Introducing the Draft Water Quality Trading Framework for the Laguna de Santa Rosa Watershed

July 19, 2017

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Laguna WQT Highlights (to date)

Santa Rosa Nutrient Offset Program:

- Relatively small trading area (254 mi^2)
- Demand driven by NPDES permit (pre-TMDL)
- Currency is pounds of total phosphorus
- One eligible buyer
- Three approved credit-generating projects
- Sparsely-defined program elements

Laguna WQT Highlights (to come)

Draft Water Quality Trading Framework for the Laguna de Santa Rosa Watershed:

- Same trading area, demand drivers, currency
- Two eligible buyers
- Well-defined program elements
- Room for future expansion

Regional Water Boards

<u>Region 1 Statistics</u>:

~19,000 square miles

~12.5 million acres

~12% State's area

~40% State's runoff

Laguna de Santa Rosa Watershed

- Largest tributary of Russian River (254 mi^2)
- Metropolitan center of North Coast Region
- 70 mi^2 of “Important Farmland” (per CA Dept. of Conservation)
- Largest freshwater wetlands complex on northern CA coast
- “Wetland of International Importance” (per Ramsar)

Laguna de Santa Rosa Watershed

303(d) Impairments:

Phosphorus

Dissolved Oxygen

Sediment

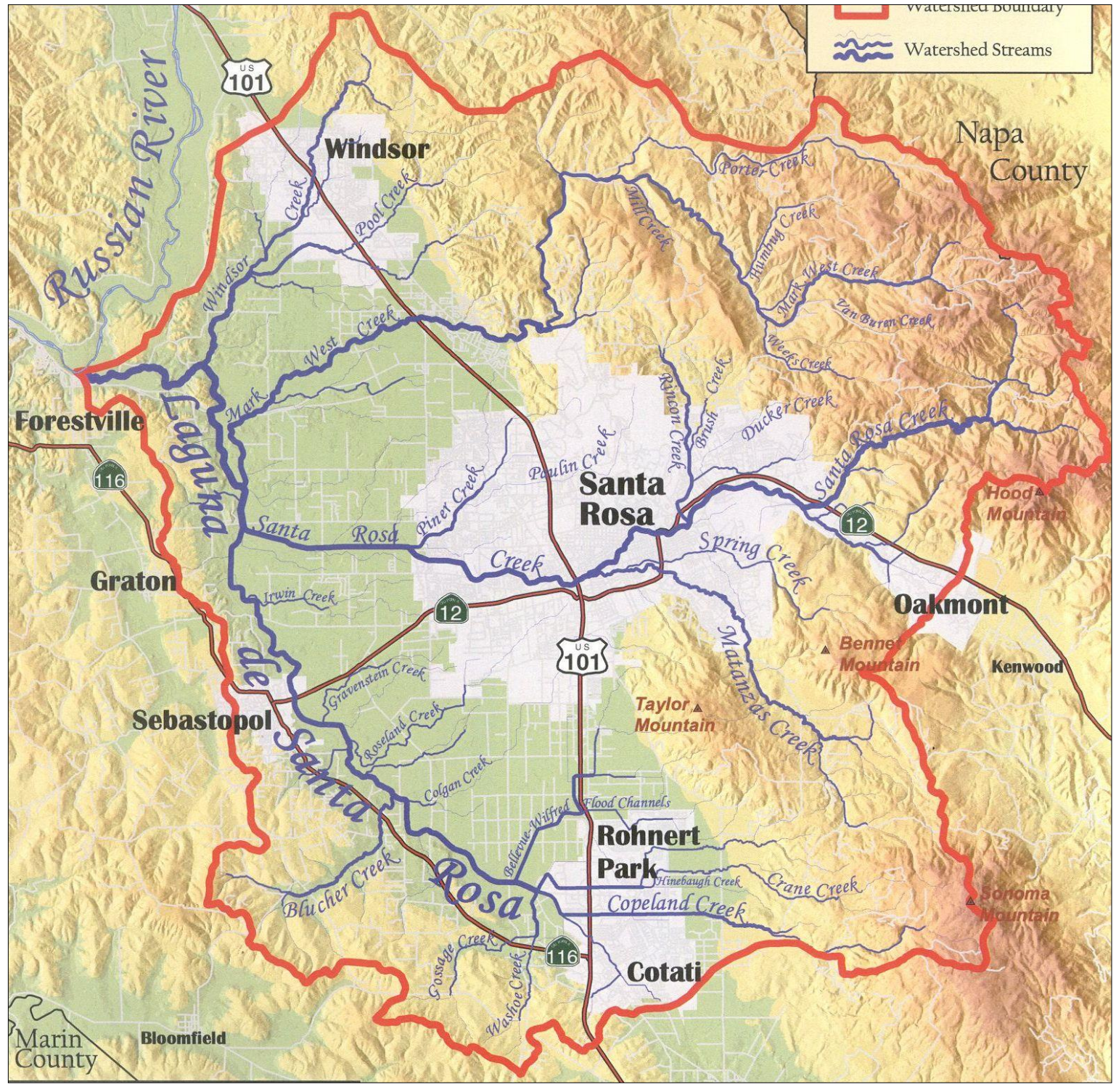
Temperature

Pathogens

Mercury

Aluminum

Manganese

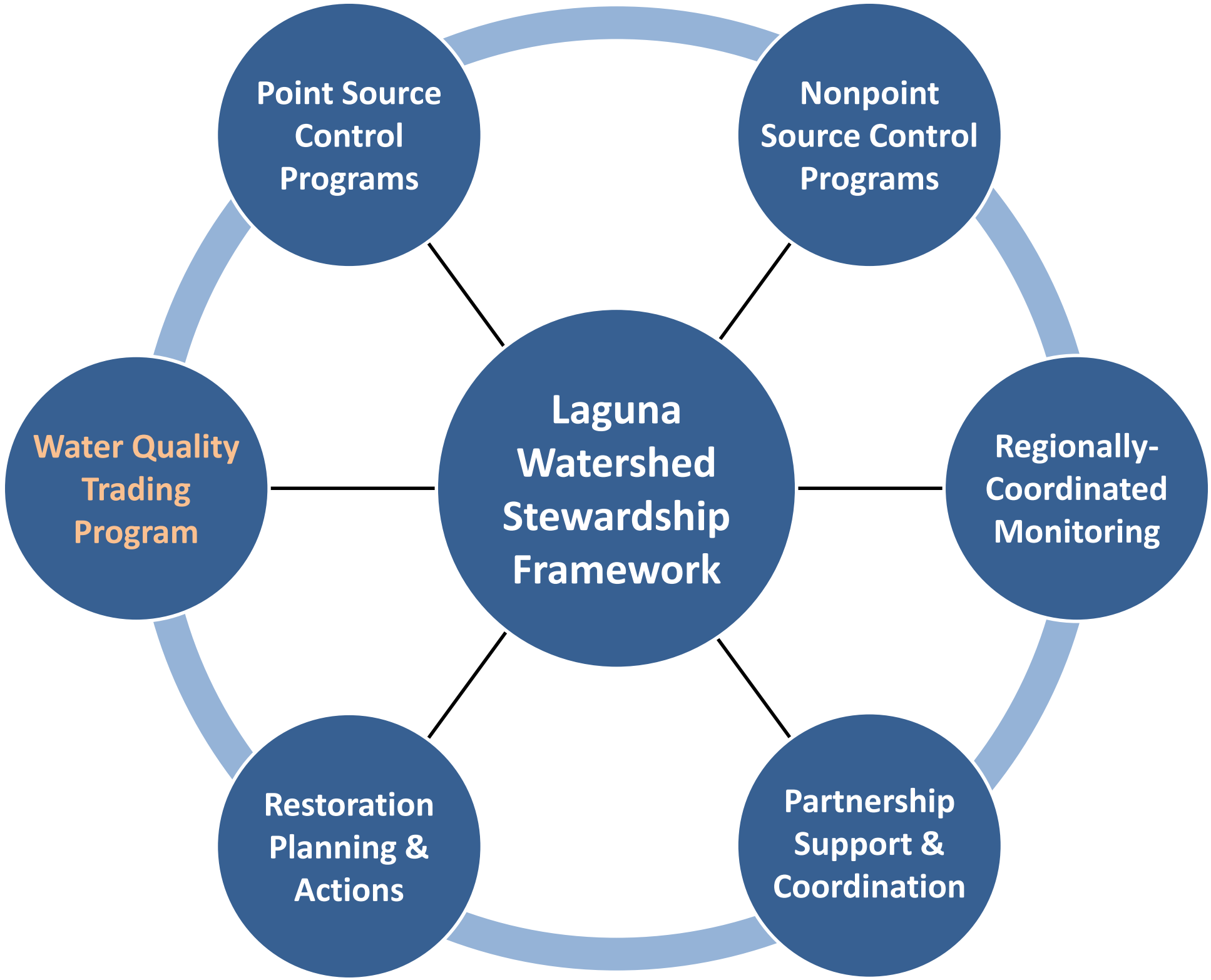


Initial Conclusions

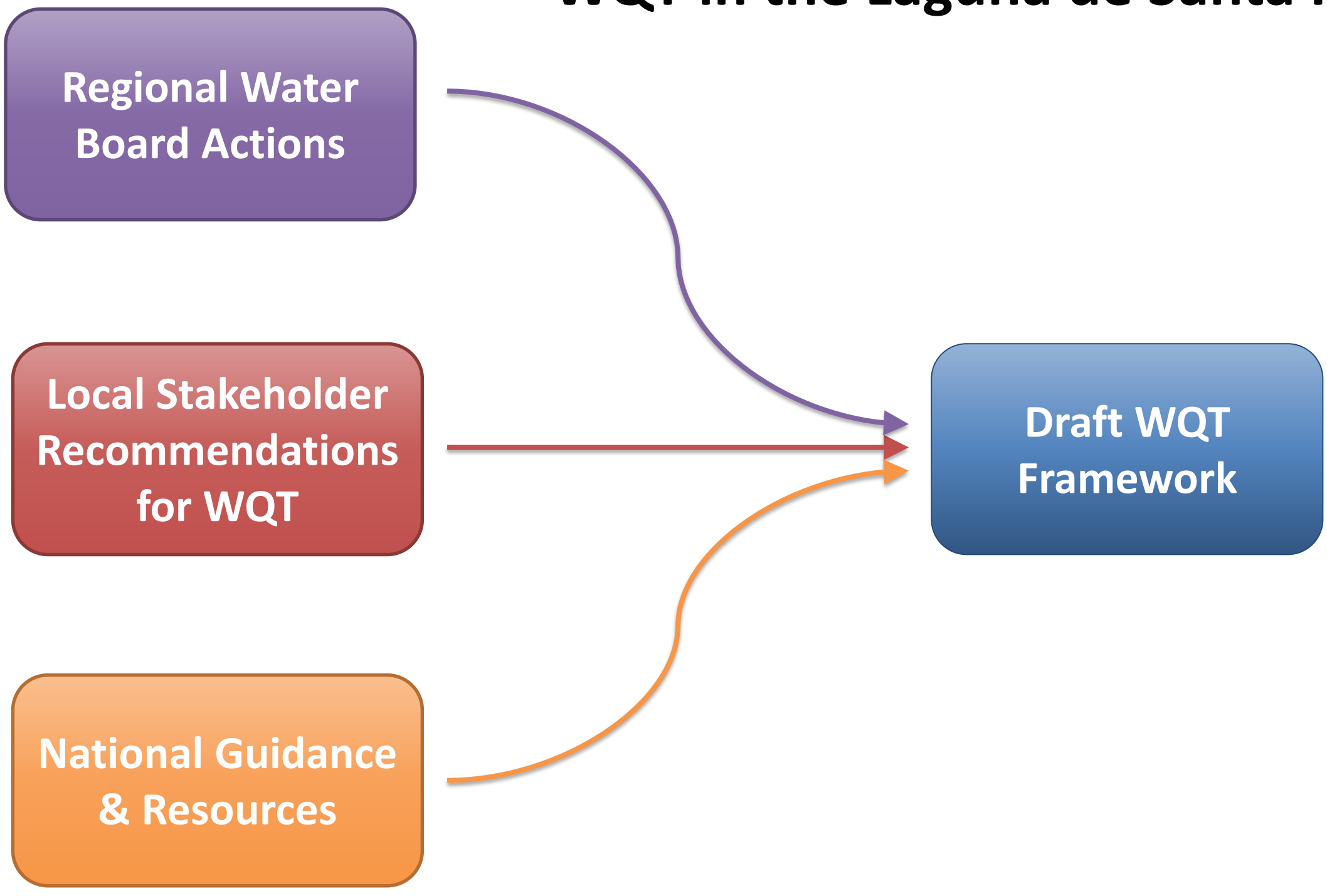
Reduce Pollutant Sources + Increase Assimilative Capacity

Diet + Exercise!

