

Cost and Benefit Analysis of Rec-1 Criteria



September 16, 2015

Meeting Goal

To obtain early input on what to include within the scope of the proposed cost-benefit analysis

Overview

- * Background
- * Cost-Benefit Analysis Primer
- * CBA Process
- * Public Comments

The Basin Plan is the blueprint for water quality management and control



Designates
Beneficial
Uses

Table 3-2: Water Quality Objectives																		
Concentrations not to be exceeded more than 10% of the time during any one year period.																		
Inland Surface Waters		Hydrologic Unit Basin Number	Constituent (mg/L or as noted)															
			TDS	Cl	SO ₄	%Na	N&P	Fe	Mn	MBAS	B	ODOR	Turb NTU	Color Units	P			
SAN JUAN HYDROLOGIC UNIT		901.00																
Leguna	HA	1.10	1,000	400	500	60	=	0.3	0.05	0.5	0.75	none	20	20	1.0			
Mission Viejo	HA	1.20	800	250	250	60	=	0.3	0.05	0.5	0.75	none	20	20	1.0			
San Clemente	HA	1.30	500	250	250	60	=	0.3	0.05	0.5	0.75	none	20	20	1.0			
San Mateo Canyon	HA	1.40	500	250	250	60	=	0.3	0.05	0.5	0.75	none	20	20	1.0			
San Onofre	HA	1.50	500	250	250	60	=	0.3	0.05	0.5	0.75	none	20	20	1.0			
			750	300	300	60	=	0.3	0.05	0.5	0.75	none	20	20	1.0			
			500	250	250	60	=	0.3	0.05	0.5	0.75	none	20	20	1.0			
			750	250	250	60	=	0.3	0.05	0.5	0.75	none	20	20	1.0			
			750	250	250	60	=	0.3	0.05	0.5	0.75	none	20	20	1.0			
			750	300	300	60	=	0.3	0.05	0.5	0.75	none	20	20	1.0			
			500	250	250	60	=	0.3	0.05	0.5	0.75	none	20	20	1.0			
			500	250	250	60	=	0.3	0.05	0.5	0.75	none	20	20	1.0			
			750	300	300	60	=	0.3	0.05	0.5	0.75	none	20	20	1.0			
			500	250	250	60	=	0.3	0.05	0.5	0.75	none	20	20	1.0			
			750	300	300	60	=	0.3	0.05	0.5	0.75	none	20	20	1.0			
			750	300	300	60	=	0.3	0.05	0.5	0.75	none	20	20	1.0			
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			750	300	300	60	=	0.3	0.05	0.5	0.75	none	20	20	1.0			
			750	300	300	60	=	0.3	0.05	0.5	0.75	none	20	20	1.0			

(notes following the table):

