



**Council for
Watershed Health**

Assessing the Los Angeles River Watershed

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A Vision for 2025:

Sustainable Greater Los Angeles

Managing at the watershed scale for economic vitality, social and environmental health

- Clean waters
- Reliable local water supplies
- Restored native habitats
- Ample parks & open spaces
- Integrated flood protection
- Revitalized rivers & communities





“It is impossible to develop effective environmental policy unless it is based on sound scientific information.”

Millennium Ecosystem Assessment
Kofi Annan, 2000
UN Secretary General

Los Angeles County

- 88 cities
- 10 million people
- 4,058 mi²
- Ave. rainfall ~14"
- Mediterranean-climate



Current Work

- Santa Ana River Integrated Regional Planning
- California Water Plan Update – focus on Santa Ana
- Los Angeles River Indicators of Watershed Health

“Southern California is a critical component to the economy of the United States and the world, and the people and environment of the region are intimately linked together. Routine, collaborative and structured assessments of condition of our economy, society, and ecology provide an important feedback into our efforts at improving human well-being.”



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Urban Waters Federal Partnership

Vision: *Through our partnership, we will revitalize the urban waters and the communities that surround them, transforming overlooked assets into treasured centerpieces and drivers of urban revival*

- Eleven Federal Partners
 - Including: EPA, Forest Service, National Weather Service, Army Corps of Engineers, HUD, USBR, USFWS, NPS, USGS



Urban Waters Federal Partnership

Los Angeles Watershed

- *Federal partners plus:*
- *State Agencies:* LARWQCB, MRCA, RMC, Coastal Conservancy, etc.
- *Local Government:* Glendale, Los Angeles, Long Beach, Signal Hill, Gateway Cities COG, LAUSD, LAC Flood Control District, etc.
- *NGOs:* Arroyo Seco Foundation, Council for Watershed Health, Friends of the Los Angeles River, LA Conservation Corps, LA River Expeditions, LA River Revitalization Corp, the River Project, TreePeople, Trust for Public Land, Urban Rivers Institute, Urban Semillas, etc.

Urban Waters Federal Partnership: Los Angeles Watershed

The Los Angeles River Watershed Partnership will work to protect, restore and revitalize the Los Angeles River Watershed. The Partnership will use the mission, vision and principles of the national Urban Waters Federal Partnership to guide this work:

- Promote clean urban waters
- Reconnect people to their waterways
- Water conservation
- Use urban water systems as a way to promote economic revitalization and prosperity
- Encourage community involvement through active partnerships
- Be open and honest, listening to communities
- Focus on measuring results and evaluation to fuel future success

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Indicators of Watershed Health

Los Angeles River

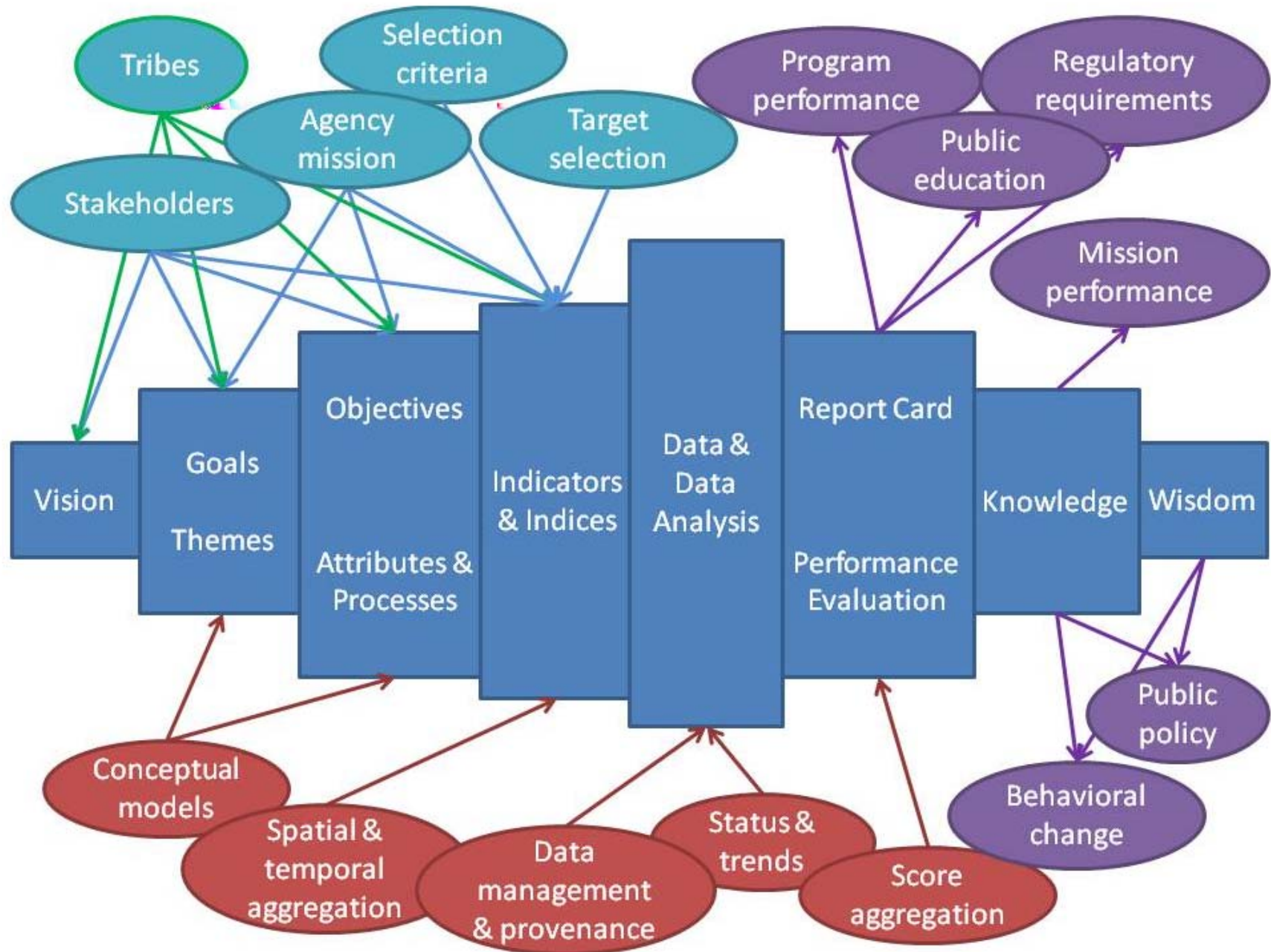
Describe ecosystem services and economic & social conditions

