

CARCD 72nd Annual Conference
“Dynamic Partnerships, Relevant Results”
November 2017 – Sacramento, CA



RESOURCE
CONSERVATION DISTRICTS



Water for the Future

*Groundwater conservation,
Central Coast*



CARCD 2017

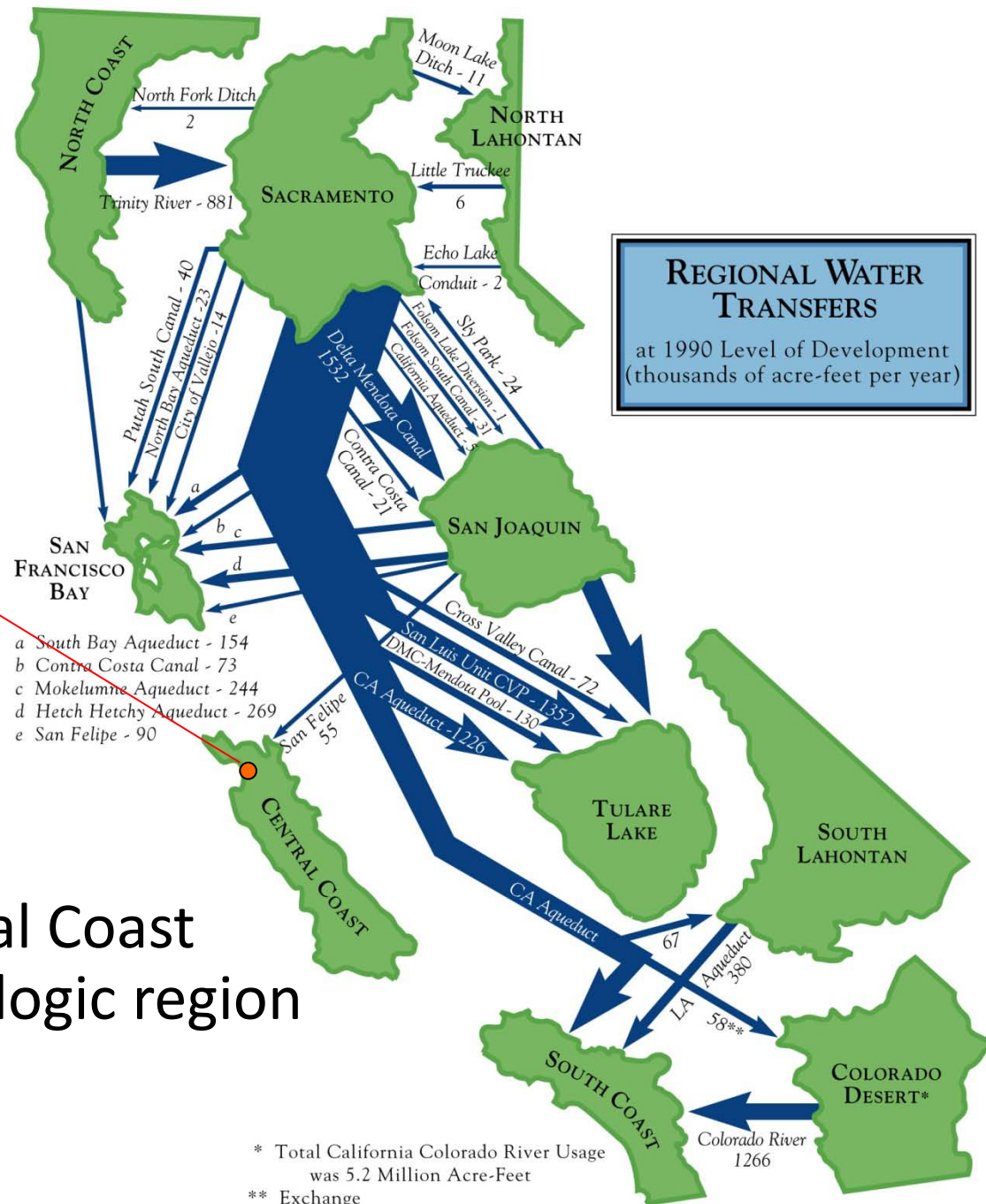
Supporting the Next Generation of Farmers through
Innovative Financing and Technical Assistance Program