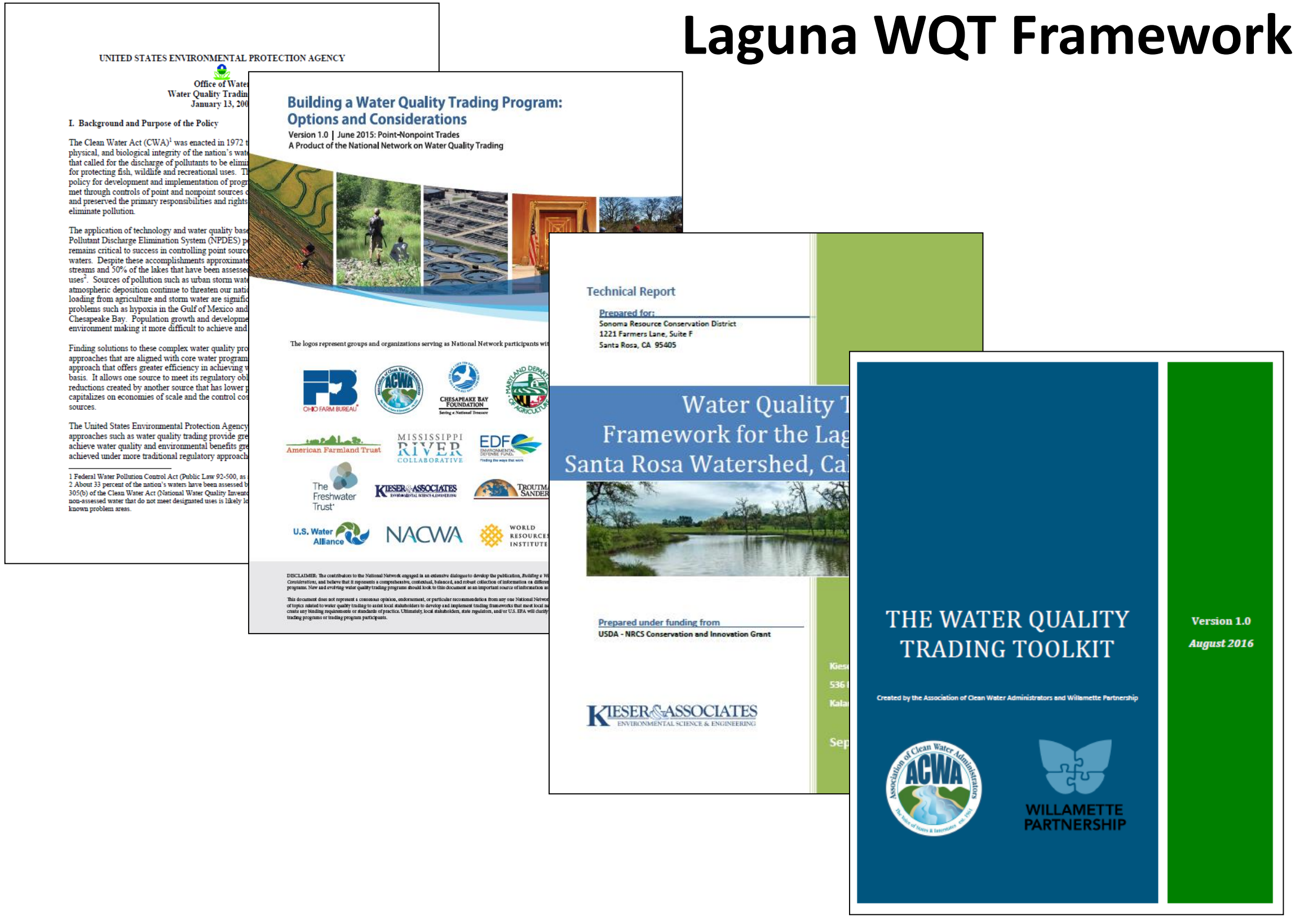
Vision for Beneficial Use Recovery in the Laguna



Recent Developments Related to WQT in the Laguna de Santa Rosa



Foundational References for the Laguna WQT Framework



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Office of Wate
Water Quality Tradin
January 13, 200

I. Background and Purpose of the Policy

The Clean Water Act (CWA)[1] was enacted in 1972 t
physical, and biological integrity of the nation's wate
that called for the discharge of pollutants to be elimi
for protecting fish, wildlife and recreational uses. Th
policy for development and implementation of progr
met through controls of point and nonpoint sources o
and preserved the primary responsibilities and rights
eliminate pollution.

