Staff Report of the

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

CENTRAL VALLEY REGION

# A Compilation of WATER QUALITY GOALS

*May 1993*

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REPORT PREPARED BY:
JON B. MARSHACK, D. ENV.
Senior Environmental Specialist
Environmental/Technical Support Unit

# PREFACE TO THE MAY 1993 EDITION

This edition of *A Compilation of Water Quality Goals* supersedes the September 1991 edition. ***The September 1991 edition and all earlier editions should be discarded, as they contain outdated information.*** The new edition contains information that is current as of mid May 1993.

Many significant changes have been incorporated into this edition of *Water Quality Goals*. Newly added are numerical water quality limits contained in or derived from:

- Draft Recommended Public Health Levels (RPHLs) for Contaminants in Drinking Water from the California Department of Health Services;
- Taste and odor thresholds for several petroleum hydrocarbon mixtures and components;
- Reference doses and cancer potency factors contained in the Integrated Risk Information System (IRIS) database, maintained by the U. S. Environmental Protection Agency; and
- Criteria for Carcinogens, cancer potency factors published by the California Environmental Protection Agency (Cal/EPA), Office of Environmental Health Hazard Assessment (OEHHA).

Also included are revisions to many other numerical water quality limits:

- Federal drinking water standards Maximum Contaminant Levels (MCLs), including the Phase V Rule from U. S. EPA;
- Health Advisories from U. S. EPA;
- California Proposition 65 No-Significant-Risk Levels from Cal/EPA, OEHHA;
- Proposed amendments to numerical Water Quality Objectives for Inland Surface Waters and Enclose Bays and Estuaries from the California State Water Resources Control Board; and
- The National Toxics Rule, which amended several National Ambient Water Quality Criteria for surface waters under the Clean Water Act, from U. S. EPA.

To accommodate all of these changes, the format of the Water Quality Goals tables has been modified and expanded. Numerical water quality limits for a single constituent or parameter are now found on five consecutive pages, making comparison of limits easier. The narrative "Selecting Water Quality Goals" has also been updated and expanded to cover the newly added categories of numerical limits.

***To use this manual correctly, it is necessary to read the enclosed narrative "Selecting Water Quality Goals" carefully before selecting numerical water quality limits from the tables.*** An example of water quality goal selection is included in that narrative.

Additional copies of the May 1993 edition of *A Compilation of Water Quality Goals* are available in person or by mail from the reception desk in the Sacramento Office of the California Regional Water Quality Control Board, Central Valley Region, 3443 Routier Road, Suite A, Sacramento, CA 95827-3098. Public agencies may receive copies free of charge, with the allowable number of copies per agency based on current supply. Private entities may receive the report for $21.00 per copy, shipping and handling included. Payment, if applicable, must accompany all requests. Checks are to be made payable to the Central Valley Regional Water Quality Control Board.

If you have questions regarding the *Water Quality Goals* staff report, feel free to contact me at (916) 255-3123 or CALNET 8-494-3123.

— *Jon B. Marshack*



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# USING THIS MANUAL

The remainder of this manual is divided into six sections:

- Selecting Water Quality Goals
- Cross Reference of Chemical Names
- Water Quality Goals — Inorganic Constituents
- Water Quality Goals — Organic Constituents
- Footnotes
- References

**Selecting Water Quality Goals** describes the process by which numerical limits for water quality parameters and constituents may be selected to protect beneficial uses of the ground and surface waters. A glossary of commonly used terms is included at the end of this section.

***To avoid incorrect use of this manual, the author strongly recommends that the narrative "Selecting Water Quality Goals" be carefully reviewed.***

The **Cross Reference of Chemical Names** provides an alphabetical listing of synonyms for the chemical constituents and parameters covered by this manual. Many chemical constituents are commonly referred to by more than one name. To find numerical water quality limits in this manual for a particular constituent or parameter, first look up its name in the Cross Reference section to determine whether the constituent is organic or inorganic and which name is used in the Water Quality Goals sections of this manual.

The next two sections contain tables of numerical **Water Quality Goals** for **Organic Constituents** (those chemicals whose chemistry is dominated by the chemistry of the carbon atom) and **Inorganic Constituents** (all other chemicals and parameters). Within these sections, numerical limits for each constituent are presented on five consecutive pages. It takes this many pages to cover the wide range of water quality numerical limits available. Therefore, be sure to review all five pages before selecting numerical limits for a particular constituent or parameter.

The numerical value of some water quality limits vary with the hardness, temperature, pH, or other characteristics of the waters to which they are applied. These variable limits for the protection of aquatic life from ammonia, heavy metals, and pentachlorophenol are presented in special tables and graphs at the end of the two Water Quality Goals sections.

Many listings in the tables are followed by footnotes in parentheses. These **Footnotes**, found on the second to the last page of this manual, explain how the numerical water quality limits apply, or provide other useful information.

**References** for the numerical water quality limits are provided on the last page of this manual, divided by topics which correspond to column headings in the Water Quality Goals tables.

# SELECTING WATER QUALITY GOALS

California is a state that is significantly limited by the availability and quality of its water resources. Improper waste management practices and contaminated sites pose significant threats to the quality of California's usable ground and surface water resources. The purpose of this narrative is to introduce California's water quality standards and to outline a system for selecting numerical water quality limits, consistent with these standards, that may be used to assess impacts from waste management activities and pollutant releases on the quality of waters of the state and the beneficial uses of these waters.

To determine whether a particular waste management activity or pollutant release has caused or threatens to cause water quality degradation or pollution, staff of the Regional Water Quality Control Boards must apply California's water quality standards, contained in the *Water Quality Control Plans*, to select applicable numerical water quality limits for each pollutant involved. At concentrations equal to or greater than these numerical limits, California's water quality standards have been exceeded and the pollutants are considered to have adversely impacted the quality of waters of the state.

## CALIFORNIA'S WATER QUALITY CONTROL SYSTEM

Because it is a water-limited state, California possesses a unique system for the protection and control of the quality of its most valuable resource. Our present system of water quality control was established in 1969, with the adoption, by the legislature, of the Porter-Cologne Water Quality Control Act. Found in Division 7 of the California Water Code, the Porter-Cologne Act is implemented by the State Water Resources Control Board and nine Regional Water Quality Control Boards.

The State Water Board carries out its water quality protection authority through the adoption of specific *Water Quality Control Plans*, which establish water quality standards for particular bodies of water, comprised of the beneficial uses of these waters and water quality objectives designed to protect those uses. Implementation programs needed to achieve and/or maintain the water quality objectives are also addressed in these plans. Existing *Water Quality Control Plans* adopted by the State Water Resources Control Board include:

- The Inland Surface Waters Plan
- The Enclosed Bays and Estuaries Plan
- The Ocean Plan
- The Thermal Plan (temperature control in coastal and interstate waters and enclosed bays and estuaries)
- The Delta Plan (Sacramento-San Joaquin Delta and Suisun Marsh)
- The Lake Tahoe Basin Water Quality Plan

The State Water Board also adopts enforceable policies for water quality control and regulations to protect water quality from discharges of waste to water or to land, where water quality could be affected.

To account for the great diversity in California's waterscape, the Porter-Cologne Act separates the state, along major drainage divides, into nine Water Quality Control Regions. [See the map on the inside back cover of this manual.] Nine Regional Water Quality Control Boards act to protect water quality within these regions through the adoption of region-specific *Water Quality Control Plans* or "Basin Plans". The Basin Plans contain water quality standards which are specific to waters within a particular region or part thereof. As with the State Water Board's *Water Quality Control Plans*, implementation programs are also included in the Basin Plans.

Through the issuance of waste discharge requirements (permits), water quality monitoring and reporting programs, and other enforceable orders, the State and Regional Water Boards implement the state-wide and regional *Water Quality Control Plans*, policies for water quality control, and regulations. The State and Regional Water Boards also administer most of the federal clean water laws in California.

The State and Regional Water Boards' water quality control programs are geared toward the prevention of water pollution and nuisance. The Porter-Cologne Act defines "pollution" as "an alteration of the quality of the waters of the state by waste

## Sources of Drinking Water Policy

Also included within California's system of water quality standards are the "policies for water quality control" adopted by the State Water Board and incorporated into each of the Basin Plans. One such policy is critical to the designation of beneficial uses.

In 1988, the State Water Board adopted Resolution No. 88-63, the "Sources of Drinking Water" policy. This policy specifies that, except under specifically defined circumstances, all surface and ground waters of the state are to be protected as existing or potential sources of municipal and domestic supply, unless this beneficial use is explicitly de-designated in a *Water Quality Control Plan*. The specific circumstances include waters with existing high total dissolved solids concentrations (greater than 3000 mg/l), low sustainable yield (less than 200 gallons per day for a single well), waters within particular municipal, industrial and agricultural wastewater conveyance and holding facilities, and regulated geothermal ground waters. The application of one or more of these exemptions to remove the municipal and domestic supply designation for a particular body of water requires a formal Basin Plan amendment and a public hearing by the appropriate Regional Water Board.

## Water Quality Objectives

The second component of California's water quality standards are water quality objectives. The Porter-Cologne Act defines "water quality objectives" as "the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area."

Water quality objectives designed to protect beneficial uses and prevent nuisance are also found in the *Water Quality Control Plans*. As with beneficial uses, water quality objectives are stated either for specific bodies of water, such as the Sacramento River between particular points, or for surface waters or ground waters throughout a specific basin or region.

Water quality objectives may be stated in either numerical or narrative form. Where numerical objectives are listed in the *Water Quality Control Plans*, their values become the numerical water quality limits for the indicated constituent(s) or parameter(s) to protect beneficial uses of the specified body of water. However in many cases, water quality objectives are stated in narrative form. Examples of narrative objectives, delineated in the Central Valley Region's *Water Quality Control Plan for the Sacramento River, Sacramento-San Joaquin Delta and San Joaquin River Basins*, include:

- Chemical Constituents —

  "Ground waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses.

  "Ground waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels specified in California Code of Regulations, Title 22, Division 4, Chapter 15. [California's drinking water standards.]

  "Ground waters designated for use as agricultural supply (AGR) shall not contain concentrations of chemical constituents in amounts that adversely affect such beneficial use."
- Tastes and Odors —

  "Ground waters shall not contain taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses."
- Toxicity —

  "All [inland surface] waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life."

The Central Valley Region's Basin Plans also contain water quality objectives for the following constituents and parameters:

- Bacteria
- Biostimulatory Substances
- Color
- Dissolved Oxygen
- Floating Material
- Metals
- Oil and Grease
- Pesticides
- pH
- Radioactivity
- Salinity
- Sediment
- Settleable Material
- Suspended Material
- Temperature
- Turbidity

Some are expressed as numerical objectives, while others are in narrative form.



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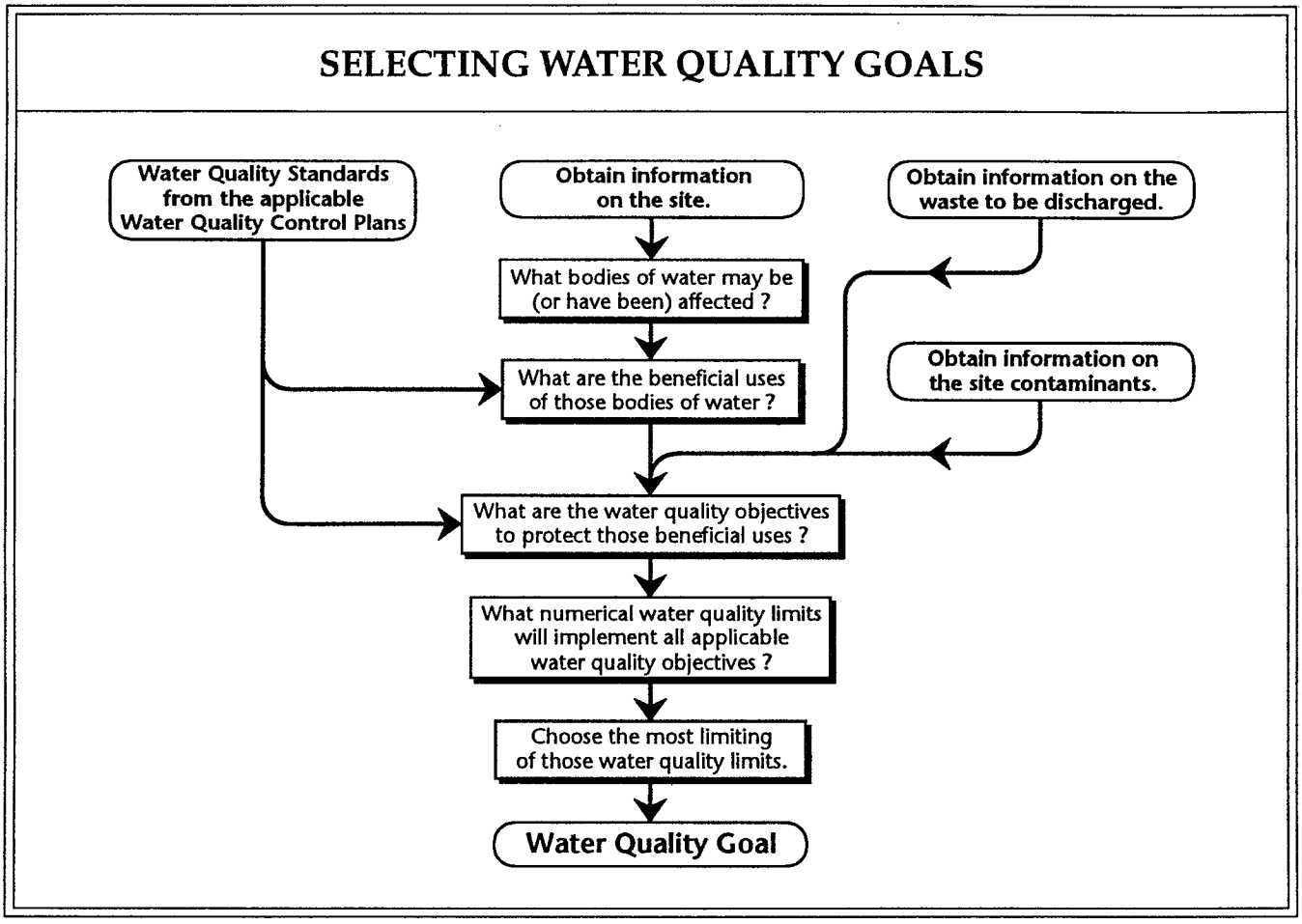


pollutant concentrations are the initial goal. If attainment of background concentrations is unachievable, cleanup levels must be set as close to background as technologically and economically feasible and must, at a minimum, restore and protect all applicable beneficial uses of waters of the state, as measured by the water quality objectives.

## Water Quality Goals

To determine whether a particular waste management activity or pollutant release has caused or threatens to cause water quality degradation (adverse change from background water quality) or pollution (degradation in excess of water quality objectives), staff of the Regional Water Quality Control Boards use California's water quality standards to determine applicable numerical water quality limits or "water quality goals" for the pollutants involved. "Water quality goals" are numerical pollutant concentrations, above which pollutants are considered to have adversely impacted the quality of waters of the state. The process of selecting water quality goals is shown in the above figure.

The first step in selecting water quality goals is to identify the ground and/or surface waters which have been or have the potential to be affected by the particular waste management activity or pollutant release. Under California's Antidegradation Policy, water quality goals are initially set equal to true background levels of water quality constituents and parameters in the body of water. Any discharge of waste that results in pollutant concentrations in excess of these water quality goals in the water body would indicate that water quality *degradation* has occurred.

If degradation has already occurred, water quality goals may also be selected so as to determine whether *pollution* has occurred or is threatened. In that case, water quality goals are set to implement all applicable water quality objectives for protection of the beneficial uses designated for the body of water in question. Applicable beneficial uses and water quality objectives to protect those uses are determined by referring to the

Act of 1986 for known human carcinogens and reproductive toxins. Prop. 65 made it illegal to discharge significant amounts of these chemicals to sources of drinking water. The "significant amounts" are adopted by the California Environmental Protection Agency (Cal/EPA), Office of Environmental Health Hazard Assessment (OEHHA) into Title 22 of CCR, Division 2, Chapter 3. For carcinogens, No-Significant-Risk Levels (NSRLs) are set at the one-in-100,000 ($10^{-5}$) incremental cancer risk level. $^{1}/_{1000}$ of the No-Observable-Effect Level (NOEL) is used for reproductive toxicants. These Prop. 65 limits are established as a dose in units of micrograms per day of exposure (µg/d). These limits are converted into regulatory levels in water by assuming 2 liters per day water consumption and 100 percent exposure to the chemical from drinking water, under regulations contained in Title 22 of CCR, §§12721 and 12821.

**National Ambient Water Quality Criteria —**

These criteria are published by U. S. EPA under the Clean Water Act to protect human health and welfare and freshwater and marine aquatic life. No-Adverse-Effect Levels are presented for non-carcinogens. Incremental cancer risk estimates for carcinogens are given at the $10^{-5}$, $10^{-6}$, and $10^{-7}$ (one-in-ten-million) risk levels. Organoleptic levels are provided for some chemicals. Freshwater and saltwater aquatic life criteria and toxicity information are included. These criteria are found in:

- *Quality Criteria for Water, 1986* — the "Gold Book";
- the *Ambient Water Quality Criteria* volumes (1980, 1984, 1986, 1987, and 1989);
- *Quality Criteria for Water (1976)* — the "Red Book"; and
- *Water Quality Criteria, 1972* — the "Blue Book".

In December 1992, U. S. EPA promulgated the "National Toxics Rule" (57 Federal Register, No. 246), which updated many of these criteria and made them directly applicable to surface waters in many states.

**Health Advisories and Water Quality Advisories —**

These advisories are published by U. S. EPA's Office of Water. Short-term (10 days or less), long-term (7 years or less), and lifetime exposure health advisories for non-carcinogens and suspected human carcinogens are included where data sufficient for derivation of the advisories exist. Incremental cancer risk estimates for known and probable human carcinogens are also included. Some Water Quality Advisories also contain aquatic life criteria.

**Suggested No-Adverse-Response Levels (SNARLs) —**

These human health-related criteria are published by the National Academy of Sciences in the *Drinking Water and Health* volumes. [U. S. EPA's health advisories were formerly published as SNARLs.] SNARL values do not reflect the cancer risk that may be posed by these chemicals. Incremental cancer risk estimates are presented separately for carcinogens.

Other sources of water quality goals include:

- *Water Quality for Agriculture,* published by the Food and Agriculture Organization of the United Nations in 1985, which contains criteria protective of agricultural uses of water.
- *Water Quality Criteria,* written by McKee and Wolf and published by the State Water Resources Control Board in 1963 and 1978, which contains criteria for human health and welfare, aquatic life, agricultural use, industrial use, and various other beneficial uses. More recently, this document has been available from the National Technical Information Service (NTIS) as Publication No. PB 8218824.
- The California Department of Fish and Game, which can also supply criteria for fish and wildlife protection.

Many of these numerical water quality limits and the numerical water quality objectives from the State Water Board's state-wide *Water Quality Control Plans* are summarized in the tables and graphs which make up the remainder of this manual.

animal studies. In these studies, laboratory animals are exposed to a chemical at specific dose levels. U. S. EPA chooses one of two dose level results from these studies. The no observed adverse effect level (NOAEL) is the highest dose which caused no toxic effect to animals in the study. The lowest observed adverse effect level (LOAEL) is the lowest dose which did cause a measurable toxic effect in the study. The LOAEL is a higher dose than the NOAEL. Because the toxic dose of a chemical is usually related to the body weight of the animal studied, doses are often reported in units of milligrams of chemical per kilogram of body weight per day of exposure (mg/kg/day). Both NOAELs and LOAELs are reported in these units.

[1] $\text{Risk Level} = \text{Dose} \times \text{Potency Factor}$

[2] $\text{Dose (mg/kg/day)} = \text{Concentration (mg/l)} \times 2 \text{ liters/day} \div 70 \text{ kg}$

[3] $\text{Concentration (mg/l)} = \dfrac{\text{Risk Level} \times 70 \text{ kg}}{\text{Potency Factor} \times 2 \text{ liters/day}}$

[4] $\text{RfD} = \dfrac{\text{NOAEL}}{\text{Uncertainty Factor}}$

[5] $\text{DEWL} = \dfrac{\text{RfD} \times 70 \text{ kg}}{2 \text{ liters/day}}$

[6] $\text{Lifetime Health Advisory (mg/l)} = \dfrac{\text{DWEL} \times 20\% \text{ RSC}}{\text{Additional Uncertainty Factor}}$

U. S. EPA uses the NOAEL or LOAEL to calculate a reference dose or RfD for a chemical, using the equation [4] above. The uncertainty factor accounts for unknowns in the derivation of human risk levels from animal studies. The minimum uncertainty factor is 10, which accounts for the fact that some people (children, elderly, etc.) are more sensitive to toxic chemical exposure than is the average person. The minimum uncertainty factor is multiplied by additional factors of 10 for each of the following conditions, if they apply:

- Extrapolation from animal toxicity to human toxicity;
- Using a LOAEL in place of a NOAEL in equation [4] above;
- Using a dose (NOAEL or LOAEL) from a study which examined a less appropriate route of exposure to the chemical (the route of exposure most relevant to drinking water is ingestion);
- Using a dose from a study which exposed test animals for a period of time which is not a significant fraction of the animals' lifetime (subchronic exposure);
- Potential synergism among chemicals (the toxicity of two or more chemicals is greater than additive); and
- Any other toxicologic data gaps.

RfDs have the same units as the NOAELs and LOAELs from which they are derived, mg/kg/day. U. S. EPA's IRIS database contains reference doses for many threshold toxins.

The next step (equation [5] above) is the calculation of a drinking water equivalent level or DWEL from the reference dose. This step factors in an assumed average human body weight of 70 kilograms and the assumed average drinking water consumption rate of two liters per day.

One last step (equation [6] above) is required to turn the DWEL into a lifetime health advisory. Two additional factors are used. The first is the relative source contribution or RSC, which accounts for the fact that we are usually exposed to chemicals from sources other than in drinking water (in foods, in the air we breathe, etc.). The combined exposure from all sources forms the overall dose which may cause toxicity. The relative source contribution assumed by U. S. EPA for threshold pollutants is 20%. This means that 20% of the exposure is assumed to come from drinking water and 80% from all other sources combined. The second factor is an additional uncertainty factor, used to provide an extra margin of safety for those chemicals for which limited evidence of cancer risk exists (Class C carcinogens). This uncertainty factor is equal to 10 for Class C carcinogens, and 1 for chemicals in Classes D and E. As stated above, lifetime health advisories are not calculated for chemicals in Classes A and B.

for chemicals in ground waters where these limits are more stringent than MCLs for the same contaminants.

The Antidegradation Policy requires water quality goals to be set between background and beneficial use protective levels when feasible. Multiple waste dischargers in an area and the contribution to degradation of water quality imposed by each must be considered. If one discharger is permitted, through the discharge of waste, to degrade a water resource to just below the limit where beneficial uses are impaired, then no additional capacity exists for further degradation by other discharges of waste. In addition, our understanding of the health and environmental effects of chemicals and combinations of chemicals is constantly evolving. What is considered to be safe at 10 µg/l today may be found to be harmful at 1 µg/l tomorrow.

### An Example of Water Quality Goal Selection

Suppose you are investigating a site where a fuel tank has leaked a petroleum product into the surrounding soils. Ground water sampling results indicate that benzene, ethylbenzene, toluene, xylene and other gasoline hydrocarbons have entered ground water. You wish to know whether the levels detected in that water are of significant concern.

The first step would be to look at the *Water Quality Control Plan* (Basin Plan) for the particular Region in which your site is located. Upon examination of that document, you determine that the beneficial uses designated for the ground water are municipal and domestic supply. No numerical water quality objectives are listed in the Basin Plan for benzene, ethylbenzene, toluene, xylene, or gasoline. However, there are three narrative objectives which appear to be applicable:

"Ground waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses.

"Ground waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels specified in California Code of Regulations, Title 22, Division 4, Chapter 15.

"Ground waters shall not contain taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses."

Together, these beneficial uses and water quality objectives constitute the "water quality standards" for the chemical constituents in ground water at the site of your investigation.

The next step is to select numerical water quality limits from the values in the tables of this manual to help you interpret these narrative objectives. Upon examination of the Cross Reference section, you discover that listings for the constituents of concern are found in the Organic Constituents section of this manual.

The second objective from the Basin Plan, stated above, references California maximum contaminant levels (MCLs). These drinking water standards may be found in the tables of the Organic Constituents section for the chemicals of interest. The applicable California MCLs are:

| | |
|---|---|
| Benzene | 1 µg/l |
| Ethylbenzene | 680 |
| Xylene(s) | 1750 |

No California MCLs currently exist for toluene or gasoline, but a federal primary MCL has recently been established for toluene at 1000 µg/l. Since California MCLs must be at least as stringent as the federal MCLs, this federal MCL would also be applicable to this case.

The third water quality objective stated above requires that these waters not contain chemicals which could impart objectionable tastes or odors. The charts in the Organic Constituents section of this manual contain four types of listings where taste- and odor-based (organoleptic) levels are found:

- California and federal Secondary MCLs;
- California State Action Levels, Taste & Odor;
- Other Taste & Odor Thresholds; and
- U. S. EPA National Ambient Water Quality Criteria based on Taste & Odor or Welfare.

For the constituents of concern, the most stringent of these listings are the taste and odor thresholds cited by U. S. EPA in the Federal Register of 1989:

| | |
|---|---|
| Ethylbenzene | 29 µg/l |
| Toluene | 42 |
| Xylene(s) | 17 |
| Gasoline | 5 |

No listings are found for benzene in these columns.

The first applicable water quality objective stated above requires that chemical constituents are not to impair beneficial uses. Since the beneficial uses designated in the Basin Plan relate to consumption and other uses of water by humans, health- and welfare-related limits would apply. Many of the columns in the tables

$$\sum_{i=1}^{n} \frac{[\text{Concentration of Constituent}]_i}{[\text{Toxicologic Limit in Water}]_i} < 1.0$$

The concentration of each constituent is divided by its toxicologic limit. The resulting ratios are added for constituents having similar toxicologic effects and, separately, for carcinogens. If such a sum of ratios is less than one, an additive toxicity problem is assumed not to exist. If the summation is equal to or greater than one, the combination of chemicals is assumed to present an unacceptable level of risk to health.

For example, monitoring shows that ground water beneath a site has been degraded by three volatile organic chemicals in the following concentrations:

| | |
|---|---|
| Perchloroethylene | 0.3 µg/l |
| Trichloroethylene | 0.4 |
| 1,1-Dichloroethylene | 0.04 |

One-in-a-million incremental cancer risk estimates, calculated from cancer potency factors found in the U. S. EPA's IRIS database, are as follows:

| | |
|---|---|
| Perchloroethylene | 0.7 µg/l |
| Trichloroethylene | 3 |
| 1,1-Dichloroethylene | 0.06 |

Individually, no chemical exceeds its toxicologic limit. However, an additive cancer risk calculation shows:

$$\frac{0.3}{0.7} + \frac{0.4}{3} + \frac{0.04}{0.06} = 1.2$$

The sum of the ratios is greater than unity (>1.0); therefore, the additive toxicity criterion has been violated. The chemicals together present an unacceptable level of toxicity (in this case, cancer risk).

## Conclusion and Status

*A Compilation of Water Quality Goals* has been developed to provide a uniform method and a convenient source of numerical limits for determining compliance with California's water quality standards. It has been used for several years by the staff of a number of the California Regional Water Quality Control Boards as a reference for numerical water quality limits.

*A Compilation of Water Quality Goals* will be updated and expanded, as needed, to account for newly developed numerical water quality information.

## Glossary

***Beneficial Uses*** — Uses of water that must be protected against water quality degradation. They are established by the Water Boards in the *Water Quality Control Plans*. See "water quality standard."

***Water Quality Criteria*** — Numerical or narrative limits for constituents or characteristics of water designed to protect specific designated uses of the water. California's water quality criteria are called "water quality objectives." See "water quality standard."

***Water Quality Goal*** — The most stringent, applicable, numerical water quality limit for a constituent or parameter of concern in a specific body of ground or surface water at a specific site that is chosen to protect either (1) existing water quality or (2) beneficial uses of water. In the first case, the water quality goal is set equal to the background level in the body of water. In the second case, the water quality goal is set at the less stringent of either (a) the numerical limit which implements all applicable water quality objectives or (b) the background level.

***Water Quality Objectives*** — Numerical or narrative limits on constituents or characteristics of water designed to protect designated beneficial uses of the water. California's water quality objectives are established by the State and Regional Water Boards in the *Water Quality Control Plans*. See "water quality standard."

***Water Quality Standards*** — An combination of the designated beneficial uses of water and water quality objectives (criteria) to protect those uses. In California, water quality standards are promulgated by the State and Regional Water Boards in the *Water Quality Control Plans*. Water quality standards are enforceable limits for the bodies of surface or ground waters for which they are established.