- Develop and refine indicators and metrics
- Produce “report card” of progress towards management goals for ecosystem services and economic & social condition

Regional Foundation for Benchmarking

- City of Santa Monica
- Heal the Bay Beach Report Card
- UCLA IOES
- Santa Monica Bay Restoration Commission
- Council for Watershed Health





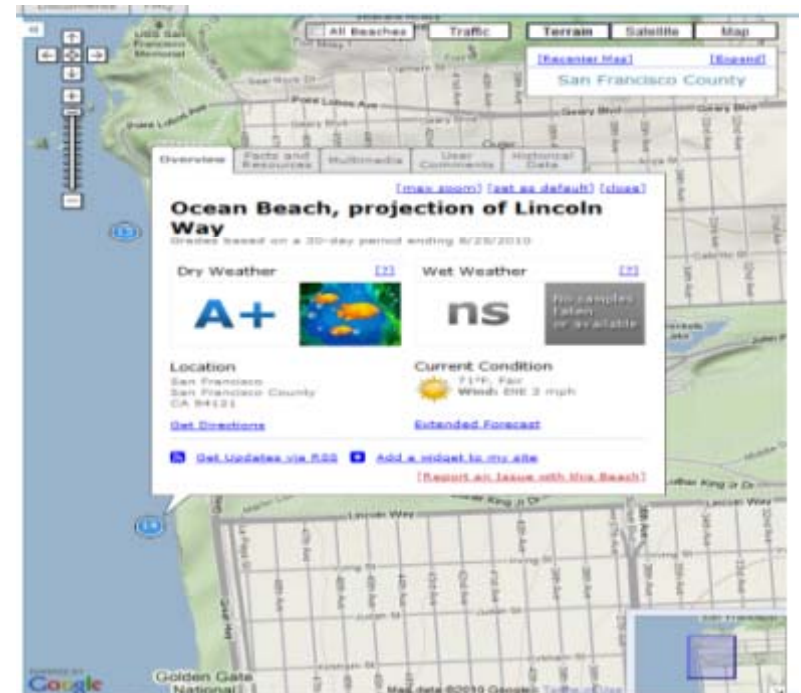
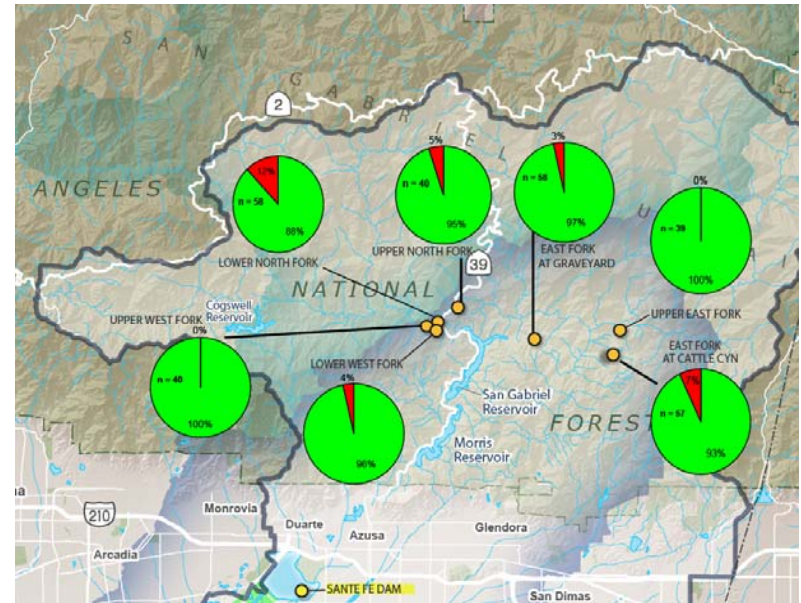
Benchmarking Goals

