Watershed Management through Cooperative Action
US Perspective

By:
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Very Glad to Be Here!
We’ve come a long way!
U.S. EPA Watershed Framework

• Hydrologically defined
• Involves all stakeholders
  – Includes public and private sector
  – Community based
  – Includes coordinating framework
• Strategically addresses priority water resource goals
  (e.g. water quality, habitat, industrial & municipal)
  – Integrates multiple programs (regulatory & voluntary)
  – Based on sound science
  – Aided by strategic watershed plans
  – Uses adaptive management
EPA Seven-Step Process

• Build partnerships
• Characterize the Watershed
• Set goals and identify solutions
• Design an implementation program

• Develop Watershed Plan
• Implement the Watershed Plan
• Measure Progress and Make Adjustments
1. Build Partnerships

Carson River Coalition

Western NV RC&D
Landowners

Conservation Districts
Carson Valley
Dayton Valley
Lahontan
Alpine

Alpine Watershed Group
Clear Creek Watershed Council
Private Citizens

HDR

Alpine Watershed Group
Clear Creek Watershed Council
Private Citizens

FEMA

NRCS Natural Resources Conservation Service

State of Nevada
Department of Conservation & Natural Resources
Division of Water Resources
Tracy Taylor, P. E. State Engineer
2. Characterize the Watershed

- Gather existing data
- Identify data gaps
- Analyze data
- Identify causes and sources
- Estimate pollutant loads

East Fork Carson River near California/Nevada Stateline
3. Set Goals & Identify Solutions

- Set overall goals
- Determine management objectives
- Develop indicator targets
- Determine load reductions
- Develop management practices to achieve goals
4. Design Implementation Program

• Develop schedule
• Set milestones
• Criteria to measure progress
• Monitoring
• Outreach & Education
• Evaluation process
• Technical & financial needs
• Assign responsibilities

Bio-Engineering Project Workshop
Ambrose Nature Area
Carson River in Carson City
5. **Develop the Plan**

**Carson River Watershed**

*Regional Floodplain Management Plan*

Developed by:
- Carson Water Subconservancy District
- Alpine County, California
- Douglas County, Nevada
- Carson City, Nevada
- Lyon County, Nevada
- Churchill County, Nevada
- Carson River Coalition River Corridor Working Group

Submitted to:
- Nevada Division of Water Resources
- Federal Emergency Management Agency

Submitted by:
- Carson Water Subconservancy District

Formally adopted in 2008 by all 5 counties along the Carson River

**Meets EPA criteria for watershed plans**
Final Steps

- 6. Implement plan
- 7. Measure progress, make adjustments

Stakeholders are involved throughout process.
Flood of 1997 – Many Lessons Learned

Need for Integrated Watershed Management
Living River Approach

Alternative Futures for Carson River

Concrete flood channel, LA River

Carson River through lands owned by the Washoe Tribe of Nevada

The long-held dream of greening the Los Angeles River moves closer to reality.

--Western Water

--John Warpeha
What Have We Learned?

• Watershed approach works
• The river is the resource
• Need consistent source of funding
• Regional cooperation is critical
“Reasonable people, with reasonable information, will come up with reasonable solutions.”

CWSD Director Chuck Roberts
Thank You!!!