

***Recycled Water Policy:
Salt & Nitrogen Management Plans***

1) Identify Groundwater Basins & Sub-basins



2) Assign Appropriate Beneficial Uses



3) Establish Water Quality Objectives



4) Assess Existing Water Quality



5) Develop Implementation Plan

1) Identify Groundwater Basins & Sub-basins

- A) Evaluating 22 Initial Analysis Zones (IAZ)**
- B) In-Depth Analysis of 2-3 High Priority IAZ's**
- C) Delineating Boundaries of the Tulare Lake Groundwater Basin**
- D) Establishing Formal Definitions for:
 - 1. Groundwater Basin**
 - 2. Groundwater Sub-basin**
 - 3. Groundwater Management Zone**
 - 4. "Zone-of-Influence" for Discharges to Groundwater****
- E)**

2) Assign Appropriate Beneficial Uses

A) Presumptive Groundwater Uses

- 1. MUN (per the Sources of Drinking Water Policy)**
- 2. AGR (as an existing or probable use)**

B) Identify Exceptions Policy

- 1. Archetype: Tulare Lake Groundwater Basin**
- 2. Archetype: MUN-Limited (Requires Treatment)**
- 3. Archetype: AGR-Limited (Salt Tolerant Crops)**

C) Develop Zoning Map to Identify Actual and Probable Ag Uses

D) Sub-Categorize Use to Recognize Crops Grown with Imported Water that Could Not be Supported by Underlying Groundwater

E) Consider Management Zones Based on Water Quality Gradient

3) Establish Water Quality Objectives

A) MUN

1. Nitrate-Nitrogen ≤ 10 mg/L
2. TDS $< 1,000$ mg/L TDS
3. Delete Secondary MCLs as Water Quality Objectives
4. Individual Mineral Ions (e.g. sodium, chloride, etc.)?

B) AGR

1. Not the most sensitive use with respect to nitrogen species
2. Salinity
 - (a) Most Sensitive Crop \neq Most Sensitive Use
 - (b) Presuming "Best Management Practices" by Water Users
 - (c) Defining "Reasonable Protection" Quantitatively
 - (d) Standards to Protect Livestock Watering
 - (e) Drought Exemption Policy
 - (f) "Managed Degradation" Policy in Both Basin Plans

4) Assess Existing Water Quality

- A) Characterize Water Quality in Initial Analysis Zones (IAZ's)**
- B) Guidelines to Account for Spatial and Temporal Variability**
- C) Identify Impaired Groundwaters**
 - 1. Elevated Nitrate (w/ special emphasis on EDCs)**
 - 2. Elevated TDS**
- D) Distinguish Natural from Man-made Impairments**
- E) Identify High-Quality Groundwaters**
 - 1. Quantify Available Assimilative Capacity**
 - 2. Implement State Anti-degradation Policy**
- F) Evaluate Probable Effect of Legacy Loads to Vadose Zone on Future Water Quality**

5) Develop Implementation Plans

- A) Identify Best Management Practices (BMP)**
- B) Identify Best Practicable Control Technology (BPCT)**
- C) Waste Discharge Requirements & Effluent Limitations**
- D) Guidelines for Specifying the "Point-of-Compliance"**
- E) Mitigation and Remediation (incl. C.A.O.'s)**
- F) Water Quality Monitoring and Assessment**
- G) "Maximum Benefit" Demonstrations**
- H) Alternate Compliance Mechanisms (incl. "Umbrellas" & "Offsets")**
- I) Variances**

"The List"

- 1) Assuring safe drinking water to EDC's.**
- 2) Remove MUN Designation from Ag Drains**
- 3) Remove MUN Designation from High TDS Groundwater Basins**
- 4) Deleting Secondary MCLs as Water Quality Objectives**
- 5) Develop comprehensive process to demonstrate AGR use is reasonably protected; to replace narrative translator of 700 EC.**
- 6) Re-evaluate "First Encountered Groundwater" as Default Point of Compliance**
- 7) Resolve inconsistency between DHS prohibition on direct reuse of recycled water and application of CTR criteria at POTW outfall.**