- Efficient
- Responsive
- Trusted
- Received
- Effective



Efficient

- Regular + rigorous = \$\$\$
- Solutions
 - Existing data / analyses
 - Collaborative processes
 - Indicator selection



Responsive

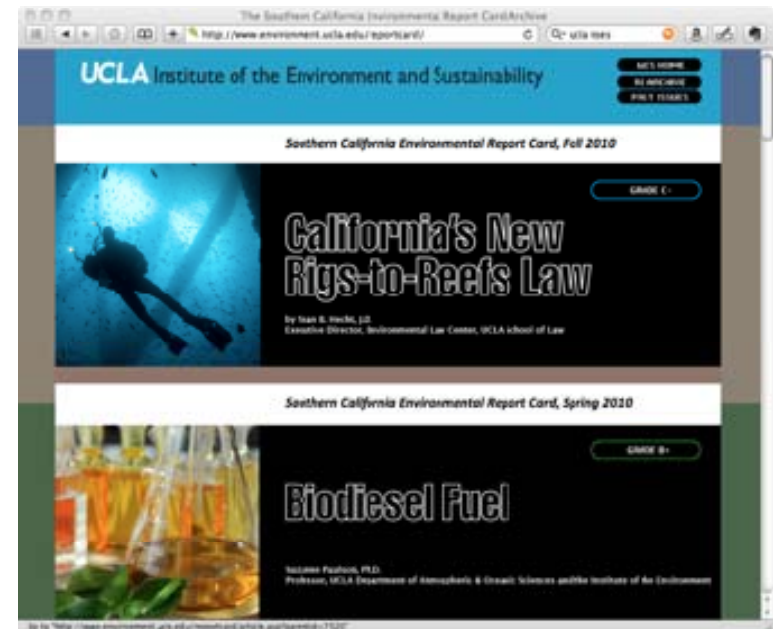
- Necessary part of the decision-making process
- Respond to multiple management goals
- Can be broadly or narrowly focused
- Conflicts with trend analysis



- Were actions or policies implemented?
- Did they achieve their intended results?
- Have new factors arisen?

Trusted

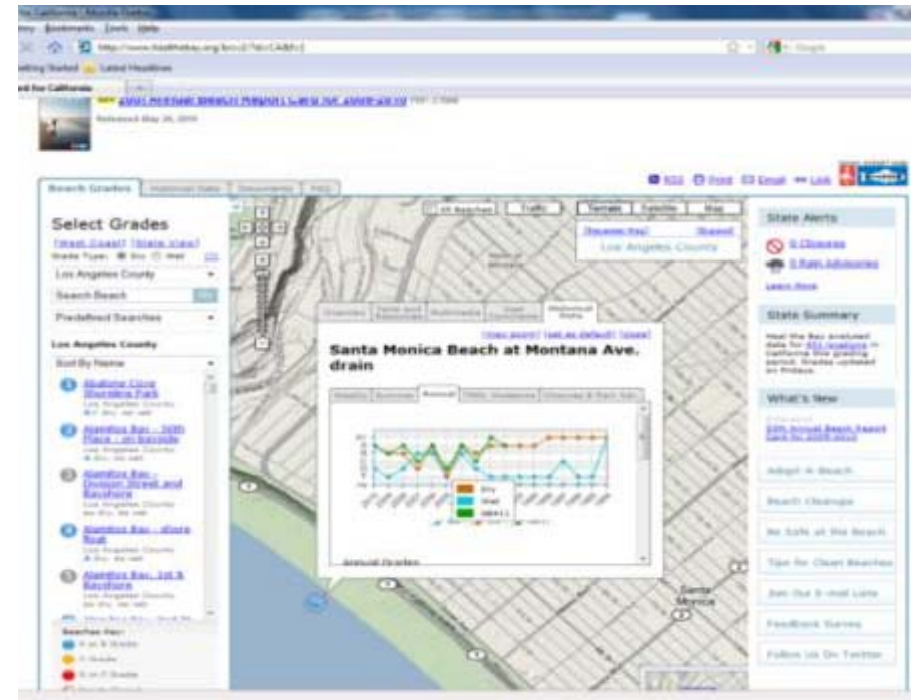
- Authoritative source
- Third party – can self assessment work?
- Also applies to data quality



