

CMARP DRINKING WATER QUALITY COMPONENT



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OBJECTIVES FOR THE CMARP DRINKING WATER QUALITY PLAN

- **PROVIDE THE ABILITY TO:**
 - **DETERMINE IF THE OVERALL DELTA DRINKING WATER QUALITY IS IMPROVING**
 - **MEASURE THE SUCCESS OF EACH WATER QUALITY ACTION**
- **DEVELOP TOOLS TO PREDICT WATER QUALITY IMPACTS OF PROPOSED CALFED ALTERNATIVES AND CALFED WATER QUALITY CORE PROGRAMS**

OBJECTIVES (continued)

- **PROVIDE METHODS TO ASSESS IMPACTS TO DRINKING WATER QUALITY FROM OTHER CALFED CORE PROGRAMS**
- **PROVIDE A FEEDBACK LOOP FOR INFORMATION ON DRINKING WATER QUALITY IMPACTS RESULTING FROM CALFED ACTIONS AND ALTERNATIVES (ADAPTIVE MANAGEMENT)**

SPECIFIC PARAMETERS OF CONCERN FOR DRINKING WATER

Monitoring Parameter	Significance to Drinking Water Quality
TOC (DBP precursor)	Formation of disinfection byproducts
Bromide (DBP precursor)	Formation of brominated disinfection byproducts
Pathogenic organisms	Waterborne diseases
Chemical contaminants	Regulated drinking water quality constituents
TDS or salinity	Taste and odor problems (salty taste), corrosion of infrastructure and appliances, impacts on wastewater reclamation programs, groundwater conjunctive use programs, and blending projects
Nutrients	Taste and odor problems (algae - geosmin and 2-methylisoborneol), impacts on filtration (algae)
Turbidity	Appearance problems, impacts on filtration & disinfection