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# CROSS REFERENCE OF CHEMICAL NAMES

| | CONSTITUENT | CATEGORY | SEE LISTING(S) UNDER: |
|---|---|---|---|
| A | 2-AAF | Organic | 2-Acetylaminofluorene |
| | A-alpha-C | Organic | A-alpha-C |
| | AAtrex | Organic | Atrazine |
| | Acenaphthene | Organic | Acenaphthene |
| | Acenaphthylene | Organic | Acenaphthylene |
| | Acephate | Organic | Acephate |
| | Acetaldehyde | Organic | Acetaldehyde |
| | Acetaldehyde methylformylhydrazone | Organic | Gyromitrin |
| | Acetamide | Organic | Acetamide |
| | Acetochlor | Organic | Acetochlor |
| | Acetone | Organic | Acetone |
| | Acetophenone | Organic | Acetophenone |
| | 2-Acetylaminofluorene | Organic | 2-Acetylaminofluorene |
| | Acifluorfen | Organic | Acifluorfen |
| | Acrolein | Organic | Acrolein |
| | Acrylamide | Organic | Acrylamide |
| | Acrylonitrile | Organic | Acrylonitrile |
| | Actinomycin D | Organic | Actinomycin D |
| | 2-AF | Organic | 2-AF |
| | Aflatoxins | Organic | Aflatoxins |
| | Alachlor | Organic | Alachlor |
| | Alan x | Organic | Alachlor |
| | Aldicarb | Organic | Aldicarb |
| | Aldicarb sulfone | Organic | Aldicarb sulfone |
| | Aldicarb sulfoxide | Organic | Aldicarb sulfoxide |
| | Aldrin | Organic | Aldrin |
| | Alkalinity | Inorganic | Alkalinity |
| | Allyl alcohol | Organic | Allyl alcohol |
| | Allyl chloride | Organic | 3-Chloropropene |
| | Allyl trichloride | Organic | 1,2,3-Trichloropropane |
| | Aluminum | Inorganic | Aluminum |
| | Ametryn | Organic | Ametryn |
| | Ametrex | Organic | Ametryn |
| | Amiben | Organic | Chloramben |
| | 2-Aminoanthraquinone | Organic | 2-Aminoanthraquinone |
| | o-Aminoazotoluene | Organic | o-Aminoazotoluene |
| | 4-Aminobiphenyl | Organic | 4-Aminobiphenyl |
| | 2-Aminopyrido[1,2-a:3',2'-d]-imidazole | Organic | Glu-P-2 |
| | 3-Amino-9-ethylcarbazole hydrochloride | Organic | 3-Amino-9-ethylcarbazole hydrochloride |
| | 1-Amino-2-methylanthraquinone | Organic | 1-Amino-2-methylanthraquinone |
| | 2-Amino-6-methyldipyrido[1,2-a:3',2'-d]-imidazole | Organic | Glu-P-1 |
| | 2-Amino-3-methylimidazo[4,5-f]quinoline | Organic | IQ |
| | 2-Amino-3-methyl-9H-pyrido-[2,3-b]indole | Organic | Me-A-alpha-C |
| | 2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole | Organic | 2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole |
| | 2-Amino-9H-pyrido(2,3-b)indole | Organic | A-alpha-C |
| | Amitrole | Organic | Amitrole |
| | Ammonia | Inorganic | Ammonia |
| | Ammonium sulfamate | Inorganic | Ammonium sulfamate |
| | Aniline | Organic | Aniline |
| | o-Anisidine | Organic | o-Anisidine |
| | o-Anisidine hydrochloride | Organic | o-Anisidine hydrochloride |
| | Antergon | Organic | Maleic hydrazide |
| | Anthracene | Organic | Anthracene |
| | Antimony | Inorganic | Antimony |
| | Aquacide | Organic | Diquat |
| | Aramite | Organic | Aramite |
| | Arsenic | Inorganic | Arsenic |
| | Asbestos | Inorganic | Asbestos |
| | Atrazine | Organic | Atrazine |
| | Auramine | Organic | Auramine |
| | Azaserine | Organic | Azaserine |
| | Azathioprine | Organic | Azathioprine |
| | Azinphos-methyl | Organic | Azinphos-methyl |
| | Azobenzene | Organic | Azobenzene |
| B | Balan | Organic | Benefin |
| | Banvel | Organic | Dicamba |
| | Barium | Inorganic | Barium |
| | Basagran | Organic | Bentazon |
| | Baygon | Organic | Baygon |
| | Benefin | Organic | Benefin |
| | Benfluralin | Organic | Benefin |
| | Bentazon | Organic | Bentazon |
| | Benthiocarb | Organic | Thiobencarb |
| | Benz(a)anthracene | Organic | Benz(a)anthracene |
| | 1,2-Benzanthracene | Organic | Benz(a)anthracene |
| | Benzene | Organic | Benzene |
| | Benzene hexachloride | Organic | alpha-BHC<br>beta-BHC<br>gamma-BHC (Lindane)<br>delta-BHC<br>technical-BHC |
| | Benzenes, chlorinated | Organic | Benzenes, chlorinated<br>Benzenes, dichloro-<br>Benzenes, trichloro-<br>Chlorobenzene<br>1,2-Dichlorobenzene<br>1,3-Dichlorobenzene<br>1,4-Dichlorobenzene<br>Hexachlorobenzene<br>Pentachlorobenzene<br>1,2,4,5-Tetrachlorobenzene |

| CONSTITUENT | CATEGORY | SEE LISTING(S) UNDER: |
|---|---|---|
| Benzenes, chlorinated (continued) | | 1,2,4-Trichlorobenzene |
| Benzenes, dichloro- | Organic | Benzenes, dichloro-<br>1,2-Dichlorobenzene<br>1,3-Dichlorobenzene<br>1,4-Dichlorobenzene |
| Benzenes, trichloro- | Organic | Benzenes, trichloro-<br>1,2,4-Trichlorobenzene |
| Benzidine | Organic | Benzidine |
| Benzo(b)fluoranthene | Organic | Benzo(b)fluoranthene |
| 3,4-Benzofluoranthene | Organic | Benzo(b)fluoranthene |
| Benzo(k)fluoranthene | Organic | Benzo(k)fluoranthene |
| Benzofuran | Organic | Benzofuran |
| Benzo(g,h,i)perylene | Organic | Benzo(g,h,i)perylene |
| 1,12-Benzoperylene | Organic | Benzo(g,h,i)perylene |
| Benzo(a)pyrene | Organic | Benzo(a)pyrene |
| Benzyl butyl phthalate | Organic | n-Butyl benzyl phthalate |
| Benzyl chloride | Organic | Benzyl chloride |
| Benzyl violet 4B | Organic | Benzyl violet 4B |
| Beryllium | Inorganic | Beryllium |
| Beryllium oxide | Inorganic | Beryllium oxide |
| Beryllium sulfate | Inorganic | Beryllium sulfate |
| BHC | Organic | alpha-BHC<br>beta-BHC<br>gamma-BHC (Lindane)<br>delta-BHC<br>technical-BHC |
| alpha-BHC | Organic | alpha-BHC |
| beta-BHC | Organic | beta-BHC |
| gamma-BHC | Organic | gamma-BHC (Lindane) |
| delta-BHC | Organic | delta-BHC |
| technical-BHC | Organic | technical-BHC |
| Bis-butyl phthalate | Organic | Dibutyl phthalate |
| Bis(2-chloroethoxy) methane | Organic | Bis(2-chloroethoxy) methane |
| Bis(2-chloroethyl) ether | Organic | Bis(2-chloroethyl) ether |
| Bis(2-chloroisopropyl) ether | Organic | Bis(2-chloroisopropyl) ether |
| Bis(chloromethyl) ether | Organic | Bis(chloromethyl) ether |
| Bis-ethyl phthalate | Organic | Diethyl phthalate |
| Bis(2-ethylhexyl) phthalate | Organic | Di(2-ethylhexyl) phthalate |
| Bis-methyl phthalate | Organic | Dimethyl phthalate |
| Bis-n-octyl phthalate | Organic | Di(n-octyl) phthalate |
| Bladex | Organic | Cyanazine |
| Blazer | Organic | Acifluorfen |
| Bolero | Organic | Thiobencarb |
| Boron | Inorganic | Boron |
| Bravo | Organic | Chlorothalonil |
| Bromacil | Organic | Bromacil |
| Bromide | Inorganic | Bromide |
| Bromochloromethane | Organic | Bromochloromethane |
| Bromodichloromethane | Organic | Bromodichloromethane |
| Bromoethene | Organic | Vinyl bromide |
| Bromoethylene | Organic | Vinyl bromide |
| Bromoform | Organic | Bromoform |
| Bromomethane | Organic | Bromomethane |
| 4-Bromophenyl phenyl ether | Organic | 4-Bromophenyl phenyl ether |
| Butachlor | Organic | Butachlor |
| 1,3-Butadiene | Organic | 1,3-Butadiene |
| Butanex | Organic | Butachlor |
| 2-Butanone | Organic | Methyl ethyl ketone (MEK) |
| Butylate | Organic | Butylate |
| Butylated hydroxyanisole | Organic | Butylated hydroxyanisole |
| n-Butyl benzyl phthalate | Organic | n-Butyl benzyl phthalate |
| beta-Butyrolactone | Organic | beta-Butyrolactone |
| C Cadmium | Inorganic | Cadmium |
| Camphechlor | Organic | Toxaphene |
| Captafol | Organic | Captafol |
| Captan | Organic | Captan |
| Carbamate | Organic | Ferbam |
| Carbaryl | Organic | Carbaryl |
| Carbathiin | Organic | Carboxin |
| Carbofuran | Organic | Carbofuran |
| Carbon bisulfide | Inorganic | Carbon disulfide |
| Carbon disulfide | Inorganic | Carbon disulfide |
| Carbon tetrachloride | Organic | Carbon tetrachloride |
| Carbophenothion | Organic | Trithion |
| Carboxin | Organic | Carboxin |
| Carboxine | Organic | Carboxin |
| Catechol | Organic | Catechol |
| CDEC | Organic | Sulfallate |
| Chemform | Organic | Maleic hydrazide |
| Chloral hydrate | Organic | Trichloroacetaldehyde, hydrated |
| Chloramben | Organic | Chloramben |
| Chlorambucil | Organic | Chlorambucil |
| Chloramine | Inorganic | Chloramine |
| Chlorate | Inorganic | Chlorate |
| Chlordan | Organic | Chlordane |
| Chlordane | Organic | Chlordane |
| Chlordecone | Organic | Kepone |
| Chlordimeform | Organic | Chlordimeform |
| Chlorendic acid | Organic | Chlorendic acid |
| Chloride | Inorganic | Chloride |
| Chlorinated benzenes | Organic | Benzenes, chlorinated |

| CONSTITUENT | CATEGORY | SEE LISTING(S) UNDER: |
|---|---|---|
| Chlorinated benzenes (continued) | | Benzenes, dichloro-<br>Benzenes, trichloro-<br>Chlorobenzene<br>1,2-Dichlorobenzene<br>1,3-Dichlorobenzene<br>1,4-Dichlorobenzene<br>Hexachlorobenzene<br>Pentachlorobenzene<br>1,2,4,5-Tetrachlorobenzene<br>1,2,4-Trichlorobenzene<br>1,3,5-Trichlorobenzene |
| Chlorinated naphthalenes | Organic | Naphthalenes, chlorinated<br>2-Chloronaphthalene |
| Chlorinated phenols | Organic | Phenols, chlorinated<br>4-Chloro-o-cresol<br>4-Chloro-m-cresol<br>6-Chloro-m-cresol<br>2-Chlorophenol<br>3-Chlorophenol<br>4-Chlorophenol<br>2,3-Dichlorophenol<br>2,4-Dichlorophenol<br>2,5-Dichlorophenol<br>2,6-Dichlorophenol<br>3,4-Dichlorophenol<br>Pentachlorophenol<br>2,3,4,6-Tetrachlorophenol<br>2,3,5,6-Tetrachlorophenol<br>2,4,5-Trichlorophenol<br>2,4,6-Trichlorophenol |
| Chlorine | Inorganic | Chlorine |
| Chlorine dioxide | Inorganic | Chlorine dioxide |
| Chlorite | Inorganic | Chlorite |
| Chloroalkyl ethers | Organic | Ethers, chloroalkyl-<br>Bis(2-chloroehtyl) ether<br>Bis(2-chloroisopropyl) ether<br>Bis(chloromethyl) ether |
| 2-Chloroallyl-diethyldithiocarbamate | Organic | Sulfallate |
| Chlorobenzene | Organic | Chlorobenzene |
| Chlorobenzilate | Organic | Ethyl-4,4'-dichlorobenzilate |
| Chlorobromomethane | Organic | Bromochloromethane |
| p-Chloro-o-cresol | Organic | 4-Chloro-o-cresol |
| 4-Chloro-o-cresol | Organic | 4-Chloro-o-cresol |
| p-Chloro-m-cresol | Organic | 4-Chloro-m-cresol |
| 4-Chloro-m-cresol | Organic | 4-Chloro-m-cresol |
| 6-Chloro-m-cresol | Organic | 6-Chloro-m-cresol |
| Chlorodibromomethane | Organic | Dibromochloromethane |
| Chloroethane | Organic | Chloroethane |
| Chloroethene | Organic | Vinyl chloride |
| Chloroethylene | Organic | Vinyl chloride |
| Chloroform | Organic | Chloroform |
| Chlorofos | Organic | Trichlorfon |
| Chloro-IPC | Organic | Chlorpropham |
| Chloromethane | Organic | Chloromethane |
| Chloromethyl methyl ether | Organic | Chloromethyl methyl ether |
| 4-Chloro-2-methylphenol | Organic | 4-Chloro-o-cresol |
| 4-Chloro-3-methylphenol | Organic | 4-Chloro-m cresol |
| 6-Chloro-3-methylphenol | Organic | 6-Chloro-m-cresol |
| 3-Chloro-2-methylpropene | Organic | 3-Chloro-2-methylpropene |
| 2-Chloronaphthalene | Organic | 2-Chloronaphthalene |
| 2-Chlorophenol | Organic | 2-Chlorophenol |
| 3-Chlorophenol | Organic | 3-Chlorophenol |
| 4-Chlorophenol | Organic | 4-Chlorophenol |
| m-Chlorophenol | Organic | 3-Chlorophenol |
| o-Chlorophenol | Organic | 2-Chlorophenol |
| p-Chlorophenol | Organic | 4-Chlorophenol |
| 4-Chloro-o-phenylenediamine | Organic | 4-Chloro-o-phenylenediamine |
| Chloropicrin | Organic | Chloropicrin |
| 3-Chloropropene | Organic | 3-Chloropropene |
| Chlorothalonil | Organic | Chlorothalonil |
| 2-Chlorotoluene | Organic | 2-Chlorotoluene |
| 4-Chlorotoluene | Organic | 4-Chlorotoluene |
| alpha-Chlorotoluene | Organic | Benzyl chloride |
| o-Chlorotoluene | Organic | 2-Chlorotoluene |
| p-Chlorotoluene | Organic | 4-Chlorotoluene |
| p-Chloro-o-toluidine | Organic | p-Chloro-o-toluidine |
| Chlorozotocin | Organic | Chlorozotocin |
| Chlorpropham | Organic | Chlorpropham |
| Chlorpyrifos | Organic | Chlorpyrifos |
| Chromium III | Inorganic | Chromium III |
| Chromium VI | Inorganic | Chromium VI |
| Chromium (Total) | Inorganic | Chromium VI |
| Chrysanthemumic acid | Organic | Dimethrin |
| Chrysazin | Organic | Dantron |
| Chrysene | Organic | Chrysene |
| C. I. Basic Red 9 monohydrochloride | Organic | C. I. Basic Red 9 monohydrochloride |
| Cinnamyl anthranilate | Organic | Cinnamyl anthranilate |
| CIPC | Organic | Chlorpropham |
| Cobalt | Inorganic | Cobalt |
| Color | Inorganic | Color |
| Contraven | Organic | Terbufos |
| Copper | Inorganic | Copper |

| | CONSTITUENT | CATEGORY | SEE LISTING(S) UNDER: |
|---|---|---|---|
| | Cotoron | Organic | Fluometuron |
| | Cottonex | Organic | Fluometuron |
| | Counter | Organic | Terbufos |
| | Cresol | Organic | Cresol (o-, m-, p-) |
| | p-Cresidine | Organic | p-Cresidine |
| | Crisuron | Organic | Diuron |
| | Cupferron | Organic | Cupferron |
| | Cyanazine | Organic | Cyanazine |
| | Cyanide | Inorganic | Cyanide |
| | Cyclotetramethylene tetranitramine | Organic | HMX |
| | Cyclotrimethylene trinitramine | Organic | RDX (Cyclonite) |
| | Cyclonite | Organic | RDX (Cyclonite) |
| | Cyclophosphamide | Organic | Cyclophosphamide |
| | Cygon | Organic | Dimethoate |
| | Cythion | Organic | Malathion |
| D | 2,4-D | Organic | 2,4-D |
| | Dacarbazine | Organic | Dacarbazine |
| | Daconil | Organic | Chlorothalonil |
| | Dacthal | Organic | Dacthal (DCPA) |
| | Dalapon | Organic | Dalapon |
| | Damidozide | Organic | Damidozide |
| | Dantron | Organic | Dantron |
| | DBCP | Organic | DBCP |
| | 1,1-DCA | Organic | 1,1-Dichloroethane |
| | 1,2-DCA | Organic | 1,2-Dichloroethane |
| | D&C Red No. 9 | Organic | D&C Red No. 9 |
| | DCB | Organic | 3,3'-Dichlorobenzidine |
| | 1,1-DCE | Organic | 1,1-Dichloroethylene |
| | DCPA | Organic | Dacthal (DCPA) |
| | D-D Mixture | Organic | 1,2-Dichloropropane<br>1,3-Dichloropropene<br>Propanes, dichloro-<br>Propenes, dichloro- |
| | DDD | Organic | DDD |
| | 4,4'-DDD | Organic | DDD |
| | DDE | Organic | DDE |
| | 4,4'-DDE | Organic | DDE |
| | DDT | Organic | DDT |
| | 4,4'-DDT | Organic | DDT |
| | DDVP | Organic | Dichlorvos |
| | Dechlorane | Organic | Mirex |
| | De-Fend | Organic | Dimethoate |
| | DEHP | Organic | Di(2-ethylhexyl) phthalate |
| | Demeton | Organic | Demeton |
| | DGRE | Organic | Diglycidyl resorcinol ether |
| | Dialon | Organic | Diuron |
| | 2,4-Diaminoanisole | Organic | 2,4-Diaminoanisole |
| | 2,4-Diaminoanisole sulfate | Organic | 2,4-Diaminoanisole sulfate |
| | 4,4'-Diaminodiphenyl ether | Organic | 4,4'-Diaminodiphenyl ether |
| | 2,4-Diaminotoluene | Organic | 2,4-Diaminotoluene |
| | Diazinon | Organic | Diazinon |
| | Dibenz(a,h)anthracene | Organic | Dibenz(a,h)anthracene |
| | 1,2;5,6-Dibenzanthracene | Organic | Dibenz(a,h)anthracene |
| | Dibromoacetonitrile | Organic | Dibromoacetonitrile |
| | Dibromochloromethane | Organic | Dibromochloromethane |
| | Dibromochloropropane | Organic | DBCP |
| | 1,2-Dibromo-3-chloropropane | Organic | DBCP |
| | Dibromochloropropane | Organic | DBCP |
| | 1,2-Dibromo-3-chloropropane | Organic | DBCP |
| | 1,2-Dibromoethane | Organic | Ethylene dibromide (EDB) |
| | 1,2-Dibromomethane | Organic | Ethylene dibromide (EDB) |
| | Dibutylnitrosamine | Organic | N-Nitrosodibutylamine |
| | Dibutyl phthalate | Organic | Dibutyl phthalate |
| | Dicamba | Organic | Dicamba |
| | Dichloroacetic acid | Organic | Dichloroacetic acid |
| | Dichloroacetonitrile | Organic | Dichloroacetonitrile |
| | 1,2-Dichlorobenzene | Organic | 1,2-Dichlorobenzene |
| | 1,3-Dichlorobenzene | Organic | 1,3-Dichlorobenzene |
| | 1,4-Dichlorobenzene | Organic | 1,4-Dichlorobenzene |
| | m-Dichlorobenzene | Organic | 1,3-Dichlorobenzene |
| | o-Dichlorobenzene | Organic | 1,2-Dichlorobenzene |
| | p-Dichlorobenzene | Organic | 1,4-Dichlorobenzene |
| | Dichlorobenzenes | Organic | Benzenes, dichloro-<br>1,2-Dichlorobenzene<br>1,3-Dichlorobenzene<br>1,4-Dichlorobenzene |
| | 3,3'-Dichlorobenzidine | Organic | 3,3'-Dichlorobenzidine |
| | 1,1-Dichloro-2,2-bis(p-chlorophenyl)ethane | Organic | DDD |
| | Dichlorobromomethane | Organic | Bromodichloromethane |
| | Dichlorodiethyl formal | Organic | Bis(2-chloroethoxy) methane |
| | Dichlorodifluoromethane | Organic | Dichlorodifluoromethane |
| | Dichlorodiphenyldichloroethylene | Organic | DDE |
| | Dichlorodiphenyltrichloroethane | Organic | DDT |
| | 1,1-Dichloroethane | Organic | 1,1-Dichloroethane |
| | 1,2-Dichloroethane | Organic | 1,2-Dichloroethane |
| | 1,1-Dichloroethene | Organic | 1,1-Dichloroethylene |
| | cis-1,2-Dichloroethene | Organic | cis-1,2-Dichloroethylene |
| | trans-1,2-Dichloroethene | Organic | trans-1,2-Dichloroethylene |
| | Dichloroethenes | Organic | Ethylenes, dichloro-<br>1,1-Dichloroethylene<br>cis-1,2-Dichloroethylene |

| CONSTITUENT | CATEGORY | SEE LISTING(S) UNDER: |
|---|---|---|
| Dichloroethenes (continued) | | trans-1,2-Dichloroethylene |
| 1,1-Dichloroethylene | Organic | 1,1-Dichloroethylene |
| cis-1,2-Dichloroethylene | Organic | cis-1,2-Dichloroethylene |
| trans-1,2-Dichloroethylene | Organic | trans-1,2-Dichloroethylene |
| Dichloroethylenes | Organic | Ethylenes, dichloro-<br>1,1-Dichloroethylene<br>cis-1,2-Dichloroethylene<br>trans-1,2-Dichloroethylene |
| Dichloroethyl formal | Organic | Bis(2-chloroethoxy) methane |
| Dichloromethane | Organic | Dichloromethane |
| 2,3-Dichlorophenol | Organic | 2,3-Dichlorophenol |
| 2,4-Dichlorophenol | Organic | 2,4-Dichlorophenol |
| 2,5-Dichlorophenol | Organic | 2,5-Dichlorophenol |
| 2,6-Dichlorophenol | Organic | 2,6-Dichlorophenol |
| 3,4-Dichlorophenol | Organic | 3,4-Dichlorophenol |
| 2,4-Dichlorophenoxyacetic acid | Organic | 2,4-D |
| 1,2-Dichloropropane | Organic | 1,2-Dichloropropane |
| Dichloropropanes | Organic | Propanes, dichloro-<br>1,2-Dichloropropane |
| 1,3-Dichloropropene | Organic | 1,3-Dichloropropene |
| cis-1,3-Dichloropropene | Organic | 1,3-Dichloropropene |
| trans-1,3-Dichloropropene | Organic | 1,3-Dichloropropene |
| Dichloropropenes | Organic | Propenes, dichloro-<br>1,3-Dichloropropene |
| 2,2-Dichloropropionic acid | Organic | Dalpon |
| Dichlorvos | Organic | Dichlorvos |
| Dieldrin | Organic | Dieldrin |
| Diesel Oil | Organic | Diesel Oil |
| Diethion | Organic | Ethion |
| Diethylnitrosamine | Organic | N-Nitrosodiethylamine |
| Diethyl phthalate | Organic | Diethyl phthalate |
| Di(2-ethylhexyl) adipate | Organic | Di(2-ethylhexyl) adipate |
| Di(2-ethylhexyl) phthalate | Organic | Di(2-ethylhexyl) phthalate |
| Diethylstilbesterol | Organic | Diethylstilbesterol |
| Difluorodichloromethane | Organic | Dichlorodifluoromethane |
| Difonate | Organic | Fonofos |
| Diglycidyl resorcinol ether | Organic | Diglycidyl resorcinol ether |
| Dihydrosafrole | Organic | Dihydrosafrole |
| 1,8-Dihydroxyanthraquinone | Organic | Dantron |
| Diisopropyl methyl phosphonate | Organic | Diisopropyl methyl phosphonate |
| Dimethoate | Organic | Dimethoate |
| Dimethrin | Organic | Dimethrin |
| 4-Dimethylaminoazobenzene | Organic | 4-Dimethylaminoazobenzene |
| trans-2-[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-oxadiazole | Organic | trans-2-[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-oxadiazole |
| Dimethylaniline | Organic | Dimethylaniline |
| 7,12-Dimethylbenz(a)anthracene | Organic | 7,12-Dimethylbenz(a)anthracene |
| 2,4-Dimethylbenzylester | Organic | Dimethrin |
| Dimethylcarbamoyl chloride | Organic | Dimethylcarbamoyl chloride |
| 1,1-Dimethylhydrazine | Organic | 1,1-Dimethylhydrazine |
| 1,2-Dimethylhydrazine | Organic | 1,2-Dimethylhydrazine |
| Dimethylketone | Organic | Acetone |
| Dimethyl methyl phosphonate | Organic | Dimethyl methyl phosphonate |
| Dimethylnitrosamine | Organic | N-Nitrosodimethylamine |
| Dimethyl phthalate | Organic | Dimethyl phthalate |
| 2,4-Dimethylphenol | Organic | 2,4-Dimethylphenol |
| Dimethyl sulfate | Organic | Dimethyl sulfate |
| Dimethylvinylchloride | Organic | Dimethylvinylchloride |
| 1,3-Dinitrobenzene | Organic | 1,3-Dinitrobenzene |
| m-Dinitrobenzene | Organic | 1,3-Dinitrobenzene |
| 4,6-Dinitro-o-cresol | Organic | 4,6-Dinitro-o-cresol |
| Dinitrophenol | Organic | Dinitrophenol |
| 2,4-Dinitrophenol | Organic | 2,4-Dinitrophenol |
| Dinitrophenols | Organic | Dinitrophenol |
| 2,4-Dinitrotoluene | Organic | 2,4-Dinitrotoluene |
| 2,6-Dinitrotoluene | Organic | 2,6-Dinitrotoluene |
| Dinoseb | Organic | Dinoseb |
| Di(n-octyl) phthalate | Organic | Di(n-octyl) phthalate |
| p-Dioxane | Organic | 1,4-Dioxane |
| 1,4-Dioxane | Organic | 1,4-Dioxane |
| Dioxin | Organic | 2,3,7,8-TCDD (Dioxin) |
| Diphenamid | Organic | Diphenamid |
| Diphenamide | Organic | Diphenamid |
| Diphenylamine | Organic | Diphenylamine |
| Diphenyldiimide | Organic | Azobenzene |
| 1,2-Diphenylhydrazine | Organic | 1,2-Diphenylhydrazine |
| Diphenylnitrosamine | Organic | N-Nitrosodiphenylamine<br>p-Nitrosodiphenylamine |
| Dipropylnitrosamine | Organic | N-Nitrosodipropylamine |
| Dipterex | Organic | Trichlorfon |
| Diquat | Organic | Diquat |
| Direct Black 38 | Organic | Direct Black 38 |
| Direct Blue 6 | Organic | Direct Blue 6 |
| Direct Brown 95 | Organic | Direct Brown 95 |
| Disperse Blue 1 | Organic | Disperse Blue 1 |
| Disulfoton | Organic | Disyston (Disulfoton) |
| Disyston | Organic | Disyston (Disulfoton) |
| Dithane M-22 | Organic | Maneb |
| Dithane Z-78 | Organic | Zineb |
| 1,4-Dithiane | Organic | 1,4-Dithiane |
| Diurex | Organic | Diuron |
| Diuron | Organic | Diuron |
| DNBP | Organic | Dinoseb |

| | CONSTITUENT | CATEGORY | SEE LISTING(S) UNDER: |
|---|---|---|---|
| | Dowpon | Organic | Dalpon |
| | Dual | Organic | Metolachlor |
| | Dursban | Organic | Chlorpyrifos |
| | Dyfonate | Organic | Fonofos |
| | Dyphonate | Organic | Fonofos |
| E | EC | Inorganic | Specific conductance (EC) |
| | EDB | Organic | Ethylene dibromide (EDB) |
| | Endosulfan | Organic | Endosulfan |
| | Endosulfan I | Organic | Endosulfan |
| | Endosulfan II | Organic | Endosulfan |
| | Endosulfan sulfate | Organic | Endosulfan sulfate |
| | Endothal | Organic | Endothall |
| | Endothall | Organic | Endothall |
| | Endrex | Organic | Endrin |
| | Endrin | Organic | Endrin |
| | Epic 500 | Organic | Furmecyclox |
| | Epichlorohydrin | Organic | Epichlorohydrin |
| | 1,2-Ethane diol | Organic | Ethylene glycol |
| | Estradiol 17beta | Organic | Estradiol 17beta |
| | Ethers, chloroalkyl- | Organic | Ethers, chloroalkyl-<br>Bis(2-chloroehtyl) ether<br>Bis(2-chloroisopropyl) ether<br>Bis(chloromethyl) ether |
| | Ethers, halo- | Organic | Ethers, halo-<br>Bis(2-chloroehtyl) ether<br>Bis(2-chloroisopropyl) ether<br>Bis(chloromethyl) ether<br>4-Bromophenyl phenyl ether<br>Ethers, chloroalkyl- |
| | Ethion | Organic | Ethion |
| | Ethyl carbamate | Organic | Urethane |
| | Ethyl chloride | Organic | Chloroethane |
| | Ethyl-4,4'-dichlorobenzilate | Organic | Ethyl-4,4'-dichlorobenzilate |
| | Ethyl parathion | Organic | Parathion |
| | Ethylbenzene | Organic | Ethylbenzene |
| | Ethylene dibromide | Organic | Ethylene dibromide (EDB) |
| | Ethylene dichloride | Organic | 1,2-Dichloroethane |
| | Ethylene glycol | Organic | Ethylene glycol |
| | Ethyleneimine | Organic | Ethyleneimine |
| | Ethylene oxide | Organic | Ethylene oxide (ETO) |
| | Ethylenes, dichloro- | Organic | Ethylenes, dichloro-<br>1,1-Dichloroethylene<br>cis-1,2-Dichloroethylene<br>trans-1,2-Dichloroethylene |
| | Ethylene thiourea | Organic | Ethylene thiourea (ETU)<br>Ferbam<br>Maneb<br>Thiram<br>Zineb<br>Ziram |
| | Ethylthiodemeton | Organic | Disyston (Disulfoton) |
| | ETU | Organic | Ethylene thiourea (ETU)<br>Ferbam<br>Maneb<br>Thiram<br>Zineb<br>Ziram |
| | Fenamiphos | Organic | Fenamiphos |
| F | Ferbam | Organic | Ferbam |
| | Fermate | Organic | Ferbam |
| | Fluometuron | Organic | Fluometuron |
| | Fluoranthene | Organic | Fluoranthene |
| | Fluorene | Organic | Fluorene |
| | Fluoride | Inorganic | Fluoride |
| | Fluorotrichloromethane | Organic | Trichlorofluoromethane |
| | Foaming agents (organic & inorganic) | Inorganic | Foaming agents (MBAS) |
| | Folex 6EC | Organic | Merphos |
| | Folpan | Organic | Folpet |
| | Folpet | Organic | Folpet |
| | Fonofos | Organic | Fonofos |
| | Formaldehyde | Organic | Formaldehyde |
| | 2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole | Organic | 2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole |
| | Fosfamid | Organic | Dimethoate |
| | Freon 10 | Organic | Carbon tetrachloride |
| | Freon 11 | Organic | Trichlorofluoromethane |
| | Freon 12 | Organic | Dichlorodifluoromethane |
| | Freon 20 | Organic | Chloroform |
| | Freon 113 | Organic | Trichlorotrifluoroethane |
| | Fuel oil #1 | Organic | Kerosene |
| | Fuel oil #2 | Organic | Diesel Oil |
| | Furadan | Organic | Carbofuran |
| | Furmecyclox | Organic | Furmecyclox |
| | 2-(2-Furyl)-3-(5-nitro-2-furyl)acrylamide | Organic | AF-2 |
| G | Gasoline | Organic | Gasoline |
| | Gesafram 50 | Organic | Prometon |
| | Glu-P-1 | Organic | Glu-P-1 |
| | Glu-P-2 | Organic | Glu-P-2 |
| | Glycidol | Organic | Glycidol |
| | Glyphosate | Organic | Glyphosate |

