

## Salinity Management Planning in the San Diego Region

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### State of California Recycled Water Policy

- Adopted by State Water Resources Control Board in 2009 to encourage recycled water use
- Establishes that:  
*... the appropriate way to address salt and nutrient issues is through the development of regional or subregional salt and nutrient management plans rather than through imposing requirements solely on individual recycled water projects.*

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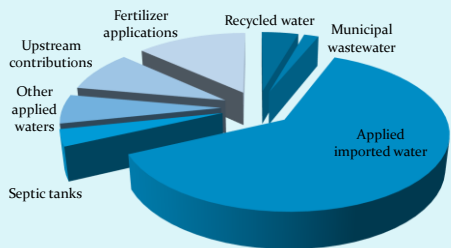
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### Potential Salinity/Nutrient Sources




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### The Recycled Water Policy requires that:

- Salinity/Nutrient Management plans are to be completed for each basin using a “stakeholder driven” process
- The plans are to address salinity/nutrient loads and means to best manage the loads
- The plans are to be completed and proposed to the Regional Board by 2014

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### Local Interest in Salinity/Nutrient Management Plans

- Interested stakeholders have held several workshops to assess salinity management requirements and issues in the San Diego Region
- Regional workshops were led by:
  - San Diego County Water Authority
  - Southern California Salinity Coalition (SCSC)
  - National Water Research Institute
  - Regional Water Quality Control Board, Region 9

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### Workshop Conclusions:

1. Significant degree of salinity management/assessment has occurred in the San Diego Region
2. Lack of Regional Board funding for preparing salinity management plans
3. Local agencies could benefit from preparing their own salinity management plans

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### Potential Benefits to Agencies Implementing Salinity Management Plans:

- Influence Basin Plan objectives and policies
- Protect/enhance groundwater quality
- Increase groundwater production/yield
- Enhance recycled water use opportunities
- Address recycled water compliance issues

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### Workshop Conclusions (continued)

4. Level of effort for salinity management plans needs to be tailored to size/use of aquifer
5. Regional “guidelines” would be helpful to provide direction to stakeholders undertaking salinity/nutrient management plans
6. Need exists for some form of regional coordination

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### Follow-up Actions Led by Water Authority and SCSC

- Outreach to promote stakeholder involvement and coordination with Regional Board
- Coordinated development of tentative “guidelines” for the use of interested agencies in preparing salinity/nutrient management plans in the San Diego Region

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## Objectives

### Salinity/Nutrient Management Plan Guidelines

- Provide a work plan “template” to guide agencies in complying with salinity management plan requirements and policies
- Provide for consistency among salinity management plans
- Increase implementing agency confidence and reduce regulatory uncertainty
- Establish an expected level of effort for the plans
- Undergo Regional Board review and approval to ensure regulatory “buy in”

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## The Guidelines:

- Identify tasks required to complete the plans
- Provide guidance on identifying constituents of concern
- Identify aquifer types applicable to salinity/nutrient management plans
- Establish recommended levels of effort on basis of basin size and complexity

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## The Guidelines:

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## Salinity Management Plan Tasks:

1. Identify and characterize the basin
2. Identify and quantify sources
3. Identify supplemental monitoring needs
4. Identify management strategies
5. Assess Plan effectiveness

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### Task 1: Identify/Characterize the Basin

The guidelines address:

- Approach for identifying basin study area
- Approach for addressing constituents of concern
- Suggested groundwater studies to be incorporated
- Data collection and analysis recommendations
- Approach for identifying actual beneficial uses
- Approach for identifying data gaps

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### Task 2: Identify/Quantify Sources

The guidelines address:

- Potential point source and non-point sources of salinity/nutrients
- Suggested approach for quantifying loads
- Suggested approach for assessing mass balance/transport and load trends
- Stakeholder involvement suggestions

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### Task 3: Supplemental Monitoring Needs

The guidelines address:

- Recommended approach for assessing adequacy of geographical and temporal data
- Recommended approach for assessing quality of data
- Suggested plan for addressing supplemental data needs

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### Task 4: Management Strategies

The guidelines address:

- Potential management strategies that can be considered
- Factors that should be considered in ranking and evaluating strategies
- Approach and suggested basis for ranking/evaluating strategies in affecting loads
- Approach for identifying recommended management strategy
- Suggested action item for assessing CEQA and Basin Plan modification needs