Comparison of Delta Water Quality to National Median

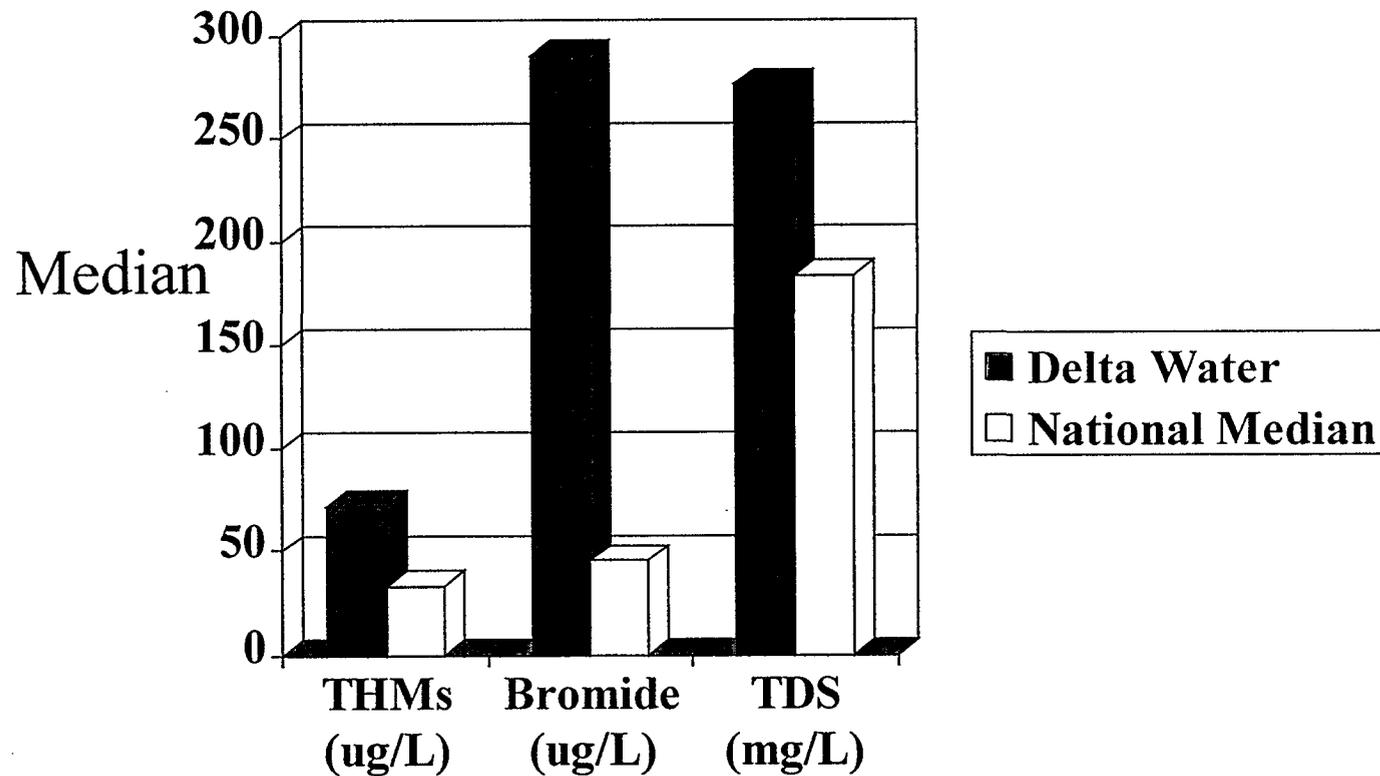


Figure 1
Conceptual Model for Sources of Parameters of Concern

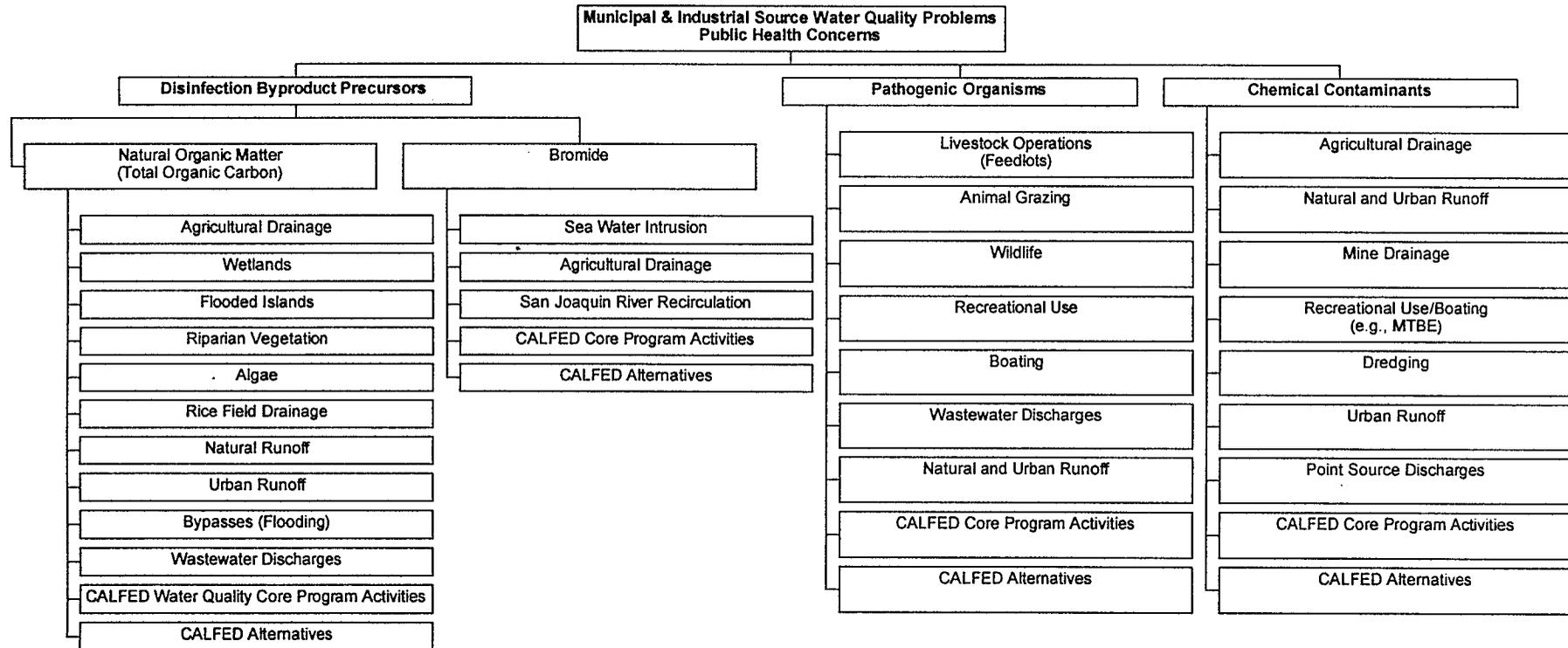


Figure 2
Conceptual Model for Sources of Parameters of Concern

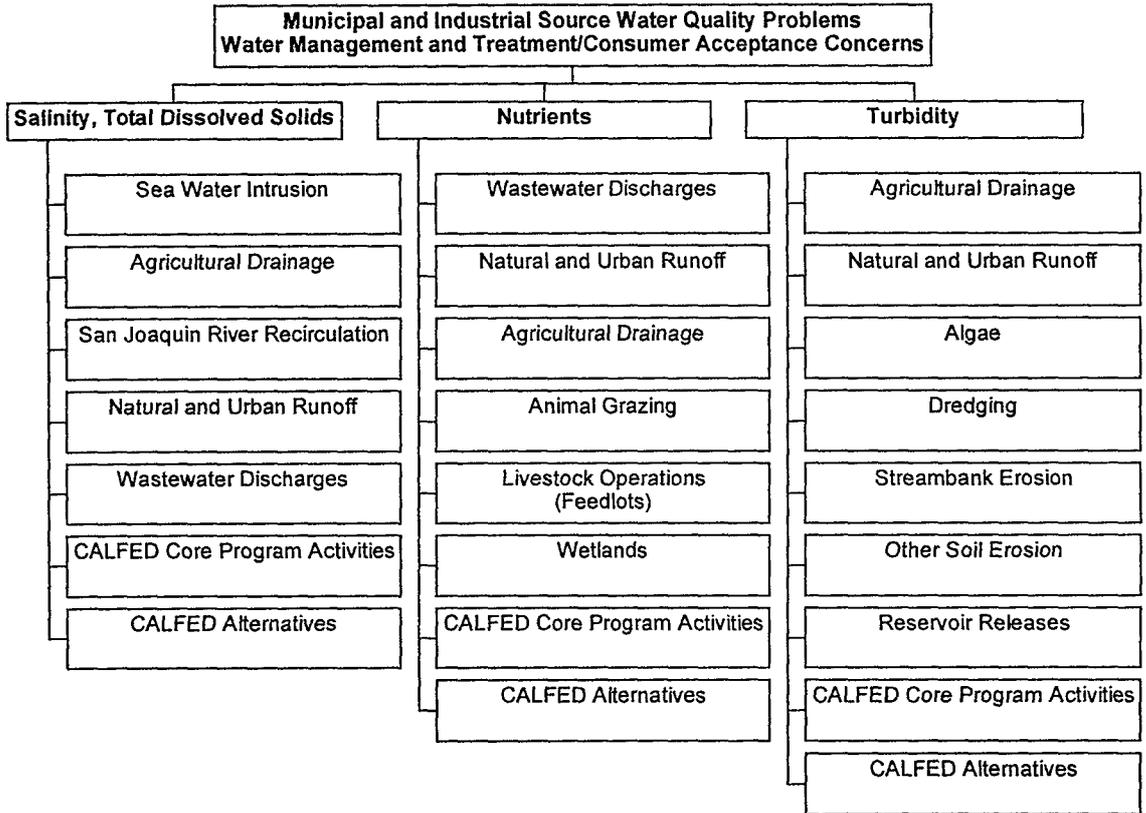
