

WATERSHED PLANNING: APPROACHES AND LESSONS LEARNED (or not)

Clean Water Summit

June 21, 2002

Bruce Posthumus

San Diego Regional Water Quality Control Board

858-467-2964

postb@rb9.swrcb.ca.gov

“Clean Water” and today’s conference

- Project Clean Water
- Clean Water Summit
- Water Quality Control Board
- Clean water is good

“Planning” and today’s conference

- Water supply planning
- Water quality planning
- Urban runoff management planning
- Watershed planning
- Comprehensive planning
- Planning is good

Why plan?

- Comply with legal requirements
- Fix problems
- Prevent problems
- Save money
- Ensure fairness
 - Environmental justice
 - Prevent externalization of environmental costs

Why plan?

- Because planning is needed in order to provide for a high and sustainable “quality of life”

Assertion #1:

A high and sustainable quality of life depends on a healthy society, a healthy economy, healthy ecosystems, and healthy watersheds

Assertion #2:
Societies, economies,
ecosystems, and watersheds are
interrelated / interconnected

Definitions

- Society
- Economy
- Ecosystem
- Watershed

What is a “society”?

- A system or condition of living together as a community

What is an “economy”?

- A system of producing, distributing, and consuming wealth

What is an “ecosystem”?

- A system made up of a community of organisms and its interrelated environment

What is a “watershed”?

- The area drained by a river or river system

What is a system?

- A set or arrangement of things so related or connected as to form a unity or organic whole

Conclusion:

Societies, economies, ecosystems, and watersheds are all characterized by interrelationships and interconnectedness

Recall Assertion #2:
Societies, economies,
ecosystems, and watersheds are
interrelated / interconnected

What interrelated, interconnected
things are relevant to healthy
societies, economies, ecosystems,
and watersheds?

- Food
- Water supply / use
- Housing
- Employment
- Energy
- Materials
- Industry / commerce
- Transportation
- Communication
- Education / knowledge
- Values / norms
- Law / government
- Land use / zoning
- Recreation
- Habitat / biodiversity
- Residuals / wastes

“Comprehensive”

- Dealing with all or many of the relevant details; inclusive

Distinguish between

“planning by watershed”

and

“watershed planning”

Planning by watershed:

Planning that addresses a specific, narrow topic, issue, need, threat, or problem in a particular watershed

Planning by watershed is better than planning without considering watersheds

- Takes into account the connections and relationships between a problem in one part of a watershed and the contributing factors elsewhere in the watershed

Planning by watershed tends not to be comprehensive

- Plans to address only one type of problem can be developed in a vacuum
- Separate plans to address different problems may conflict or be mutually exclusive
- Does not necessarily take into account relationships between different problems and attempts to solve them

Watershed planning:

Planning that addresses an array of related topics, issues, needs, threats, and problems in a specific watershed

Watershed planning tends to be comprehensive

- Everything is related....
- “When we try to pick anything out by itself, we find that it is hitched to everything else in the universe.”
John Muir

Watershed planning must not ignore society, the economy, or ecosystems

- Employment
- Food
- Housing
- Water supply / use
- Energy
- Materials
- Industry / commerce
- Transportation
- Communication
- Education / knowledge
- Values / norms
- Law / government
- Land use / zoning
- Recreation
- Habitat / biodiversity
- Residuals / wastes

Watershed planning is confused with...

- Planning by watershed
- Water supply planning
- Flood control planning
- Polluted runoff management planning
- Water quality planning

Watershed planning does not require reinventing the wheel

- Many plans already exist
- Need to connect the dots
- Need to fill the gaps
- Need to revisit, refine, tweak, and improve
- Need to coordinate and communicate

Coordination and communication is needed....

- Within organizations and programs
- Between organizations and programs

Why do watershed planning?

- Loss and impairment of beneficial uses of water due to changes in water quality
- Changes in hydrology resulting from hardscaping, use of imported water, and blockage of natural water flow patterns
- Physical changes to streambeds, flood plains, wetlands, and natural landforms

Why do watershed planning? (continued)

- Destruction and fragmentation of habitat
- Loss of biodiversity
- Replacement of native vegetation with structures, impervious surfaces, and non-native species
- Infestations of invasive non-native species

Why do watershed planning?

- Because watershed planning is needed to protect and maintain what is left of (and to restore as much as possible of) the hydrological, physical, chemical, and biological integrity of the land and waters of the watersheds of the San Diego region
- Because things are happening fast and time is running out....

Watershed planning guidance

- Watershed Planning Guide
 - <http://www.coastalconservancy.ca.gov/Publications/pubs.htm>
- Putting Together a Watershed Management Plan
 - <http://www.ctic.purdue.edu/KYW/Brochures/PutTogether.html>

Watershed planning guidance (continued)

- Rapid Watershed Planning Handbook
 - http://www.cwp.org/watershed_planning.htm
- Coordinated Resource Management and Planning Handbook
 - <http://www.cacmp.org/resources/handbook.htm>

Watershed planning guidance (continued)

- Watershed Restoration - A Guide for Citizen Involvement in California
 - http://elib.cs.berkeley.edu/cgi-bin/doc_home?elib_id=979

Watershed lessons learned

- Top 10 Watershed Lessons Learned
 - <http://www.epa.gov/owow/lessons/top10.pdf>
- Addressing the Need to Protect California's Watersheds: Working in Partnerships
 - http://resources.ca.gov/watershedtaskforce/AB2117LegReport_041102.pdf

Watershed planning essentials

- Watershed overview
- Legal / jurisdictional context
- Vision
- Goals
- Actions
- Strategy
- Roles and responsibilities
- Measures of success

Avoiding watershed planning pitfalls

- Communicate, collaborate, coordinate, and include
- Go beyond compliance
- Address land and water, upland and wetland, freshwater and saltwater
- Consider all problems, threats, stressors, pathways, sources, and causes
- Consider cumulative effects of small and/or incremental actions

Avoiding watershed planning pitfalls (continued)

- Give priority to prevention
- Address sources and causes
- Consider the possibilities
- Build on previous work
- Be specific (but don't over do it)

Planning is good

Planning by watershed is better

Watershed planning is better yet

What kind of planning is your organization doing?