Establishes
Water Quality
Objectives

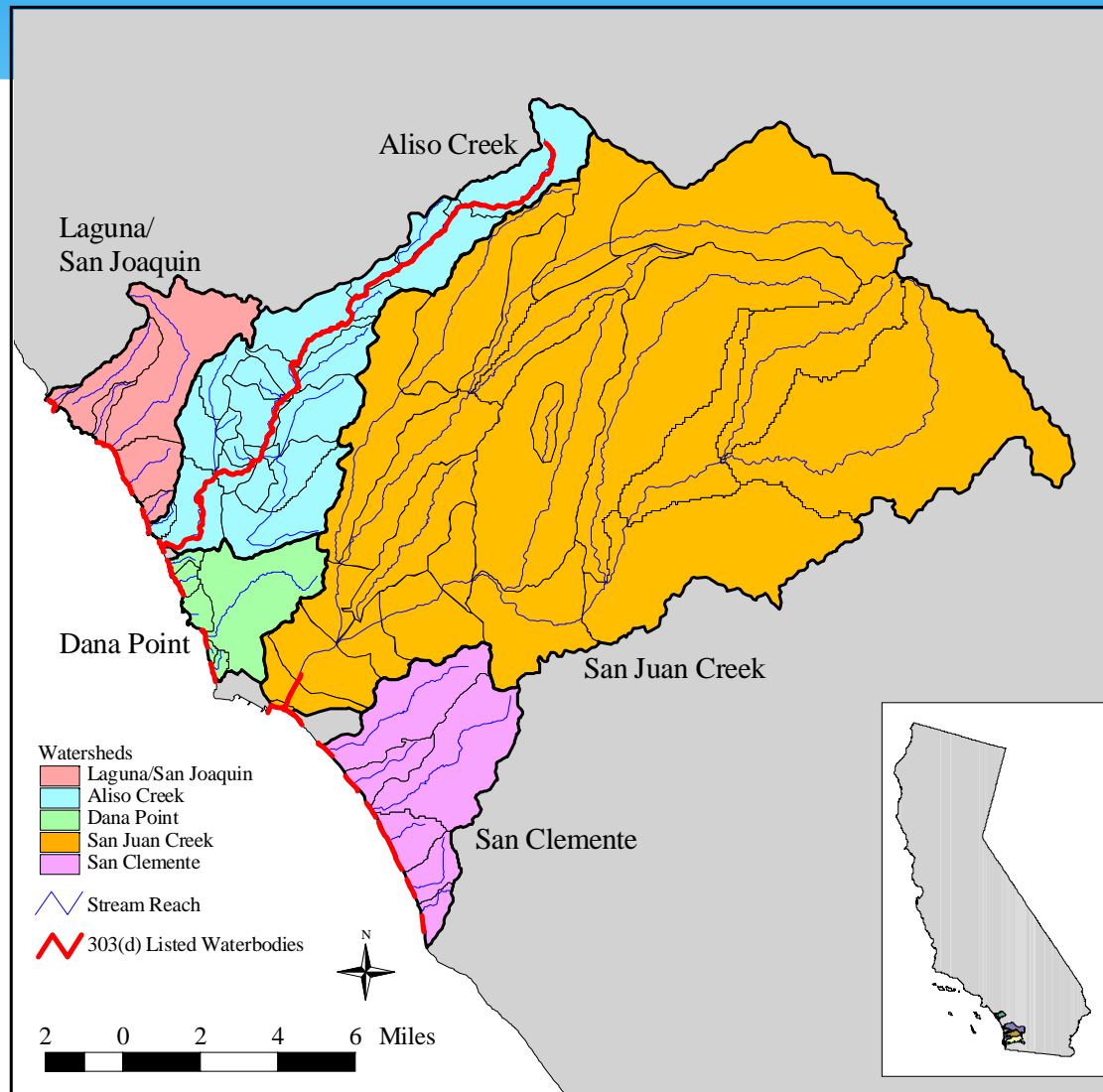
Establishes
Implementation
Plans

WDR's & NPDES
401 CERTS
WAIVERS
TIME SCHEDULES
ENFORCEMENT

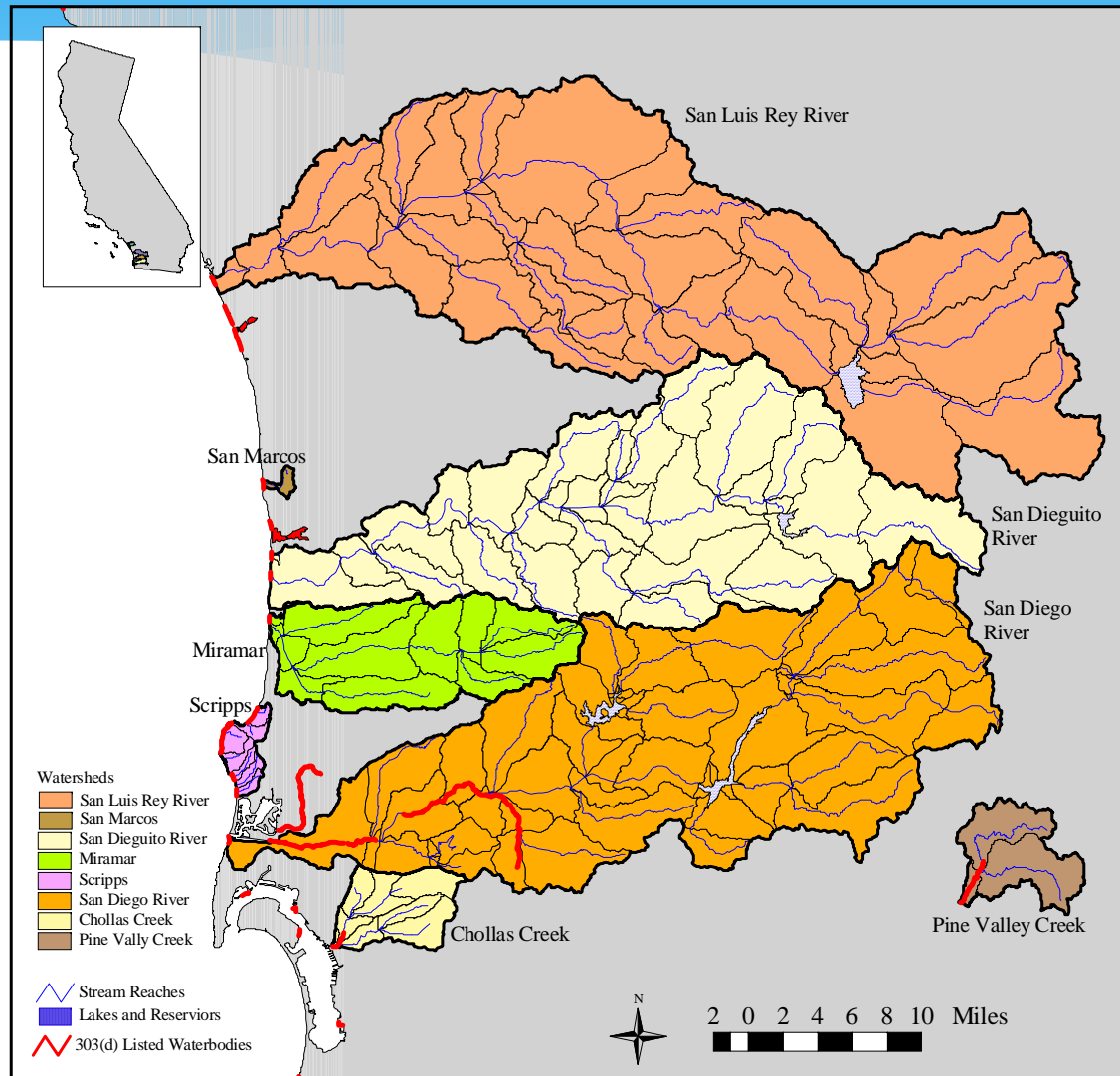
Basin Plan Triennial Review

- * Helps identify areas that may need updating
- * Completed in May 2015
- * 4 Priority Issues
 - * Issue 3 - Evaluation of Contact Water Recreation (REC-1)
Water Quality Objectives and the Methods for
Quantifying Exceedances

Twenty Beaches and Creeks TMDL for Bacteria Orange County Watersheds



Twenty Beaches and Creeks TMDL for Bacteria San Diego County Watersheds





Cost Benefit Analysis (CBA) Primer

General CBA Overview

- * Foundational Components
- * Common Methods for Monetizing Benefits
- * Common Methods for Monetizing Costs

Foundational Components

- * Use of Common Units (e.g., Money)
- * Expression of Units at a Particular Time
- * Evaluation of Alternatives
- * Definition of the Study Area
- * Elimination of Double Counting

Methods for Monetizing Benefits

- * Cost of Illness
 - * Measures the direct and indirect costs resulting from a health effect
- * Expressed Preference
 - * Surveys directly asking an individuals' WTP or asking to choose among alternatives
- * Averting Action
 - * Costs of behaviors taken by individuals to avoid health risks