SUSTAINABLE CITY
REPORT CARD

Received

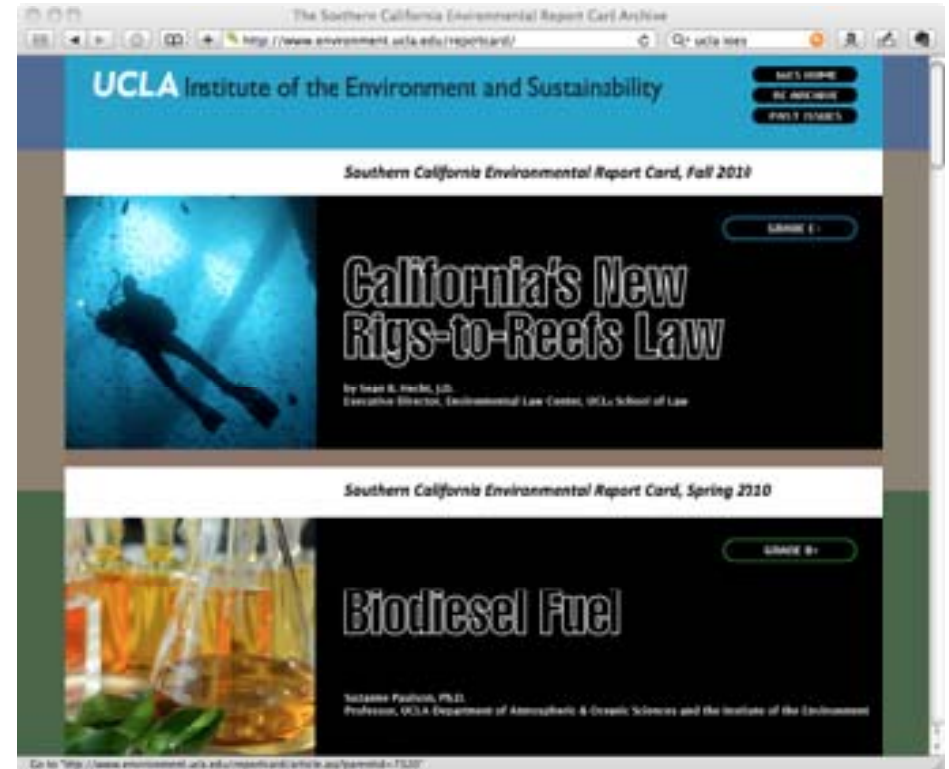
- Theme
 - Appeal to core concerns
- Words
 - Words that work
- Transfer
 - Medium, mode, messenger
- Ask
 - Simple, soon, it matters



VITAL SIGNS

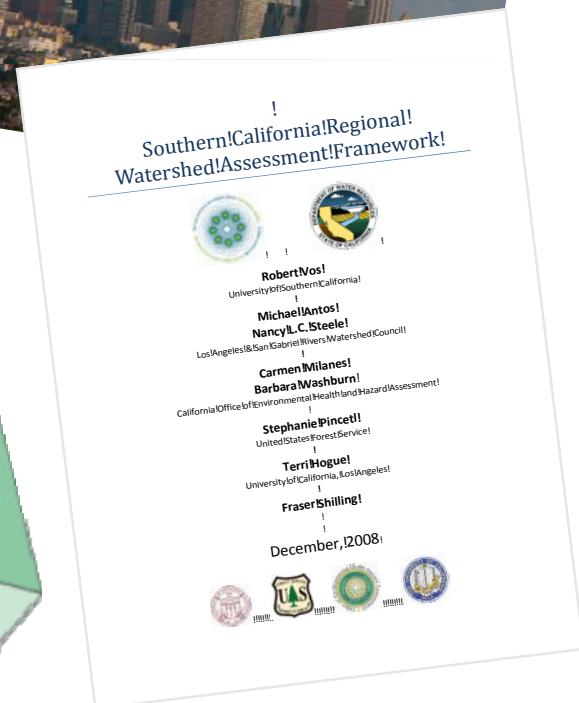
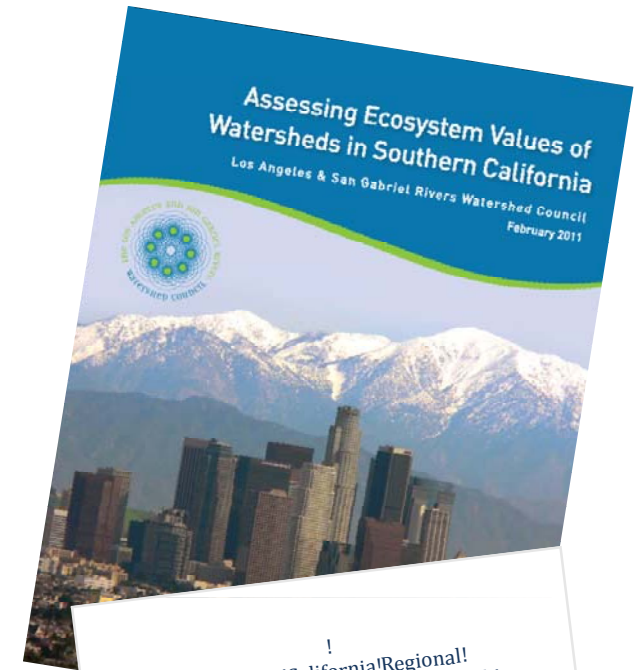
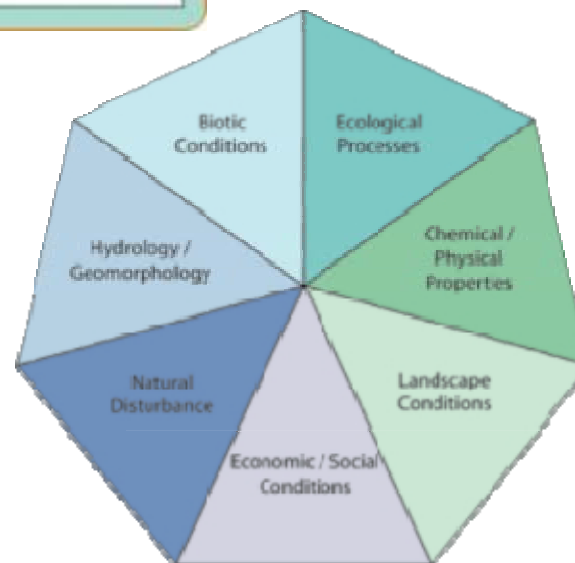
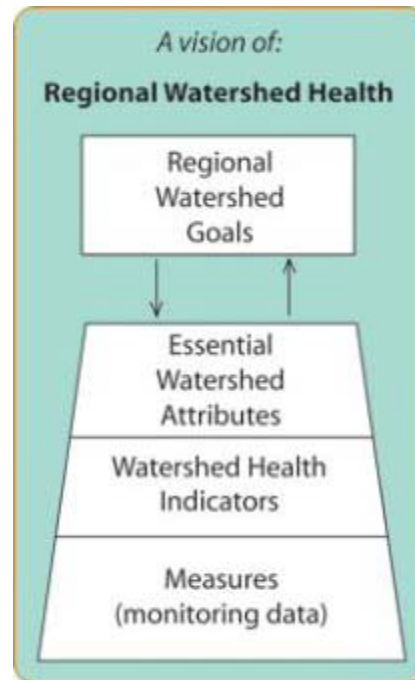
Effective