1. Introduction

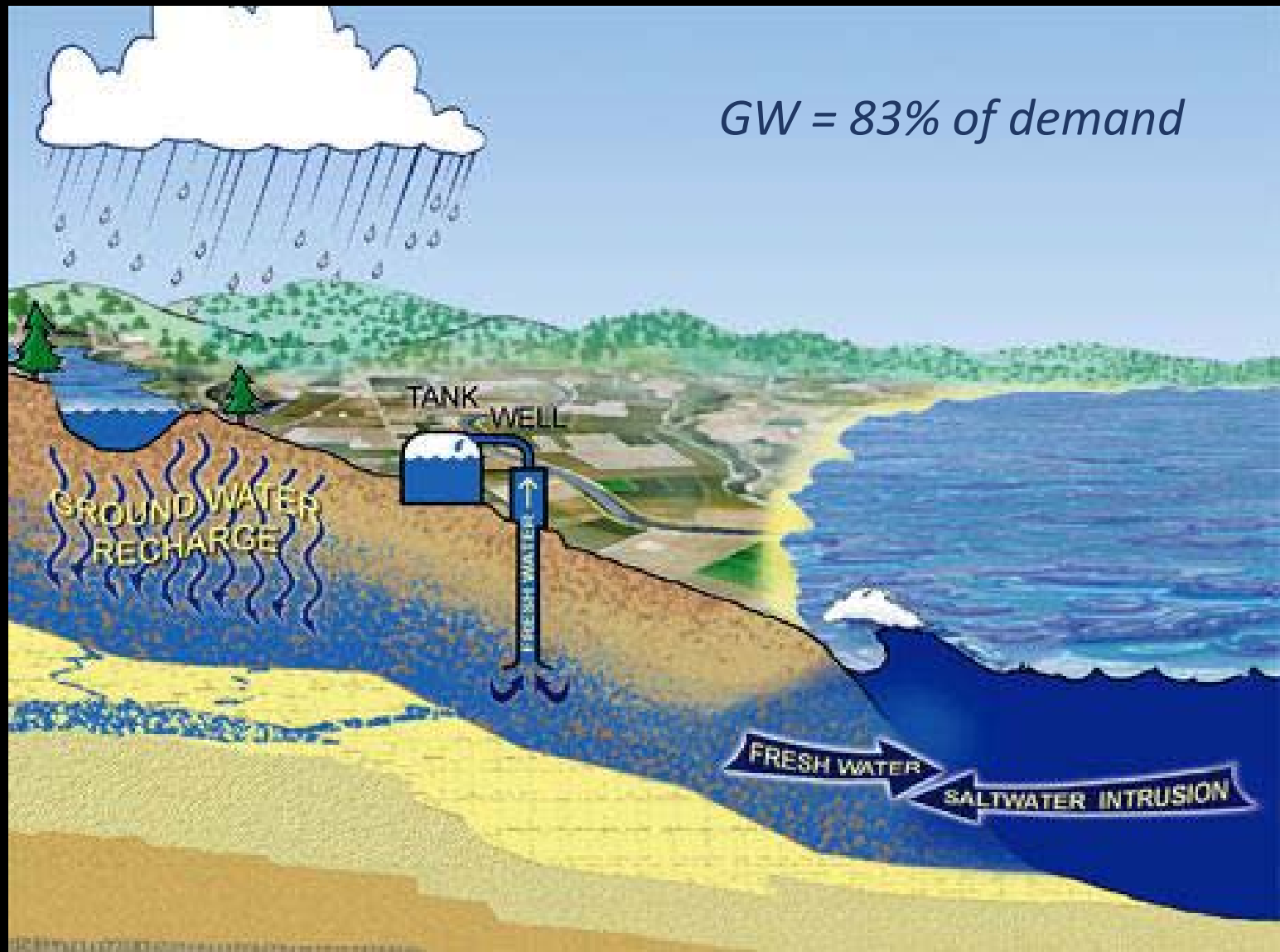
Central Coast:
Virtually “off the grid”
in terms of large-scale
water transfers