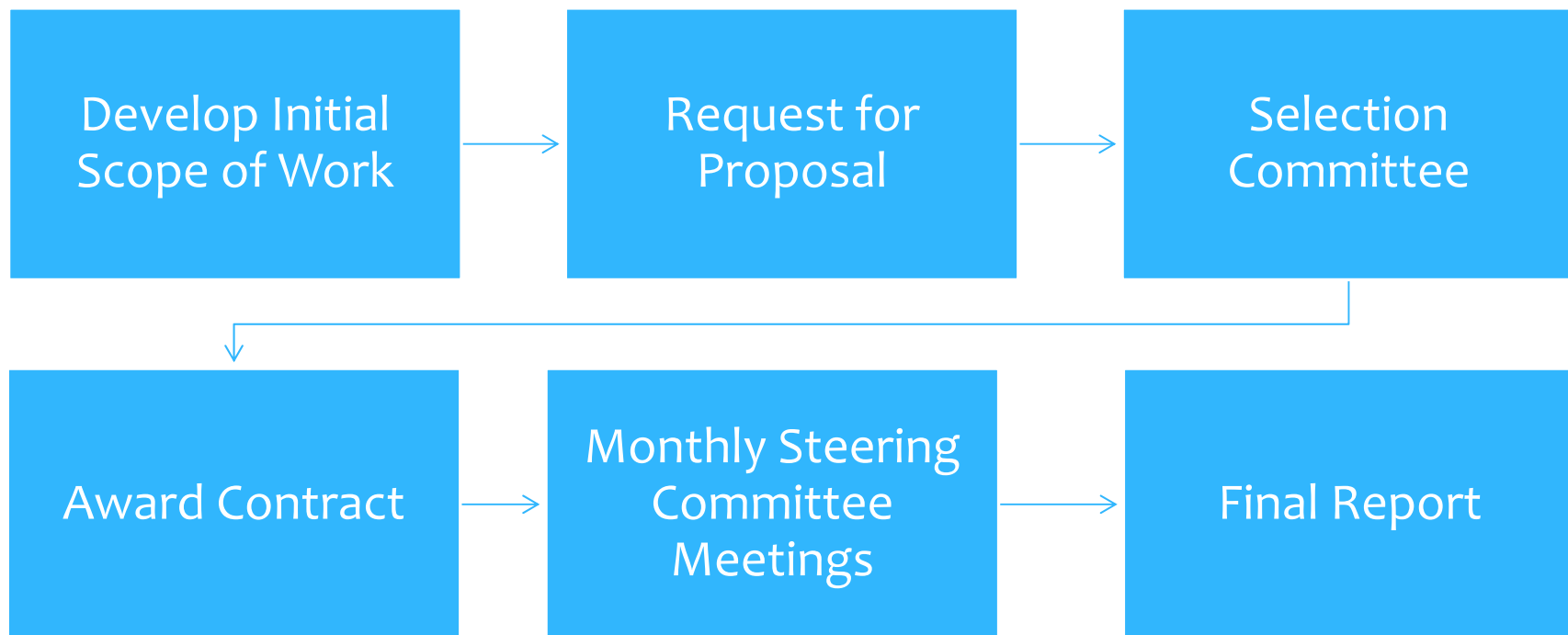
Methods for Monetizing Benefits-Continued

- * Hedonic
 - * Economic values for ecosystem or environmental services that directly affect market prices
- * Travel Cost Model
 - * Travel and time costs associated with a recreator's choice among a set of unique recreation sites
- * Market-Based Model
 - * Increased cost of producing goods or services

Methods for Monetizing Costs

- * Costs are most commonly expressed in money
- * Advantages
 - * Most costs are already expressed in terms of money
 - * Costs can easily be obtained from reports
- * Disadvantages
 - * In some instances, additional non-monetary costs may be significant
 - * E.g., environmental costs related to increased CO₂ emissions
 - * Use the most appropriate of the methods outlined for monetizing benefits to monetize these costs

CBA Process



Steering Committee Members

- * City of San Diego - Drew Kleis and Jeff VanEvery
- * County of Orange - Chris Crompton
- * County of San Diego - Todd Snyder
- * San Diego River Park Foundation – Rob Hutsel
- * San Diego Tax Payers Association - Chris Clark
- * San Diego Water Board – Jimmy Smith
- * USEPA – Cindy Lin and David Smith



Public Comments

Contact Information

Michelle Mata
San Diego Water Board
Water Resource Control Engineer
Michelle.Mata@waterboards.ca.gov
(619) 521-3369