- Explicitly linked to public interests
- Information people want or need
- Is there evidence of change?



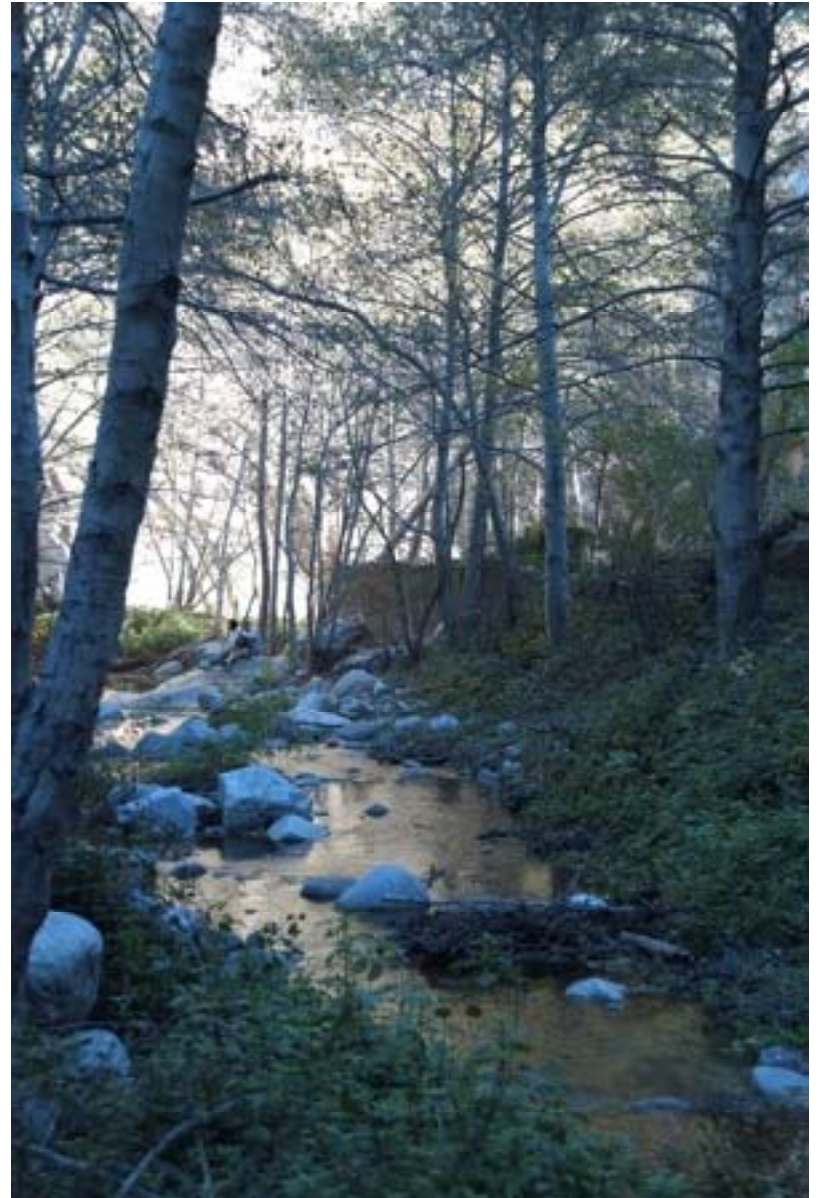
So. Cal Regional Assessment Framework

- Essential Watershed Attributes
- Responsive to Regional Goals
- Primary Focus on Ecosystem Functions & Conditions