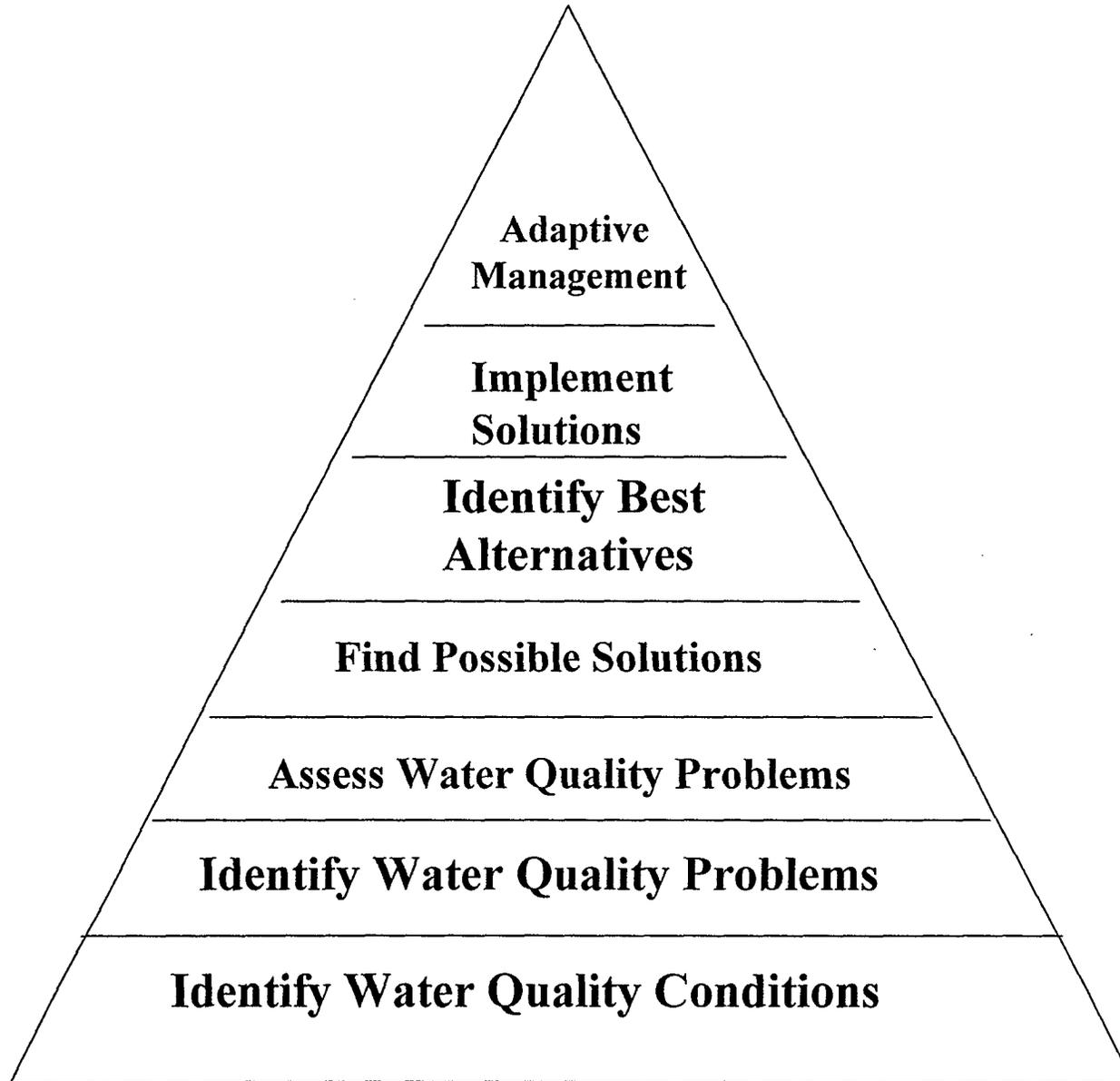


Figure 3
CMARP Steps to Identifying and Implementing Solutions



***KEY CMARP
INFORMATION/RESEARCH
NEEDS***

- **DETERMINE THE SOURCES AND LOADINGS OF KEY DRINKING WATER CONTAMINANTS OF CONCERN IN THE DELTA AND ITS TRIBUTARIES**
- **DEVELOP MODELING TOOLS WHICH CAN BE USED TO PREDICT AND EVALUATE THE IMPACTS OF CALFED ACTIONS AND ALTERNATIVES**

NEEDS (continued)

- **DEVELOP IMPROVED SAMPLING AND ANALYTICAL METHODOLOGIES FOR PATHOGENS**
- **DEVELOP OTHER TOOLS, METHODOLOGIES, AND CAPABILITIES TO PREDICT AND ASSESS IMPACTS FROM CALFED ACTIONS AND ALTERNATIVES**