

Public Health Costs—Orange County

Excess cases of gastrointestinal illness from swimming at bacteria-contaminated beaches

- Direct Cost: \$ 6.7 million to \$16 million/year (over 20 years = \$134 M to \$320M)
- Value of not getting sick: \$56 million and \$136 million/year (20 years = \$1 Billion - \$2.7 Billion)

Pendleton et al., 2006



Beach Closures

A hypothetical closure of Huntington Beach due to poor water quality:

- One day = losses of \$100,000
- One month = losses of \$3.5 million
- Three months (summer season) = economic losses of \$9 million



Hanemann, M., L. Pendleton, and C. Mohn (November 2005) Welfare Estimates for Five Scenarios of Water Quality Change in Southern California. A Report from the Southern California Beach Valuation Project, at 7-8



What is the breakdown
and timeframe
of the costs?



San Diego River

- Cost opinions “contain considerable uncertainties”
- “The budget forecasts... are order-of magnitude estimates.”

CLRP at 113

- “Cost estimates should be considered planning-level only.”

CLRP at 116

San Diego River

- Cost range from \$590 M to \$ 1.3 Billion
- Includes “Private Property BMPs” ranging in cost from \$216 M to \$360 M
- Private Party BMPs “are an *optional strategy* and may be considered at the discretion of the individual jurisdictions only if needed to meet load reduction targets.”
- Most expensive element of program at lower cost.
- Without Private Property: \$374 M -\$940M

CLRP at 114



San Diego River

Land costs for Private Party BMPs

- Based on LA County land prices from 2008
- Discounted to 2005 prices
- 2011 prices assumed to be same as 2005 prices

Structural BMP costs

- Structural BMP Prioritization & Analysis Tool developed for LA
- Add in a cost multiplier, 2.0 and 4.0



San Diego River

Nonstructural BMP Costs

- Largely based on number of staff hours
- Copermittees made the estimates
- Large potential savings if volunteers used
 - Pet waste: \$100/yr vs. \$100/month
- Did not solicit information from stakeholder groups that could implement programs



Chollas Watershed

- Costs not given in a range, no upper/lower limit (see Supporting Doc. 7)
- Costs include \$9.6 million for landscape practices, \$2 million for outreach
- What about program elements with multiple benefits?