So. Cal Regional Assessment Framework

- Broad-consensus about watershed goals
- Each goal coupled with scenario-based objectives and indicators
- Metrics>Indicators>Goals

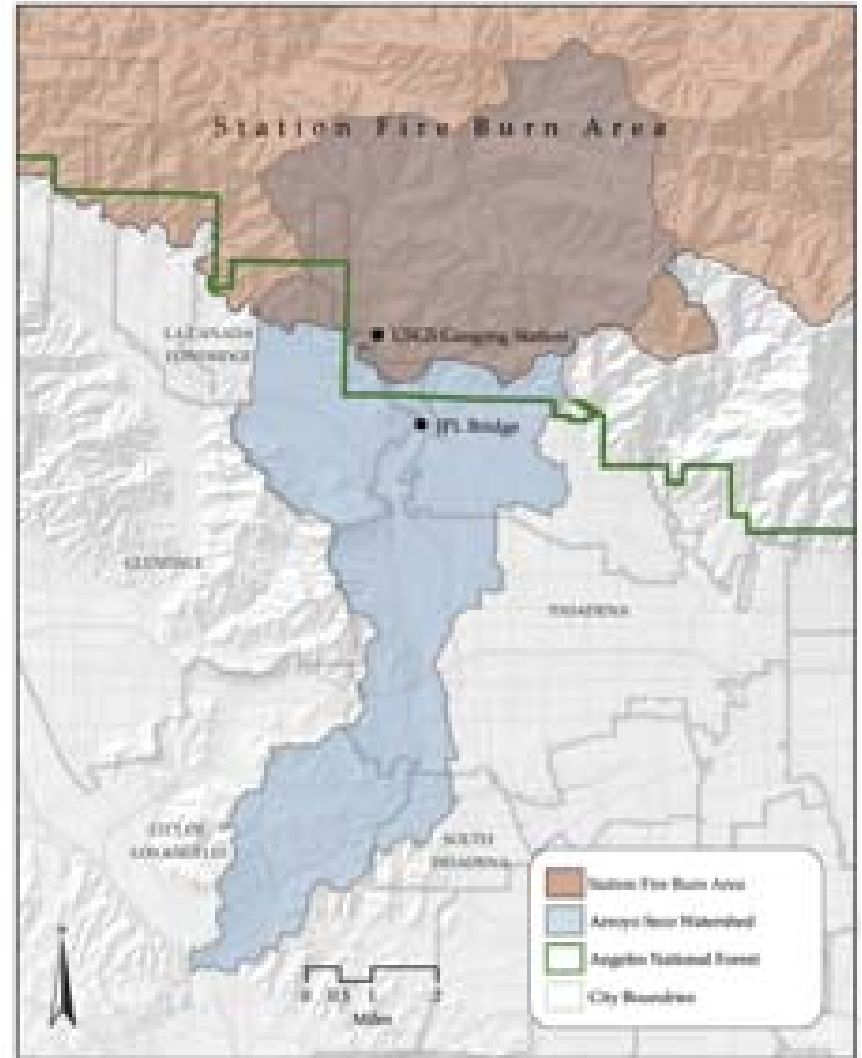


So. Cal Regional Assessment Framework

G O A L S	To sustainably manage local water supplies for human and natural communities
	To have widespread community awareness and deep civic engagement in the protection and improvement of watersheds
	To conserve and restore a diversity of native habitats to support fish and wildlife
	To restore or simulate natural disturbance processes that balance benefits for human and natural communities
	To meet human needs and enhance conditions of watersheds and their ecosystems

So. Cal Regional Assessment

- Indicator Selection
 - Based from Goals & Objectives
 - Using expert opinion & regulatory end points
 - ~70 potential indicators on draft list
 - Multiple metrics for each