| | CONSTITUENT | CATEGORY | SEE LISTING(S) UNDER: |
|---|---|---|---|
| | Glyphosate isopropylamine salt | Organic | Glyphosate |
| | Graslan | Organic | Tebuthiuron |
| | Grease & oil | Organic | Oil & grease |
| | Griseofluvin | Organic | Griseofluvin |
| | Guthion | Organic | Azinphos-methyl |
| | Gyromitrin | Organic | Gyromitrin |
| H | Haloethers | Organic | Ethers, halo-<br>Bis(2-chloroehtyl) ether<br>Bis(2-chloroisopropyl) ether<br>Bis(chloromethyl) ether<br>4-Bromophenyl phenyl ether<br>Ethers, chloroalkyl- |
| | Halomethanes | Organic | Methanes, halo-<br>Bromodichloromethane<br>Bromoform<br>Bromomethane<br>Carbon tetrachloride<br>Chloroform<br>Chloromethane<br>Dibromochloromethane<br>Dichlorodifluoromethane<br>Dichloromethane<br>Trichlorofluoromethane |
| | HCB | Organic | Hexachlorobenzene |
| | HC Blue 1 | Organic | HC Blue 1 |
| | HCH | Organic | BHC |
| | Heptachlor | Organic | Heptachlor |
| | Heptachlor epoxide | Organic | Heptachlor epoxide |
| | HEX | Organic | Hexachlorocyclopentadiene |
| | Hexachlorobenzene | Organic | Hexachlorobenzene |
| | Hexachlorobutadiene | Organic | Hexachlorobutadiene |
| | Hexachlorocyclohexane | Organic | alpha-BHC<br>beta-BHC<br>gamma-BHC (Lindane)<br>delta-BHC<br>technical-BHC |
| | Hexachlorocyclopentadiene | Organic | Hexachlorocyclopentadiene |
| | Hexachlorodibenzodioxin | Organic | Hexachlorodibenzodioxin |
| | Hexachloroethane | Organic | Hexachloroethane |
| | Hexachlorophene | Organic | Hexachlorophene |
| | Hexadrin | Organic | Endrin |
| | Hexamethylphosphoramide | Organic | Hexamethylphosphoramide |
| | Hexane | Organic | n-Hexane |
| | n-Hexane | Organic | n-Hexane |
| | Hexazinone | Organic | Hexazinone |
| | Hexogen | Organic | RDX (Cyclonite) |
| | HMX | Organic | HMX |
| | Hydrazine | Inorganic | Hydrazine |
| | Hydrazine sulfate | Inorganic | Hydrazine sulfate |
| | Hydrazobenzene | Organic | 1,2-Diphenylhydrazine |
| | Hydrogen sulfide | Inorganic | Hydrogen sulfide |
| | Hyvar X or XL | Organic | Bromacil |
| I | Indeno(1,2,3-c,d)pyrene | Organic | Indeno(1,2,3-c,d)pyrene |
| | Iodide | Inorganic | Iodide |
| | IQ | Organic | IQ |
| | Iron | Inorganic | Iron |
| | Isophorone | Organic | Isophorone |
| | Isopropanol | Organic | Isopropanol |
| | Isopropyl alcohol | Organic | Isopropanol |
| | Isopropyl N (3-chlorophenyl) carbamate | Organic | Chlorpropham |
| | Isopropyl methylphosphonate | Organic | Isopropyl methylphosphonate |
| K | Karmex | Organic | Diuron |
| | Kepone | Organic | Kepone |
| | Kerb | Organic | Pronamide |
| | Kerosene | Organic | Kerosene |
| | Kerosine | Organic | Kerosene |
| | Krovar | Organic | Diuron |
| L | Lactofen | Organic | Lactofen |
| | Lambast | Organic | Butachlor |
| | Lanex | Organic | Fluometuron |
| | Lannate | Organic | Methomyl |
| | Lasiocarpine | Organic | Lasiocarpine |
| | Lasso | Organic | Alachlor |
| | Lead (Inorganic) | Inorganic | Lead (Inorganic) |
| | Lead acetate | Organic | Lead acetate |
| | Lead subacetate | Organic | Lead subacetate |
| | Lindane | Organic | gamma-BHC (Lindane) |
| | Linuron | Organic | Linuron |
| | Lorsban | Organic | Chlorpyrifos |
| M | Malathion | Organic | Malathion |
| | Maleic hydrazide | Organic | Maleic hydrazide |
| | Maneb | Organic | Maneb |
| | Manganese | Inorganic | Manganese |
| | Manzate | Organic | Maneb |
| | MCPA | Organic | MCPA |
| | Me-A-alpha-C | Organic | Me-A-alpha-C |
| | MEK | Organic | Methyl ethyl ketone (MEK) |

| | CONSTITUENT | CATEGORY | SEE LISTING(S) UNDER: |
|---|---|---|---|
| | Melphalan | Organic | Melphalan |
| | Mercury | Inorganic | Mercury |
| | Merphos | Organic | Merphos |
| | Methanes, halo- | Organic | Methanes, halo-<br>Bromodichloromethane<br>Bromoform<br>Bromomethane<br>Carbon tetrachloride<br>Chloroform<br>Chloromethane<br>Dibromochloromethane<br>Dichlorodifluoromethane<br>Dichloromethane<br>Trichlorofluoromethane |
| | Methomyl | Organic | Methomyl |
| | Methoxychlor | Organic | Methoxychlor |
| | Methoxypropazine | Organic | Prometon |
| | 2-Methylaziridine | Organic | Propyleneimine |
| | Methyl benzene | Organic | Toluene |
| | Methyl bromide | Organic | Bromomethane |
| | Methyl t-butyl ether | Organic | Methyl t-butyl ether (MTBE) |
| | Methyl chloride | Organic | Chloromethane |
| | Methyl chloroform | Organic | 1,1,1-Trichloroethane |
| | 2-Methyl-4-chlorophenol | Organic | 4-Chloro-o-cresol |
| | 3-Methyl-4-chlorophenol | Organic | 4-Chloro-m-cresol |
| | 3-Methyl-6-chlorophenol | Organic | 6-Chloro-m-cresol |
| | 2-Methyl-4-chlorophenoxyacetic acid | Organic | MCPA |
| | 3-Methylcholanthrene | Organic | 3-Methylcholanthrene |
| | 2-Methyl-4,6-dinitrophenol | Organic | 4,6-Dinitro-o-cresol |
| | 4,4'-Methylenebis(2-chloroaniline) | Organic | 4,4'-Methylenebis(2-chloroaniline) |
| | 4,4'-Methylenebis(N,N-dimethylaniline) | Organic | 4,4'-Methylenebis(N,N-dimethylaniline) |
| | 4,4'-Methylenebis(N,N-dimethyl)benzeneamine | Organic | 4,4'-Methylenebis(N,N-dimethylaniline) |
| | 4,4'-Methylenebis(2-methylaniline) | Organic | 4,4'-Methylenebis(2-methylaniline) |
| | Methylene chloride | Organic | Dichloromethane |
| | 4,4'-Methylenedianiline | Organic | 4,4'-Methylenedianiline |
| | 4,4'-Methylenedianiline dihydrochloride | Organic | 4,4'-Methylenedianiline dihydrochloride |
| | Methyl ethyl ketone | Organic | Methyl ethyl ketone (MEK) |
| | Methyl ethyl nitrosamine | Organic | N-Nitrosomethylethylamine |
| | Methyl methacrylate | Organic | Methyl methacrylate |
| | Methyl methanesulfonate | Organic | Methyl methanesulfonate |
| | 2-Methyl-1-nitroanthraquinone | Organic | 2-Methyl-1-nitroanthraquinone |
| | N-Methyl-N'-nitro-N-nitrosoguanidine | Organic | N-Methyl-N'-nitro-N-nitrosoguanidine |
| | N-Methylolacrylamide | Organic | N-Methylolacrylamide |
| | Methyl parathion | Organic | Methyl parathion |
| | Methylphenol | Organic | Cresol (o-, m-, p-) |
| | Methylthiouracil | Organic | Methylthiouracil |
| | Metolachlor | Organic | Metolachlor |
| | Metribuzin | Organic | Metribuzin |
| | Metronidazole | Organic | Metronidazole |
| | Michler's ketone | Organic | Michler's ketone |
| | Milogard | Organic | Propazine |
| | Mirex | Organic | Mirex |
| | Mitomycin C | Organic | Mitomycin C |
| | Molinate | Organic | Molinate |
| | Molybdenum | Inorganic | Molybdenum |
| | Monochlorobenzene | Organic | Chlorobenzene |
| | Monocratiline | Organic | Monocratiline |
| | Mononitrophenols | Organic | Nitrophenol<br>2-Nitrophenol<br>4-Nitrophenol |
| | MTBE | Organic | Methyl t-butyl ether (MTBE) |
| N | Naphthalene | Organic | Naphthalene |
| | Naphthalenes, chlorinated | Organic | Naphthalenes, chlorinated<br>2-Chloronaphthalene |
| | 2-Naphthylamine | Organic | 2-Naphthylamine |
| | Nemacur | Organic | Fenamiphos |
| | Nickel | Inorganic | Nickel |
| | Nickel subsulfide | Inorganic | Nickel subsulfide |
| | Nitralin | Organic | Nitralin |
| | Nitrate | Inorganic | Nitrate |
| | Nitrilotriacetate, trisodium monohydrate | Organic | Nitrilotriacetate, trisodium monohydrate |
| | Nitrilotriacetic acid | Organic | Nitrilotriacetic acid |
| | Nitrite | Inorganic | Nitrite |
| | 5-Nitroacenaphthene | Organic | 5-Nitroacenaphthene |
| | 5-Nitro-o-anisidine | Organic | 5-Nitro-o-anisidine |
| | Nitrobenzene | Organic | Nitrobenzene |
| | Nitrofen | Organic | Nitrofen |
| | Nitrofurazone | Organic | Nitrofurazone |
| | 1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone | Organic | 1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone |
| | N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide | Organic | N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide |
| | Nitroguanidine | Organic | Nitroguanidine |
| | Nitrofene | Organic | Nitrofen |
| | Nitrophenol | Organic | Nitrophenol |
| | 2-Nitrophenol | Organic | 2-Nitrophenol |
| | 4-Nitrophenol | Organic | 4-Nitrophenol |
| | o-Nitrophenol | Organic | 2-Nitrophenol |
| | p-Nitrophenol | Organic | 4-Nitrophenol |
| | Nitrophenols | Organic | Phenols, nitro-<br>2,4-Dinitro-o-cresol<br>Dinitrophenol<br>Nitrophenol |

| | CONSTITUENT | CATEGORY | SEE LISTING(S) UNDER: |
|---|---|---|---|
| | Nitrophenols (continued) | | 2-Nitrophenol<br>4-Nitrophenol<br>Trinitrophenol |
| | Nitrosamines | Organic | Nitrosamines<br>N-Nitrosodibutylamine<br>N-Nitrosodiethanolamine<br>N-Nitrosodiethylamine<br>N-Nitrosodimethylamine<br>N-Nitrosodiphenylamine<br>N-Nitrosodipropylamine<br>N-Nitrosomethylethylamine<br>N-Nitrosopyrrolidine |
| | N-Nitrosodibutylamine | Organic | N-Nitrosodi-n-butylamine |
| | N-Nitrosodiethanolamine | Organic | N-Nitrosodiethanolamine |
| | N-Nitrosodiethylamine | Organic | N-Nitrosodiethylamine |
| | N-Nitrosodimethylamine | Organic | N-Nitrosodimethylamine |
| | N-Nitrosodiphenylamine | Organic | N-Nitrosodiphenylamine |
| | p-Nitrosodiphenylamine | Organic | p-Nitrosodiphenylamine |
| | N-Nitrosodipropylamine | Organic | N-Nitrosodipropylamine |
| | N-Nitroso-N-ethylurea | Organic | N-Nitroso-N-ethylurea |
| | N-Nitrosomethylethylamine | Organic | N-Nitrosomethylethylamine |
| | N-Nitroso-N-methylurea | Organic | N-Nitroso-N-methylurea |
| | N-Nitroso-N-methylurethane | Organic | N-Nitroso-N-methylurethane |
| | N-Nitrosomorpholine | Organic | N-Nitrosomorpholine |
| | N-Nitrosonornicotine | Organic | N-Nitrosonornicotine |
| | N-Nitrosopiperidine | Organic | N-Nitrosopiperidine |
| | N-Nitrosopyrrolidine | Organic | N-Nitrosopyrrolidine |
| | Nonachlor | Organic | trans-Nonachlor |
| | trans-Nonachlor | Organic | trans-Nonachlor |
| | Nonchlorinated phenols | Organic | Phenols, nonchlorinated<br>Catechol<br>2,4-Dimethylphenol<br>2,3-Dinitro-o-cresol<br>Dinitrophenol<br>Nitrophenol<br>2-Nitrophenol<br>4-Nitrophenol<br>Phenol<br>Phenols, nitro-<br>Resorcinol<br>Trinitrophenol |
| O | Ochratoxin A | Organic | Ochratoxin A |
| | Oil & grease | Organic | Oil & grease |
| | Ordram | Organic | Molinate |
| | Orthocide | Organic | Captan |
| | Ortho paraquat | Organic | Paraquat |
| | Oxamyl | Organic | Oxamyl |
| | Oxychlordane | Organic | Oxychlordane |
| | 4,4'-Oxydianiline | Organic | 4,4'-Diaminodiphenyl ether |
| | Oxygen, dissolved | Inorganic | Oxygen, dissolved |
| P | PAHs | Organic | PAHs<br>Acenaphthylene<br>Anthracene<br>Benz(a)anthracene<br>Benzo(b)fluoranthene<br>Benzo(k)fluoranthene<br>Benzo(g,h,i)perylene<br>Benzo(a)pyrene<br>Chrysene<br>Dibenz(a,h)anthracene<br>Fluoranthene<br>Fluorene<br>Indeno(1,2,3-c,d)pyrene<br>Phenanthrene<br>Pyrene |
| | Paraquat | Organic | Paraquat |
| | Parathion | Organic | Parathion |
| | Parathion-methyl | Organic | Methyl parathion |
| | PBBs | Organic | Polybrominated biphenyls |
| | PCBs | Organic | Polychlorinated biphenyls |
| | PCE | Organic | Tetrachloroethylene (PCE) |
| | PCNB | Organic | Pentachloronitrobenzene |
| | PCP | Organic | Pentachlorophenol |
| | PDB | Organic | 1,4-Dichlorobenzene |
| | Penta | Organic | Pentachlorophenol |
| | Pentachlorobenzene | Organic | Pentachlorobenzene |
| | Pentachloroethane | Organic | Pentachloroethane |
| | Pentachloronitrobenzene | Organic | Pentachloronitrobenzene |
| | Pentachlorophenol | Organic | Pentachlorophenol |
| | Perchlorobenzene | Organic | Hexachlorobenzene |
| | Perchlorobutadiene | Organic | Hexachlorobutadiene |
| | Perchloroethylene | Organic | Tetrachloroethylene (PCE) |
| | Perflan | Organic | Tebuthiuron |
| | Petroleum hydrocarbons | Organic | Diesel<br>Gasoline<br>Kerosene |
| | pH | Inorganic | pH |
| | Phenacetin | Organic | Phenacetin |
| | Phenamiphos | Organic | Fenamiphos |
| | Phenanthrene | Organic | Phenanthrene |

| CONSTITUENT | CATEGORY | SEE LISTING(S) UNDER: |
|---|---|---|
| Phenazopyridine | Organic | Phenazopyridine |
| Phenazopyridine hydrochloride | Organic | Phenazopyridine hydrochloride |
| Phenesterin | Organic | Phenesterin |
| Phenobarbital | Organic | Phenobarbital |
| Phenol | Organic | Phenol |
| Phenols, chlorinated | Organic | Phenols, chlorinated<br>4-Chloro-o-cresol<br>4-Chloro-m-cresol<br>6-Chloro-m-cresol<br>2-Chlorophenol<br>3-Chlorophenol<br>4-Chlorophenol<br>2,3-Dichlorophenol<br>2,4-Dichlorophenol<br>2,5-Dichlorophenol<br>2,6-Dichlorophenol<br>3,4-Dichlorophenol<br>Pentachlorophenol<br>2,3,4,6-Tetrachlorophenol<br>2,3,5,6-Tetrachlorophenol<br>2,4,5-Trichlorophenol<br>2,4,6-Trichlorophenol |
| Phenols, nonchlorinated | Organic | Phenols, nonchlorinated<br>Catechol<br>2,4-Dimethylphenol<br>2,4-Dinitro-o-cresol<br>Dinitrophenol<br>Nitrophenol<br>2-Nitrophenol<br>4-Nitrophenol<br>Phenol<br>Phenols, nitro-<br>Resorcinol<br>Trinitrophenol |
| Phenols, nitro- | Organic | Phenols, nitro-<br>2,4-Dinitro-o-cresol<br>Dinitrophenol<br>Nitrophenol<br>2-Nitrophenol<br>4-Nitrophenol<br>Trinitrophenol |
| Phenoxybenzamine | Organic | Phenoxybenzamine |
| Phenoxybenzamine hydrochloride | Organic | Phenoxybenzamine hydrochloride |
| Phenyl ethane | Organic | Ethylbenzene |
| Phenyl glycidyl ether | Organic | Phenyl glycidyl ether |
| Phenylmethylketone | Organic | Acetophenone |
| o-Phenylphenate, sodium | Organic | o-Phenylphenate, sodium |
| Phorate | Organic | Phorate |
| Phosphorus | Inorganic | Phosphorus |
| Phthalate esters | Organic | Phthalate esters<br>n-Butyl benzyl phthalate<br>Dibutyl phthalate<br>Di(2-ethylhexyl) phthalate<br>Diethyl phthalate<br>Dimethyl phthalate<br>Di(n-octyl) phthalate |
| Picloram | Organic | Picloram |
| Picric acid | Organic | Trinitrophenol |
| Planavin | Organic | Nitralin |
| PNAs | Organic | PAHs<br>Acenaphthylene<br>Anthracene<br>Benz(a)anthracene<br>Benzo(b)fluoranthene<br>Benzo(k)fluoranthene<br>Benzo(g,h,i)perylene<br>Benzo(a)pyrene<br>Chrysene<br>Dibenz(a,h)anthracene<br>Fluoranthene<br>Fluorene<br>Indeno(1,2,3-c,d)pyrene<br>Phenanthrene<br>Pyrene |
| Polybrominated biphenyls | Organic | Polybrominated biphenyls |
| Polychlorinated biphenyls | Organic | Polychlorinated biphenyls |
| Polynuclear aromatic hydrocarbons | Organic | PAHs<br>Acenaphthylene<br>Anthracene<br>Benz(a)anthracene<br>Benzo(b)fluoranthene<br>Benzo(k)fluoranthene<br>Benzo(g,h,i)perylene<br>Benzo(a)pyrene<br>Chrysene<br>Dibenz(a,h)anthracene<br>Fluoranthene<br>Fluorene<br>Indeno(1,2,3-c,d)pyrene<br>Phenanthrene<br>Pyrene |
| Ponceau MX | Organic | Ponceau MX |

| | CONSTITUENT | CATEGORY | SEE LISTING(S) UNDER: |
|---|---|---|---|
| | Ponceau 3R | Organic | Ponceau 3R |
| | Potassium bromate | Inorganic | Potassium bromate |
| | Pramitol | Organic | Prometon |
| | Princep | Organic | Simazine |
| | Procarbazine | Organic | Procarbazine |
| | Procarbazine hydrochloride | Organic | Procarbazine hydrochloride |
| | Profam | Organic | Propham |
| | Prometon | Organic | Prometon |
| | Pronamide | Organic | Pronamide |
| | Propachlor | Organic | Propachlor |
| | Propanes, dichloro- | Organic | Propanes, dichloro-<br>1,2-Dichloropropane |
| | 1,3-Propane sultone | Organic | 1,3-Propane sultone |
| | Propanil | Organic | Propanil |
| | Propazine | Organic | Propazine |
| | Propeneamide | Organic | Acrylamide |
| | Propenes, dichloro- | Organic | Propenes, dichloro-<br>1,3-Dichloropropene |
| | Propenyl alcohol | Organic | Allyl alcohol |
| | Propham | Organic | Propham |
| | Prophos | Organic | Propham |
| | beta-Propiolactone | Organic | beta-Propiolactone |
| | Propoxur | Organic | Baygon |
| | Propylene dichloride | Organic | 1,2-Dichloropropane |
| | Propyleneimine | Organic | Propyleneimine |
| | Propylthiouracil | Organic | Propylthiouracil |
| | Propyzamide | Organic | Pronamide |
| | Pyrene | Organic | Pyrene |
| Q | Quintozine | Organic | Terraclor |
| R | Radon | Inorganic | Radon |
| | Ramrod | Organic | Propachlor |
| | RDX | Organic | RDX (Cyclonite) |
| | Reglone | Organic | Diquat |
| | Reserpine | Organic | Reserpine |
| | Resorcinol | Organic | Resorcinol |
| | Retard | Organic | Maleic hydrazide |
| | Rotenone | Organic | Rotenone |
| | Roundup | Organic | Glyphosate |
| S | Safrole | Organic | Safrole |
| | Selenium | Inorganic | Selenium |
| | Selenium sulfide | Inorganic | Selenium sulfide |
| | Settleable solids | Inorganic | Settleable solids |
| | Sevin | Organic | Carbaryl |
| | Silver | Inorganic | Silver |
| | Silvex | Organic | 2,4,5-TP (Silvex) |
| | Simazine | Organic | Simazine |
| | Sinbar | Organic | Terbacil |
| | Sodium | Inorganic | Sodium |
| | Sodium o-phenylphenate | Organic | o-Phenylphenate, sodium |
| | Specific conductance | Inorganic | Specific conductance (EC) |
| | Spike | Organic | Tebuthiuron |
| | Sterigmatocystin | Organic | Sterigmatocystin |
| | Streptozotocin | Organic | Streptozotocin |
| | Strontium | Inorganic | Strontium |
| | Styrene | Organic | Styrene |
| | Styrene oxide | Organic | Styrene oxide |
| | Sulfate | Inorganic | Sulfate |
| | Sutan | Organic | Butylate |
| | Systox | Organic | Demeton |
| T | 2,4,5-T | Organic | 2,4,5-T |
| | 1,1,1-TCA | Organic | 1,1,1-Trichloroethane |
| | 1,1,2-TCA | Organic | 1,1,2-Trichloroethane |
| | 2,3,7,8-TCDD | Organic | 2,3,7,8-TCDD (Dioxin) |
| | TCE | Organic | Trichloroethylene (TCE) |
| | TDE | Organic | DDD |
| | TDS | Inorganic | Total dissolved solids (TDS) |
| | Tebuthiuron | Organic | Tebuthiuron |
| | Telone | Organic | 1,2-Dichloropropane<br>1,3-Dichloropropene<br>Propanes, dichloro-<br>Propenes, dichloro- |
| | Temik | Organic | Aldicarb |
| | Terbacil | Organic | Terbacil |
| | Terbufos | Organic | Terbufos |
| | Terraclor | Organic | Pentachloronitrobenzene |
| | 1,2,4,5-Tetrachlorobenzene | Organic | 1,2,4,5-Tetrachlorobenzene |
| | 2,3,7,8-Tetrachlorodibenzo-p-dioxin | Organic | 2,3,7,8-TCDD (Dioxin) |
| | 1,1,1,2-Tetrachloroethane | Organic | 1,1,1,2-Tetrachloroethane |
| | 1,1,2,2-Tetrachloroethane | Organic | 1,1,2,2-Tetrachloroethane |
| | Tetrachloroethene | Organic | Tetrachloroethylene (PCE) |
| | Tetrachloroethylene | Organic | Tetrachloroethylene (PCE) |
| | Tetrachloromethane | Organic | Carbon tetrachloride |
| | 2,3,4,6-Tetrachlorophenol | Organic | 2,3,4,6-Tetrachlorophenol |
| | 2,3,5,6-Tetrachlorophenol | Organic | 2,3,5,6-Tetrachlorophenol |
| | Tetranitromethane | Organic | Tetranitromethane |
| | Thallium | Inorganic | Thallium |
| | Thimet | Organic | Phorate |
| | Thioacetamide | Organic | Thioacetamide |

| | CONSTITUENT | CATEGORY | SEE LISTING(S) UNDER: |
|---|---|---|---|
| | Thiobencarb | Organic | Thiobencarb |
| | Thiodan | Organic | Endosulfan |
| | 4,4'-Thiodianiline | Organic | 4,4'-Thiodianiline |
| | Thiophos | Organic | Parathion |
| | Thiotepa | Organic | Tris(1-aziridinyl)phosphine sulfide |
| | Thiram | Organic | Thiram |
| | THMs | Organic | Bromodichloromethane<br>Bromoform<br>Chloroform<br>Dibromochloromethane |
| | TNT | Organic | Trinitrotoluene |
| | Toluene | Organic | Toluene |
| | Toluene diisocyanate | Organic | Toluene diisocyanate |
| | o-Toluidine | Organic | o-Toluidine |
| | o-Toluidine hydrochloride | Organic | o-Toluidine hydrochloride |
| | Tordon | Organic | Picloram |
| | Total dissolved solids | Inorganic | Total dissolved solids (TDS) |
| | Toxaphene | Organic | Toxaphene |
| | 2,4,5-TP | Organic | 2,4,5-TP (Silvex) |
| | Treflan | Organic | Trifluralin |
| | Tribromomethane | Organic | Bromoform |
| | Tribufos | Organic | Merphos |
| | Tributyltin | Organic | Tributyltin |
| | Trichlorfon | Organic | Trichlorfon |
| | Trichloroacetaldehyde | Organic | Trichloroacetaldehyde |
| | Trichloroacetic acid | Organic | Trichloroacetic acid |
| | Trichloroacetonitrile | Organic | Trichloroacetonitrile |
| | 1,2,4-Trichlorobenzene | Organic | 1,2,4-Trichlorobenzene |
| | 1,3,5-Trichlorobenzene | Organic | 1,3,5-Trichlorobenzene |
| | Trichlorobenzenes | Organic | Benzenes, trichloro-<br>1,2,4-Trichlorobenzene<br>1,3,5-Trichlorobenzene |
| | 1,1,1-Trichloroethane | Organic | 1,1,1-Trichloroethane |
| | 1,1,2-Trichloroethane | Organic | 1,1,2-Trichloroethane |
| | Trichloroethene | Organic | Trichloroethylene (TCE) |
| | Trichloroethylene | Organic | Trichloroethylene (TCE) |
| | Trichlorofluoromethane | Organic | Trichlorofluoromethane |
| | Trichloromethane | Organic | Chloroform |
| | 2,4,5-Trichlorophenol | Organic | 2,4,5-Trichlorophenol |
| | 2,4,6-Trichlorophenol | Organic | 2,4,6-Trichlorophenol |
| | 2,4,5-Trichlorophenoxyacetic acid | Organic | 2,4,5-T |
| | 2,4,5-Trichlorophenoxypropionic acid | Organic | 2,4,5-TP (Silvex) |
| | 1,2,3-Trichloropropane | Organic | 1,2,3-Trichloropropane |
| | Trichlorotrifluoroethane | Organic | 1,1,2-Trichloro-1,2,2-trifluoroethane |
| | 1,1,2-Trichloro-1,2,2-trifluoroethane | Organic | 1,1,2-Trichloro-1,2,2-trifluoroethane |
| | Trichlorphon | Organic | Trichlorfon |
| | Trifluralin | Organic | Trifluralin |
| | Trihalomethane(s) | Organic | Bromodichloromethane<br>Bromoform<br>Chloroform<br>Dibromochloromethane |
| | Trinitroglycerol | Organic | Trinitroglycerol |
| | Trinitrophenol | Organic | Trinitrophenol |
| | Trinitrotoluene | Organic | Trinitrotoluene (TNT) |
| | Trisodium nitrilotriacetate | Organic | Nitrilotriacetate, trisodium monohydrate |
| | Tris(1-aziridinyl)phosphine sulfide | Organic | Tris(1-aziridinyl)phosphine sulfide |
| | Tris(2,3-dibromopropyl)phosphate | Organic | Tris(2,3-dibromopropyl)phosphate |
| | Trp-P-1 | Organic | Tryptophan-P-1 |
| | Trp-P-2 | Organic | Tryptophan-P-2 |
| | Trithion | Organic | Trithion |
| | Tryptophan-P-1 | Organic | Tryptophan-P-1 |
| | Tryptophan-P-2 | Organic | Tryptophan-P-2 |
| | Turbacil | Organic | Terbacil |
| U | UDMH | Organic | 1,1-Dimethylhydrazine |
| | Unsymmetrical dimethylhydrazine | Organic | 1,1-Dimethylhydrazine |
| | Uranium | Inorganic | Uranium |
| | Urethane | Organic | Urethane |
| | Urox | Organic | Bromacil |
| V | Vanadium | Inorganic | Vanadium |
| | VC | Organic | Vinyl chloride |
| | Vegadex | Organic | Sulfallate |
| | Velpar | Organic | Hexazinone |
| | Vinylbenzene | Organic | Styrene |
| | Vinyl bromide | Organic | Vinyl bromide |
| | Vinyl chloride | Organic | Vinyl chloride |
| | Vinylidene chloride | Organic | 1,1-Dichloroethylene |
| | Vinyl trichoride | Organic | 1,1,2-Trichloroethane |
| | Vitavax | Organic | Carboxin |
| | Vydate | Organic | Oxamyl |
| X | Xylene | Organic | Xylene(s) |
| | meta-Xylene | Organic | Xylene(s) |
| | ortho-Xylene | Organic | Xylene(s) |
| | para-Xylene | Organic | Xylene(s) |
| | Xylenes | Organic | Xylene(s) |
| | as-m-Xylenol | Organic | 2,4-Dimethylphenol |
| | 2,6-Xylidine | Organic | 2,6-Xylidine |
| Z | Zinc | Inorganic | Zinc |
| | Zineb | Organic | Zineb |
| | Ziram | Organic | Ziram |

