant (CIG) underway
- Mystic Lake Analysis
- Conditional Waiver for Agricultural Discharges (CWAD) Advisory Team member
- Irrigation Management and efficiency grants and more
- Extensive environmental stewardship done voluntarily-no permit has been in place from 2004 to 2016
- Salt Creek monitoring study

WRCAC's Strategy for TMDL Compliance

- 1. Active representative in the TMDL Task Force since it's inception.
  - -Active participation in the TMDL revision process
- 2. WRCAC TMDL collection process : CAFO & Ag multiple different cycles over past 11 years
- 3. In- lake and watershed BMPs
  - Address in-lake BMPs and monitoring through TMDL Task Force
  - Watershed Ag & Dairy BMP's-a wide variety

    -Innovative projects such as Scott Brothers Dairy Farm gasification project which produces syngas/biodiesel and biochar (2016 Nutrient Challenge honoree)

    -Dairy Backhaul data. In 2000,4 dairies hauled/ 2015 -20 dairies hauled and 4 additional dairies have NMPs in place.
  - Identify & quantify ag individual operator BMPs

    -Updated 2014 land use mapping (completed in 2015 SJRWC/WRCAC/RCFCD)

    -CIG Soil Health Survey-in progress

    -Innovative approach to addressing GW and nutrients through WQIndex approach. WRCAC is the FIRST to look at this holistic approach and as such was awarded NRCS CIG grant

Scott Brothers Dairy Farm Gasification Project

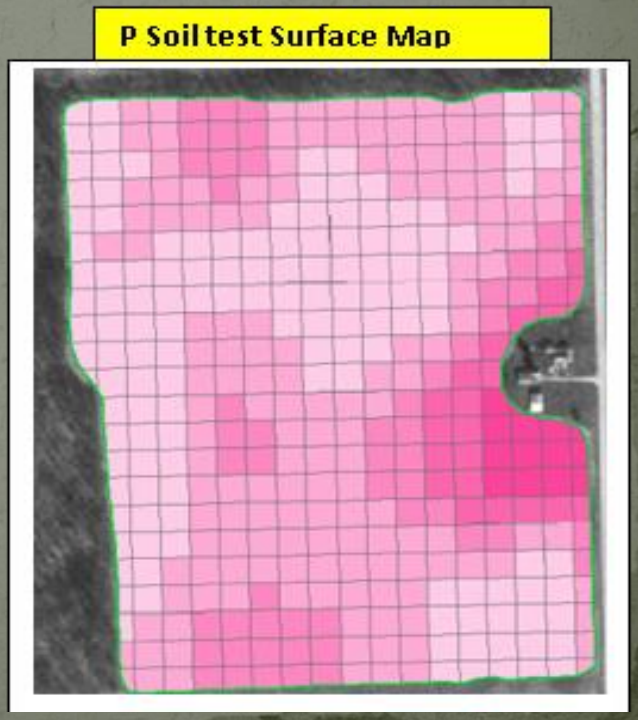
- Converts Manure to Diesel Fuel
- 2016 EPA Nutrient Challenge Honoree
- System processes solid and liquid material (one ton per hour)
- The treatment system is designed to remove 98% of TSS, 40% TDS, 90% phosphorous, 67% of TKN, 40% potassium and salts from onsite dairy wastes
- Provides a process that 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
- http://www.facebook.com/AgWasteSolutions
- If you are interested in touring the operation-contact Bruce Scott or Pat Boldt

2016-2017 Projects

- CIG Grant
  - WQ Index tool development for addressing nutrients and groundwater holistically rather than individually-addressing "balance" issues between the two-a holistic integrated approach
  - Pollutant trading
  - Soil health work
    - *AIS overlays*
    - *Contour maps*
    - *Ag specific BMPs*
    - *Sampling*
- Continue to encourage CAFO backhaul/other IRDMP BMPs
- Utilize new 2014 land use data on various projects
- Developed workplans for dairy operators to address salt impacts in groundwater
- Agrarian –annual
- New Ag operator TMDL cycle to cover 2.5 year period
- Commitment to TMDL Task Force revision process-IMPORTANT!

Next Steps 2017-2020

- Continued assistance to all dairy and ag stakeholders
- TMDL Revisions review and making certain ag and dairy source data is correct-assist in any way we can with the process
- AgNMP revise after TMDL revision is complete
- CIG Grant extension/final in 2018
- Soil Health Task (2016-2017)
- Aerial mapping and ownership data (AIS) updated in 2014. WRCAC plans on one more update (2017?)
- Mystic Lake- subwatershed 7,8,9 stakeholder separation
- Grant opportunities as available-WRCAC has obtained $6 Million in grants & grant match
- Evaluate AWS Technology on Regional basis
- CAFO permit 2018-TMDL component



ANY QUESTIONS?