

## **JULY 1997: THE CALIFORNIA TOXICS RULE (CTR)**

**PUBLIC HEARINGS ON THE U.S. EPA'S PROPOSED  
WATER QUALITY CRITERIA FOR PRIORITY TOXIC POLLUTANTS:  
SAN FRANCISCO: Sept. 17th, 1:00 p.m., U.S. EPA, 75 Hawthorne St.  
LOS ANGELES: Sept. 18th, 1:00 p.m., LA Dept. of Water & Power,  
111 N. Hope St. (across from the LA Music Center)**

**FOR A COPY OF THE CTR, VISIT U.S. EPA'S WEBSITE AT:  
<http://www.epa.gov/OST/Rules/index.html#open>**

The U.S. Environmental Protection Agency (U.S. EPA) implements the objectives of the Clean Water Act, one of which is to restore and maintain the quality of our nations' waters to protect human health and aquatic life from harmful pollutants. The U.S. EPA will propose water quality criteria for priority toxic pollutants for the State of California in the Federal Register during the week of July 28th. The Agency will then take public comment on its proposal. This proposed rule will, when finalized, establish ambient water quality criteria for priority toxic pollutants for California inland surface waters, enclosed bays and estuaries.

**BACKGROUND:** The Clean Water Act (CWA) requires that states adopt water quality standards for priority toxic pollutants in order to ensure adequate protection of waters for certain uses such as swimming and fishing. The State of California adopted statewide water quality control plans for inland surface waters, enclosed bays and estuaries in 1991, partly to satisfy this CWA requirement; however, a state court, in 1994, overturned the State's plans on procedural grounds. California is the only state in the nation that lacks comprehensive water quality standards

for priority toxic pollutants. The U.S. EPA and the State are currently working to restore water quality standards for priority toxic pollutants for those California water bodies: the U.S. EPA is now proposing water quality criteria, and the State will soon be proposing implementation procedures to ensure that the resulting water quality standards will be appropriately and consistently applied throughout the State.

After the State adopts implementation procedures, it plans to begin the process of readopting comprehensive statewide water quality control plans for inland surface waters, enclosed bays and estuaries. After such plans are adopted, the U.S. EPA will review and approve, as appropriate, the State's plans. The U.S. EPA intends to stay the CTR when State criteria are developed and approved.

**WHAT IS A PRIORITY TOXIC POLLUTANT?** The CWA at section 307(a) identifies the initial list of priority toxic pollutants. This section gives the U.S. EPA the authority to add or remove pollutants from the list after taking into account such factors as the toxicity of the pollutant, its persistence, its degradability, and its effect on

organisms. The list is currently comprised of 126 chemicals such as heavy metals (e.g., mercury, lead), dioxin, PCBs, pesticides, and chlorinated organic compounds.

**WHAT IS AN AMBIENT WATER QUALITY STANDARD?** Ambient water quality standards consist of two parts: water quality criteria and designated uses (under State law, water quality objectives and beneficial uses, respectively). A designated use is a water body's use which the State intends to protect through the control of pollutants in the water body, e.g., recreation, industrial supply, fishing, and agricultural supply. A criterion is generally a pollutant limit for a given chemical which is established to protect a particular designated use. For example, for a designated use of fishing, the pollutant mercury has a criterion value of 0.051 micrograms per liter. Thus, the water quality standard for mercury for a water body with a designated use of fishing would be 0.051 micrograms per liter, the maximum allowable ambient level of mercury that the Agency believes is safe for people who consume fish caught from that water body.

In the State of California, the Regional Water Quality Control Boards have adopted designated uses for each of their respective water bodies in each of their Regional Basin Plans. As a result of the state court's 1994 action, however, the State lacks a complete set of numeric water quality criteria for priority toxic pollutants to protect those designated uses. The U.S. EPA, in the CTR, will promulgate water quality criteria for priority toxic pollutants for designated uses of aquatic life

protection and for human health (organism and water consumption, and organism only consumption). Together, the designated uses from the State's Regional Basin Plans, and the criteria in the CTR, will create a set of ambient water quality standards for priority toxic pollutants for California inland surface waters, enclosed bays and estuaries.

**HOW WILL AMBIENT WATER QUALITY STANDARDS BE USED?**

The ambient water quality standards which will result from the criteria in the CTR will be used to calculate permit limits for point source dischargers such as industrial and municipal facilities in National Pollutant Discharge Elimination System (NPDES) (or "point source") permits. These ambient water quality standards will also be used to assess "Best Management Practices" (BMPs) for nonpoint source and wet weather discharges such as agricultural and urban runoff. BMPs are practices or techniques which are implemented to reduce pollution caused by runoff.

