

WEST BASIN MUNICIPAL WATER DISTRICT

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McDonald, Little

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INFORMATION CALENDAR

WATER QUALITY UPDATE  
COMPARISON OF STATE AND FEDERAL DRINKING WATER STANDARDS

SUMMARY:

California has the most stringent drinking (tap) water standards in the United States, and possibly the world. These standards, established by both the State and Federal government, regulate water quality both at the source and within the distribution system. The defacto or minimum standard that each individual state must comply with for public drinking water systems are those set by the United States Environmental Protection Agency (USEPA). However, the State has primacy authority to establish even more stringent levels than the federal government. In most cases this does occur. In California, our standards are established by State Department of Health Services (DHS).

Some regulations are legally enforceable, such as Maximum Contaminant Levels (MCLs), while others are for advisory purposes only. California maintains reporting requirements for both enforceable and advisory water quality levels.

Maximum Contaminant Levels (MCLs)

An MCL is a legally enforceable water quality standard that has undergone thorough scientific, administrative and public review. MCLs are made up of two categories referred to as primary standards, which relate to health considerations, and secondary standards, which relate to the aesthetic condition of the water such as taste, odor or color. The USEPA allows each state the option to legally enforce secondary MCLs, which California has adopted.

Cancer vs. Non-Cancer Levels

Primary or health based standards are set for cancer and non-cancer levels. The standards for cancer based levels begin with a theoretical cancer risk of 1 in 1 million by drinking 2 liters of water per day over an entire 70-year lifetime. DHS then may refine that level based on its prevalence, occurrence and treatment costs.

Non-cancer or acute levels are regulated to ensure safety to an immediate health risk to a contaminant, such as consuming high doses over a very short period. Comparing non-cancer to cancer limits is similar to comparing short-term risks versus long-term risks. This is analogous to a lethal drug overdose as compared to the risk of years of cigarette smoking. Because of this, non-cancer or acute levels are generally set at higher levels than cancer levels.

Action Levels

In addition, California DHS sets limits referred to as Action Levels. These levels are health based advisory levels for chemicals that do not have an MCL, but may have been found at or near a drinking water source. The levels are not enforceable, but in certain instances, exceedances of an Action Level may require public notification and depending on the degree of contamination, possible removal of that drinking water source from service. In water quality jargon, these are referred to as "quasi-standards".