The application of technology and water quality base
Pollutant Discharge Elimination System (NPDES) pe
remains critical to success in controlling point source
waters. Despite these accomplishments approximate
streams and 50% of the lakes that have been assessed
uses[2]. Sources of pollution such as urban storm wate
atmospheric deposition continue to threaten our nati
loading from agriculture and storm water are signific
problems such as hypoxia in the Gulf of Mexico and
Chesapeake Bay. Population growth and developme
environment making it more difficult to achieve and

Finding solutions to these complex water quality pro
approaches that are aligned with core water program
approach that offers greater efficiency in achieving w
basis. It allows one source to meet its regulatory obl
reductions created by another source that has lower p
capitalizes on economies of scale and the control cos
sources.

The United States Environmental Protection Agency
approaches such as water quality trading provide gre
achieve water quality and environmental benefits gre
achieved under more traditional regulatory approach

1 Federal Water Pollution Control Act (Public Law 92-500, as
2 About 33 percent of the nation's waters have been assessed b
305(b) of the Clean Water Act (National Water Quality Invento
non-assessed water that do not meet designated uses is likely lo
known problem areas.

Building a Water Quality Trading Program:
Options and Considerations

Version 1.0 | June 2015: Point-Nonpoint Trades
A Product of the National Network on Water Quality Trading

The logos represent groups and organizations serving as National Network participants wit

OHIO FARM BUREAU
ACWA
CHESAPEAKE BAY FOUNDATION
Saving a National Treasure
MARYLAND DEPARTMENT OF AGRICULTURE
American Farmland Trust
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DISCLAIMER: The contributors to the National Network engaged in an extensive dialogue to develop the publication, *Building a W*
Considerations, and believe that it represents a comprehensive, contextual, balanced, and robust collection of information on differe
programs. New and evolving water quality trading programs should look to this document as an important source of information as

This document does not represent a consensus opinion, endorsement, or particular recommendation from any one National Networ
of topics related to water quality trading to assist local stakeholders to develop and implement trading frameworks that meet local n
create any binding requirements or standards of practice. Ultimately, local stakeholders, state regulators, and/or U.S. EPA will clarify
trading programs or trading program participants.

Technical Report

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Water Quality T
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KIESER & ASSOCIATES
ENVIRONMENTAL SCIENCE & ENGINEERING

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THE WATER QUALITY TRADING TOOLKIT

Created by the Association of Clean Water Administrators and Willamette Partnership

ACWA
Association of Clean Water Administrators

WILLAMETTE PARTNERSHIP

Version 1.0

August 2016

Staff's Approach for Developing the Draft Framework

- Utilize ACWA Framework Template
- Adhere to Local Stakeholder Recommendations
- Rely on the National Network's *Options and Considerations* Document as a reference guide
- Consult with known interested parties regarding framework preferences
- Emphasize efficiency, predictability, transparency, best science

Guiding Principles for WQT in the Laguna de Santa Rosa

- All actions must be supported by sound science and accomplish regulatory and environmental goals.
- Trading activities must offer sufficient accountability, transparency, accessibility, and opportunities for public involvement to ensure that promised water quality improvements are delivered.
- The water quality benefits of any trade must be realized in place, in kind, and in time.

Draft Framework Structure

1. Policy & Regulatory Instruments
2. Trading Basics
3. Trading Eligibility Criteria
4. Quantifying Pollutant Reductions
5. Trading Ratios
6. Credit Characteristics
7. Project Planning, Pre-screening, & Approval
8. Project Implementation & Verification
9. Credit Certification, Registration & Tracking
10. Compliance and Enforcement
11. Framework Improvements and Monitoring

Practices vs. Projects

- Approved Practices: (Section 2.5)
  - Subject to public review and comment
  - Once approved, pre-qualified for future use
  - *Supporting Documentation* required
- Credit-Generating Projects: (Section 7.1)
  - Subject to public notification only
  - Must utilize pre-qualified practices
  - *Credit Project Plan* required

Trading Eligibility and Baseline

"…a pollutant reduction or removal action is eligible to generate water quality credits as long as it is not otherwise required." (Section 3.2)

