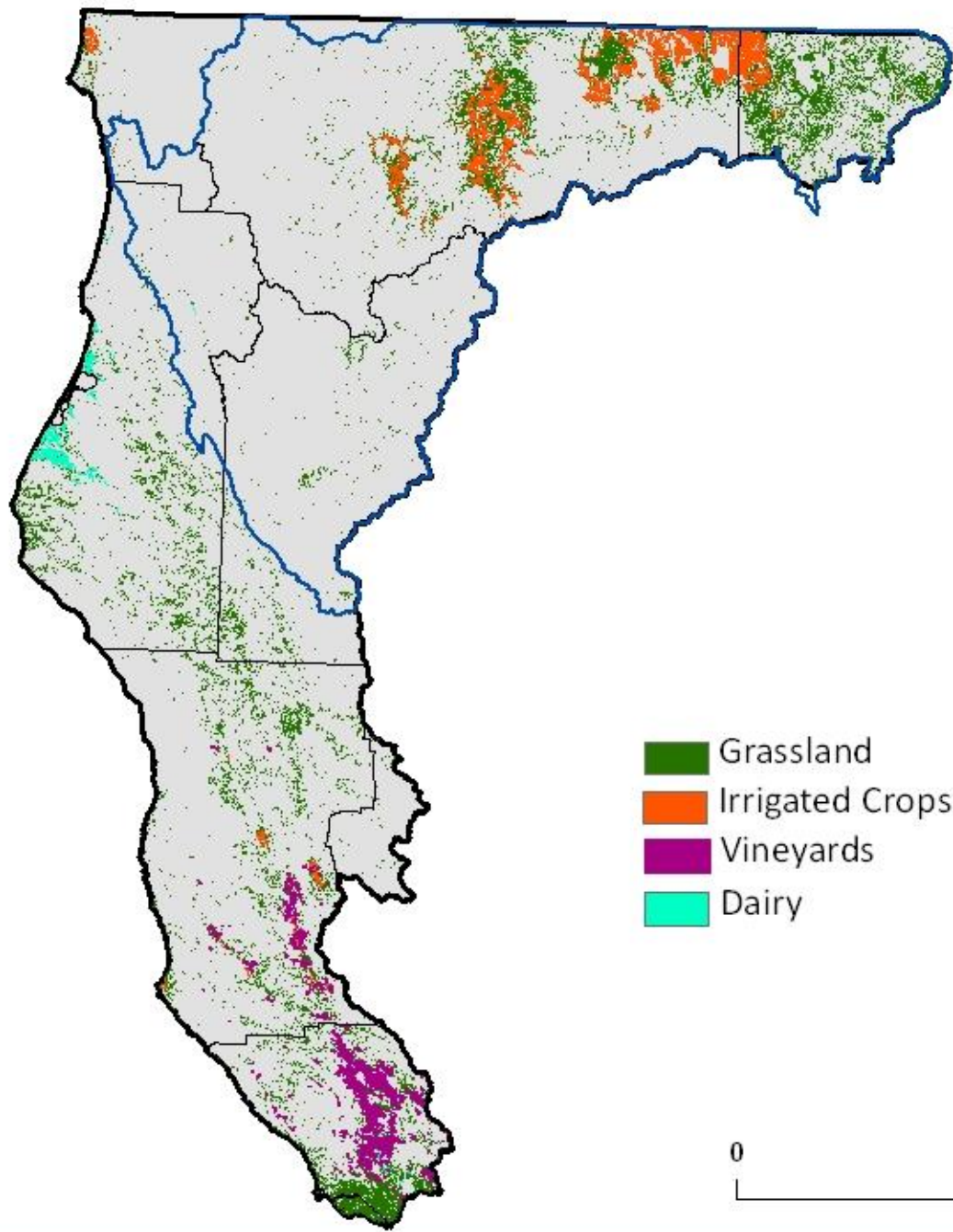


# Program Framework

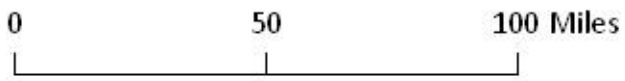
1. Scope of Irrigated Lands in North Coast
2. Basin Plan water quality objectives and examples of practices
3. Program framework
4. Permitting options
5. Examples from other Regions
6. Examples from North Coast Region of locally-driven water quality programs

# Types of Irrigated Lands in the North Coast Region

1. Row Crops
2. Vineyards
3. Orchards
4. Irrigated Pasture
5. Marijuana Cultivation



-  Grassland
-  Irrigated Crops and Pasture
-  Vineyards
-  Dairy



# Water Quality Impacts Within Scope

- Sediment from human-caused erosion sources
  - Roads
  - Bare fields
  - Heavy use areas
  - Streambanks and riparian areas
- Tailwater and stormwater runoff containing fertilizers, pesticides, sediment, or manure
- Groundwater pollution
- Removal and suppression of riparian vegetation