# WATER QUALITY GOALS — INORGANIC CONSTITUENTS

| INORGANIC CONSTITUENT | Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs) | | | | | California Recommended Public Health Level (RPHL) Department of Health Services | California State Action Levels Department of Health Services | | Other Taste & Odor Thresholds |
|---|---|---|---|---|---|---|---|---|---|
| | California Dept. of Health Services | | U.S. Environmental Protection Agency | | | | | | |
| | Primary MCL | Secondary MCL | Primary MCL | Secondary MCL | MCL Goal | | Toxicity | Taste & Odor | |
| Alkalinity | | | | | | | | | |
| Aluminum | 1000 | | | 50 to 200 | | 1000 (100) | | | |
| Ammonia | | | | | | | | | |
| Ammonium sulfamate | | | | | | | | | |
| Antimony | | | 6 (93) | | 6 (93) | | | | |
| Arsenic | 50 | | 50 | | | | | | |
| Asbestos | | | (101) | | (101) | | | | |
| Barium | 1000 | | 2000 | | 2000 | | | | |
| Beryllium | | | 4 (93) | | 4 (93) | | | | |
| Beryllium oxide | | | | | | | | | |
| Beryllium sulfate | | | | | | | | | |
| Boron | | | | | | | | | |
| Bromide | | | | | | | | | |
| Cadmium | 10 | | 5 | | 5 | | | | |
| Carbon disulfide | | | | | | | | | |
| Chloramine | | | | | | | | | |
| Chlorate | | | | | | | | | |
| Chloride | | 250,000 (73) | | 250,000 | | | | | |
| Chlorine | | | | | | | | | |
| Chlorine dioxide | | | | | | | | | |
| Chlorite | | | | | | | | | |
| Chromium (III) | | | | | | | | | |
| Chromium (VI) | | | | | | | | | |
| Chromium (total) | 50 | | 100 | | 100 | | | | |
| Cobalt | | | | | | | | | |
| Color | | 15 units | | 15 units | | | | | |
| Copper | | 1000 | 1300 (111) | 1000 | 1300 | | | | |
| Cyanide | | | 200 (93) | | 200 (93) | | | | |
| Fluoride | 1400 to 2400 (109) | | 4000 | 2000 | 4000 | | | | |
| Foaming agents (MBAS) | | 500 | | 500 | | | | | |
| Hydrazine | | | | | | | | | |
| Hydrazine sulfate | | | | | | | | | |
| Hydrogen sulfide | | | | | | | | | |
| Iodide | | | | | | | | | |
| Iron | | 300 | | 300 | | | | | |
| Lead | 50 | | 15 (111) | | zero | | | | |
| Manganese | | 50 | | 50 | | | | | |
| Mercury (inorganic) | 2 | | 2 | | 2 | 2 (100) | | | |
| Molybdenum | | | | | | | | | |
| Nickel | | | 100 (93) | | 100 (93) | | | | |
| Nickel subsulfide | | | | | | | | | |
| Nitrate | 45,000 (72) | | 10,000 (103) | | 10,000 (89) | | | | |
| Nitrite | | | 1000 (103) | | 1000 (89) | | | | |
| Oxygen, dissolved | | | | | | | | | |
| pH | | | | 6.5 to 8.5 units | | | | | |
| Phosphorus | | | | | | | | | |
| Potassium bromate | | | | | | | | | |
| Radioactivity, Gross Alpha | 15 pCi/l | | 15 pCi/l (110) | | zero | | | | |
| Radioactivity, Gross Beta | 50 pCi/l | | 4 mrem/yr | | zero | | | | |
| Radium 226 + 228 | 5 pCi/l | | 5 pCi/l / 20 pCi/l (100) | | zero (100) | | | | |
| Radon | | | 300 pCi/l (100) | | zero (100) | | | | |
| Selenium | 10 | | 50 | | 50 | | | | |
| Selenium sulfide | | | | | | | | | |
| Settleable solids | | | | | | | | | |
| Silver | 50 | | 100 | | | | | | |
| Sodium | | | | | | | | | |
| Specific conductance (EC) | | 900 µmhos/cm (74) | | | | | | | |
| Strontium | | | | | | | | | |
| Strontium-90 | 8 pCi/l | | | | | | | | |
| Sulfate | | 250,000 (73) | 400,000-500,000 (100) | 250,000 | 400,000-500,000 (100) | | | | |
| Thallium | | | 2 (93) | | 0.5 (93) | | | | |
| Total dissolved solids (TDS) | | 500,000 (75) | | 500,000 | | | | | |
| Tritium | 20,000 pCi/l | | | | | | | | |
| Turbidity | | 5 units | 1 to 5 units | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — INORGANIC CONSTITUENTS

| INORGANIC CONSTITUENT | Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk | | U.S. EPA Integrated Risk Information System (IRIS) Reference Dose as a Water Quality Criterion (118) | One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water | | | | California Proposition 65 Regulatory Level as a Water Quality Criterion (14) | Agricultural Water Quality Goals (78) |
|---|---|---|---|---|---|---|---|---|---|
| | U.S. EPA | National Academy of Sciences (NAS) | | Cal/EPA Cancer Potency Factor as a Water Quality Criterion (102) | U.S. EPA Integrated Risk Information System (IRIS) | U.S. EPA Health Advisory or SNARL | National Academy of Sciences (NAS) *Drinking Water and Health* | | |
| Alkalinity | | | | | | | | | |
| Aluminum | | 5000 (7-day) | | | | | | | 5000 |
| Ammonia | 30,000 (68) | | | | | (D) | | | |
| Ammonium sulfamate | 2000 | | 2000 | | | (D) | | | |
| Antimony | 3 | | 2.8 | | | (D) | | | |
| Arsenic | | | | | 0.02 | 0.02 (A,68) | | 5 | 100 |
| Asbestos | | | | (15) | | (A,101) | | (15) | |
| Barium | 2000 | 4700 | 490 | | | (D) | | | |
| Beryllium | 4000 / 20,000(7-yr,7,68) | | | | 0.008 | 0.008 (B2,68) | | (15) | 100 |
| Beryllium oxide | | | | 0.005 | | | | (15) | |
| Beryllium sulfate | | | | 0.000012 | | | | (15) | |
| Boron | 600 (68) | | 630 | | | (D) | | | 750 (91) / 700 |
| Bromide | | 2300 | | | | | | | |
| Cadmium | 5 | 5 | 3.5 | (15) | | (D) | | (15) | 10 |
| Carbon disulfide | | | 700 | | | | | | |
| Chloramine | 2600 (68) | 166 / 581 (7) | 700 | | | (D) | | | |
| Chlorate | | 7 / 24 (7) | | | | (D) | | | |
| Chloride | | | | | | | | | 106,000 |
| Chlorine | | | 1050 | | | (D) | | | |
| Chlorine dioxide | | 60 / 210 (7) | 210 | | | (D) | | | |
| Chlorite | | 7 / 24 (7) | 70 | | | | | | |
| Chromium (III) | | | | | | | | | |
| Chromium (VI) | | | | 0.083 | | (A) | | (15) | 100 |
| Chromium (total) | 100 | | 35 | | | (D) | | | |
| Cobalt | | | | | | | | | 50 |
| Color | | | | | | | | | |
| Copper | | | | | | (D) | | | 200 |
| Cyanide | 200 | | 150 | | | (D) | | | |
| Fluoride | | | 840 | | | (D) | | | 1000 |
| Foaming agents (MBAS) | | | | | | | | | |
| Hydrazine | | | | 0.0021 | | | | 0.02 | |
| Hydrazine sulfate | | | | 0.012 | | | | 0.1 | |
| Hydrogen sulfide | | | | | | | | | |
| Iodide | | 1190 | | | | | | | |
| Iron | | | | | | | | | 5000 |
| Lead | | | | | | (B2) | | 0.25 (5) | 5000 |
| Manganese | | | 980 | | | | | | 200 |
| Mercury (inorganic) | 2 | | 2.1 | | | (D) | | | |
| Molybdenum | 40 | | 35 | | | (D) | | | 10 |
| Nickel | 100 | | 140 | (15) | | (D) | | (15) | 200 |
| Nickel subsulfide | | | | 0.021 | | | | 0.2 | |
| Nitrate | 10,000 (89) | | 11,000 (89) | | | (D) | | | |
| Nitrite | 1000 (89) | | 1100 (89) | | | (D) | | | |
| Oxygen, dissolved | | | | | | | | | |
| pH | | | | | | | | | |
| Phosphorus | 0.1 (40) | | | | | (D) | | | |
| Potassium bromate | | | | | | | | 0.5 | |
| Radioactivity, Gross Alpha | | | | | | (A) | | | |
| Radioactivity, Gross Beta | | | | | | 0.04 mrem/yr (A,68) | | | |
| Radium 226 + 228 | | | | | | 0.22–0.26 pCi/l (A,68) | | | |
| Radon | | | | | | 1.5 pCi/l (A,68) | | | |
| Selenium | | | 35 | | | | | | 20 |
| Selenium sulfide | | | | | | | | 4.5 (100) | |
| Settleable solids | | | | | | | | | |
| Silver | 100 (68) | | 35 | | | (D) | | | |
| Sodium | 2000 (57) | | | | | | | | |
| Specific conductance (EC) | | | | | | | | | 700 µmhos/cm |
| Strontium | 17,000 (68) | 8400 (7-day) | 18,000 | | | (D) | | | |
| Strontium-90 | | | | | | (A) | | | |
| Sulfate | | | | | | | | | |
| Thallium | 0.4 | | 0.5 | | | | | | |
| Total dissolved solids (TDS) | | | | | | | | | 450,000 |
| Tritium | | | | | | (A) | | | |
| Turbidity | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — INORGANIC CONSTITUENTS

| INORGANIC CONSTITUENT | California Inland Surface Waters Plan Numerical Water Quality Objectives | | | | | | California Enclosed Bays & Estuaries Plan Numerical Water Quality Objectives | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | | Freshwater Aquatic Life Protection | | | | Human Health Protection (30-day Average) "‡" = carcinogen | Saltwater Aquatic Life Protection | | |
| | Sources of Drinking Water | Other Waters | 4-day Average | Daily Average | 1-hour Average | Instantaneous Maximum | | 4-day Average | Daily Average | 1-hour Average |
| Alkalinity | | | | | | | | | | |
| Aluminum | | | | | | | | | | |
| Ammonia | | | | | | | | | | |
| Ammonium sulfamate | | | | | | | | | | |
| Antimony | 14 (100) | 4300 (100) | | | | | 4300 (100) | | | |
| Arsenic | 5.0 ‡ | | 190 | | 360 | | | 36 | | 69 |
| Asbestos | ‡ (100,101) | | | | | | | | | |
| Barium | | | | | | | | | | |
| Beryllium | 0.008 ‡ (100) | 0.13 ‡ (100) | | | | | 0.13 ‡ (100) | | | |
| Beryllium oxide | | | | | | | | | | |
| Beryllium sulfate | | | | | | | | | | |
| Boron | | | | | | | | | | |
| Bromide | | | | | | | | | | |
| Cadmium | 10 | | 0.55 (2,10) see p. 9 | | 1.4 (2,33) see p. 9 | | | 9.3 | | 43 |
| Carbon disulfide | | | | | | | | | | |
| Chloramine | | | | | | | | | | |
| Chlorate | | | | | | | | | | |
| Chloride | | | | | | | | | | |
| Chlorine | | | | | | | | | | |
| Chlorine dioxide | | | | | | | | | | |
| Chlorite | | | | | | | | | | |
| Chromium (III) | 33,000 (100) | 670,000 (100) | 98 (2,55,100) see p. 9 | | 820 (2,60,100) see p. 9 | | 670,000 (100) | | | |
| Chromium (VI) | 50 (12) | | 11 (12) | | 16 (12) | | | 50 (12) | | 1100 (12) |
| Chromium (total) | 50 (12) | | 11 (12) | | 16 (12) | | | 50 (12) | | 1100 (12) |
| Cobalt | | | | | | | | | | |
| Color | | | | | | | | | | |
| Copper | 1000 (36) | | 5.4 (2,63) see p. 9 | | 7.5 (2,65) see p. 9 | | | | | 2.9 |
| Cyanide | 700 (100) | 220,000 (100) | 5.2 (100) | | 22 (100) | | 220,000 (100) | | | 1.0 (100) |
| Fluoride | | | | | | | | | | |
| Foaming agents (MBAS) | | | | | | | | | | |
| Hydrazine | | | | | | | | | | |
| Hydrazine sulfate | | | | | | | | | | |
| Hydrogen sulfide | | | | | | | | | | |
| Iodide | | | | | | | | | | |
| Iron | | | | | | | | | | |
| Lead | 50 | | 0.99 (2,66) see p. 9 | | 25 (2,67) see p. 9 | | | 5.6 | | 140 |
| Manganese | | | | | | | | | | |
| Mercury (inorganic) | 0.012 | 0.012 | | | 2.4 | | 0.025 | | | 2.1 |
| Molybdenum | | | | | | | | | | |
| Nickel | 600 | 4600 | 73 (2,81) see p. 9 | | 653 (2,85) see p. 9 | | 4600 | 8.3 | | 75 |
| Nickel subsulfide | | | | | | | | | | |
| Nitrate | | | | | | | | | | |
| Nitrite | | | | | | | | | | |
| Oxygen, dissolved | | | | | | | | | | |
| pH | | | | | | | | | | |
| Phosphorus | | | | | | | | | | |
| Potassium bromate | | | | | | | | | | |
| Radioactivity, Gross Alpha | | | | | | | | | | |
| Radioactivity, Gross Beta | | | | | | | | | | |
| Radium 226 + 228 | | | | | | | | | | |
| Radon | | | | | | | | | | |
| Selenium | 10 | | 5.0 | | 20 | | | 71 | | 300 |
| Selenium sulfide | | | | | | | | | | |
| Settleable solids | | | | | | | | | | |
| Silver | 50 | | | | | 0.84 (2,49) see p. 9 | | | | 2.3 (80) |
| Sodium | | | | | | | | | | |
| Specific conductance (EC) | | | | | | | | | | |
| Strontium | | | | | | | | | | |
| Strontium-90 | | | | | | | | | | |
| Sulfate | | | | | | | | | | |
| Thallium | 1.7 (100) | 6.3 (100) | | | | | 1.8 (100) | | | |
| Total dissolved solids (TDS) | | | | | | | | | | |
| Tritium | | | | | | | | | | |
| Turbidity | | | | | | | | | | |

 *Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.* 

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# WATER QUALITY GOALS — INORGANIC CONSTITUENTS

| INORGANIC CONSTITUENT | U.S. EPA National Ambient Water Quality Criteria | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Health and Welfare Protection | | | Freshwater Aquatic Life Protection | | | | | | |
| | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | Non-Cancer Public Health Effects | One-in-a-Million Incremental Cancer Risk Estimate | Taste & Odor or Welfare | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| Alkalinity | | | | | | | ≥ 20,000 (114) | | | |
| Aluminum | | | | 87 (62) | | 750 (62) | | | | |
| Ammonia | | | | (97) see page 7 | | (97) see page 7 | | | | |
| Ammonium sulfamate | | | | | | | | | | |
| Antimony | 14 / 4300 (52) | | | 30 (94,100) | | 88 (94,100) | | 9000 | 1600 | 610 (38) |
| Arsenic | | 0.018 / 0.14 (52) | | 190 (94) | | 360 (94) | | 850 (95) | | 48 (6) |
| Asbestos | | (101) | | | | | | | | |
| Barium | 1000 | | | | | | | | | |
| Beryllium | | | | | | | | 130 | 5.3 | |
| Beryllium oxide | | | | | | | | | | |
| Beryllium sulfate | | | | | | | | | | |
| Boron | | | | | | | | | | |
| Bromide | | | | | | | | | | |
| Cadmium | | | | 0.55 (2,10) see p. 9 | | 1.4 (2,33) see p. 9 | | | | |
| Carbon disulfide | | | | | | | | | | |
| Chloramine | | | | | | | | | | |
| Chlorate | | | | | | | | | | |
| Chloride | 250,000 | | | 230,000 (4) | | 860,000 (4) | | | | |
| Chlorine | | | | 11 (98) | | 19 (98) | | | | |
| Chlorine dioxide | | | | | | | | | | |
| Chlorite | | | | | | | | | | |
| Chromium (III) | | | | 98 (2,55) see p. 9 | | 820 (2,60) see p. 9 | | | | |
| Chromium (VI) | | | | 11 | | 16 | | | | |
| Chromium (total) | | | | | | | | | | |
| Cobalt | | | | | | | | | | |
| Color | | | | | | | | | | |
| Copper | | | 1000 | 5.4 (2,63) see p. 9 | | 7.5 (2,65) see p. 9 | | | | |
| Cyanide | 700 / 220,000 (52) | | | 5.2 | | 22 | | | | |
| Fluoride | | | | | | | | | | |
| Foaming agents (MBAS) | | | | | | | | | | |
| Hydrazine | | | | | | | | | | |
| Hydrazine sulfate | | | | | | | | | | |
| Hydrogen sulfide | | | | | | | 2 | | | |
| Iodide | | | | | | | | | | |
| Iron | | | 300 | | | | 1000 | | | |
| Lead | | | | 0.99 (2,66) see p. 9 | | 25 (2,67) see p. 9 | | | | |
| Manganese | | | 50 | | | | | | | |
| Mercury (inorganic) | 0.14 / 0.15 (52) | | | 0.012 | | 2.4 | | | | |
| Molybdenum | | | | | | | | | | |
| Nickel | 610 / 4600 (52) | | | 73 (2,81) see p. 9 | | 653 (2,85) see p. 9 | | | | |
| Nickel subsulfide | | | | | | | | | | |
| Nitrate | 10,000 (89) | | | | | | | | | |
| Nitrite | | | | | | | | | | |
| Oxygen, dissolved | | | | (91) | (91) | | | | | |
| pH | | | 5 to 9 units | | | | 6.5 to 9.0 units | | | |
| Phosphorus | | | | | | | | | | |
| Potassium bromate | | | | | | | | | | |
| Radioactivity, Gross Alpha | | | | | | | | | | |
| Radioactivity, Gross Beta | | | | | | | | | | |
| Radium 226 + 228 | | | | | | | | | | |
| Radon | | | | | | | | | | |
| Selenium | | | | 5 | | 20 | | | | |
| Selenium sulfide | | | | | | | | | | |
| Settleable solids | | | | | | | | | | |
| Silver | | | | 0.12 (100) | | 0.84 (2,49) see p. 9 | | | 0.12 | |
| Sodium | | | | | | | | | | |
| Specific conductance (EC) | | | | | | | | | | |
| Strontium | | | | | | | | | | |
| Strontium-90 | | | | | | | | | | |
| Sulfate | | | 250,000 | | | | | | | |
| Thallium | 1.7 / 6.3 (52) | | | | | | | 1400 | 40 | 20 (16) |
| Total dissolved solids (TDS) | | | | | | | | | | |
| Tritium | | | | | | | | | | |
| Turbidity | | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — INORGANIC CONSTITUENTS

| INORGANIC CONSTITUENT | California Ocean Plan Numerical Water Quality Objectives | | | | | | U.S. EPA National Ambient Water Quality Criteria Saltwater Aquatic Life Protection | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | Marine Aquatic Life Protection | | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | | 6-month Median | 30-day Average | 7-day Average | Daily Maximum | Instantaneous Maximum | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| Alkalinity | | | | | | | | | | | | | |
| Aluminum | | | | | | | | | | | | | |
| Ammonia | | 600 (89) | | | 2400 (89) | 6000 (89) | 35 (112) see p. 8 | | 233 (112) see p. 8 | | | | |
| Ammonium sulfamate | | | | | | | | | | | | | |
| Antimony | 1200 | | | | | | 500 (94,100) | | 1500 (94,100) | | | | |
| Arsenic | | 8 | | | 32 | 80 | 36 (94) | | 69 (94) | | 2319 (95) | | 13 (6) |
| Asbestos | | | | | | | | | | | | | |
| Barium | | | | | | | | | | | | | |
| Beryllium | 0.033 ‡ | | | | | | | | | | | | |
| Beryllium oxide | | | | | | | | | | | | | |
| Beryllium sulfate | | | | | | | | | | | | | |
| Boron | | | | | | | | | | | | | |
| Bromide | | | | | | | | | | | | | |
| Cadmium | | 1 | | | 4 | 10 | 9.3 | | 43 | | | | |
| Carbon disulfide | | | | | | | | | | | | | |
| Chloramine | | | | | | | | | | | | | |
| Chlorate | | | | | | | | | | | | | |
| Chloride | | | | | | | | | | | | | |
| Chlorine | | 2 (90) | | | 8 (90) | 60 (90) | 7.5 (99) | | 13 (99) | | | | |
| Chlorine dioxide | | | | | | | | | | | | | |
| Chlorite | | | | | | | | | | | | | |
| Chromium (III) | 190,000 | | | | | | | | | | 10,300 (96) | | |
| Chromium (VI) | | 2 (12) | | | 8 (12) | 20 (12) | 50 | | 1100 | | | | |
| Chromium (total) | | 2 (12) | | | 8 (12) | 20 (12) | | | | | | | |
| Cobalt | | | | | | | | | | | | | |
| Color | | | | | | | | | | | | | |
| Copper | | 3 | | | 12 | 30 | 2.9 | | 2.9 | | | | |
| Cyanide | | 1 | | | 4 | 10 | 1 | | 1 | | | | |
| Fluoride | | | | | | | | | | | | | |
| Foaming agents (MBAS) | | | | | | | | | | | | | |
| Hydrazine | | | | | | | | | | | | | |
| Hydrazine sulfate | | | | | | | | | | | | | |
| Hydrogen sulfide | | | | | | | | | | 2 | | | |
| Iodide | | | | | | | | | | | | | |
| Iron | | | | | | | | | | | | | |
| Lead | | 2 | | | 8 | 20 | 5.6 | | 140 | | | | |
| Manganese | | | | | | | | | | 100 | | | |
| Mercury (inorganic) | | 0.04 | | | 0.16 | 0.4 | 0.025 | | 2.1 | | | | |
| Molybdenum | | | | | | | | | | | | | |
| Nickel | | 5 | | | 20 | 50 | 8.3 | | 75 | | | | |
| Nickel subsulfide | | | | | | | | | | | | | |
| Nitrate | | | | | | | | | | | | | |
| Nitrite | | | | | | | | | | | | | |
| Oxygen, dissolved | | | | | | | | | | | | | |
| pH | | | | | | 6.0 to 9.0 units | | | | 6.5 to 8.5 units | | | |
| Phosphorus | | | | | | | | | | 0.1 (79) | | | |
| Potassium bromate | | | | | | | | | | | | | |
| Radioactivity, Gross Alpha | | | | | | 15 pCi/l (110) | | | | | | | |
| Radioactivity, Gross Beta | | | | | | 50 pCi/l | | | | | | | |
| Radium 226 + 228 | | | | | | 5 pCi/l | | | | | | | |
| Radon | | | | | | | | | | | | | |
| Selenium | | 15 | | | 60 | 150 | 71 | | 300 | | | | |
| Selenium sulfide | | | | | | | | | | | | | |
| Settleable solids | | | 1000 | 1500 | | 3000 | | | | | | | |
| Silver | | 0.7 | | | 2.8 | 7 | 0.92 (100) | | 2.3 | | | | |
| Sodium | | | | | | | | | | | | | |
| Specific conductance (EC) | | | | | | | | | | | | | |
| Strontium | | | | | | | | | | | | | |
| Strontium-90 | | | | | | 8 pCi/l | | | | | | | |
| Sulfate | | | | | | | | | | | | | |
| Thallium | 14 | | | | | | | | | | 2130 | | |
| Total dissolved solids (TDS) | | | | | | | | | | | | | |
| Tritium | | | | | | 20,000 pCi/l | | | | | | | |
| Turbidity | | | 75 NTU | 100 NTU | | 225 NTU | | | | | | | |

 *Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.* 

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# WATER QUALITY GOALS — INORGANIC CONSTITUENTS

| INORGANIC CONSTITUENT | Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs) | | | | | California Recommended Public Health Level (RPHL) Department of Health Services | California State Action Levels Department of Health Services | | Other Taste & Odor Thresholds |
|---|---|---|---|---|---|---|---|---|---|
| | California Dept. of Health Services | | U.S. Environmental Protection Agency | | | | | | |
| | Primary MCL | Secondary MCL | Primary MCL | Secondary MCL | MCL Goal | | Toxicity | Taste & Odor | |
| Uranium | 20 pCi/l | | 20 µg/l = 30 pCi/l (100) | | zero (100) | | | | |
| Vanadium | | | | | | | | | |
| Zinc | | 5000 | | 5000 | | | | | |

| INORGANIC CONSTITUENT | Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk | | U.S. EPA Integrated Risk Information System (IRIS) Reference Dose as a Water Quality Criterion (118) | One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water | | | | California Proposition 65 Regulatory Level as a Water Quality Criterion (14) | Agricultural Water Quality Goals (78) |
|---|---|---|---|---|---|---|---|---|---|
| | U.S. EPA | National Academy of Sciences (NAS) | | Cal/EPA Cancer Potency Factor as a Water Quality Criterion (102) | U.S. EPA Integrated Risk Information System (IRIS) | U.S. EPA Health Advisory or SNARL | National Academy of Sciences (NAS) *Drinking Water and Health* | | |
| Uranium | | 35 | | | | 1.7 pCi/l (A) | | | |
| Vanadium | 20 (68) | | 21 | | | (D) | | | 100 |
| Zinc | 2000 | | 2100 | | | (D) | | | 2000 |

| INORGANIC CONSTITUENT | California Inland Surface Waters Plan Numerical Water Quality Objectives | | | | | | California Enclosed Bays & Estuaries Plan Numerical Water Quality Objectives | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | | Freshwater Aquatic Life Protection | | | | Human Health Protection (30-day Average) "‡" = carcinogen | Saltwater Aquatic Life Protection | | |
| | Sources of Drinking Water | Other Waters | 4-day Average | Daily Average | 1-hour Average | Instantaneous Maximum | | 4-day Average | Daily Average | 1-hour Average |
| Uranium | | | | | | | | | | |
| Vanadium | | | | | | | | | | |
| Zinc | 5000 (36) | | 49 (2,9) see p. 9 | | 54 (1,2) see p. 9 | | | 86 | | 95 |

| INORGANIC CONSTITUENT | U.S. EPA National Ambient Water Quality Criteria | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Health and Welfare Protection | | | Freshwater Aquatic Life Protection | | | | | | |
| | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | Non-Cancer Public Health Effects | One-in-a-Million Incremental Cancer Risk Estimate | Taste & Odor or Welfare | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| Uranium | | | | | | | | | | |
| Vanadium | | | | | | | | | | |
| Zinc | | | 5000 | 49 (2,9) see p. 9 | | 54 (1,2) see p. 9 | | | | |

| INORGANIC CONSTITUENT | California Ocean Plan Numerical Water Quality Objectives | | | | | | U.S. EPA National Ambient Water Quality Criteria Saltwater Aquatic Life Protection | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | Marine Aquatic Life Protection | | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | | 6-month Median | 30-day Average | 7-day Average | Daily Maximum | Instantaneous Maximum | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| Uranium | | | | | | 20 pCi/l | | | | | | | |
| Vanadium | | | | | | | | | | | | | |
| Zinc | | 20 | | | 80 | 200 | 86 | | 95 | | | | |

