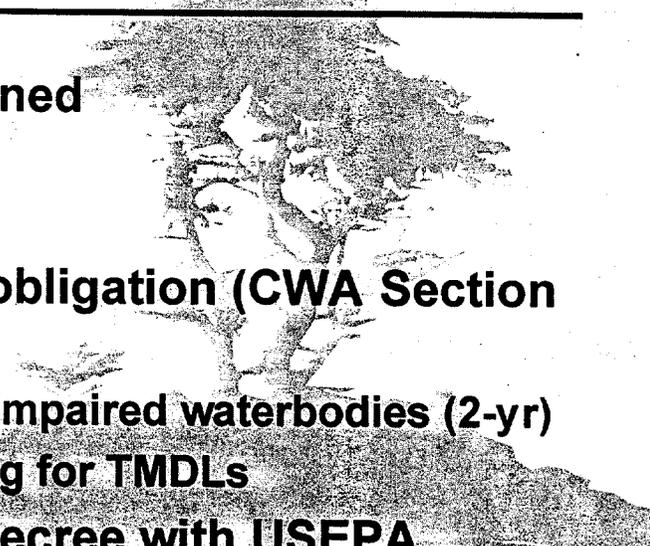


11-20-99

## **TMDL - What is it ?**

- 
- ◆ **TMDL Defined**
    - Literal
    - Practical
  - ◆ **Statutory obligation (CWA Section 303d)**
    - listing of impaired waterbodies (2-yr)
    - scheduling for TMDLs
  - ◆ **Consent Decree with USEPA**

Literal = Total Maximum Daily Load = the amount of a pollutant that a waterbody can contain and still meet water quality standards (TMDL=WLA+LA+MOS)

Practical = a framework to identify sources and allocate responsibility for pollutant reductions such that water quality standards are met that includes monitoring and a feedback mechanism to determine attainment and make adjustments to TMDL and implementation

Listing criteria -

- effluent limits or BMPs not stringent enough to assure attainment of beneficial uses
- fishing, drinking, or swimming advisory in effect
- beneficial uses impaired or expected to be within listing cycle (2 yrs)
- previously listed and not demonstrated to be attaining standards
- tissue concentrations exceed limits for consumption
- high concern that the waterbody needs the level of protection offered by listing

Russian Listed for sediment in 1998, targeted for 2011 - PWA reports re degradation and erosion plus anecdotal evidence plus concern, after Consent Decree obligations, hopeful that efforts in the watershed in the intervening time will result in delisting or a "rubber stamp" TMDL

Consent Decree is for north coastal streams and does not include Russian River. We must fulfill our obligations under our agreement with EPA before we can do a TMDL for the Russian.

## 1 **TMDL - What is it ?**

- † **TMDL Defined**
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## 2 **How is it done ?**

- † **Define the problem (Problem Statement)**
- † **Identify desired future condition (Numeric Targets)**
- † **Identify pollutant sources (Source Analysis)**
- † **Identify impacted resources**
- † **Calculate how much is too much (Loading Capacity)**
- † **Allocate responsibility for loads (Load Allocations)**
- † **Implement actions to meet loads**

## 3 **Desired Future Condition**

- † **e.g., What do the fish need?**
  - Numeric targets (quantifiable)
  - Nonenforceable Yardstick
  - Require updates based on new knowledge
    - studies and research
    - local information

## 4 **Where are the impacts realized?**

- † **e.g., Limiting Factors Analysis**
  - By sub-watershed
  - Use existing data and knowledge of locals vs targets
  - Identify past & present extent of use
  - Identify factors limiting the production
    - may include sedimentation, channel morphology, flow

## 5 **How much is too much ?**

- † **e.g., Sediment budget**
  - Air photo analysis

- Paired watershed comparison
- Actual measurements compared to targets
- Estimates from depositional areas and local knowledge

## 6 **Pollutant Sources**

- ✦ Identify the major pollutant sources
  - By sub-watershed
  - Air photo analysis
  - Existing documents and knowledge
  - Estimates
  - Natural and human-induced
  - Ground truthing

## 7 **Allocate Responsibility**

Responsibility of humans to deal with human-induced pollutants

- By source, or
- By activity, or
- By discharger, or
- A combination of the above

## 8 **Implementation Plan**

- ✦ Actions to achieve allocations
- ✦ Need to provide "reasonable assurance"
- ✦ Monitoring
- ✦ Reevaluation of TMDL and implementation

## 9 **Administrative Process**

- ✦ Consent Decreed Waterbodies
  - Submit TMDL w/o implementation plan to USEPA
  - EPA notices and provides comment period
  - EPA approves TMDL prior to Consent Decree deadline
- ✦ Other Regional Board TMDLs
  - Collaborative TMDL and Implementation Plan development
  - Public Report and Public Comment
  - Regional Water Board Adoption
  - State Water Board Consideration (Approve or Remand)
  - State Office of Administrative Law Approval

10  **Proposed Regulations**

- ✦ **More specific listing methodologies**
- ✦ **Lists broken into four categories**
  - impaired or threatened by pollutants or unknown causes  
(requires TMDL)
  - impaired or threatened by pollution
  - TMDL completed, but attainment not yet realized
  - expected to meet standards by next listing as a result of controls other than a TMDL
- ✦ **State timeframes 15 years maximum and prioritized**
- ✦ **Add implementation plan as required element of TMDL**
- ✦ **Allow public to petition EPA to develop a TMDL if a state is behind schedule**

11  **Reality Check**

- ✦ **Estimates are based on existing information**
- ✦ **Assessing/quantifying changes may be difficult**
- ✦ **Implementation may be regulatory**
- ✦ **Court Ordered schedules**
- ✦ **Funding for development and Implementation**
  - staffing and contracts
  - grants for implementation
- ✦ **Watershed groups can assist in the process**
  - data gathering
  - data collecting
  - data analysis
  - collaborative development of implementation plans
  - monitoring