**WHAT IS U.S. EPA'S SCHEDULE?**

The U.S. EPA will publish the proposed criteria in the Federal Register during the week of July 28th. The CTR can be found on the Internet through U.S. EPA's Office of Water Homepage. A 50-day public comment period will follow with a public hearing in San Francisco, Sept. 17th at 1:00 p.m., 75 Hawthorne Street, and in Los Angeles, Sept. 18th at 1:00 p.m., 111 N. Hope St. The U.S. EPA will respond to comments and finalize the rule shortly thereafter. For information, call or write to: Diane Frankel, P.E., Esq., 415 744-2004, U.S. EPA R9, 75 Hawthorne Street (WTR-5), San Francisco, CA 94105.

## THE U.S. EPA'S ECONOMIC ANALYSIS

The U.S. EPA is releasing an Economic Analysis (EA) to accompany the CTR. This EA estimates the costs and benefits associated with implementation of CTR criteria. However, a more accurate estimate of costs and benefits can be made when it is known how the State will implement the resulting water quality standards. California will be proposing statewide implementation procedures and releasing a corresponding economic analysis in the near future.

**SCOPE:** The EA estimates the costs and benefits to National Pollutant Discharge Elimination System (NPDES) point sources such as publicly owned treatment works and industrial facilities that discharge to California inland surface waters, enclosed bays and estuaries. The study analyzes NPDES point sources that may be subject to numeric water quality-based effluent limits (WQBELs) calculated using CTR-based water quality standards. The estimated benefits are those that may occur as a result of associated loading reductions.

CTR-based water quality standards, when implemented, may have an indirect effect on sources of pollution not permitted under the NPDES (e.g., agricultural runoff) or currently subject to numeric WQBELs (e.g., urban runoff and most inactive mines). The State generally requires that BMPs and watershed planning be used to control these sources. The EA did not quantify the indirect impacts from these sources.

**COSTS:** The U.S. EPA used two models: the first used a baseline that

resulted in no incremental impact. Under this model, it is assumed that in the absence of the rule the State would rely on narrative toxicity standards to establish numeric WQBELs. The limits could be based on the same information upon which the CTR criteria are based. Thus, under this scenario, no impacts would occur, since it is presumed that the State would implement roughly equivalent numeric WQBELs.

The second model generally uses a baseline of either current effluent concentrations or current permit limits to develop a low- and high-cost scenario, respectively. In addition, the low-cost scenario assumes that dischargers will have greater regulatory flexibility than the high-cost scenario. Under this model, the U.S. EPA estimated a range of annual costs of **\$14.9 to \$86.6 million**.

Actual costs will probably approach the low-end, since implementing authorities are likely to choose options that provide flexibility to dischargers. Cost estimates may be overstated, as the analysis tended to use conservative assumptions to calculate CTR-based permit limits and baseline loadings.

**BENEFITS:** Benefits were categorized as either use or passive (nonuse) benefits depending on whether they involve direct use or contact with the resource. The most prominent use benefits are those related to recreational fishing, boating, and swimming. Another important use benefit is human health risk reduction. This can be realized through actions that reduce human exposure to contaminants such

as exposure through consumption of fish containing elevated levels of pollutants. Passive benefits are improvements in environmental quality that are valued apart from any use.

Under the second model, total monetized annual benefits were estimated to be between **\$1.5 to \$51.7 million**. Many categories of benefits were not quantified or monetized, such as: improvements in water related (in-stream/near stream) recreation apart from fishing, such as boating, swimming, and picnicking; improvements in human health resulting from reduction of non-cancer risks; and improvements in consumptive and nonconsumptive land-based recreation such as hunting and wildlife observation. Therefore, actual benefits are expected to be significantly larger than the estimate of monetized benefits.

**COMPARISONS:** A comparison of estimated annualized costs to benefits shows that the benefits range overlaps the cost range, and the values are similar in magnitude. Annualized costs range from \$14.9 to \$86.6 million, and annualized monetized benefits range from \$1.5 to \$51.7 million. However, since the U.S. EPA used a number of assumptions that may have overstated costs and omitted benefits categories, benefits and costs are likely to be more commensurate than indicated here.

**FOR MORE INFORMATION:** Call or write: for the EA, Matt Mitchell, 415 744-2007; for the CTR, Diane Frankel, 415 744-2004; U.S. EPA, 75 Hawthorne Street (WTR-5), San Francisco, CA 94105. A copy of the EA may be downloaded from the U.S. EPA's website at: <http://www.epa.gov/OST/Rules/index.html#open>.

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