 *Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.* 

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# WATER QUALITY GOALS — INORGANIC CONSTITUENTS
## FRESHWATER AQUATIC LIFE — AMMONIA

**U.S. EPA National Ambient Water Quality Criteria to protect Freshwater Aquatic Life Criteria Continuous Concentrations (4-day Avg.) for Ammonia at these Temperatures (°C)**

| pH | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
|---|---|---|---|---|---|---|---|
| **Salmonids or Other Sensitive Coldwater Species Present —** | | | | | | | |
| | Un-ionized Ammonia (mg/l as NH3‡) | | | | | | |
| 6.50 | 0.0007 | 0.0009 | 0.0013 | 0.0019 | 0.0019 | 0.0019 | 0.0019 |
| 6.75 | 0.0012 | 0.0017 | 0.0023 | 0.0033 | 0.0033 | 0.0033 | 0.0033 |
| 7.00 | 0.0021 | 0.0029 | 0.0042 | 0.0059 | 0.0059 | 0.0059 | 0.0059 |
| 7.25 | 0.0037 | 0.0052 | 0.0074 | 0.0105 | 0.0105 | 0.0105 | 0.0105 |
| 7.50 | 0.0066 | 0.0093 | 0.0132 | 0.0186 | 0.0186 | 0.0186 | 0.0186 |
| 7.75 | 0.0109 | 0.0153 | 0.022 | 0.031 | 0.031 | 0.031 | 0.031 |
| 8.00 | 0.0126 | 0.0177 | 0.025 | 0.035 | 0.035 | 0.035 | 0.035 |
| 8.25 | 0.0126 | 0.0177 | 0.025 | 0.035 | 0.035 | 0.035 | 0.035 |
| 8.50 | 0.0126 | 0.0177 | 0.025 | 0.035 | 0.035 | 0.035 | 0.035 |
| 8.75 | 0.0126 | 0.0177 | 0.025 | 0.035 | 0.035 | 0.035 | 0.035 |
| 9.00 | 0.0126 | 0.0177 | 0.025 | 0.035 | 0.035 | 0.035 | 0.035 |
| | Total Ammonia (mg/l as NH3‡) | | | | | | |
| 6.50 | 2.5 | 2.4 | 2.2 | 2.2 | 1.49 | 1.04 | 0.73 |
| 6.75 | 2.5 | 2.4 | 2.2 | 2.2 | 1.49 | 1.04 | 0.73 |
| 7.00 | 2.5 | 2.4 | 2.2 | 2.2 | 1.49 | 1.04 | 0.74 |
| 7.25 | 2.5 | 2.4 | 2.2 | 2.2 | 1.50 | 1.04 | 0.74 |
| 7.50 | 2.5 | 2.4 | 2.2 | 2.2 | 1.50 | 1.05 | 0.74 |
| 7.75 | 2.3 | 2.2 | 2.1 | 2.0 | 1.40 | 0.99 | 0.71 |
| 8.00 | 1.53 | 1.44 | 1.37 | 1.33 | 0.93 | 0.66 | 0.47 |
| 8.25 | 0.87 | 0.82 | 0.78 | 0.76 | 0.54 | 0.39 | 0.28 |
| 8.50 | 0.49 | 0.47 | 0.45 | 0.44 | 0.32 | 0.23 | 0.17 |
| 8.75 | 0.28 | 0.27 | 0.26 | 0.27 | 0.19 | 0.15 | 0.11 |
| 9.00 | 0.16 | 0.16 | 0.16 | 0.16 | 0.13 | 0.10 | 0.08 |
| **Salmonids or Other Sensitive Coldwater Species Absent † —** | | | | | | | |
| | Un-ionized Ammonia (mg/l as NH3‡) | | | | | | |
| 6.50 | 0.0007 | 0.0009 | 0.0013 | 0.0019 | 0.0026 | 0.0026 | 0.0026 |
| 6.75 | 0.0012 | 0.0017 | 0.0023 | 0.0033 | 0.0047 | 0.0047 | 0.0047 |
| 7.00 | 0.0021 | 0.0029 | 0.0042 | 0.0059 | 0.0083 | 0.0083 | 0.0083 |
| 7.25 | 0.0037 | 0.0052 | 0.0074 | 0.0105 | 0.0148 | 0.0148 | 0.0148 |
| 7.50 | 0.0066 | 0.0093 | 0.0132 | 0.0186 | 0.026 | 0.026 | 0.026 |
| 7.75 | 0.0109 | 0.0153 | 0.022 | 0.031 | 0.043 | 0.043 | 0.043 |
| 8.00 | 0.0126 | 0.0177 | 0.025 | 0.035 | 0.050 | 0.050 | 0.050 |
| 8.25 | 0.0126 | 0.0177 | 0.025 | 0.035 | 0.050 | 0.050 | 0.050 |
| 8.50 | 0.0126 | 0.0177 | 0.025 | 0.035 | 0.050 | 0.050 | 0.050 |
| 8.75 | 0.0126 | 0.0177 | 0.025 | 0.035 | 0.050 | 0.050 | 0.050 |
| 9.00 | 0.0126 | 0.0177 | 0.025 | 0.035 | 0.050 | 0.050 | 0.050 |
| | Total Ammonia (mg/l as NH3‡) | | | | | | |
| 6.50 | 2.5 | 2.4 | 2.2 | 2.2 | 2.1 | 1.46 | 1.03 |
| 6.75 | 2.5 | 2.4 | 2.2 | 2.2 | 2.1 | 1.47 | 1.04 |
| 7.00 | 2.5 | 2.4 | 2.2 | 2.2 | 2.1 | 1.47 | 1.04 |
| 7.25 | 2.5 | 2.4 | 2.2 | 2.2 | 2.1 | 1.48 | 1.05 |
| 7.50 | 2.5 | 2.4 | 2.2 | 2.2 | 2.1 | 1.49 | 1.06 |
| 7.75 | 2.3 | 2.2 | 2.1 | 2.0 | 1.98 | 1.39 | 1.00 |
| 8.00 | 1.53 | 1.44 | 1.37 | 1.33 | 1.31 | 0.93 | 0.67 |
| 8.25 | 0.87 | 0.82 | 0.78 | 0.76 | 0.76 | 0.54 | 0.40 |
| 8.50 | 0.49 | 0.47 | 0.45 | 0.44 | 0.45 | 0.33 | 0.25 |
| 8.75 | 0.28 | 0.27 | 0.26 | 0.27 | 0.27 | 0.21 | 0.16 |
| 9.00 | 0.16 | 0.16 | 0.16 | 0.16 | 0.17 | 0.14 | 0.11 |

**U.S. EPA National Ambient Water Quality Criteria to protect Freshwater Aquatic Life Criteria Maximum Concentrations (1-hour Avg.) for Ammonia at these Temperatures (°C)**

| pH | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
|---|---|---|---|---|---|---|---|
| **Salmonids or Other Sensitive Coldwater Species Present —** | | | | | | | |
| | Un-ionized Ammonia (mg/l as NH3‡) | | | | | | |
| 6.50 | 0.0091 | 0.0129 | 0.0182 | 0.026 | 0.036 | 0.036 | 0.036 |
| 6.75 | 0.0149 | 0.021 | 0.030 | 0.042 | 0.059 | 0.059 | 0.059 |
| 7.00 | 0.023 | 0.033 | 0.046 | 0.066 | 0.093 | 0.093 | 0.093 |
| 7.25 | 0.034 | 0.048 | 0.068 | 0.095 | 0.135 | 0.135 | 0.135 |
| 7.50 | 0.045 | 0.064 | 0.091 | 0.128 | 0.181 | 0.181 | 0.181 |
| 7.75 | 0.056 | 0.080 | 0.113 | 0.159 | 0.22 | 0.22 | 0.22 |
| 8.00 | 0.065 | 0.092 | 0.130 | 0.184 | 0.26 | 0.26 | 0.26 |
| 8.25 | 0.065 | 0.092 | 0.130 | 0.184 | 0.26 | 0.26 | 0.26 |
| 8.50 | 0.065 | 0.092 | 0.130 | 0.184 | 0.26 | 0.26 | 0.26 |
| 8.75 | 0.065 | 0.092 | 0.130 | 0.184 | 0.26 | 0.26 | 0.26 |
| 9.00 | 0.065 | 0.092 | 0.130 | 0.184 | 0.26 | 0.26 | 0.26 |
| | Total Ammonia (mg/l as NH3‡) | | | | | | |
| 6.50 | 35 | 33 | 31 | 30 | 29 | 20 | 14.3 |
| 6.75 | 32 | 30 | 28 | 27 | 27 | 18.6 | 13.2 |
| 7.00 | 28 | 26 | 25 | 24 | 23 | 16.4 | 11.6 |
| 7.25 | 23 | 22 | 20 | 19.7 | 19.2 | 13.4 | 9.5 |
| 7.50 | 17.4 | 16.3 | 15.5 | 14.9 | 14.6 | 10.2 | 7.3 |
| 7.75 | 12.2 | 11.4 | 10.9 | 10.5 | 10.3 | 7.2 | 5.2 |
| 8.00 | 8.0 | 7.5 | 7.1 | 6.9 | 6.8 | 4.8 | 3.5 |
| 8.25 | 4.5 | 4.2 | 4.1 | 4.0 | 3.9 | 2.8 | 2.1 |
| 8.50 | 2.6 | 2.4 | 2.3 | 2.3 | 2.3 | 1.71 | 1.28 |
| 8.75 | 1.47 | 1.4 | 1.37 | 1.38 | 1.42 | 1.07 | 0.83 |
| 9.00 | 0.86 | 0.83 | 0.83 | 0.86 | 0.91 | 0.72 | 0.58 |
| **Salmonids or Other Sensitive Coldwater Species Absent —** | | | | | | | |
| | Un-ionized Ammonia (mg/l as NH3‡) | | | | | | |
| 6.50 | 0.0091 | 0.0129 | 0.0182 | 0.026 | 0.036 | 0.051 | 0.051 |
| 6.75 | 0.0149 | 0.021 | 0.030 | 0.042 | 0.059 | 0.084 | 0.084 |
| 7.00 | 0.023 | 0.033 | 0.046 | 0.066 | 0.093 | 0.131 | 0.131 |
| 7.25 | 0.034 | 0.048 | 0.068 | 0.095 | 0.135 | 0.190 | 0.190 |
| 7.50 | 0.045 | 0.064 | 0.091 | 0.128 | 0.181 | 0.26 | 0.26 |
| 7.75 | 0.056 | 0.080 | 0.113 | 0.159 | 0.22 | 0.32 | 0.32 |
| 8.00 | 0.065 | 0.092 | 0.130 | 0.184 | 0.26 | 0.37 | 0.37 |
| 8.25 | 0.065 | 0.092 | 0.130 | 0.184 | 0.26 | 0.37 | 0.37 |
| 8.50 | 0.065 | 0.092 | 0.130 | 0.184 | 0.26 | 0.37 | 0.37 |
| 8.75 | 0.065 | 0.092 | 0.130 | 0.184 | 0.26 | 0.37 | 0.37 |
| 9.00 | 0.065 | 0.092 | 0.130 | 0.184 | 0.26 | 0.37 | 0.37 |
| | Total Ammonia (mg/l as NH3‡) | | | | | | |
| 6.50 | 35 | 33 | 31 | 30 | 29 | 29 | 20 |
| 6.75 | 32 | 30 | 28 | 27 | 27 | 26 | 18.6 |
| 7.00 | 28 | 26 | 25 | 24 | 23 | 23 | 16.4 |
| 7.25 | 23 | 22 | 20 | 19.7 | 19.2 | 19.0 | 13.5 |
| 7.50 | 17.4 | 16.3 | 15.5 | 14.9 | 14.6 | 14.5 | 10.3 |
| 7.75 | 12.2 | 11.4 | 10.9 | 10.5 | 10.3 | 10.2 | 7.3 |
| 8.00 | 8.0 | 7.5 | 7.1 | 6.9 | 6.8 | 6.8 | 4.9 |
| 8.25 | 4.5 | 4.2 | 4.1 | 4.0 | 3.9 | 4.0 | 2.9 |
| 8.50 | 2.6 | 2.4 | 2.3 | 2.3 | 2.3 | 2.4 | 1.81 |
| 8.75 | 1.47 | 1.40 | 1.37 | 1.38 | 1.42 | 1.52 | 1.18 |
| 9.00 | 0.86 | 0.83 | 0.83 | 0.86 | 0.91 | 1.01 | 0.82 |

‡ To convert these values to mg/l as N, multiply by 0.822.

† Site-specific criteria development is strolnly suggested at temperatures above 20° C because of the limited data available to generate the criteria recommendation, and at temperatures below 20° C because small changes in the criteria may have significant impact on the level of treatment required in meeting the recommended criteria.



*From Reference 15.*



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# WATER QUALITY GOALS — INORGANIC CONSTITUENTS
## SALTWATER AQUATIC LIFE — AMMONIA

**U. S. EPA National Ambient Water Quality Criteria to protect Saltwater Aquatic Life — Criteria Continuous Concentrations (4-day Avg.) for Total Ammonia at these Temperatures (°C)**

| pH | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 |
|---|---|---|---|---|---|---|---|---|
| | Salinity = 10 g/kg | | | | | | | |
| 7.0 | 41 | 29 | 20 | 14 | 9.4 | 6.6 | 4.4 | 3.1 |
| 7.2 | 26 | 18 | 12 | 8.7 | 5.9 | 4.1 | 2.8 | 2.0 |
| 7.4 | 17 | 12 | 7.8 | 5.3 | 3.7 | 2.6 | 1.8 | 1.2 |
| 7.6 | 10 | 7.2 | 5.0 | 3.4 | 2.4 | 1.7 | 1.2 | 0.84 |
| 7.8 | 6.6 | 4.7 | 3.1 | 2.2 | 1.5 | 1.1 | 0.75 | 0.53 |
| 8.0 | 4.1 | 2.9 | 2.0 | 1.40 | 0.97 | 0.69 | 0.47 | 0.34 |
| 8.2 | 2.7 | 1.8 | 1.3 | 0.87 | 0.62 | 0.44 | 0.31 | 0.23 |
| 8.4 | 1.7 | 1.2 | 0.81 | 0.56 | 0.41 | 0.29 | 0.21 | 0.16 |
| 8.6 | 1.1 | 0.75 | 0.53 | 0.37 | 0.27 | 0.20 | 0.15 | 0.11 |
| 8.8 | 0.69 | 0.50 | 0.34 | 0.25 | 0.18 | 0.14 | 0.11 | 0.08 |
| 9.0 | 0.44 | 0.31 | 0.23 | 0.17 | 0.13 | 0.10 | 0.08 | 0.07 |
| | Salinity = 20 g/kg | | | | | | | |
| 7.0 | 44 | 30 | 21 | 14 | 9.7 | 6.6 | 4.7 | 3.1 |
| 7.2 | 27 | 19 | 13 | 9.0 | 6.2 | 4.4 | 3.0 | 2.1 |
| 7.4 | 18 | 12 | 8.1 | 5.6 | 4.1 | 2.7 | 1.9 | 1.3 |
| 7.6 | 11 | 7.5 | 5.3 | 3.4 | 2.5 | 1.7 | 1.2 | 0.84 |
| 7.8 | 6.9 | 4.7 | 3.4 | 2.3 | 1.6 | 1.1 | 0.78 | 0.53 |
| 8.0 | 4.4 | 3.0 | 2.1 | 1.5 | 1.0 | 0.72 | 0.50 | 0.34 |
| 8.2 | 2.8 | 1.9 | 1.3 | 0.94 | 0.66 | 0.47 | 0.31 | 0.24 |
| 8.4 | 1.8 | 1.2 | 0.84 | 0.59 | 0.44 | 0.30 | 0.22 | 0.16 |
| 8.6 | 1.1 | 0.78 | 0.56 | 0.41 | 0.28 | 0.20 | 0.15 | 0.12 |
| 8.8 | 0.72 | 0.50 | 0.37 | 0.26 | 0.19 | 0.14 | 0.11 | 0.08 |
| 9.0 | 0.47 | 0.34 | 0.24 | 0.18 | 0.13 | 0.10 | 0.08 | 0.07 |
| | Salinity = 30 g/kg | | | | | | | |
| 7.0 | 47 | 31 | 22 | 15 | 11 | 7.2 | 5.0 | 3.4 |
| 7.2 | 29 | 20 | 14 | 9.7 | 6.6 | 4.7 | 3.1 | 2.2 |
| 7.4 | 19 | 13 | 8.7 | 5.6 | 4.1 | 2.9 | 2.0 | 1.4 |
| 7.6 | 12 | 8.1 | 5.6 | 3.7 | 3.1 | 1.8 | 1.3 | 0.90 |
| 7.8 | 7.5 | 5.0 | 3.4 | 2.4 | 1.7 | 1.2 | 0.81 | 0.56 |
| 8.0 | 4.7 | 3.1 | 2.2 | 1.6 | 1.1 | 0.75 | 0.53 | 0.37 |
| 8.2 | 3.0 | 2.1 | 1.4 | 1.0 | 0.69 | 0.50 | 0.34 | 0.25 |
| 8.4 | 1.9 | 1.3 | 0.90 | 0.62 | 0.44 | 0.31 | 0.23 | 0.17 |
| 8.6 | 1.2 | 0.84 | 0.59 | 0.41 | 0.30 | 0.22 | 0.16 | 0.12 |
| 8.8 | 0.78 | 0.53 | 0.37 | 0.27 | 0.20 | 0.15 | 0.11 | 0.09 |
| 9.0 | 0.50 | 0.34 | 0.26 | 0.19 | 0.14 | 0.11 | 0.08 | 0.07 |

**U. S. EPA National Ambient Water Quality Criteria to protect Saltwater Aquatic Life — Criteria Maximum Concentrations (1-hour Avg.) for Total Ammonia at these Temperatures (°C)**

| pH | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 |
|---|---|---|---|---|---|---|---|---|
| | Salinity = 10 g/kg | | | | | | | |
| 7.0 | 270 | 191 | 131 | 92 | 62 | 44 | 29 | 21 |
| 7.2 | 175 | 121 | 83 | 58 | 40 | 27 | 19 | 13 |
| 7.4 | 110 | 77 | 52 | 35 | 25 | 14 | 12 | 8.3 |
| 7.6 | 69 | 48 | 33 | 23 | 16 | 11 | 7.7 | 5.6 |
| 7.8 | 44 | 31 | 21 | 15 | 10 | 7.1 | 5.0 | 3.5 |
| 8.0 | 27 | 19 | 13 | 9.4 | 6.4 | 4.6 | 3.1 | 2.3 |
| 8.2 | 18 | 12 | 8.5 | 5.8 | 4.2 | 2.9 | 2.1 | 1.5 |
| 8.4 | 11 | 7.9 | 5.4 | 3.7 | 2.7 | 1.9 | 1.4 | 1.0 |
| 8.6 | 7.3 | 5.0 | 3.5 | 2.5 | 1.8 | 1.3 | 0.98 | 0.75 |
| 8.8 | 4.6 | 3.3 | 2.3 | 1.7 | 1.2 | 0.92 | 0.71 | 0.56 |
| 9.0 | 2.9 | 2.1 | 1.5 | 1.1 | 0.85 | 0.67 | 0.52 | 0.44 |
| | Salinity = 20 g/kg | | | | | | | |
| 7.0 | 291 | 200 | 137 | 96 | 64 | 44 | 31 | 21 |
| 7.2 | 183 | 125 | 87 | 60 | 42 | 29 | 20 | 14 |
| 7.4 | 116 | 79 | 54 | 37 | 27 | 18 | 12 | 8.7 |
| 7.6 | 73 | 50 | 35 | 23 | 17 | 11 | 7.9 | 5.6 |
| 7.8 | 46 | 31 | 23 | 15 | 11 | 7.5 | 5.2 | 3.5 |
| 8.0 | 29 | 20 | 14 | 9.8 | 6.7 | 4.8 | 3.3 | 2.3 |
| 8.2 | 19 | 13 | 8.9 | 6.2 | 4.4 | 3.1 | 2.1 | 1.6 |
| 8.4 | 12 | 8.1 | 5.6 | 4.0 | 2.9 | 2.0 | 1.5 | 1.1 |
| 8.6 | 7.5 | 5.2 | 3.7 | 2.7 | 1.9 | 1.4 | 1.0 | 0.77 |
| 8.8 | 4.8 | 3.3 | 2.5 | 1.7 | 1.3 | 0.94 | 0.73 | 0.56 |
| 9.0 | 3.1 | 2.3 | 1.6 | 1.2 | 0.87 | 0.69 | 0.54 | 0.44 |
| | Salinity = 30 g/kg | | | | | | | |
| 7.0 | 312 | 208 | 148 | 102 | 71 | 48 | 33 | 23 |
| 7.2 | 196 | 135 | 94 | 64 | 44 | 31 | 21 | 15 |
| 7.4 | 125 | 85 | 58 | 40 | 27 | 19 | 13 | 9.4 |
| 7.6 | 79 | 54 | 37 | 25 | 21 | 12 | 8.5 | 6.0 |
| 7.8 | 50 | 33 | 23 | 16 | 11 | 7.9 | 5.4 | 3.7 |
| 8.0 | 31 | 21 | 15 | 10 | 7.3 | 5.0 | 3.5 | 2.5 |
| 8.2 | 20 | 14 | 9.6 | 6.7 | 4.6 | 3.3 | 2.3 | 1.7 |
| 8.4 | 12.7 | 8.7 | 6.0 | 4.2 | 2.9 | 2.1 | 1.6 | 1.1 |
| 8.6 | 8.1 | 5.6 | 4.0 | 2.7 | 2.0 | 1.4 | 1.1 | 0.81 |
| 8.8 | 5.2 | 3.5 | 2.5 | 1.8 | 1.3 | 1.0 | 0.75 | 0.58 |
| 9.0 | 3.3 | 2.3 | 1.7 | 1.2 | 0.94 | 0.71 | 0.56 | 0.46 |

*From Reference 15.*



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# WATER QUALITY GOALS — INORGANIC CONSTITUENTS
## FRESHWATER AQUATIC LIFE — METALS

| Hardness (mg/l as CaCO3) | U.S. EPA National Ambient Water Quality Criteria to Protect Freshwater Aquatic Life | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cadmium Continuous Conc. 4-day Avg. (µg/l) | Cadmium Maximum Conc. 1-hour Avg. (µg/l) | Chromium III Continuous Conc. 4-day Avg. (µg/l) | Chromium III Maximum Conc. 1-hour Avg. (µg/l) | Copper Continuous Conc. 4-day Avg. (µg/l) | Copper Maximum Conc. 1-hour Avg. (µg/l) | Lead Continuous Conc. 4-day Avg. (µg/l) | Lead Maximum Conc. 1-hour Avg. (µg/l) | Nickel Continuous Conc. 4-day Avg. (µg/l) | Nickel Maximum Conc. 1-hour Avg. (µg/l) | Silver Maximum Conc. at any time (µg/l) | Zinc Continuous Conc. 4-day Avg. (µg/l) | Zinc Maximum Conc. 1-hour Avg. (µg/l) |
| < 25 | 0.38 | 0.82 | 67 | 558 | 3.6 | 4.8 | 0.54 | 14 | 49 | 439 | 0.37 | 33 | 36 |
| 25 | 0.38 | 0.82 | 67 | 558 | 3.6 | 4.8 | 0.54 | 14 | 49 | 439 | 0.37 | 33 | 36 |
| 30 | 0.44 | 1.0 | 77 | 648 | 4.2 | 5.7 | 0.69 | 18 | 57 | 512 | 0.51 | 38 | 42 |
| 35 | 0.50 | 1.2 | 88 | 735 | 4.8 | 6.6 | 0.84 | 21 | 65 | 583 | 0.67 | 44 | 48 |
| 40 | 0.55 | 1.4 | 98 | 820 | 5.4 | 7.5 | 0.99 | 25 | 73 | 653 | 0.84 | 49 | 54 |
| 45 | 0.61 | 1.6 | 108 | 903 | 6.0 | 8.4 | 1.2 | 30 | 80 | 722 | 1.0 | 54 | 59 |
| 50 | 0.66 | 1.8 | 117 | 984 | 6.5 | 9.2 | 1.3 | 34 | 88 | 789 | 1.2 | 59 | 65 |
| 55 | 0.71 | 2.0 | 127 | 1064 | 7.1 | 10 | 1.5 | 38 | 95 | 855 | 1.5 | 64 | 71 |
| 60 | 0.76 | 2.2 | 136 | 1143 | 7.6 | 11 | 1.7 | 43 | 102 | 921 | 1.7 | 69 | 76 |
| 65 | 0.81 | 2.4 | 145 | 1220 | 8.2 | 12 | 1.8 | 47 | 110 | 985 | 1.9 | 74 | 81 |
| 70 | 0.86 | 2.6 | 155 | 1297 | 8.7 | 13 | 2.0 | 52 | 117 | 1049 | 2.2 | 78 | 87 |
| 75 | 0.90 | 2.8 | 164 | 1372 | 9.2 | 14 | 2.2 | 57 | 124 | 1112 | 2.5 | 83 | 92 |
| 80 | 0.95 | 3.0 | 172 | 1446 | 9.8 | 14 | 2.4 | 61 | 131 | 1174 | 2.8 | 88 | 97 |
| 85 | 1.0 | 3.3 | 181 | 1520 | 10 | 15 | 2.6 | 66 | 137 | 1236 | 3.1 | 92 | 102 |
| 90 | 1.0 | 3.5 | 190 | 1593 | 11 | 16 | 2.8 | 71 | 144 | 1297 | 3.4 | 97 | 107 |
| 95 | 1.1 | 3.7 | 198 | 1665 | 11 | 17 | 3.0 | 76 | 151 | 1358 | 3.7 | 101 | 112 |
| 100 | 1.1 | 3.9 | 207 | 1737 | 12 | 18 | 3.2 | 82 | 158 | 1418 | 4.1 | 106 | 117 |
| 110 | 1.2 | 4.4 | 224 | 1877 | 13 | 19 | 3.6 | 92 | 171 | 1537 | 4.8 | 115 | 127 |
| 120 | 1.3 | 4.8 | 240 | 2016 | 14 | 21 | 4.0 | 103 | 184 | 1655 | 5.6 | 124 | 137 |
| 130 | 1.4 | 5.3 | 257 | 2153 | 15 | 23 | 4.4 | 114 | 197 | 1771 | 6.4 | 132 | 146 |
| 140 | 1.5 | 5.7 | 273 | 2287 | 16 | 24 | 4.9 | 125 | 210 | 1885 | 7.2 | 141 | 156 |
| 150 | 1.6 | 6.2 | 289 | 2420 | 17 | 26 | 5.3 | 137 | 222 | 1999 | 8.2 | 149 | 165 |
| 160 | 1.6 | 6.7 | 304 | 2552 | 18 | 28 | 5.8 | 149 | 235 | 2111 | 9.1 | 158 | 174 |
| 170 | 1.7 | 7.1 | 320 | 2682 | 19 | 29 | 6.3 | 160 | 247 | 2222 | 10 | 166 | 183 |
| 180 | 1.8 | 7.6 | 335 | 2810 | 20 | 31 | 6.7 | 173 | 259 | 2332 | 11 | 174 | 193 |
| 190 | 1.9 | 8.1 | 350 | 2937 | 20 | 32 | 7.2 | 185 | 271 | 2441 | 12 | 183 | 202 |
| 200 | 2.0 | 8.6 | 365 | 3064 | 21 | 34 | 7.7 | 197 | 283 | 2549 | 13 | 191 | 211 |
| 210 | 2.0 | 9.1 | 380 | 3188 | 22 | 36 | 8.2 | 210 | 295 | 2657 | 15 | 199 | 219 |
| 220 | 2.1 | 9.5 | 395 | 3312 | 23 | 37 | 8.7 | 223 | 307 | 2763 | 16 | 207 | 228 |
| 230 | 2.2 | 10 | 409 | 3435 | 24 | 39 | 9.2 | 236 | 319 | 2869 | 17 | 215 | 237 |
| 240 | 2.3 | 11 | 424 | 3557 | 25 | 40 | 9.7 | 249 | 331 | 2974 | 18 | 223 | 246 |
| 250 | 2.3 | 11 | 438 | 3678 | 26 | 42 | 10 | 262 | 342 | 3079 | 20 | 230 | 254 |
| 260 | 2.4 | 12 | 453 | 3798 | 27 | 44 | 11 | 276 | 354 | 3183 | 21 | 238 | 263 |
| 270 | 2.5 | 12 | 467 | 3917 | 28 | 45 | 11 | 289 | 365 | 3286 | 22 | 246 | 271 |
| 280 | 2.5 | 13 | 481 | 4036 | 29 | 47 | 12 | 303 | 377 | 3389 | 24 | 254 | 280 |
| 290 | 2.6 | 13 | 495 | 4153 | 29 | 48 | 12 | 317 | 388 | 3491 | 25 | 261 | 288 |
| 300 | 2.7 | 14 | 509 | 4270 | 30 | 50 | 13 | 331 | 399 | 3592 | 27 | 269 | 297 |
| 310 | 2.8 | 14 | 523 | 4386 | 31 | 51 | 13 | 345 | 411 | 3694 | 28 | 276 | 305 |
| 320 | 2.8 | 15 | 537 | 4502 | 32 | 53 | 14 | 359 | 422 | 3794 | 30 | 284 | 314 |
| 330 | 2.9 | 15 | 550 | 4617 | 33 | 55 | 15 | 373 | 433 | 3894 | 32 | 291 | 322 |
| 340 | 3.0 | 16 | 564 | 4731 | 34 | 56 | 15 | 388 | 444 | 3994 | 33 | 299 | 330 |
| 350 | 3.0 | 16 | 577 | 4845 | 34 | 58 | 16 | 402 | 455 | 4093 | 35 | 306 | 338 |
| 360 | 3.1 | 17 | 591 | 4958 | 35 | 59 | 16 | 417 | 466 | 4192 | 37 | 314 | 346 |
| 370 | 3.2 | 17 | 604 | 5070 | 36 | 61 | 17 | 432 | 477 | 4290 | 39 | 321 | 355 |
| 380 | 3.2 | 18 | 618 | 5182 | 37 | 62 | 17 | 447 | 488 | 4388 | 40 | 328 | 363 |
| 390 | 3.3 | 18 | 631 | 5294 | 38 | 64 | 18 | 462 | 499 | 4485 | 42 | 336 | 371 |
| 400 | 3.4 | 19 | 644 | 5405 | 39 | 65 | 19 | 477 | 509 | 4582 | 44 | 343 | 379 |
| > 400 | 3.4 | 19 | 644 | 5405 | 39 | 65 | 19 | 477 | 509 | 4582 | 44 | 343 | 379 |