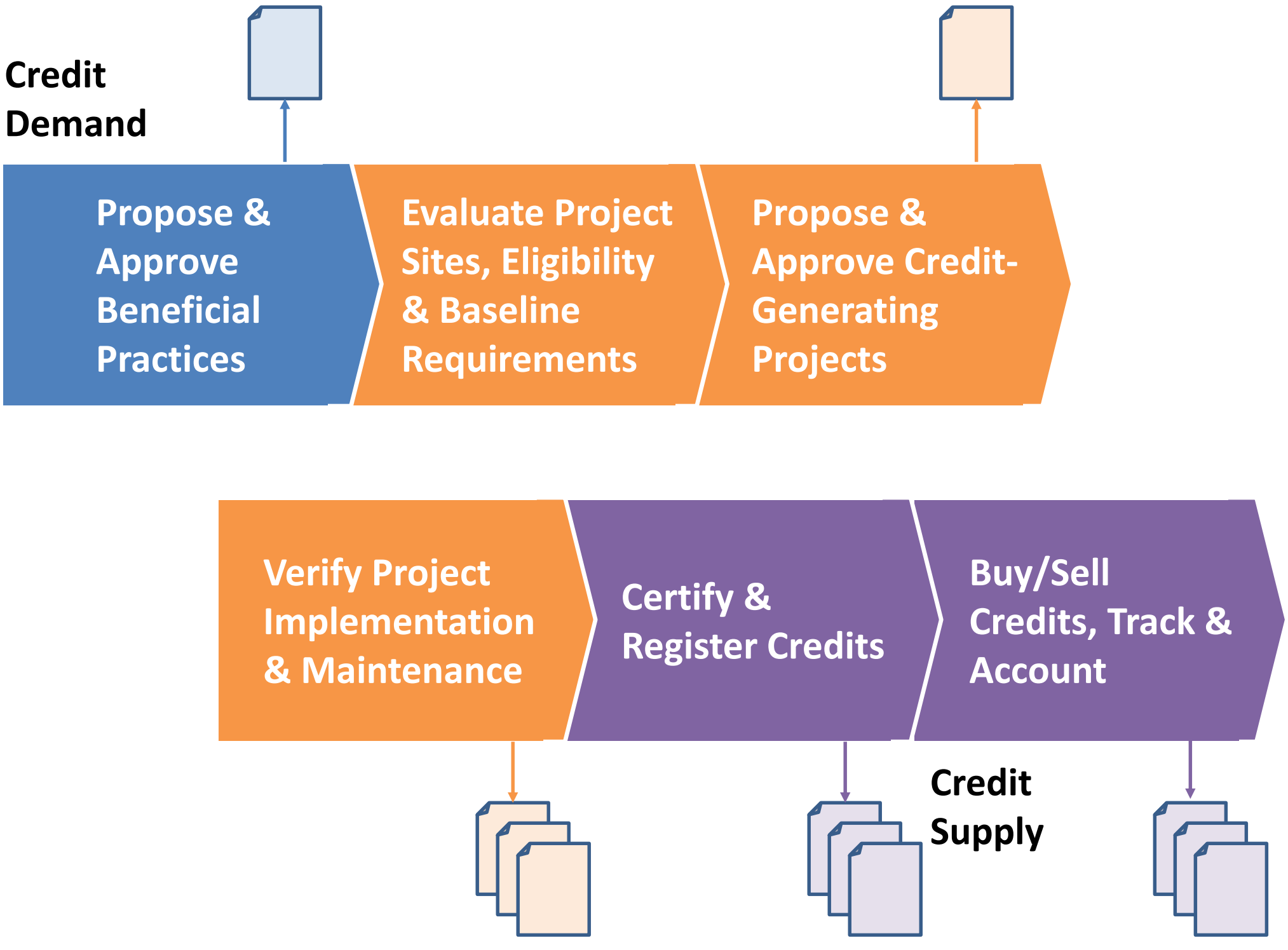
"…baseline shall be defined as the minimum level of effort or level of implementation that must be achieved before a project is eligible to generate credits." (Section 3.2.2)

Trading Ratios (Section 5)

- Uncertainty Ratio 2:1
- Retirement Ratio 0.5:1
- Total Ratio 2.5:1

- Available Discounts:
  - Multi-benefit projects
  - Projects on permanently protected lands
  - Direct measurement of pollutant reductions

Laguna Water Quality Trading Flow Chart



Thank You!

For more information:

http://www.waterboards.ca.gov/northcoast/water_issues/programs/nutrient_offset_program/

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