# Water Quality Impacts Outside of Scope

- Impacts due to wildlife
- Natural erosion and landslides
- Naturally occurring background levels of pollutants
- Fire and severe flooding

# Pollutants of Concern

- 1. Sediment**
- 2. Temperature**
- 3. Nutrients**
- 4. Bacteria/Pathogens**
- 5. Toxics**
- 6. Salts**

# Management Practices

1. Polluted Runoff Management
2. Erosion Control on Fields and Roads
3. Tailwater Management
4. Control Livestock Access to Streams
5. Apply Manure and Fertilizers at Agronomic Rates
6. Riparian Zone Management

# Management Practices Address Multiple Concerns

Practices	Manage Polluted Runoff	Control Erosion	Manage Tailwater	Control Livestock	Manage Manure and Fertilizers	Manage Riparian Zones
Pollutant						
Sediment	X	X	X	X		X
Temperature	X	X	X	X		X
Nutrients	X		X	X	X	X
Bacteria Pathogens	X		X	X	X	X
Toxics	X		X			X
Salts	X		X		X	



# Regulatory Options

- California Water Code requires some combination of the following:
  - Waste Discharge Requirements (WDRs)
  - Conditional Waiver of WDRs
  - Prohibitions

# Waste Discharge Requirements (WDRs) and Conditional Waivers

- Adopted as orders by the Board (permits)
- Define the program requirements and make them enforceable
- Basic terms and conditions
  - Implementation of management practices
  - Compliance with prohibitions
  - Monitoring and reporting
  - Access for Regional Board staff inspections

# Risk Based Approach

- Link monitoring and reporting requirements to risk to water quality
- Low risk activities have less requirements
- Moderate risks require more reporting and more staff attention
- Types of factors that could be used to define risk level
  - Acreage or proximity to stream or groundwater uses
  - Slope or risk of erosion
  - Discharge of tailwater
  - Relative potential for polluted discharge to surface or groundwater

# WDRs vs. Conditional Waivers

Waste Discharge Requirements	Conditional Waiver of WDRs
General or individual	Typically general
Covered discharges are moderate risk to water quality	Covered discharges are low risk to water quality
Does not prescribe management practices	May prescribe management practices as conditions
More monitoring and reporting requirements	Fewer monitoring and reporting requirements
Requires a fee	Requires a fee
Does not expire. Open ended renewal schedule based on effectiveness	Expires and must be renewed every five years

# Program Elements

1. Permit/Enrollment
2. Application of Management Practices
3. Monitoring and Inspections
4. Reporting
5. Compliance and Assistance Training
6. Enforcement

# Enrollment

- Once permit adopted there will be a deadline for enrollment
- Notice of Intent form – need to know who is enrolled
- Types of information
  - ranch/farm map
  - contact information

# Management Practices

- Means for compliance with permit
- Adapt to local water quality concerns
- Control discharges of waste
- Address other controllable water quality factors
- Must provide reasonable protection of water quality
- Looking for input from group on practices

# Monitoring and Assessment

- Group or individual
- Tailored to nature of discharge and receiving water quality
- Different types of monitoring for different purposes
  - Implementation tracking
  - Effectiveness monitoring – assess practices
  - Instream compliance and trends
- Should be coordinated with existing programs



# Reporting

- Means for assessing program effectiveness
- Convey monitoring results to Regional Board
- Informs adaptive management
  - Waivers have a 5-year renewal period
- Potential reporting requirements
  - Annual grower/rancher reporting
  - More comprehensive reporting to coincide with a 5-year program assessment

# Tomales Bay Grazing Waiver

- Adopted by San Francisco Bay Regional Board in 2008
- Management plans required but kept onsite
- Plan template developed with UC Extension
- Focus on BMP implementation and effectiveness monitoring
- Annual reporting on progress towards addressing sources of pollution
- Regional Board inspections on a rotation

# Central Valley Irrigated Lands Regulatory Program

- Focus on toxicity from pesticides
- Risk based approach where requirements are triggered by instream monitoring
- Irrigators have formed local coalitions
- Coalitions monitor instream

# Group Programs

- Coordinate with Irrigated Lands Discharge Program
- Can fulfill some or all of the permit requirements
- Can prioritize projects and make better use of resources
- Examples
  - By watershed
  - By commodity
  - Third party program

# Third Party Programs

- Could be certified by a waiver if program elements are addressed
- May provide incentives for enhanced protections
- Existing third party program may be suitable for water quality certification
- Helps growers and ranchers with practices and water quality planning

# Shasta Valley

- Part of compliance with the TMDL waiver program in the Shasta watershed
- Projects funded by grants through Regional Board and others
- Developed map of tailwater 'neighborhoods'
- Projects prioritized
- Resulted in measurable water quality improvements
- Ranch and tailwater management planning

# Sonoma/Marin Animal Resource Committee

- Group formed by Farm Bureau, comprised of dairy community and regulatory agencies
- Farmers sample during wet season to identify discharges for immediate attention
- Problems are addressed locally

# Contact Information

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