We are here

Central Coast
hydrologic region

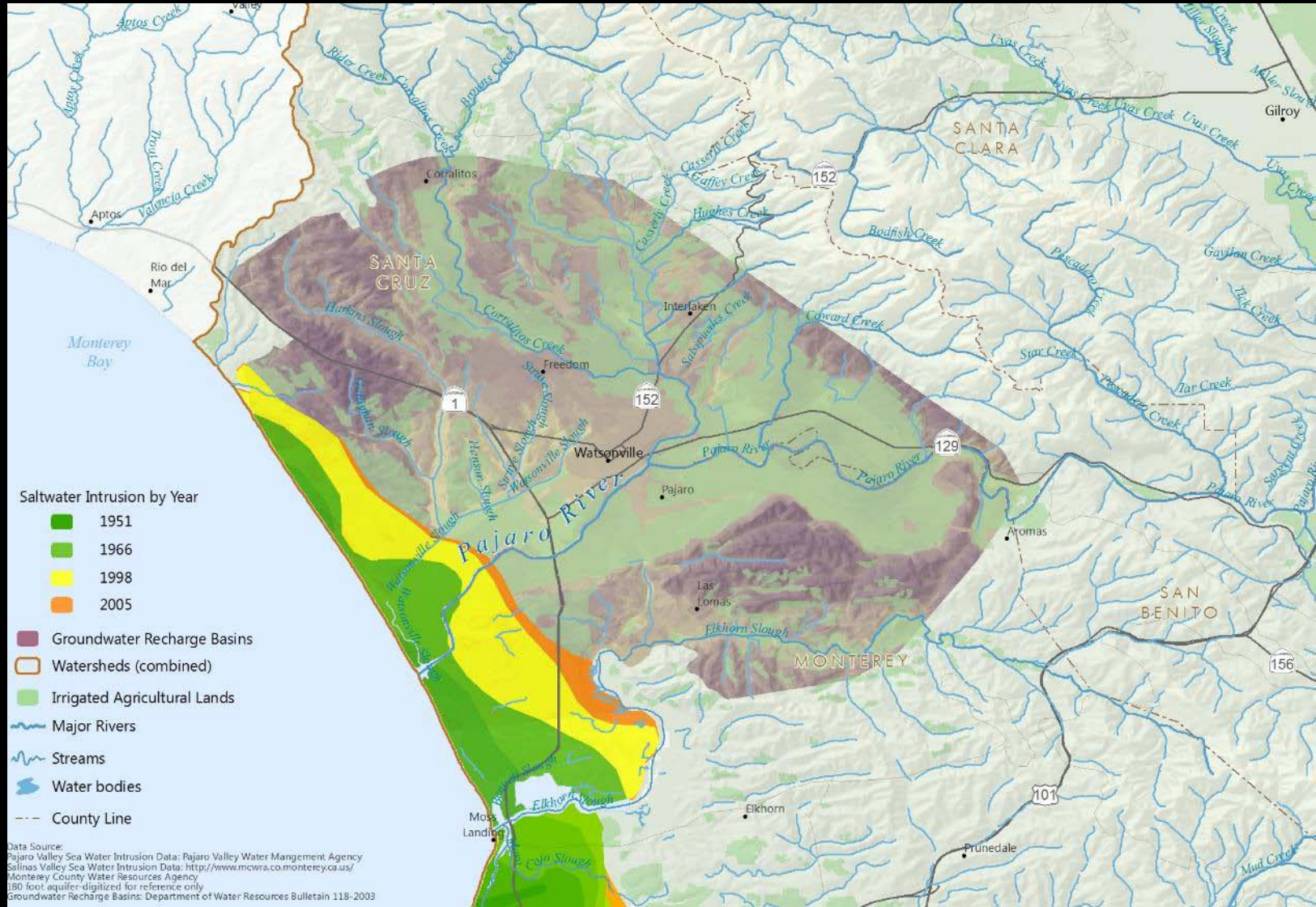


Central Coast Water Management Challenges



Groundwater Recharge Areas and Saltwater Intrusion

Pajaro Valley



Incentivizing Water Conservation

1. Technology shift doesn't mean more efficient
2. We all think we are being efficient water users
3. We can't manage what we don't measure



A key first step: Performance Metrics



2. Partnering Organizations and Roles

Performance–based Incentives for Conservation in Agriculture (PICA)



In partnership with:

CDFA-SCBG

USDA State CIG

Sustainable Conservation
Preservation Inc.