*From References 15 and 22. These criteria functions are graphed on pages 10 through 16.*



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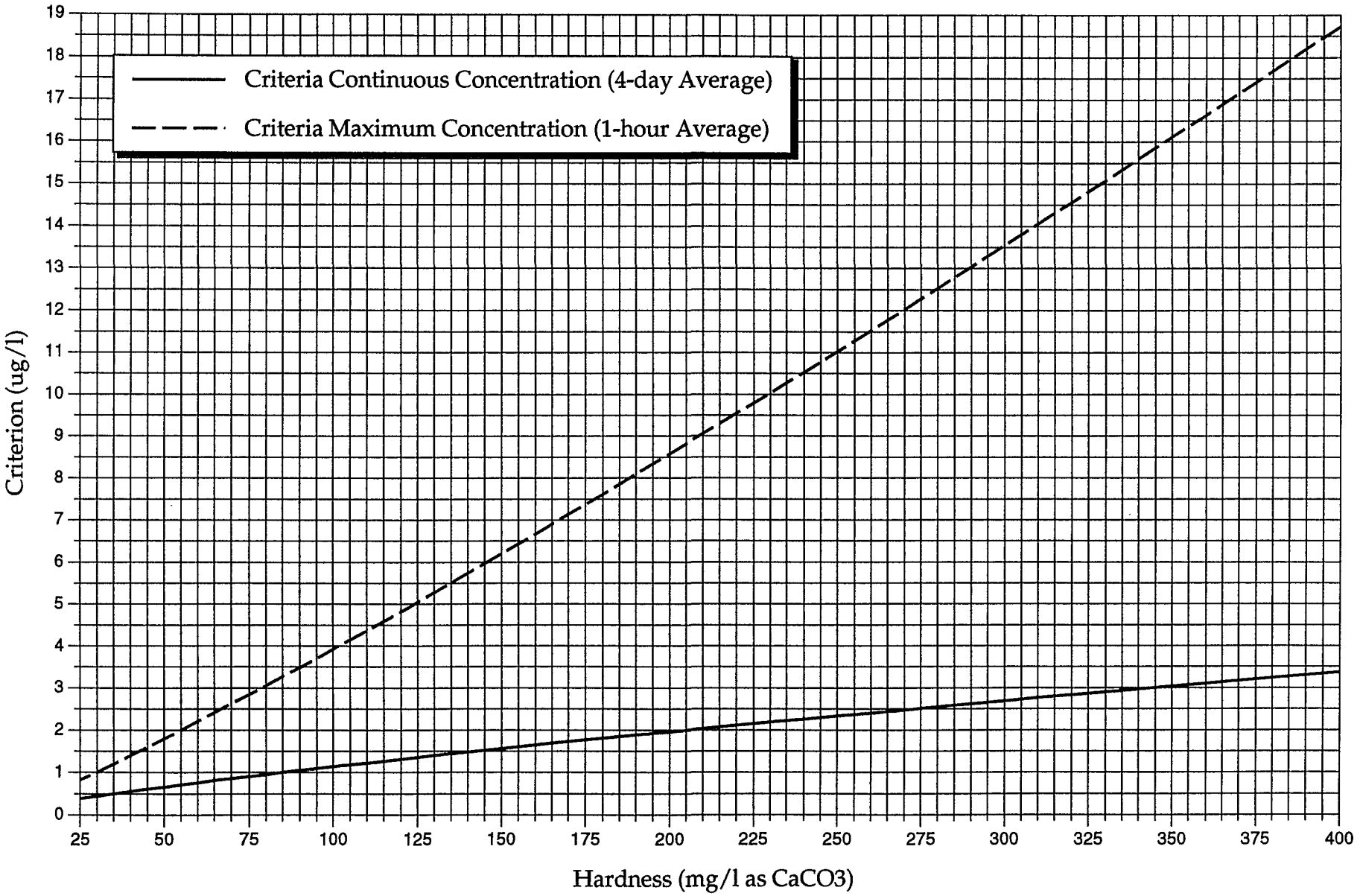
## NATIONAL AMBIENT WATER QUALITY CRITERIA TO PROTECT FRESHWATER AQUATIC LIFE — CADMIUM




*From Reference 15. These data are tabulated on page 9.*



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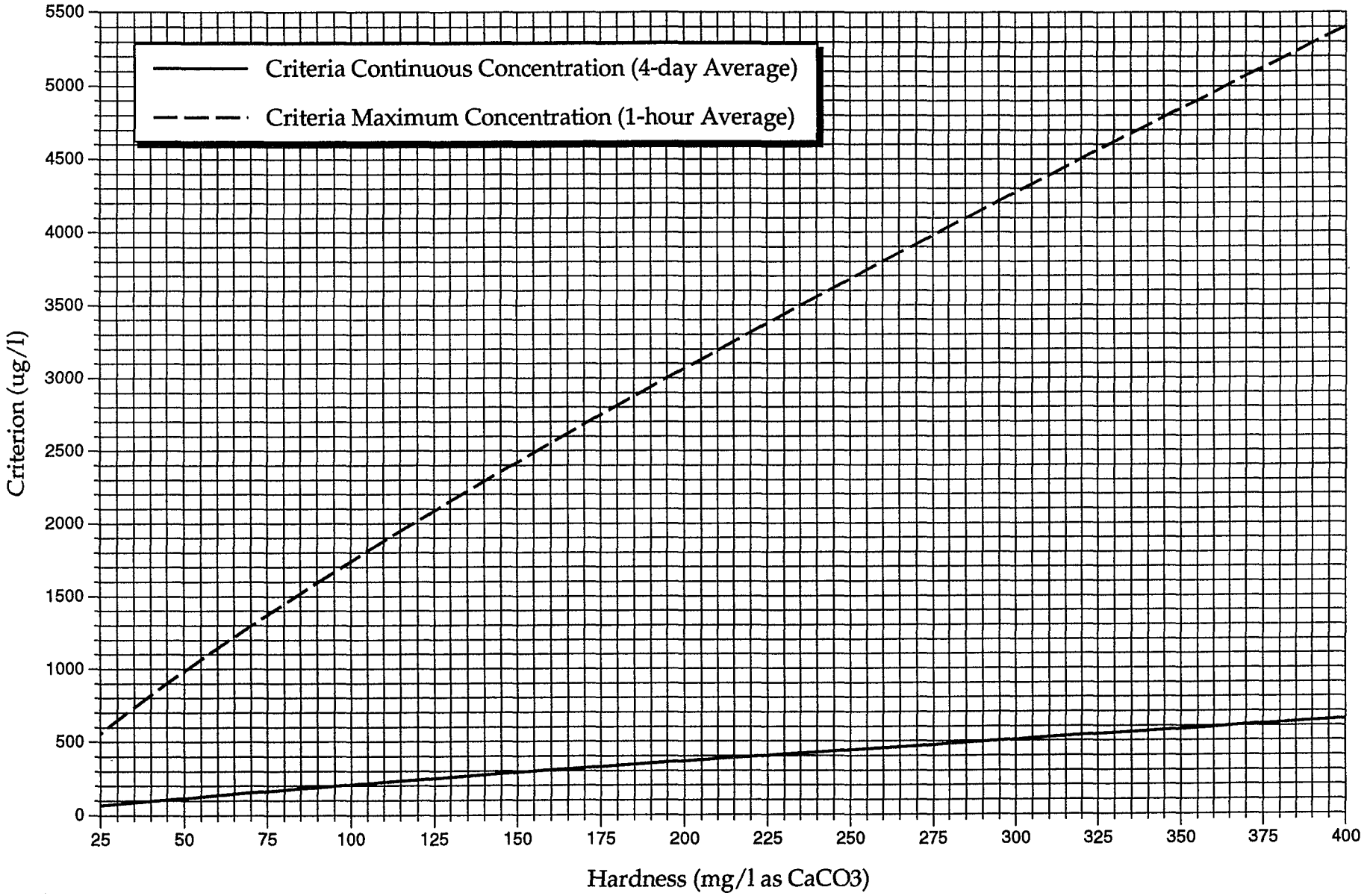
## NATIONAL AMBIENT WATER QUALITY CRITERIA TO PROTECT FRESHWATER AQUATIC LIFE — CHROMIUM III




*From Reference 15. These data are tabulated on page 9.*



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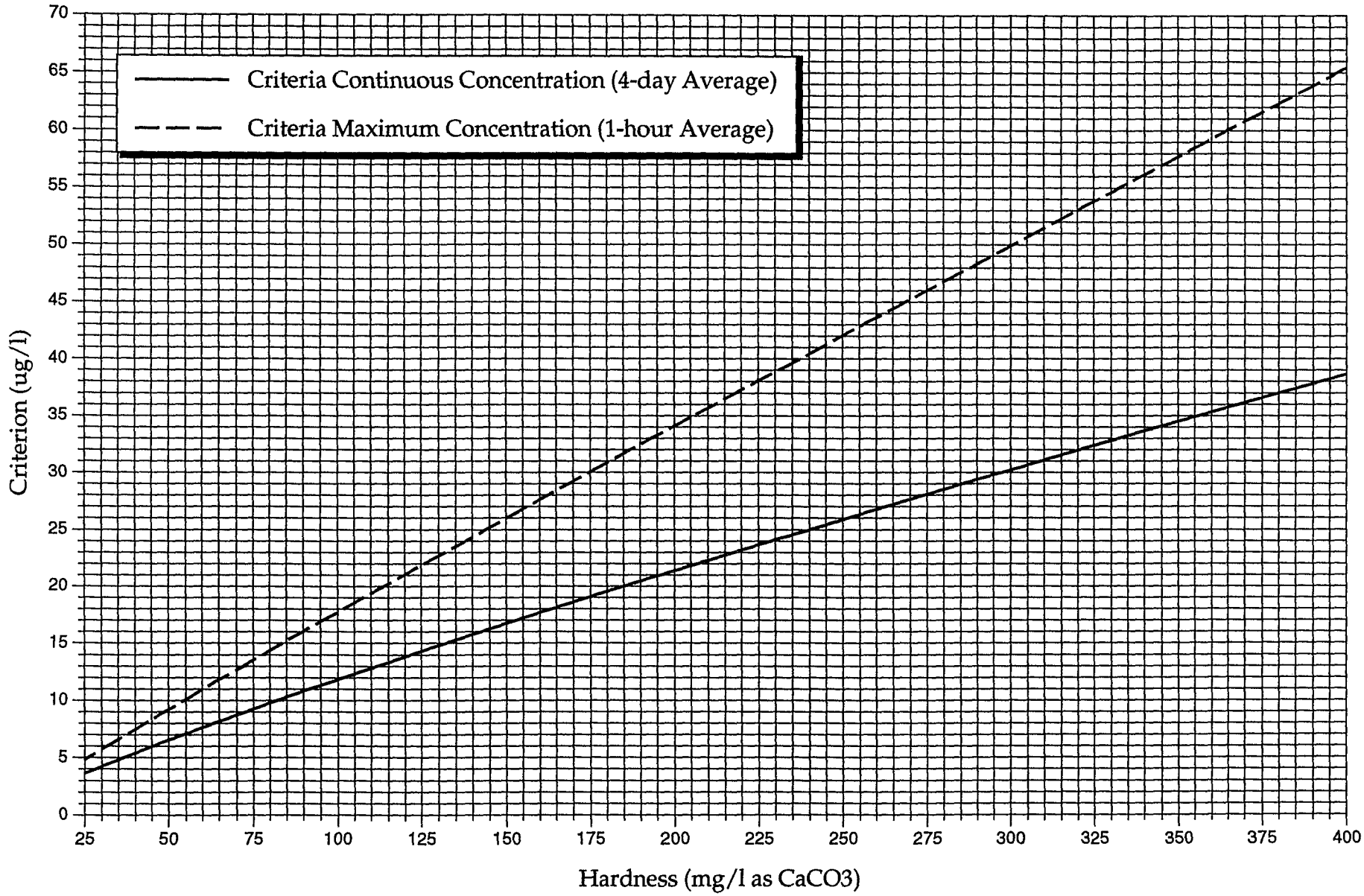
## NATIONAL AMBIENT WATER QUALITY CRITERIA TO PROTECT FRESHWATER AQUATIC LIFE — COPPER




*From Reference 15. These data are tabulated on page 9.*



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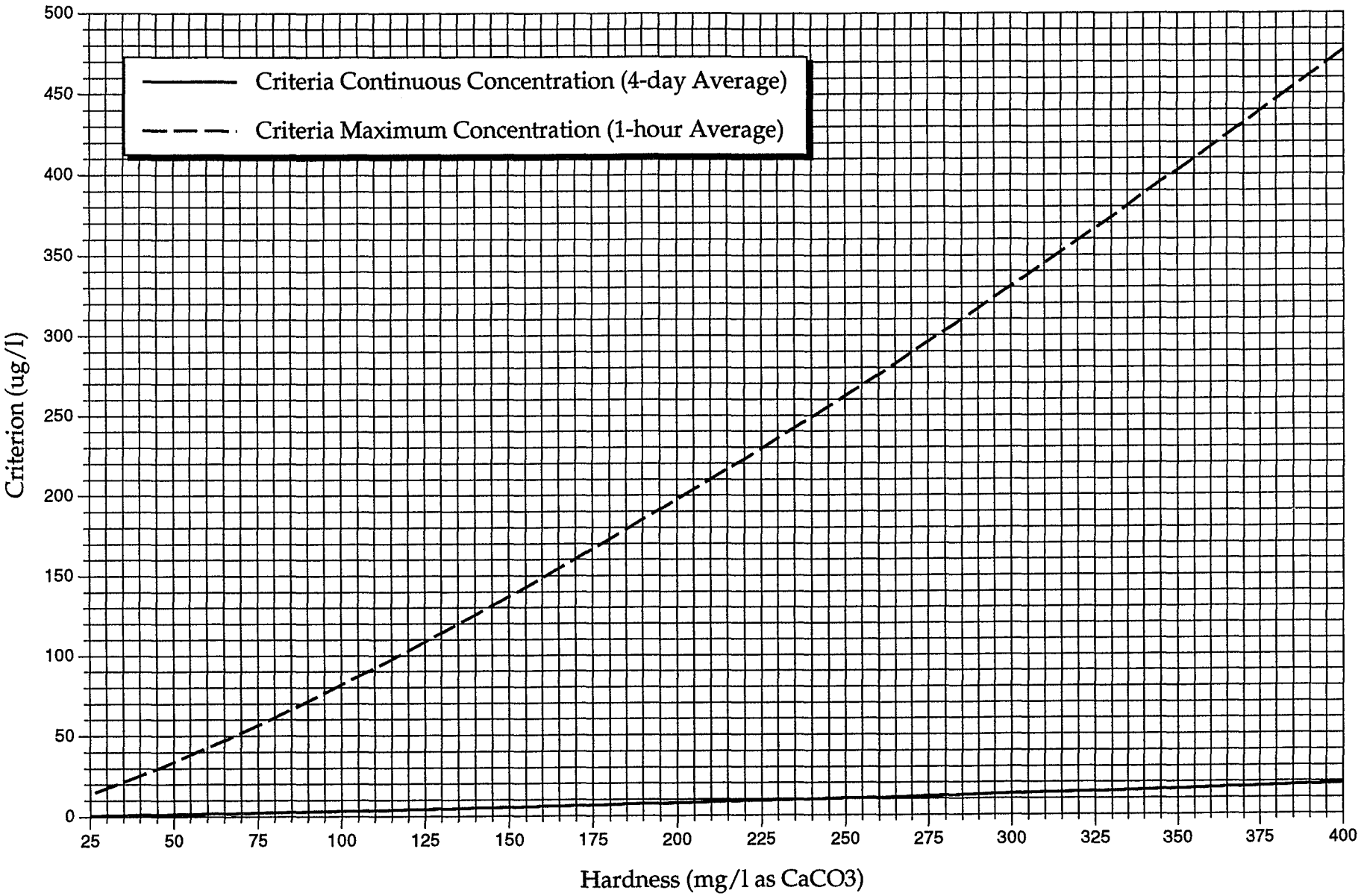
## NATIONAL AMBIENT WATER QUALITY CRITERIA TO PROTECT FRESHWATER AQUATIC LIFE — LEAD




*From Reference 15. These data are tabulated on page 9.*





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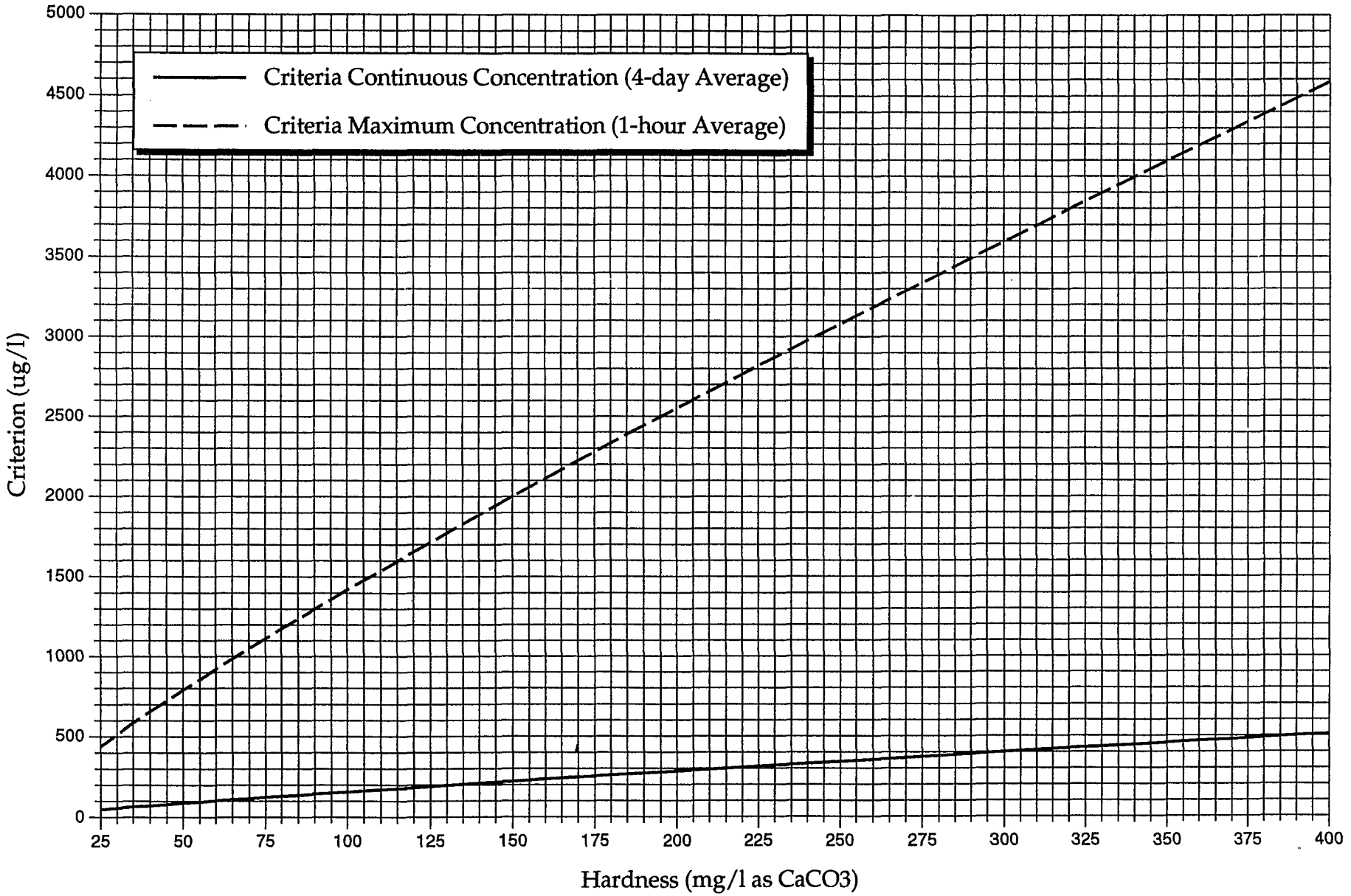
## NATIONAL AMBIENT WATER QUALITY CRITERIA TO PROTECT FRESHWATER AQUATIC LIFE — NICKEL




*From Reference 15. These data are tabulated on page 9.*



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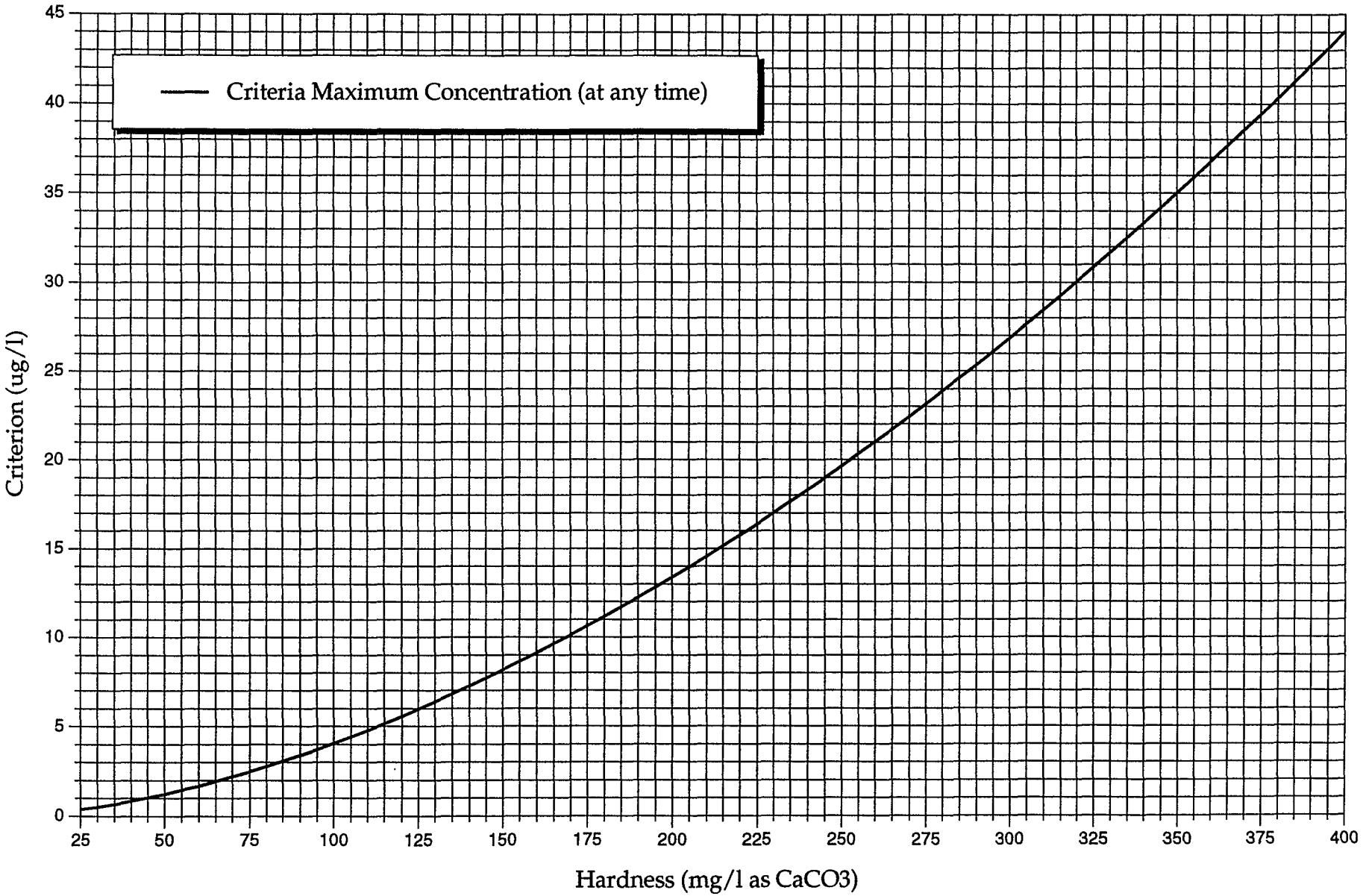
# WATER QUALITY GOALS — INORGANIC CONSTITUENTS

## NATIONAL AMBIENT WATER QUALITY CRITERIA TO PROTECT FRESHWATER AQUATIC LIFE — SILVER

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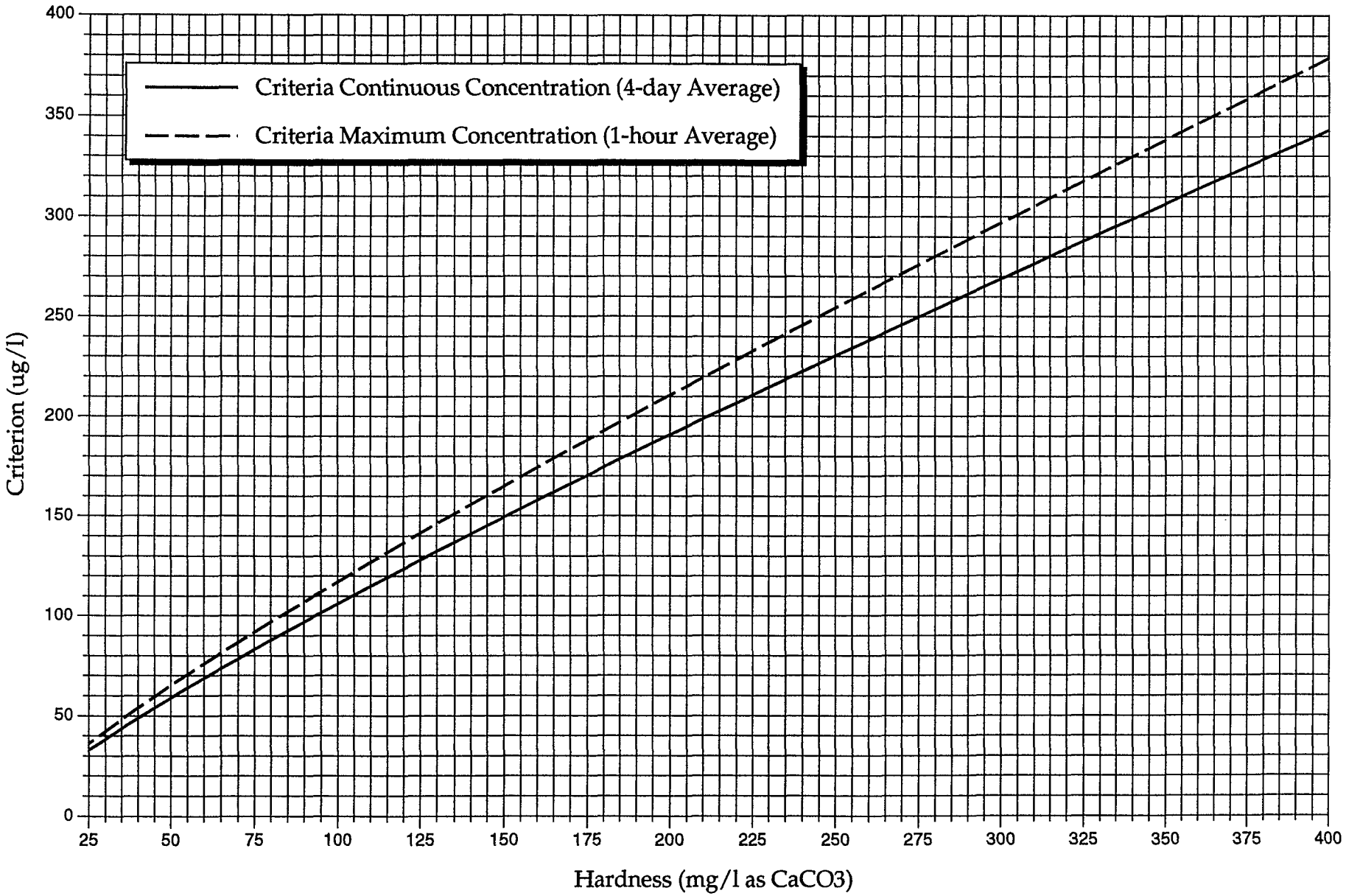
*From Reference 15. These data are tabulated on page 9.*