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### Task 5: Assessing Plan Effectiveness

The guidelines address:

- Suggested approaches and protocols for evaluating potential management strategies
- Suggested approach for adaptive management of salinity/nutrient management plan

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### TIER A BASINS

- Large capacity (60,000+ AF)
- Imported water is available
- Significant existing or proposed municipal groundwater use
- Significant prior study of groundwater and hydrogeology
- Recycled water agencies face Basin Plan compliance issues
- Degraded groundwater quality in downstream portion of basin

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### Suggested Tier A Groundwater Basins

- San Juan
- Lower Santa Margarita
- Temecula/Murrieta
- Hodges/San Pasqual
- Santee/El Monte

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### TIER B BASINS

- Moderate capacity (50,000 AF or less)
- Imported water is available
- Moderate well yields (lower potential yield than Tier A basins)
- Less well studied than Tier A basins
- Existing or potential municipal supply development
- Basin Plan TDS groundwater objective of 500 to 1000 mg/l
- Recycled water agencies face Basin Plan compliance issues
- Variable groundwater quality

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### Suggested Tier B Groundwater Basins

- San Mateo
- San Onofre
- Las Flores
- Pala/Pauma
- San Marcos
- Escondido
- Santa Maria
- Poway
- Middle Sweetwater

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### TIER C BASINS

- Smaller capacity (< 20,000 AF)
- Imported water is available
- Modest or small well yields; limited potential for municipal supply
- Limited degree of prior study
- Basin Plan groundwater TDS objectives of 500 to 1100 mg/l
- Recycled water agencies face Basin Plan compliance issues
- Degraded groundwater quality may approach or exceed Basin Plan objectives

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### Suggested Tier C Groundwater Basins

- Valley Center
- Keys Creek
- Vista
- Miramar
- San Vicente/Gower
- National City

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### TIER D-1 BASINS

- Large to moderate capacity
- Imported water is available
- Municipal supply developed (or proposed) through groundwater demineralization
- Significant prior study of groundwater and hydrogeology
- Basin Plan TDS objectives of 1200 mg/l or more
- Recycled water compliance with Basin Plan salinity objectives is not a problem

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### TIER D-2 BASINS

- Moderate to small capacity
- Imported water is available
- Public water supplies not currently developed in the basin
- Basin Plan TDS objectives of 1200 mg/l or more
- Recycled water compliance with Basin Plan salinity objectives is not a problem

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#### Suggested Tier D-1 Groundwater Basins

- Oceanside Mission
- Mission Valley
- Lower Sweetwater

#### Suggested Tier D-2 Groundwater Basins

- Bonsall/Moosa
- Batiquitos
- San Elijo
- Lower San Dieguito
- El Cajon
- Otay
- Lower Tijuana

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### TIER E BASINS

- Located outside imported water service area
- Rural land use
- Wastewater disposal limited to septic tanks or small community systems
- No “purple pipe” systems

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### Suggested Tier E Groundwater Basins

- Coahilla
- Santa Ysabel
- Warner
- Pine Valley
- Descanso
- Potrero
- Campo
- Cottonwood

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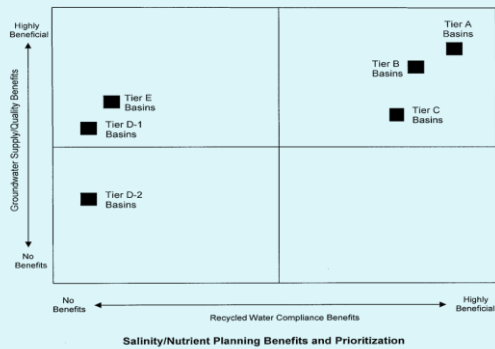
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### Salinity/Nutrient Management in the San Diego Region: Progress to Date

- Initial regional workshops completed
- Informal coordinating committees established
- Regional constituents of concern have been identified
- Initial draft proposed guidelines have been developed
- Initial basin classification and prioritization
- Initial stakeholder review of draft guidelines

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### What's Ahead?

- Regional Board review and approval of proposed salinity/nutrient management plan guidelines
- Continued SDCWA/SCSC/Regional Board coordination to encourage stakeholder interest, funding opportunities, and plan development
- Agency/stakeholder action to move forward with salinity/nutrient management plans in selected basins
- Regional Board action to address Recycled Water Policy compliance in other areas of the region

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### Questions

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