UC Cooperative Extension

RCD Monterey County

California FarmLink

Participating growers and shippers

PICA in a nutshell

PICA is a voluntary program assisting growers in tracking water use and nitrogen movement on their farms to demonstrate and incentivize environmental performance

Objective → Indicator(s) → Target(s) → Measurement → Incentives

Water Quantity

Reduce water pumped from aquifer



Water Quality

Reduce nitrate leaching & nitrate in storm runoff



PICA metrics

- Water Use Conservation Ratio (%)

Applied (in)/ETc (in)

- Nitrogen Use Conservation Ratio (%) as indirect measure of nitrate leaching

N Inputs (Lbs N/ac) / N uptake (Lbs N/ac)

- Nitrogen and sediment loss in storm runoff

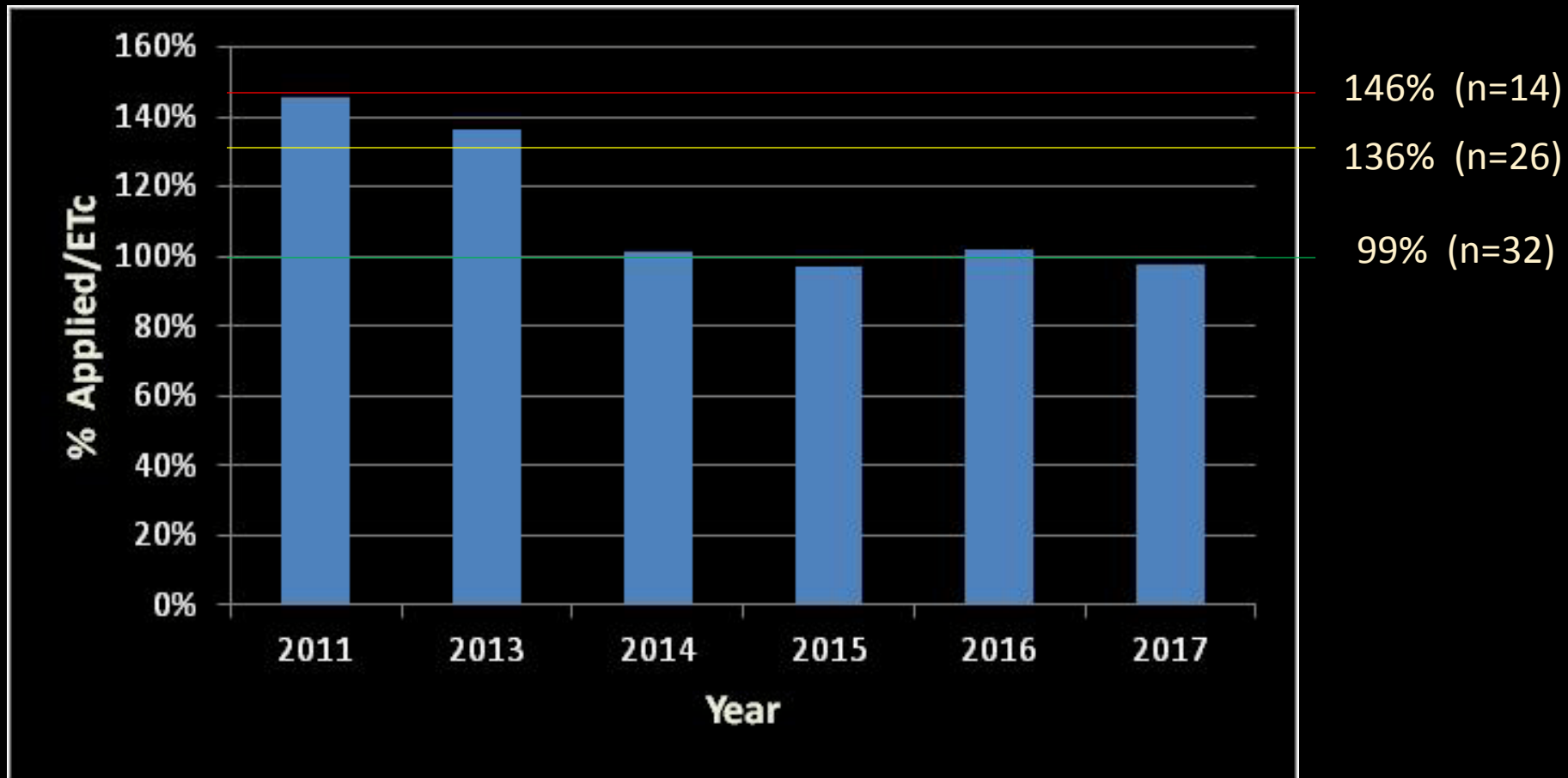
Concentration of Nitrate and Total Suspended Solids in farm runoff