## NATIONAL AMBIENT WATER QUALITY CRITERIA TO PROTECT FRESHWATER AQUATIC LIFE — ZINC




*From Reference 15. These data are tabulated on page 9.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs) | | | | | California Recommended Public Health Level (RPHL) Department of Health Services | California State Action Levels Department of Health Services | | Other Taste & Odor Thresholds |
|---|---|---|---|---|---|---|---|---|---|
| | California Dept. of Health Services | | U.S. Environmental Protection Agency | | | | | | |
| | Primary MCL | Secondary MCL | Primary MCL | Secondary MCL | MCL Goal | | Toxicity | Taste & Odor | |
| A-alpha-C | | | | | | | | | |
| Acenaphthene | | | | | | | | | |
| Acenaphthylene | | | | | | | | | |
| Acephate | | | | | | | | | |
| Acetaldehyde | | | | | | | | | |
| Acetamide | | | | | | | | | |
| Acetochlor | | | | | | | | | |
| Acetone | | | | | | | | | |
| Acetophenone | | | | | | | | | |
| 2-Acetylaminofluorene | | | | | | | | | |
| Acifluorfen | | | | | | | | | |
| Acrolein | | | | | | | | | |
| Acrylamide | | | (105) | | zero | | | | |
| Acrylonitrile | | | | | | | | | |
| Actinomycin D | | | | | | | | | |
| AF-2 | | | | | | | | | |
| Aflatoxins | | | | | | | | | |
| Alachlor | | | 2 | | zero | | 0.2 (LOQ) | | |
| Aldicarb | | | 3 (107) | | 1 (107) | | 10 | | |
| Aldicarb sulfone | | | 2 (107) | | 1 (107) | | | | |
| Aldicarb sulfoxide | | | 4 (107) | | 1 (107) | | | | |
| Aldrin | | | | | | | 0.05 (LOQ) | | |
| Allyl alcohol | | | | | | | | | |
| Ametryn | | | | | | | | | |
| 2-Aminoanthraquinone | | | | | | | | | |
| o-Aminoazotoluene | | | | | | | | | |
| 4-Aminobiphenyl | | | | | | | | | |
| 3-Amino-9-ethylcarbazole hydrochloride | | | | | | | | | |
| 1-Amino-2-methylanthraquinone | | | | | | | | | |
| 2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole | | | | | | | | | |
| Amitrole | | | | | | | | | |
| Aniline | | | | | | | | | |
| o-Anisidine | | | | | | | | | |
| o-Anisidine hydrochloride | | | | | | | | | |
| Anthracene | | | | | | | | | |
| Aramite | | | | | | | | | |
| Atrazine | 3 | | 3 | | 3 | 3 (100) | | | |
| Auramine | | | | | | | | | |
| Azaserine | | | | | | | | | |
| Azathioprine | | | | | | | | | |
| Azinphos-methyl | | | | | | | | | |
| Azobenzene | | | | | | | | | |
| Baygon | | | | | | | 90 | | |
| Benefin | | | | | | | | | |
| Bentazon | 18 | | | | | 18 (100) | | | |
| Benz(a)anthracene | | | 0.1 (100) | | zero (100) | | | | |
| Benzene | 1 | | 5 | | zero | 0.35 (100) | | | |
| Benzenes, chlorinated | | | | | | | | | |
| Benzenes, dichloro- | | | | | | | | | |
| Benzenes, trichloro- | | | | | | | | | |
| Benzidine | | | | | | | | | |
| Benzo(b)fluoranthene | | | 0.2 (100) | | zero (100) | | | | |
| Benzo(k)fluoranthene | | | 0.2 (100) | | zero (100) | | | | |
| Benzofuran | | | | | | | | | |
| Benzo(g,h,i)perylene | | | | | | | | | |
| Benzo(a)pyrene | | | 0.2 (93) | | zero (93) | | | | |
| Benzyl chloride | | | | | | | | | |
| Benzyl violet 4B | | | | | | | | | |
| alpha-BHC | | | | | | | 0.7 | | |
| beta-BHC | | | | | | | 0.3 | | |
| gamma-BHC (Lindane) | 4 | | 0.2 | | 0.2 | | | | |
| delta-BHC | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk | | U.S. EPA Integrated Risk Information System (IRIS) Reference Dose as a Water Quality Criterion (118) | One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water | | | | California Proposition 65 Regulatory Level as a Water Quality Criterion (14) | Agricultural Water Quality Goals (78) |
|---|---|---|---|---|---|---|---|---|---|
| | U.S. EPA | National Academy of Sciences (NAS) | | Cal/EPA Cancer Potency Factor as a Water Quality Criterion (102) | U.S. EPA Integrated Risk Information System (IRIS) | U.S. EPA Health Advisory or SNARL | National Academy of Sciences (NAS) *Drinking Water and Health* | | |
| A-alpha-C | | | | | | | | 1 | |
| Acenaphthene | | | 420 | | | | | | |
| Acenaphthylene | | | | | | | | | |
| Acephate | | | 2.8 | | 4 | (C) | | | |
| Acetaldehyde | | | | 4.5 | | | | | |
| Acetamide | | | | | | | | 5 | |
| Acetochlor | | | | | | | | 35 (68) | |
| Acetone | | | 700 | | | (D) | | | |
| Acetophenone | | | 700 | | | | | | |
| 2-Acetylaminofluorene | | | | | | | | 0.1 | |
| Acifluorfen | 100 / 400 (7-yr,7) | | | | 1.0 | 1.0 (B2) | | 10 (68) | |
| Acrolein | | | | | | (C) | | | |
| Acrylamide | 20 / 70 (7-yr,7) | | | 0.0078 | 0.01 | 0.01 (B2) | 0.024 | 0.1 | |
| Acrylonitrile | 1 / 4 (7-yr,7,68) | | | 0.035 | 0.07 | 0.07 (B1) | 0.38 | 0.35 | |
| Actinomycin D | | | | | | | | 0.00004 | |
| AF-2 | | | | | | | | 1.5 | |
| Aflatoxins | | | | 0.00076 | | | | 0.01 (100) | |
| Alachlor | 100 (10-day) | 700 | | | 0.4 | 0.4 (B2) | | 4.5 (68) | |
| Aldicarb | 1 | 0.2 / 0.7 (7) | 1.4 | | | (D) | 2.3 (21) | | |
| Aldicarb sulfone | 1 | | 1.4 | | | (D) | | | |
| Aldicarb sulfoxide | 1 | | 1.4 | | | (D) | | | |
| Aldrin | 0.3 (10-day,68) | | | 0.0021 | 0.002 | 0.002 (B2,68) | 0.003 | 0.02 | |
| Allyl alcohol | | | 35 | | | | | | |
| Ametryn | 60 | | 63 | | | (D) | | | |
| 2-Aminoanthraquinone | | | | | | | | 10 | |
| o-Aminoazotoluene | | | | | | | | 0.1 | |
| 4-Aminobiphenyl | | | | | | | | 0.015 | |
| 3-Amino-9-ethylcarbazole hydrochloride | | | | | | | | 4.5 | |
| 1-Amino-2-methylanthraquinone | | | | | | | | 2.5 | |
| 2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole | | | | | | | | 0.02 | |
| Amitrole | | | | | | | | 0.3 (68) / 0.35 | |
| Aniline | | | | 6.1 | | | | 50 | |
| o-Anisidine | | | | | | | | 2.5 | |
| o-Anisidine hydrochloride | | | | | | | | 3.5 | |
| Anthracene | | | 2100 | | | (D) | | | |
| Aramite | | | | | | | | 10 | |
| Atrazine | 3 | 150 | 3.5 | | 0.14 | (C) | | | |
| Auramine | | | | | | | | 0.4 | |
| Azaserine | | | | | | | | 0.03 | |
| Azathioprine | | | | | | | | 0.2 | |
| Azinphos-methyl | | 87.5 | | | | | | | |
| Azobenzene | | | | 32 | | | | 3 | |
| Baygon | 3 | | 2.8 | | | (C) | | | |
| Benefin | | 700 | 2100 | | | | | | |
| Bentazon | 20 | | 18 | | | (D) | | | |
| Benz(a)anthracene | | | | | | (B2) | | | |
| Benzene | 200 (10-day) | | | 0.35 | 1 | 1.0 (A) | | 3.5 | |
| Benzenes, chlorinated | | | | | | | | | |
| Benzenes, dichloro- | | | | | | | | | |
| Benzenes, trichloro- | | | | | | | | | |
| Benzidine | | | | 0.00007 | | (A) | | 0.0005 | |
| Benzo(b)fluoranthene | | | | | | (B2) | | | |
| Benzo(k)fluoranthene | | | | | | (B2) | | | |
| Benzofuran | | | | | | | | 0.5 (100) | |
| Benzo(g,h,i)perylene | | | | | | (D) | | | |
| Benzo(a)pyrene | | | | 0.0029 | 0.003 | (B2) | | 0.03 | |
| Benzyl chloride | | | | 0.21 | | | | 2 | |
| Benzyl violet 4B | | | | | | | | 15 | |
| alpha-BHC | | 500 (7-day,43) | | | | | 0.33 | 0.15 | |
| beta-BHC | | 500 (7-day,43) | | | | | 0.12 | 0.25 | |
| gamma-BHC (Lindane) | 0.2 | 500 (7-day,43) | 0.2 | 0.032 | | 0.03 (C) | 0.054 | 0.3 | |
| delta-BHC | | 500 (7-day,43) | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | California Inland Surface Waters Plan Numerical Water Quality Objectives | | | | | | California Enclosed Bays & Estuaries Plan Numerical Water Quality Objectives | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | | Freshwater Aquatic Life Protection | | | | Human Health Protection (30-day Average) "‡" = carcinogen | Saltwater Aquatic Life Protection | | |
| | Sources of Drinking Water | Other Waters | 4-day Average | Daily Average | 1-hour Average | Instantaneous Maximum | | 4-day Average | Daily Average | 1-hour Average |
| A-alpha-C | | | | | | | | | | |
| Acenaphthene | | | | | | | | | | |
| Acenaphthylene | 0.0028 ‡ (115) | 0.031 ‡ (115) | | | | | 0.031 ‡ (115) | | | |
| Acephate | | | | | | | | | | |
| Acetaldehyde | | | | | | | | | | |
| Acetamide | | | | | | | | | | |
| Acetochlor | | | | | | | | | | |
| Acetone | | | | | | | | | | |
| Acetophenone | | | | | | | | | | |
| 2-Acetylaminofluorene | | | | | | | | | | |
| Acifluorfen | | | | | | | | | | |
| Acrolein | 320 (100) | 780 (100) | | | | | 780 (100) | | | |
| Acrylamide | | | | | | | | | | |
| Acrylonitrile | 0.032 ‡ (100) | 0.36 ‡ (100) | | | | | 0.36 ‡ (100) | | | |
| Actinomycin D | | | | | | | | | | |
| AF-2 | | | | | | | | | | |
| Aflatoxins | | | | | | | | | | |
| Alachlor | | | | | | | | | | |
| Aldicarb | | | | | | | | | | |
| Aldicarb sulfone | | | | | | | | | | |
| Aldicarb sulfoxide | | | | | | | | | | |
| Aldrin | 0.00013 ‡ | 0.00014 ‡ | | | | | 0.00014 ‡ | | | |
| Allyl alcohol | | | | | | | | | | |
| Ametryn | | | | | | | | | | |
| 2-Aminoanthraquinone | | | | | | | | | | |
| o-Aminoazotoluene | | | | | | | | | | |
| 4-Aminobiphenyl | | | | | | | | | | |
| 3-Amino-9-ethylcarbazole hydrochloride | | | | | | | | | | |
| 1-Amino-2-methylanthraquinone | | | | | | | | | | |
| 2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole | | | | | | | | | | |
| Amitrole | | | | | | | | | | |
| Aniline | | | | | | | | | | |
| o-Anisidine | | | | | | | | | | |
| o-Anisidine hydrochloride | | | | | | | | | | |
| Anthracene | 0.0028 ‡ (115) | 0.031 ‡ (115) | | | | | 0.031 ‡ (115) | | | |
| Aramite | | | | | | | | | | |
| Atrazine | | | | | | | | | | |
| Auramine | | | | | | | | | | |
| Azaserine | | | | | | | | | | |
| Azathioprine | | | | | | | | | | |
| Azinphos-methyl | | | | | | | | | | |
| Azobenzene | | | | | | | | | | |
| Baygon | | | | | | | | | | |
| Benefin | | | | | | | | | | |
| Bentazon | | | | | | | | | | |
| Benz(a)anthracene | 0.0028 ‡ (115) | 0.031 ‡ (115) | | | | | 0.031 ‡ (115) | | | |
| Benzene | 0.34 ‡ | 21 ‡ | | | | | 21 ‡ | | | |
| Benzenes, chlorinated | | | | | | | | | | |
| Benzenes, dichloro- | | | | | | | | | | |
| Benzenes, trichloro- | | | | | | | | | | |
| Benzidine | 0.00010 ‡ (100) | 0.0002 ‡ (100) | | | | | 0.0002 ‡ (100) | | | |
| Benzo(b)fluoranthene | 0.0028 ‡ (115) | 0.031 ‡ (115) | | | | | 0.031 ‡ (115) | | | |
| Benzo(k)fluoranthene | 0.0028 ‡ (115) | 0.031 ‡ (115) | | | | | 0.031 ‡ (115) | | | |
| Benzofuran | | | | | | | | | | |
| Benzo(g,h,i)perylene | 0.0028 ‡ (115) | 0.031 ‡ (115) | | | | | 0.031 ‡ (115) | | | |
| Benzo(a)pyrene | 0.0028 ‡ (115) | 0.031 ‡ (115) | | | | | 0.031 ‡ (115) | | | |
| Benzyl chloride | | | | | | | | | | |
| Benzyl violet 4B | | | | | | | | | | |
| alpha-BHC | 0.0039 ‡ | 0.013 ‡ | | | | | 0.013 ‡ | | | |
| beta-BHC | 0.014 ‡ | 0.046 ‡ | | | | | 0.046 ‡ | | | |
| gamma-BHC (Lindane) | 0.019 ‡ | 0.062 ‡ | | 0.080 | | | 0.062 ‡ | | 0.16 | |
| delta-BHC | | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | U.S. EPA National Ambient Water Quality Criteria | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Health and Welfare Protection | | | Freshwater Aquatic Life Protection | | | | | | |
| | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | Non-Cancer Public Health Effects | One-in-a-Million Incremental Cancer Risk Estimate | Taste & Odor or Welfare | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| A-alpha-C | | | | | | | | | | |
| Acenaphthene | | | 20 | | | | | 1700 | | 520 (38) |
| Acenaphthylene | | | | | | | | | | |
| Acephate | | | | | | | | | | |
| Acetaldehyde | | | | | | | | | | |
| Acetamide | | | | | | | | | | |
| Acetochlor | | | | | | | | | | |
| Acetone | | | | | | | | | | |
| Acetophenone | | | | | | | | | | |
| 2-Acetylaminofluorene | | | | | | | | | | |
| Acifluorfen | | | | | | | | | | |
| Acrolein | 320 / 780 (52) | | | | | | | 68 | 21 | |
| Acrylamide | | | | | | | | | | |
| Acrylonitrile | | 0.059 / 0.66 (52) | | | | | | 7550 | | 2600 (17) |
| Actinomycin D | | | | | | | | | | |
| AF-2 | | | | | | | | | | |
| Aflatoxins | | | | | | | | | | |
| Alachlor | | 0.15 (8) | | | | | 76 (8) | | | |
| Aldicarb | | | | | | | | | | |
| Aldicarb sulfone | | | | | | | | | | |
| Aldicarb sulfoxide | | | | | | | | | | |
| Aldrin | | 0.00013 / 0.00014 (52) | | | | | 3 | | | |
| Allyl alcohol | | | | | | | | | | |
| Ametryn | | | | | | | | | | |
| 2-Aminoanthraquinone | | | | | | | | | | |
| o-Aminoazotoluene | | | | | | | | | | |
| 4-Aminobiphenyl | | | | | | | | | | |
| 3-Amino-9-ethylcarbazole hydrochloride | | | | | | | | | | |
| 1-Amino-2-methylanthraquinone | | | | | | | | | | |
| 2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole | | | | | | | | | | |
| Amitrole | | | | | | | | | | |
| Aniline | | | | | | | | | | |
| o-Anisidine | | | | | | | | | | |
| o-Anisidine hydrochloride | | | | | | | | | | |
| Anthracene | 9600 / 110,000 (52) | | | | | | | | | |
| Aramite | | | | | | | | | | |
| Atrazine | 25 (8) | | | | | | 1.0 (8) | | | |
| Auramine | | | | | | | | | | |
| Azaserine | | | | | | | | | | |
| Azathioprine | | | | | | | | | | |
| Azinphos-methyl | | | | | | | 0.01 | | | |
| Azobenzene | | | | | | | | | | |
| Baygon | | | | | | | | | | |
| Benefin | | | | | | | | | | |
| Bentazon | | | | | | | | | | |
| Benz(a)anthracene | | 0.0028 / 0.031 (41,119) | | | | | | | | |
| Benzene | | 1.2 / 71 (52) | | | | | | 5300 | | |
| Benzenes, chlorinated | | | | | | | | 250 | | 50 (23) |
| Benzenes, dichloro- | 400 | | | | | | | 1120 | 763 | |
| Benzenes, trichloro- | | | | | | | | 250 (22) | | 50 (22,23) |
| Benzidine | | 0.00012 / 0.00054 (52) | | | | | | 2500 | | |
| Benzo(b)fluoranthene | | 0.0028 / 0.031 (41,119) | | | | | | | | |
| Benzo(k)fluoranthene | | 0.0028 / 0.31 (41,119) | | | | | | | | |
| Benzofuran | | | | | | | | | | |
| Benzo(g,h,i)perylene | | | | | | | | | | |
| Benzo(a)pyrene | | 0.0028 / 0.031 (41,119) | | | | | | | | |
| Benzyl chloride | | | | | | | | | | |
| Benzyl violet 4B | | | | | | | | | | |
| alpha-BHC | | 0.0039 / 0.013 (52) | | | | | | | | |
| beta-BHC | | 0.014 / 0.046 (52) | | | | | | | | |
| gamma-BHC (Lindane) | | 0.019 / 0.063 (52) | | | 0.08 | | 2.0 | | | |
| delta-BHC | | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | California Ocean Plan Numerical Water Quality Objectives | | | | | | U.S. EPA National Ambient Water Quality Criteria Saltwater Aquatic Life Protection | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | Marine Aquatic Life Protection | | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | | 6-month Median | 30-day Average | 7-day Average | Daily Maximum | Instantaneous Maximum | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| A-alpha-C | | | | | | | | | | | | | |
| Acenaphthene | | | | | | | | | | | 970 | 710 | 500 (38) |
| Acenaphthylene | 0.0088 ‡ (115) | | | | | | | | | | 300 (41) | | |
| Acephate | | | | | | | | | | | | | |
| Acetaldehyde | | | | | | | | | | | | | |
| Acetamide | | | | | | | | | | | | | |
| Acetochlor | | | | | | | | | | | | | |
| Acetone | | | | | | | | | | | | | |
| Acetophenone | | | | | | | | | | | | | |
| 2-Acetylaminofluorene | | | | | | | | | | | | | |
| Acifluorfen | | | | | | | | | | | | | |
| Acrolein | 220 | | | | | | | | | | 55 | | |
| Acrylamide | | | | | | | | | | | | | |
| Acrylonitrile | 0.10 ‡ | | | | | | | | | | | | |
| Actinomycin D | | | | | | | | | | | | | |
| AF-2 | | | | | | | | | | | | | |
| Aflatoxins | | | | | | | | | | | | | |
| Alachlor | | | | | | | | | | | | | |
| Aldicarb | | | | | | | | | | | | | |
| Aldicarb sulfone | | | | | | | | | | | | | |
| Aldicarb sulfoxide | | | | | | | | | | | | | |
| Aldrin | 0.000022 ‡ | | | | | | | | | 1.3 | | | |
| Allyl alcohol | | | | | | | | | | | | | |
| Ametryn | | | | | | | | | | | | | |
| 2-Aminoanthraquinone | | | | | | | | | | | | | |
| o-Aminoazotoluene | | | | | | | | | | | | | |
| 4-Aminobiphenyl | | | | | | | | | | | | | |
| 3-Amino-9-ethylcarbazole hydrochloride | | | | | | | | | | | | | |
| 1-Amino-2-methylanthraquinone | | | | | | | | | | | | | |
| 2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole | | | | | | | | | | | | | |
| Amitrole | | | | | | | | | | | | | |
| Aniline | | | | | | | | | | | | | |
| o-Anisidine | | | | | | | | | | | | | |
| o-Anisidine hydrochloride | | | | | | | | | | | | | |
| Anthracene | 0.0088 ‡ (115) | | | | | | | | | | 300 (41) | | |
| Aramite | | | | | | | | | | | | | |
| Atrazine | | | | | | | | | | | | | |
| Auramine | | | | | | | | | | | | | |
| Azaserine | | | | | | | | | | | | | |
| Azathioprine | | | | | | | | | | | | | |
| Azinphos-methyl | | | | | | | | | | 0.01 | | | |
| Azobenzene | | | | | | | | | | | | | |
| Baygon | | | | | | | | | | | | | |
| Benefin | | | | | | | | | | | | | |
| Bentazon | | | | | | | | | | | | | |
| Benz(a)anthracene | 0.0088 ‡ (115) | | | | | | | | | | 300 (41) | | |
| Benzene | 5.9 ‡ | | | | | | | | | | 5100 | | 700 (84) |
| Benzenes, chlorinated | | | | | | | | | | | 160 | 129 | |
| Benzenes, dichloro- | | | | | | | | | | | 1970 | 129 (22) | |
| Benzenes, trichloro- | | | | | | | | | | | 160 (22) | 129 (22) | |
| Benzidine | 0.000069 ‡ | | | | | | | | | | | | |
| Benzo(b)fluoranthene | 0.0088 ‡ (115) | | | | | | | | | | 300 (41) | | |
| Benzo(k)fluoranthene | 0.0088 ‡ (115) | | | | | | | | | | 300 (41) | | |
| Benzofuran | | | | | | | | | | | | | |
| Benzo(g,h,i)perylene | 0.0088 ‡ (115) | | | | | | | | | | 300 (41) | | |
| Benzo(a)pyrene | 0.0088 ‡ (115) | | | | | | | | | | 300 (41) | | |
| Benzyl chloride | | | | | | | | | | | | | |
| Benzyl violet 4B | | | | | | | | | | | | | |
| alpha-BHC | | 0.004 (43) | | | 0.008 (43) | 0.012 (43) | | | | | | | |
| beta-BHC | | 0.004 (43) | | | 0.008 (43) | 0.012 (43) | | | | | | | |
| gamma-BHC (Lindane) | | 0.004 (43) | | | 0.008 (43) | 0.012 (43) | | | | 0.16 | | | |
| delta-BHC | | 0.004 (43) | | | 0.008 (43) | 0.012 (43) | | | | | | | |