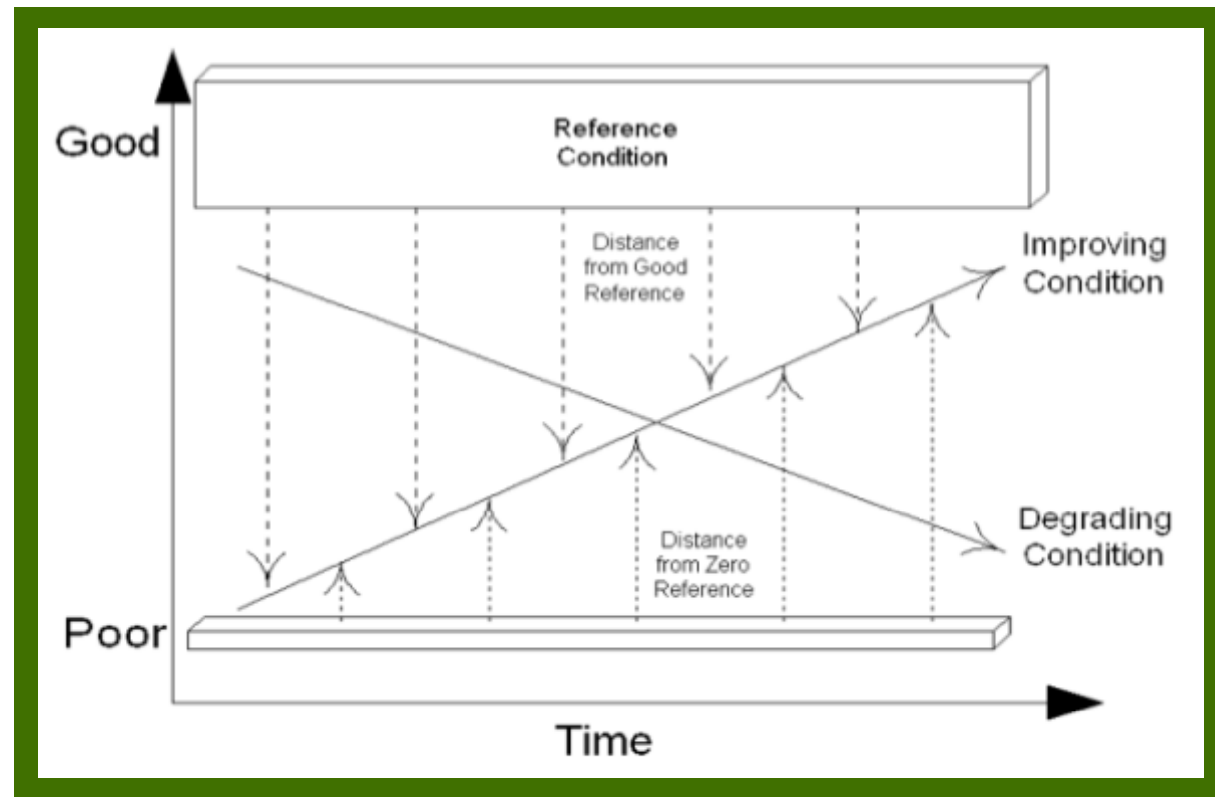
So. Cal Regional Assessment

- Each Goal was interrogated for principle objectives
- Objectives are expressed as desirable endpoints or states
- Objectives suggest metrics

- | | |
|--|------|
| <ul style="list-style-type: none">❖ To sustainably manage local water supplies for human and natural communities. | Goal |
| <ul style="list-style-type: none">❖ Maximum safe recharge of native water supply to groundwater basins❖ Groundwater safe for drinking❖ Increased safe yields from groundwater basins❖ Reduced water demands and reliance on imports for the region❖ Improved efficiency of water use❖ Recycled water provided for maximum benefit of people and ecosystems❖ Water Quality Objectives are attained in all surface waters❖ The health of human and aquatic communities are not compromised by surface water quality | |
- | | |
|--|------------|
| | Objectives |
| | |

