ADEQ Arizona Department of Environmental Quality

# FACT SHEET

## Santa Cruz River Total Maximum Daily Load - March 2009

### WHAT IS A TOTAL MAXIMUM DAILY LOAD?

Total Maximum Daily Load (TMDL) is a term used to describe the amount of a pollutant that a stream or lake can receive and still meet water quality standards. A TMDL study identifies sources of pollution and potential reductions needed to attain standards. **Point sources** (such as municipal or industrial discharges) and **nonpoint sources** (such as runoff from urban or agricultural lands and natural background) are considered in calculating the TMDL. The study must also account for seasonal variation and include a margin of safety.

### WHY DO WE PREPARE A TMDL?

The objective of the federal Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. To fulfill this objective, states assess their surface waters and identify which waters do not meet state surface water quality standards. A TMDL must be completed for each pollutant "impairing" (i.e., not meeting surface water quality standards) these water bodies.

### TMDL STUDY AND IMPLEMENTATION

The TMDL study will examine the source(s) and the extent of the water quality impairment, providing the appropriate information necessary for planning implementation actions designed to achieve surface water quality standards. Whereas the TMDL study establishes a pollution budget for an impaired surface water, the accompanying TMDL implementation plan provides an action plan outlining the affordable, efficient, and effective alternatives to restore water quality.

During both the TMDL study and implementation planning processes, the Arizona Department of Environmental Quality (ADEQ) involves stakeholders by coordinating public meetings and encouraging comments and input. Additionally, ADEQ will help stakeholders identify funding sources (such as Water Quality Improvement Grants) that can help pay for water quality improvements.

### SANTA CRUZ RIVER TMDL BACKGROUND

The Santa Cruz River is located in southern Arizona and northern Mexico within the Basin and Range Province. Its headwaters originate in the San Rafael Valley between the Coronado National Forest's Canelo Hills to the north, the Patagonia Mountains to the west and the Huachuca Mountains to the east. The Santa Cruz River flows south for approximately 14 miles to the Mexico border near Lochiel, Arizona. After entering Mexico the river continues south, but then turns 180 degrees to the north, and re-enters the U.S. 5 miles east of Nogales. The river continues on a northerly route to its confluence with the Gila River, just northwest of Maricopa, Arizona. The current surface water quality standards developed for the Santa Cruz River segment considered in this document are intended to protect the River's designated uses: Aquatic and Wildlife warm water (A&Ww), Full Body Contact (FBC), Domestic Water Source (DWS), Fish Consumption (FC), Agricultural Irrigation (AgI), and Agricultural Livestock Watering (AgL).

Assessment of Santa Cruz River water quality data has concluded that pollutant loadings of *Escherichia coli (E. coli)* exceed surface water quality standards. Two stream reaches have been listed on Arizona's 2006/2008 303(d) list of impaired waters. The Santa Cruz River TMDL will examine the reach from the Mexico border to the Nogales International Waste Water Treatment Plant (NIWWTP) for *E. coli* exceedances. Concurrently, the Nogales Wash TMDL will examine the reach from the Mexico border to Potrero Creek for *E. coli*, ammonia, chlorine, and dissolved copper exceedances.

### FOR MORE INFORMATION

ADEQ encourages interest and involvement in the Santa Cruz River TMDL study. For more information on TMDL studies, please refer to the ADEQ Web site: www.azdeq.gov/environ/water/assessment/tmdl.html

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Publication Number: FS 09-02