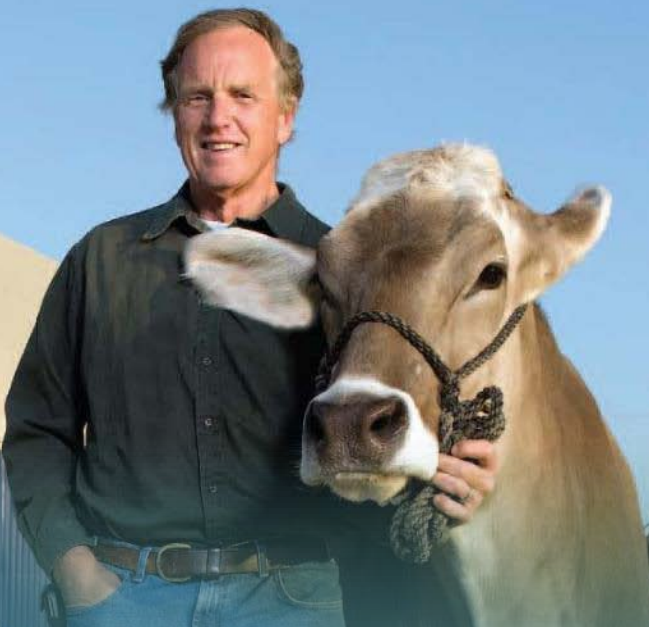
Strawberry Water Use Efficiency Metric Testing *2013 – 2017*

- 50+ Strawberry Ranches
- 8 Shipping companies
- 300+ Acres per year
- varied irrigation and fertilizer management, and recordkeeping



Water Use Efficiency Improvement





**SUSTAINABLE
CONSERVATION**
helps California
thrive by uniting
people to solve
the toughest
challenges
facing our land,
air, and water.







3. Linking Farm Loans to Water Conservation



A farmer's perspective...



What is a “Conservation Incentive” loan product?

A SOLUTION ADDRESSING 3 ISSUES IN AGRICULTURE:

- Social/financial barriers
- Water quality & quantity
- Conservation practice implementation



How will this be achieved?

Overarching Strategy:

- Provide educational resources, equipment, and a **financial incentive** to work with Conservation Specialists (TA provider), to implement practices, and demonstrate the accomplishment of conservation goals.

Key components:

- Complementary partnership
- Appropriate resources & specialists provided to farmers
- ***Financial incentive provided by lender***
- Operating Cost reduction (water & nutrient use)

How does it work?

Year 1 (Prerequisite):

- 1) Initial inquiry/ Basic eligibility
- 2) Conservation evaluation/ baseline / goals
 - 1) Water use
 - 2) Nutrient use
- 3) Loan application preparation



- **INCENTIVE:** Program pre-approval &
End of season “Bonus check”

How does it work?

Year 2-5:

- 1) Loan application/approval
- 2) Conservation practice implementation
- 3) Measurement of performance



➤ **INCENTIVE:** End of season “Rebate Check”

Financial Incentive Tiers

Years 2-5 (Implementation & Performance):

**Improved
Performance**

- Highest incentive

**Maintained
performance**

- Slightly lower incentive

Implementation

- Slightly lower incentive

**Reduced
performance**

- *No incentive*



4. Program Goals and Transferability



Take Home Messages

- It's all about collaboration
- 2018 – demonstration
- Assess feasibility to replicate
- Encourage others to consider this type of incentive in their regions

Thank you!



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