Distance-to-Target Scoring

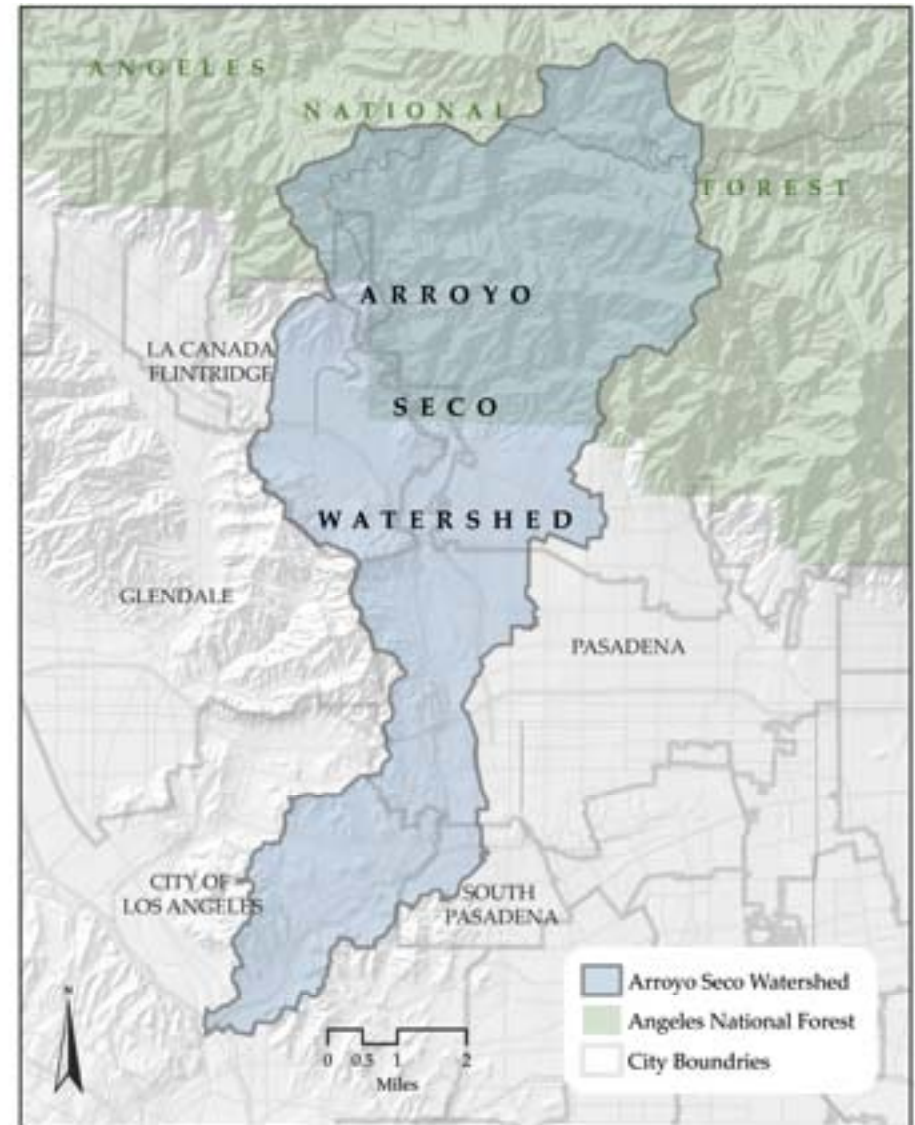
- Measure condition against a standard
- Create value by providing a scale
- Scores can sum to a grade
- Allows indicator and regional comparisons



Foot printing



Pilot Assessment: Arroyo Seco



Pilot Assessment: How Healthy Is the Arroyo Seco Watershed?

- Report Card
 - Consumable results
 - Stakeholder familiarity / buy-in
 - Comparability
 - Scores vs Grades

Goal	Indicators	Condition	Trend	Confidence
To sustainably manage local water supplies for human and natural communities.	Per capita water use	94	Not Assessed	High
	Healthy Surface Waters	60	Not Assessed	Moderate
	Rain reaching groundwater	59	Not Assessed	Moderate
To have widespread community awareness and deep civic engagement in the protection and improvement of watersheds.	Local Government Action	44	Not Assessed	Moderate
To conserve and restore a diversity of native habitats to support fish and wildlife.	Presence of Native Wildlife	59	Not Assessed	Moderate
	Protected Native Habitats	60	Not Assessed	High
	Habitat Intactness	57	Not Assessed	High
To restore or simulate natural disturbance processes that balance benefits for human and natural communities.	Storm Flow Pattern	55	Not Assessed	Moderate/High
	Wildfire Pattern & Intensity	75	↔	High
To meet human needs and enhance the quality of life by improving the conditions of watersheds and their ecosystems.	Aquatic Recreation	82	Not Assessed	Moderate
	Vegetated Residential Area	83	Not Assessed	Moderate
	Equitable Park Access	55	Not Assessed	Moderate
Overall Score:		65.25		

Essential Attributes

Aggregation & Comparison

- Arroyo Seco can aggregate into a Los Angeles River Assessment
- Arroyo Seco can be compared to other watersheds



Goal	Indicators	Direct Measure(s)	Related Measure(s)
To sustainably manage local water supplies for human and natural communities.	Per capita water use	Water Conservation	Water Conservation
	Healthy Surface Waters	Water Conservation	Water Conservation
	Rain reaching groundwater	Water Conservation	Water Conservation
To have widespread community awareness and deep civic engagement in the protection and improvement of watersheds.	Local Government Action		Water Conservation
To conserve and restore a diversity of native habitats to support fish and wildlife.	Presence of Native Wildlife	Water Conservation	Water Conservation
	Protected Native Habitats	Water Conservation	Water Conservation
	Habitat Intactness	Water Conservation	Water Conservation
To restore or simulate natural disturbance processes that balance benefits for human and natural communities.	Storm Flow Pattern	Water Conservation	Water Conservation
	Wildfire Pattern & Intensity	Water Conservation	Water Conservation
To meet human needs and enhance the quality of life by improving the conditions of watersheds and their ecosystems.	Aquatic Recreation	Water Conservation	Water Conservation
	Vegetated Residential Area	Water Conservation	Water Conservation
	Equitable Park Access	Water Conservation	Water Conservation

Working together we can
achieve the vision



Dr. Nancy L.C. Steele - Executive Director
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LA's Clean Water Story: Celebrating 40 Years of the Clean Water Act

October 9, 2012
Japanese American National Museum

cleanwatercelebration.org

Partners:

