

Loon Lake Wood Debris Study

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Presentation Agenda

1. Project Phases
2. Phase Objectives
3. Schedule
 - Opportunities for Public and Agency Input



Purpose of Wood Debris Study

1. To Understand the Source(s) of Wood Debris in Loon Lake;
2. Quantify the Extent of Wood Debris;
3. Assess Potential Impacts to the Environment from Human Caused Sources of Wood Debris; and as needed,
4. Develop Options and Recommendations.



Wood Debris Study Approach

- Model Toxics Control Act (WAC 173-340)
 - Remedial Investigation and Feasibility Study
 - Wood Debris = “Deleterious Substance”
- Three Phases of Work:
 1. Scoping;
 2. Sampling and Analysis Plan Development;
 3. Field Work and Reporting.



Phase 1: Scoping

□ **Assemble Existing Data and Information**

- Site History: Past and Current Uses;
- Past Studies or Sampling Efforts for Water and Sediment;
- Data on the Area and Lake Physical Characteristics;
- Identification of Agency Regulatory Issues.

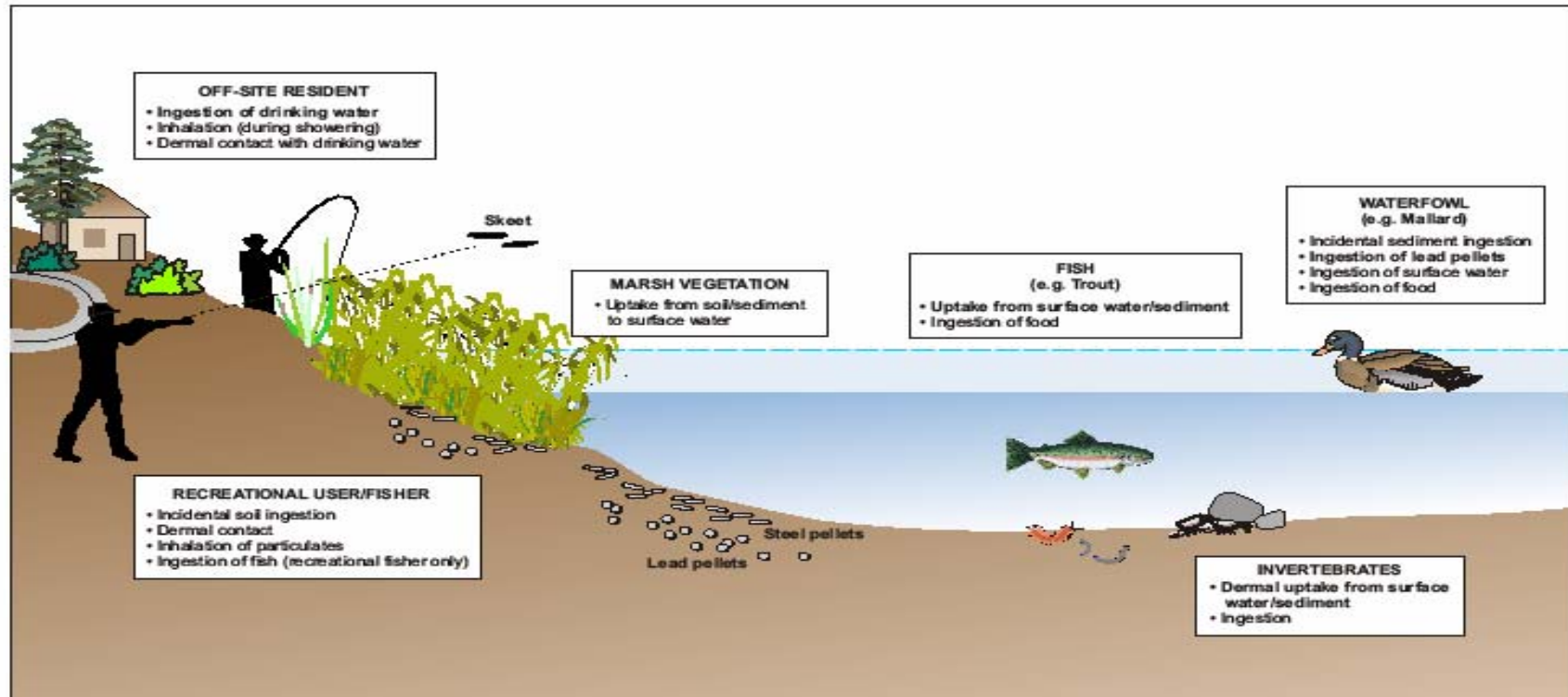


Phase 1: Reporting

- **Conceptual Site Model (CSM) Identifies:**
 - Potential or Suspected Sources of Wood Debris;
 - Potential Areas of Impacted Sediment and/or Water;
 - Actual and Potential Impacts or Benefits to Lake Animals and Fish from the Wood Debris.
- **Purpose of CSM is to Assist in Future Decision Making.**

EXAMPLE

Conceptual Site Model (CSM)



NOTES:

1. Not to Scale
2. ——— Increased water level
3. Uptake implies intake of chemicals from gill transfer, root uptake, dermal contact, etc.
4. Boldface pathways to be quantitatively addressed; others previously addressed and/or not considered significant.

CONCEPTUAL SITE MODEL

May 2004
28066699

Lake Merced
San Francisco, California



FIGURE 3

Phase 2: Sampling and Analysis Plan (SAP)

- **Purpose:** Gather Sufficient (Complete) Data to Thoroughly Characterize the Distribution of Wood Debris and its Potential Threat to the Environment.
 - SAP Will Include Any Other Potential Contaminant Source(s) Identified in the Scoping Phase.

Phase 2: SAP Development

- SAP Includes:
 - Study Objectives;
 - Physical, Chemical and Biological Analyses Needed and Specific Methodology;
 - Locations for Water and Sediment Samples;
 - Timing and/or Phasing
 - Depths
 - Field Sampling Methodologies
 - Quality Control and Quality Assurance Requirements.

Phase 3: SAP Implementation and Reporting

- Field Sampling;
- Laboratory Analysis;
- Data Compilation and Evaluation;
- Report Preparation.



Phase 3: Reporting

- Wood Debris Sources Defined;
- Water and Sediment Data Results;
- Comparison to Regulatory Standards;
- Revised Conceptual Site Model;
- If Needed, Alternatives Analysis.



Phase 3: Alternatives Analysis

- If Wood Debris Exceeds Regulatory Standards, Standard Evaluation Approach:
 - Partial to Full Removal;
 - Natural Recovery;
 - Cap with Clean Material;
 - No Action;
 - Combinations of Above.
 - Costs, Protectiveness, Cleanup Levels, Complies with Other Laws.



Public Review and Comment

- Proposed Public Meetings:
 - Overview of Findings;
 - Opportunity for Questions and Comments;
 - Written Comments.

- Report Finalized and Available for Agency and Public Use and Future Decision Making.....

Estimated Schedule