 *Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.* 

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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs) | | | | | California Recommended Public Health Level (RPHL) Department of Health Services | California State Action Levels Department of Health Services | | Other Taste & Odor Thresholds |
|---|---|---|---|---|---|---|---|---|---|
| | California Dept. of Health Services | | U.S. Environmental Protection Agency | | | | | | |
| | Primary MCL | Secondary MCL | Primary MCL | Secondary MCL | MCL Goal | | Toxicity | Taste & Odor | |
| technical-BHC | | | | | | | | | |
| Bis(2-chloroethoxy) methane | | | | | | | | | |
| Bis(2-chloroethyl) ether | | | | | | | | | |
| Bis(2-chloroisopropyl) ether | | | | | | | | | |
| Bis(chloromethyl) ether | | | | | | | | | |
| Bromacil | | | | | | | | | |
| Bromochloromethane | | | | | | | | | |
| Bromodichloromethane | 100 (19) | | 100 (19) | | | | | | |
| Bromoform | 100 (19) | | 100 (19) | | | | | | |
| Bromomethane | | | | | | | | | |
| 4-Bromophenyl phenyl ether | | | | | | | | | |
| Butachlor | | | | | | | | | |
| 1,3-Butadiene | | | | | | | | | |
| Butylate | | | | | | | | | |
| Butylated hydroxyanisole | | | | | | | | | |
| n-Butyl benzyl phthalate | | | 100 (100) | | zero (100) | | | | |
| beta-Butyrolactone | | | | | | | | | |
| Captafol | | | | | | | | | |
| Captan | | | | | | | 350 | | |
| Carbaryl | | | | | | | 60 | | |
| Carbofuran | 18 | | 40 | | 40 | 18 (100) | | | |
| Carbon tetrachloride | 0.5 | | 5 | | zero | 0.5 (100) | | | |
| Carboxin | | | | | | | | | |
| Catechol | | | | | | | | | |
| Chloramben | | | | | | | | | |
| Chlorambucil | | | | | | | | | |
| Chlordane | 0.1 | | 2 | | zero | 0.03 (100) | | | |
| Chlordimeform | | | | | | | | | |
| Chlorendic acid | | | | | | | | | |
| Chlorobenzene | 30 | | 100 | | 100 | 30 (100) | | | |
| 4-Chloro-m-cresol | | | | | | | | | |
| 4-Chloro-o-cresol | | | | | | | | | |
| 6-Chloro-m-cresol | | | | | | | | | |
| Chloroethane | | | | | | | | | |
| Chloroform | 100 (19) | | 100 (19) | | | | | | |
| Chloromethane | | | | | | | | | |
| Chloromethyl methyl ether | | | | | | | | | |
| 3-Chloro-2-methylpropene | | | | | | | | | |
| 2-Chloronaphthalene | | | | | | | | | |
| 2-Chlorophenol | | | | | | | | | |
| 3-Chlorophenol | | | | | | | | | |
| 4-Chlorophenol | | | | | | | | | |
| 4-Chloro-o-phenylenediamine | | | | | | | | | |
| Chloropicrin | | | | | | | 50 | 37 | |
| 3-Chloropropene | | | | | | | | | |
| Chlorothalonil | | | | | | | | | |
| 2-Chlorotoluene | | | | | | | | | |
| 4-Chlorotoluene | | | | | | | | | |
| p-Chloro-o-toluidine | | | | | | | | | |
| Chlorozotocin | | | | | | | | | |
| Chlorpropham | | | | | | | 350 | | |
| Chlorpyrifos | | | | | | | | | |
| Chrysene | | | 0.2 (100) | | zero (100) | | | | |
| C.I. Basic Red 9 monohydrochloride | | | | | | | | | |
| Cinnamyl anthranilate | | | | | | | | | |
| p-Cresidine | | | | | | | | | |
| Cresol (o-, m-, p-) | | | | | | | | | |
| Cupferron | | | | | | | | | |
| Cyanazine | | | | | | | | | |
| Cyclophosphamide | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk | | U.S. EPA Integrated Risk Information System (IRIS) Reference Dose as a Water Quality Criterion (118) | One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water | | | | California Proposition 65 Regulatory Level as a Water Quality Criterion (14) | Agricultural Water Quality Goals (78) |
|---|---|---|---|---|---|---|---|---|---|
| | U.S. EPA | National Academy of Sciences (NAS) | | Cal/EPA Cancer Potency Factor as a Water Quality Criterion (102) | U.S. EPA Integrated Risk Information System (IRIS) | U.S. EPA Health Advisory or SNARL | National Academy of Sciences (NAS) *Drinking Water and Health* | | |
| technical-BHC | | 500 (7-day) | | 0.0088 | | | | 0.1 | |
| Bis(2-chloroethoxy) methane | | | | | | | | | |
| Bis(2-chloroethyl) ether | | | | 0.014 | | | 0.42 | 0.15 | |
| Bis(2-chloroisopropyl) ether | 300 | | 280 | | | (D) | | | |
| Bis(chloromethyl) ether | | | | 0.00076 | | | | 0.01 | |
| Bromacil | 90 | 87.5 | 91 | | | (C) | | | |
| Bromochloromethane | 90 | | 91 | | | | | | |
| Bromodichloromethane | 400 / 1300 (7-yr,7,68) | | | 0.27 | 1.4 | 0.6 (B2,68) | | 2.5 | |
| Bromoform | 2000 (10-day) | | | | 4 | 4 (B2,68) | | | |
| Bromomethane | 10 | | 7 | | | (D) | | | |
| 4-Bromophenyl phenyl ether | | | | | | | | | |
| Butachlor | | 70 | | | | | | | |
| 1,3-Butadiene | | | | 0.019 | | | | 0.2 | |
| Butylate | 350 | | 350 | | | (D) | | | |
| Butylated hydroxyanisole | | | | 175 | | | | 2000 | |
| n-Butyl benzyl phthalate | | | 140 | | | (C) | | | |
| beta-Butyrolactone | | | | | | | | 0.35 | |
| Captafol | | | 1.4 | | 4 | (C) | | 5 (68) / 2.5 | |
| Captan | | 350 | | | | (B2) | | 100 (68) / 150 | |
| Carbaryl | 700 | 574 | 700 | | | (D) | | | |
| Carbofuran | 40 | | 35 | | | (E) | | | |
| Carbon tetrachloride | 200 (10-day) | 200 (7-day) | | 0.23 | 0.3 | 0.3 (B2) | 4.5 | 2.5 | |
| Carboxin | 700 | | 700 | | | (D) | | | |
| Catechol | | 2200 (24-hr) | | | | | | | |
| Chloramben | 100 | 1750 | 105 | | | (D) | | | |
| Chlorambucil | | | | | | | | 0.001 | |
| Chlordane | 60 (10-day) | | | 0.029 / 0.027 | 0.03 | 0.03 (B2) | 0.028 | 0.25 | |
| Chlordimeform | | | | | | | | 0.25 (68) | |
| Chlorendic acid | | | | | | | | 4 | |
| Chlorobenzene | 100 | | 140 | | | (D) | 2.3 (21) | | |
| 4-Chloro-m-cresol | | | | | | | | | |
| 4-Chloro-o-cresol | | | | | | | | | |
| 6-Chloro-m-cresol | | | | | | | | | |
| Chloroethane | | | | | | | | 100 (100) | |
| Chloroform | 4000 (10-day) | | | 1.1 / 0.43 | 6 | 6.0 (B2,68) | 0.26 / 5.6 (44) | 10 | |
| Chloromethane | 3 | | 2.8 | | | (C) | | | |
| Chloromethyl methyl ether | | | | | | | | 0.15 | |
| 3-Chloro-2-methylpropene | | | | | | | | 2.5 | |
| 2-Chloronaphthalene | | | | | | | | | |
| 2-Chlorophenol | 40 (68) | | 35 | | | (D) | | | |
| 3-Chlorophenol | | | | | | | | | |
| 4-Chlorophenol | | | | | | | | | |
| 4-Chloro-o-phenylenediamine | | | | | | | | 20 | |
| Chloropicrin | | 12 / 40 (7) | | | | | | | |
| 3-Chloropropene | | | | 1.7 | | | | 15 | |
| Chlorothalonil | 200 (10-day) | | | | 1.5 | 1.5 (B2) | | 30 (68) / 100 | |
| 2-Chlorotoluene | 100 | | 140 | | | (D) | | | |
| 4-Chlorotoluene | 100 | | 140 | | | (D) | | | |
| p-Chloro-o-toluidine | | | | | | | | 1.5 | |
| Chlorozotocin | | | | | | | | 0.0015 | |
| Chlorpropham | | | 1400 | | | | | | |
| Chlorpyrifos | 20 | | 21 | | | (D) | | | |
| Chrysene | | | | | | (B2) | | | |
| C.I. Basic Red 9 monohydrochloride | | | | | | | | 1.5 | |
| Cinnamyl anthranilate | | | | | | | | 100 | |
| p-Cresidine | | | | | | | | 2.5 | |
| Cresol (o-, m-, p-) | | | 35 | | | (C) | | | |
| Cupferron | | | | | | | | 1.5 | |
| Cyanazine | 1 | | 1.4 | | | (C) | | | |
| Cyclophosphamide | | | | | | | | 0.5 | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | California Inland Surface Waters Plan Numerical Water Quality Objectives | | | | | | California Enclosed Bays & Estuaries Plan Numerical Water Quality Objectives | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | | Freshwater Aquatic Life Protection | | | | Human Health Protection (30-day Average) "‡" = carcinogen | Saltwater Aquatic Life Protection | | |
| | Sources of Drinking Water | Other Waters | 4-day Average | Daily Average | 1-hour Average | Instantaneous Maximum | | 4-day Average | Daily Average | 1-hour Average |
| technical-BHC | | | | | | | | | | |
| Bis(2-chloroethoxy) methane | | | | | | | | | | |
| Bis(2-chloroethyl) ether | 0.014 ‡ (100) | 0.62 ‡ (100) | | | | | 0.62 ‡ (100) | | | |
| Bis(2-chloroisopropyl) ether | 1400 (100) | 170,000 (100) | | | | | 170,000 (100) | | | |
| Bis(chloromethyl) ether | | | | | | | | | | |
| Bromacil | | | | | | | | | | |
| Bromochloromethane | | | | | | | | | | |
| Bromodichloromethane | 100 ‡ (113) | 480 ‡ (113) | | | | | 480 ‡ (113) | | | |
| Bromoform | 100 ‡ (113) | 480 ‡ (113) | | | | | 480 ‡ (113) | | | |
| Bromomethane | 100 ‡ (113) | 480 ‡ (113) | | | | | 480 ‡ (113) | | | |
| 4-Bromophenyl phenyl ether | | | | | | | | | | |
| Butachlor | | | | | | | | | | |
| 1,3-Butadiene | | | | | | | | | | |
| Butylate | | | | | | | | | | |
| Butylated hydroxyanisole | | | | | | | | | | |
| n-Butyl benzyl phthalate | | | | | | | | | | |
| beta-Butyrolactone | | | | | | | | | | |
| Captafol | | | | | | | | | | |
| Captan | | | | | | | | | | |
| Carbaryl | | | | | | | | | | |
| Carbofuran | | | | | | | | | | |
| Carbon tetrachloride | 0.22 ‡ (100) | 3.8 ‡ (100) | | | | | 3.8 ‡ (100) | | | |
| Carboxin | | | | | | | | | | |
| Catechol | | | | | | | | | | |
| Chloramben | | | | | | | | | | |
| Chlorambucil | | | | | | | | | | |
| Chlordane | 0.00008 ‡ (82) | 0.000081 ‡ (82) | | 0.0043 (82) | | | 0.000081 ‡ (82) | | 0.0040 (82) | |
| Chlordimeform | | | | | | | | | | |
| Chlorendic acid | | | | | | | | | | |
| Chlorobenzene | 20 (36,100) | 4500 (100) | | | | | 4500 (100) | | | |
| 4-Chloro-m-cresol | | | | | | | | | | |
| 4-Chloro-o-cresol | 3000 (36) | | | | | | | | | |
| 6-Chloro-m-cresol | | | | | | | | | | |
| Chloroethane | | | | | | | | | | |
| Chloroform | 100 ‡ | 480 ‡ | | | | | 480 ‡ | | | |
| Chloromethane | 100 ‡ (113) | 480 ‡ (113) | | | | | 480 ‡ (113) | | | |
| Chloromethyl methyl ether | | | | | | | | | | |
| 3-Chloro-2-methylpropene | | | | | | | | | | |
| 2-Chloronaphthalene | | | | | | | | | | |
| 2-Chlorophenol | | | | | | | | | | |
| 3-Chlorophenol | | | | | | | | | | |
| 4-Chlorophenol | | | | | | | | | | |
| 4-Chloro-o-phenylenediamine | | | | | | | | | | |
| Chloropicrin | | | | | | | | | | |
| 3-Chloropropene | | | | | | | | | | |
| Chlorothalonil | | | | | | | | | | |
| 2-Chlorotoluene | | | | | | | | | | |
| 4-Chlorotoluene | | | | | | | | | | |
| p-Chloro-o-toluidine | | | | | | | | | | |
| Chlorozotocin | | | | | | | | | | |
| Chlorpropham | | | | | | | | | | |
| Chlorpyrifos | | | | | | | | | | |
| Chrysene | 0.0028 ‡ (115) | 0.031 ‡ (115) | | | | | 0.031 ‡ (115) | | | |
| C.I. Basic Red 9 monohydrochloride | | | | | | | | | | |
| Cinnamyl anthranilate | | | | | | | | | | |
| p-Cresidine | | | | | | | | | | |
| Cresol (o-, m-, p-) | | | | | | | | | | |
| Cupferron | | | | | | | | | | |
| Cyanazine | | | | | | | | | | |
| Cyclophosphamide | | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | U.S. EPA National Ambient Water Quality Criteria | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Health and Welfare Protection | | | Freshwater Aquatic Life Protection | | | | | | |
| | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | Non-Cancer Public Health Effects | One-in-a-Million Incremental Cancer Risk Estimate | Taste & Odor or Welfare | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| technical-BHC | | 0.0123 | | | | | | 100 | | |
| Bis(2-chloroethoxy) methane | | | | | | | | | | |
| Bis(2-chloroethyl) ether | | 0.031 / 1.4 (52) | | | | | | 238,000 (46) | 122 (58) | |
| Bis(2-chloroisopropyl) ether | 1400 / 170,000 (52) | | | | | | | 238,000 (46) | 122 (58) | |
| Bis(chloromethyl) ether | | 0.00000376 | | | | | | 238,000 (46) | 122 (58) | |
| Bromacil | | | | | | | | | | |
| Bromochloromethane | | | | | | | | | | |
| Bromodichloromethane | | 0.27 / 22 (52) | | | | | | 11,000 (20) | | |
| Bromoform | | 4.3 / 360 (52) | | | | | | 11,000 (20) | | |
| Bromomethane | 48 / 4000 (52) | | | | | | | 11,000 (20) | | |
| 4-Bromophenyl phenyl ether | | | | | | | | 360 (58) | 122 (58) | |
| Butachlor | | | | | | | | | | |
| 1,3-Butadiene | | | | | | | | | | |
| Butylate | | | | | | | | | | |
| Butylated hydroxyanisole | | | | | | | | | | |
| n-Butyl benzyl phthalate | | | | | | | | 940 (45) | 3 (45) | |
| beta-Butyrolactone | | | | | | | | | | |
| Captafol | | | | | | | | | | |
| Captan | | | | | | | | | | |
| Carbaryl | | | | | | | 0.02 (54) | | | |
| Carbofuran | | | | | | | | | | |
| Carbon tetrachloride | | 0.25 / 4.4 (52) | | | | | | 35,200 | | |
| Carboxin | | | | | | | | | | |
| Catechol | | | | | | | | | | |
| Chloramben | | | | | | | | | | |
| Chlorambucil | | | | | | | | | | |
| Chlordane | | 0.00057 / 0.00059 (52) | | | 0.0043 | | 2.4 | | | |
| Chlordimeform | | | | | | | | | | |
| Chlorendic acid | | | | | | | | | | |
| Chlorobenzene | 680 / 21,000 (52) | | 20 | | | | | 250 (22) | | 50 (22,23) |
| 4-Chloro-m-cresol | | | 3000 | | | | | 30 | | |
| 4-Chloro-o-cresol | | | 1800 | | | | | | | |
| 6-Chloro-m-cresol | | | 20 | | | | | | | |
| Chloroethane | | | | | | | | | | |
| Chloroform | | 5.7 / 470 (52) | | | | | | 28,900 | 1240 | |
| Chloromethane | | | | | | | | 11,000 (20) | | |
| Chloromethyl methyl ether | | | | | | | | | | |
| 3-Chloro-2-methylpropene | | | | | | | | | | |
| 2-Chloronaphthalene | | | | | | | | 1600 (48) | | |
| 2-Chlorophenol | | | 0.1 | | | | | 4380 | | 2000 (34) |
| 3-Chlorophenol | | | 0.1 | | | | | | | |
| 4-Chlorophenol | | | 0.1 | | | | | | | |
| 4-Chloro-o-phenylenediamine | | | | | | | | | | |
| Chloropicrin | | | | | | | | | | |
| 3-Chloropropene | | | | | | | | | | |
| Chlorothalonil | | | | | | | | | | |
| 2-Chlorotoluene | | | | | | | | | | |
| 4-Chlorotoluene | | | | | | | | | | |
| p-Chloro-o-toluidine | | | | | | | | | | |
| Chlorozotocin | | | | | | | | | | |
| Chlorpropham | | | | | | | | | | |
| Chlorpyrifos | | | | 0.041 | | 0.083 | | | | |
| Chrysene | | 0.0028 / 0.31 (41,119) | | | | | | | | |
| C.I. Basic Red 9 monohydrochloride | | | | | | | | | | |
| Cinnamyl anthranilate | | | | | | | | | | |
| p-Cresidine | | | | | | | | | | |
| Cresol (o-, m-, p-) | | | | | | | | | | |
| Cupferron | | | | | | | | | | |
| Cyanazine | | | | | | | | | | |
| Cyclophosphamide | | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | California Ocean Plan Numerical Water Quality Objectives | | | | | | U.S. EPA National Ambient Water Quality Criteria Saltwater Aquatic Life Protection | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | Marine Aquatic Life Protection | | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | | 6-month Median | 30-day Average | 7-day Average | Daily Maximum | Instantaneous Maximum | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| technical-BHC | | 0.004 (43) | | | 0.008 (43) | 0.012 (43) | | | | | 0.34 | | |
| Bis(2-chloroethoxy) methane | 4.4 | | | | | | | | | | | | |
| Bis(2-chloroethyl) ether | 0.045 ‡ | | | | | | | | | | | | |
| Bis(2-chloroisopropyl) ether | 1200 | | | | | | | | | | | | |
| Bis(chloromethyl) ether | | | | | | | | | | | | | |
| Bromacil | | | | | | | | | | | | | |
| Bromochloromethane | | | | | | | | | | | | | |
| Bromodichloromethane | 130 ‡ (113) | | | | | | | | | | 12,000 (20) | 6400 (20) | 11,500 (20,83) |
| Bromoform | 130 ‡ (113) | | | | | | | | | | 12,000 (20) | 6400 (20) | 11,500 (20,83) |
| Bromomethane | 130 ‡ (113) | | | | | | | | | | 12,000 (20) | 6400 (20) | 11,500 (20,83) |
| 4-Bromophenyl phenyl ether | | | | | | | | | | | | | |
| Butachlor | | | | | | | | | | | | | |
| 1,3-Butadiene | | | | | | | | | | | | | |
| Butylate | | | | | | | | | | | | | |
| Butylated hydroxyanisole | | | | | | | | | | | | | |
| n-Butyl benzyl phthalate | | | | | | | | | | | 2944 (45) | | 3.4 (38,45) |
| beta-Butyrolactone | | | | | | | | | | | | | |
| Captafol | | | | | | | | | | | | | |
| Captan | | | | | | | | | | | | | |
| Carbaryl | | | | | | | | | | | | | |
| Carbofuran | | | | | | | | | | | | | |
| Carbon tetrachloride | 0.90 ‡ | | | | | | | | | | 50,000 | 6400 (20) | 11,500 (20,83) |
| Carboxin | | | | | | | | | | | | | |
| Catechol | | 30 (86) | | | 120 (86) | 300 (86) | | | | | | | |
| Chloramben | | | | | | | | | | | | | |
| Chlorambucil | | | | | | | | | | | | | |
| Chlordane | 0.000023 ‡ (82) | | | | | | | 0.004 | | 0.09 | | | |
| Chlordimeform | | | | | | | | | | | | | |
| Chlorendic acid | | | | | | | | | | | | | |
| Chlorobenzene | 570 | | | | | | | | | | 160 (22) | 129 (22) | |
| 4-Chloro-m-cresol | | 1 (87) | | | 4 (87) | 10 (87) | | | | | | | |
| 4-Chloro-o-cresol | | 1 (87) | | | 4 (87) | 10 (87) | | | | | | | |
| 6-Chloro-m-cresol | | 1 (87) | | | 4 (87) | 10 (87) | | | | | | | |
| Chloroethane | | | | | | | | | | | | | |
| Chloroform | 130 ‡ | | | | | | | | | | 12,000 (20) | 6400 (20) | 11,500 (20,83) |
| Chloromethane | 130 ‡ (113) | | | | | | | | | | 12,000 (20) | 6400 (20) | 11,500 (20,83) |
| Chloromethyl methyl ether | | | | | | | | | | | | | |
| 3-Chloro-2-methylpropene | | | | | | | | | | | | | |
| 2-Chloronaphthalene | | | | | | | | | | | 7.5 (48) | | |
| 2-Chlorophenol | | 1 (87) | | | 4 (87) | 10 (87) | | | | | | | |
| 3-Chlorophenol | | 1 (87) | | | 4 (87) | 10 (87) | | | | | | | |
| 4-Chlorophenol | | 1 (87) | | | 4 (87) | 10 (87) | | | | | 29,700 | | |
| 4-Chloro-o-phenylenediamine | | | | | | | | | | | | | |
| Chloropicrin | | | | | | | | | | | | | |
| 3-Chloropropene | | | | | | | | | | | | | |
| Chlorothalonil | | | | | | | | | | | | | |
| 2-Chlorotoluene | | | | | | | | | | | | | |
| 4-Chlorotoluene | | | | | | | | | | | | | |
| p-Chloro-o-toluidine | | | | | | | | | | | | | |
| Chlorozotocin | | | | | | | | | | | | | |
| Chlorpropham | | | | | | | | | | | | | |
| Chlorpyrifos | | | | | | | 0.0056 | | 0.011 | | | | |
| Chrysene | 0.0088 ‡ (115) | | | | | | | | | | 300 (41) | | |
| C.I. Basic Red 9 monohydrochloride | | | | | | | | | | | | | |
| Cinnamyl anthranilate | | | | | | | | | | | | | |
| p-Cresidine | | | | | | | | | | | | | |
| Cresol (o-, m-, p-) | | | | | | | | | | | | | |
| Cupferron | | | | | | | | | | | | | |
| Cyanazine | | | | | | | | | | | | | |
| Cyclophosphamide | | | | | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs) | | | | | California Recommended Public Health Level (RPHL) Department of Health Services | California State Action Levels Department of Health Services | | Other Taste & Odor Thresholds |
|---|---|---|---|---|---|---|---|---|---|
| | California Dept. of Health Services | | U.S. Environmental Protection Agency | | | | | | |
| | Primary MCL | Secondary MCL | Primary MCL | Secondary MCL | MCL Goal | | Toxicity | Taste & Odor | |
| 2,4-D | 100 | | 70 | | 70 | | | | |
| Dacarbazine | | | | | | | | | |
| Dacthal (DCPA) | | | | | | | | | |
| Dalapon | | | 200 (93) | | 200 (93) | | | | |
| Damidozide | | | | | | | | | |
| Dantron | | | | | | | | | |
| DBCP | 0.2 | | 0.2 | | zero | 0.002 (100) | | | |
| D&C Red No. 9 | | | | | | | | | |
| DDD | | | | | | | | | |
| DDE | | | | | | | | | |
| DDT | | | | | | | | | |
| Demeton | | | | | | | | | |
| 2,4-Diaminoanisole | | | | | | | | | |
| 2,4-Diaminoanisole sulfate | | | | | | | | | |
| 4,4'-Diaminodiphenyl ether | | | | | | | | | |
| 2,4-Diaminotoluene | | | | | | | | | |
| Diazinon | | | | | | | 14 | | |
| Dibenz(a,h)anthracene | | | 0.3 (100) | | zero (100) | | | | |
| Dibromoacetonitrile | | | | | | | | | |
| Dibromochloromethane | 100 (19) | | 100 (19) | | | | | | |
| Dibutyl phthalate | | | | | | | | | |
| Dicamba | | | | | | | | | |
| Dichloroacetic acid | | | | | | | | | |
| Dichloroacetonitrile | | | | | | | | | |
| 1,2-Dichlorobenzene | | | 600 | 10 (100) | 600 | | 130 (77) | 10 | |
| 1,3-Dichlorobenzene | | | 600 | | 600 | | 130 (77) | 20 | |
| 1,4-Dichlorobenzene | 5 | | 75 | 5 (100) | 75 | 5 (100) | | | |
| 3,3'-Dichlorobenzidine | | | | | | | | | |
| Dichlorodifluoromethane | | | | | | | | | |
| 1,1-Dichloroethane | 5 | | | | | 5 (100) | | | |
| 1,2-Dichloroethane | 0.5 | | 5 | | zero | 0.3 (100) | | | |
| 1,1-Dichloroethylene | 6 | | 7 | | 7 | 6 (100) | | | |
| cis-1,2-Dichloroethylene | 6 | | 70 | | 70 | 6 (100) | | | |
| trans-1,2-Dichloroethylene | 10 | | 100 | | 100 | 10 (100) | | | |
| Dichloromethane | | | 5 (93) | | zero (93) | | 40 | | |
| 2,3-Dichlorophenol | | | | | | | | | |
| 2,4-Dichlorophenol | | | | | | | | | |
| 2,5-Dichlorophenol | | | | | | | | | |
| 2,6-Dichlorophenol | | | | | | | | | |
| 3,4-Dichlorophenol | | | | | | | | | |
| 1,2-Dichloropropane | 5 | | 5 | | zero | 5 (100) | | | |
| 1,3-Dichloropropene | 0.5 | | | | | 0.2 (100) | | | |
| Dichlorvos | | | | | | | | | |
| Dieldrin | | | | | | | 0.05 (LOQ) | | |
| Diesel Oil | | | | | | | | | |
| Di(2-ethylhexyl) adipate | | | 400 (93) | | 400 (93) | | | | |
| Di(2-ethylhexyl)phthalate | 4 | | 6 (93) | | zero (93) | 4 (100) | | | |
| Diethyl phthalate | | | | | 5000 (100) | | | | |
| Diethylstilbesterol | | | | | | | | | |
| Diglycidyl resorcinol ether | | | | | | | | | |
| Dihydrosafrole | | | | | | | | | |
| Diisopropyl methyl phosphonate | | | | | | | | | |
| Dimethoate | | | | | | | 140 | | |
| Dimethrin | | | | | | | | | |
| 4-Dimethylaminoazobenzene | | | | | | | | | |
| trans-2-[(Dimethylamino)-methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-oxadiazole | | | | | | | | | |
| Dimethylaniline | | | | | | | | | |
| 7,12-Dimethylbenz(a)anthracene | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk | | U.S. EPA Integrated Risk Information System (IRIS) Reference Dose as a Water Quality Criterion (118) | One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water | | | | California Proposition 65 Regulatory Level as a Water Quality Criterion (14) | Agricultural Water Quality Goals (79) |
|---|---|---|---|---|---|---|---|---|---|
| | U.S. EPA | National Academy of Sciences (NAS) | | Cal/EPA Cancer Potency Factor as a Water Quality Criterion (102) | U.S. EPA Integrated Risk Information System (IRIS) | U.S. EPA Health Advisory or SNARL | National Academy of Sciences (NAS) *Drinking Water and Health* | | |
| 2,4-D | 70 | 87.5 | 70 | | | (D) | | | |
| Dacarbazine | | | | | | | | 0.005 | |
| Dacthal (DCPA) | 4000 | | 3500 | | | (D) | | | |
| Dalapon | 200 | | 180 | | | (D) | | | |
| Damidozide | | | | | | | | 40 (68) / 20 | |
| Dantron | | | | | | | | 4.5 | |
| DBCP | 50 (10-day) | | | 0.005 | 0.03 | 0.03 (B2) | 0.051 | 0.05 | |
| D&C Red No. 9 | | | | | | | | 50 | |
| DDD | | | | 0.15 | | | | 1 (50) | |
| DDE | | | | 0.1 | | | | 1 (50) | |
| DDT | | | | 0.1 | 0.1 | (B2) | 0.042 | 1 (50) | |
| Demeton | | | | | | | | | |
| 2,4-Diaminoanisole | | | | | | | | 15 | |
| 2,4-Diaminoanisole sulfate | | | | | | | | 25 | |
| 4,4'-Diaminodiphenyl ether | | | | | | | | 2.5 | |
| 2,4-Diaminotoluene | | | | | | | | 0.1 | |
| Diazinon | 0.6 | 14 | 0.6 | | | (E) | | | |
| Dibenz(a,h)anthracene | | | | | | (B2) | | 0.1 | |
| Dibromoacetonitrile | 20 (68) | 23 / 161 (7) | | | | (C) | | | |
| Dibromochloromethane | 60 (68) | 18,000 (24-hr) | 14 | | | (C) | 0.6 | 3.5 | |
| Dibutyl phthalate | | 770 | 700 | | | (D) | | | |
| Dicamba | 200 | 8.75 | 210 | | | (D) | | | |
| Dichloroacetic acid | 3 | 175 / 420 (7) | 3.5 | | | (C) | | | |
| Dichloroacetonitrile | 6 | | 6.3 | | | (C) | | | |
| 1,2-Dichlorobenzene | 600 | 300 (25) | 620 | | | (D) | | | |
| 1,3-Dichlorobenzene | 600 | | 620 | | | (D) | | | |
| 1,4-Dichlorobenzene | 75 | 94 (25) | 70 | 0.88 | | (C) | | 10 | |
| 3,3'-Dichlorobenzidine | | | | 0.029 | | | | 0.3 | |
| Dichlorodifluoromethane | 1000 | 5600 (7-day) | 1400 | | | (D) | | | |
| 1,1-Dichloroethane | | | | | | | | 50 | |
| 1,2-Dichloroethane | 700 (10-day) | | | 0.5 | 0.4 | 0.4 (B2) | 0.71 | 5 | |
| 1,1-Dichloroethylene | 7 | 100 | 6.3 | | 0.06 | 0.06 (C) | | | |
| cis-1,2-Dichloroethylene | 70 | | 70 | | | (D) | | | |
| trans-1,2-Dichloroethylene | 100 | | 140 | | | (D) | | | |
| Dichloromethane | 2000 (10-day) | 5000 (7-day) | | 2.5 | 5 | 5 (B2) | | 25 | |
| 2,3-Dichlorophenol | | | | | | | | | |
| 2,4-Dichlorophenol | 20 | 2000 / 7000 (7) | 21 | | | (D) | | | |
| 2,5-Dichlorophenol | | | | | | | | | |
| 2,6-Dichlorophenol | | | | | | | | | |
| 3,4-Dichlorophenol | | | | | | | | | |
| 1,2-Dichloropropane | 90 (10-day) | | | 0.56 | 0.5 | 0.5 (B2) | | | |
| 1,3-Dichloropropene | 30 (10-day) | | | 0.19 | 0.2 | 0.2 (B2) | 0.45 | | |
| Dichlorvos | | | | 0.085 (100) / 0.12 | | | | 1 | |
| Dieldrin | 0.5 (10-day) | | | 0.0022 | 0.002 | 0.002 (B2) | 0.0019 | 0.02 | |
| Diesel Oil | 100 (10-day,116) | | | | | | | | |
| Di(2-ethylhexyl) adipate | 400 | | 420 | | | 30 (C) | | | |
| Di(2-ethylhexyl)phthalate | | 4200 | | 4.2 | 3 | 3 (B2) | 2.4 | 40 | |
| Diethyl phthalate | 5000 | | 5600 | | | (D) | | | |
| Diethylstilbesterol | | | | | | | | 0.001 | |
| Diglycidyl resorcinol ether | | | | | | | | 0.2 | |
| Dihydrosafrole | | | | | | | | 10 | |
| Diisopropyl methyl phosphonate | 600 | | 560 | | | (D) | | | |
| Dimethoate | | | | | | | | | |
| Dimethrin | 2000 | | 2100 | | | (D) | | | |
| 4-Dimethylaminoazobenzene | | | | | | | | 0.1 | |
| trans-2-[(Dimethylamino)-methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-oxadiazole | | | | | | | | 1 | |
| Dimethylaniline | | | 1.4 | | 0.05 | (C) | | | |
| 7,12-Dimethylbenz(a)anthracene | | | | | | | | 0.0015 | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | California Inland Surface Waters Plan Numerical Water Quality Objectives | | | | | | California Enclosed Bays & Estuaries Plan Numerical Water Quality Objectives | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | | Freshwater Aquatic Life Protection | | | | Human Health Protection (30-day Average) "‡" = carcinogen | Saltwater Aquatic Life Protection | | |
| | Sources of Drinking Water | Other Waters | 4-day Average | Daily Average | 1-hour Average | Instantaneous Maximum | | 4-day Average | Daily Average | 1-hour Average |
| 2,4-D | | | | | | | | | | |
| Dacarbazine | | | | | | | | | | |
| Dacthal (DCPA) | | | | | | | | | | |
| Dalapon | | | | | | | | | | |
| Damidozide | | | | | | | | | | |
| Dantron | | | | | | | | | | |
| DBCP | | | | | | | | | | |
| D&C Red No. 9 | | | | | | | | | | |
| DDD | 0.00059 ‡ (50) | 0.00060 ‡ (50) | | 0.0010 (50) | | | 0.0006 ‡ (50) | | 0.0010 (50) | |
| DDE | 0.00059 ‡ (50) | 0.00060 ‡ (50) | | 0.0010 (50) | | | 0.0006 ‡ (50) | | 0.0010 (50) | |
| DDT | 0.00059 ‡ (50) | 0.00060 ‡ (50) | | 0.0010 (50) | | | 0.0006 ‡ (50) | | 0.0010 (50) | |
| Demeton | | | | | | | | | | |
| 2,4-Diaminoanisole | | | | | | | | | | |
| 2,4-Diaminoanisole sulfate | | | | | | | | | | |
| 4,4'-Diaminodiphenyl ether | | | | | | | | | | |
| 2,4-Diaminotoluene | | | | | | | | | | |
| Diazinon | | | | | | | | | | |
| Dibenz(a,h)anthracene | 0.0028 ‡ (115) | 0.031 ‡ (115) | | | | | 0.031 ‡ (115) | | | |
| Dibromoacetonitrile | | | | | | | | | | |
| Dibromochloromethane | 100 ‡ (113) | 480 ‡ (113) | | | | | 480 ‡ (113) | | | |
| Dibutyl phthalate | 2700 (100) | 12,000 (100) | | | | | 12,000 (100) | | | |
| Dicamba | | | | | | | | | | |
| Dichloroacetic acid | | | | | | | | | | |
| Dichloroacetonitrile | | | | | | | | | | |
| 1,2-Dichlorobenzene | 2700 | 18,000 | | | | | 18,000 | | | |
| 1,3-Dichlorobenzene | 400 | 2600 | | | | | 2600 | | | |
| 1,4-Dichlorobenzene | 9.9 ‡ | 64 ‡ | | | | | 64 ‡ | | | |
| 3,3'-Dichlorobenzidine | 0.014 ‡ (100) | 0.03 ‡ (100) | | | | | 0.029 ‡ (100) | | | |
| Dichlorodifluoromethane | | | | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | | | |
| 1,2-Dichloroethane | 0.50 ‡ (100) | 130 ‡ (100) | | | | | 130 ‡ (100) | | | |
| 1,1-Dichloroethylene | 0.057 ‡ (100) | 3.2 ‡ (100) | | | | | 3.2 ‡ (100) | | | |
| cis-1,2-Dichloroethylene | | | | | | | | | | |
| trans-1,2-Dichloroethylene | | | | | | | | | | |
| Dichloromethane | 4.6 ‡ | 1600 ‡ | | | | | 1600 ‡ | | | |
| 2,3-Dichlorophenol | | | | | | | | | | |
| 2,4-Dichlorophenol | 0.30 (36) | | | | | | 2900 (100) | | | |
| 2,5-Dichlorophenol | | | | | | | | | | |
| 2,6-Dichlorophenol | | | | | | | | | | |
| 3,4-Dichlorophenol | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | |
| 1,3-Dichloropropene | 0.19 ‡ (100) | 31 ‡ (100) | | | | | 31 ‡ (100) | | | |
| Dichlorvos | | | | | | | | | | |
| Dieldrin | 0.00014 ‡ | 0.00014 ‡ | | 0.0019 | | | 0.00014 ‡ | | 0.0019 | |
| Diesel Oil | | | | | | | | | | |
| Di(2-ethylhexyl) adipate | | | | | | | | | | |
| Di(2-ethylhexyl)phthalate | 2.9 ‡ (100) | 9.9 ‡ (100) | | | | | 9.9 ‡ (100) | | | |
| Diethyl phthalate | 23,000 (100) | 120,000 (100) | | | | | 120,000 (100) | | | |
| Diethylstilbesterol | | | | | | | | | | |
| Diglycidyl resorcinol ether | | | | | | | | | | |
| Dihydrosafrole | | | | | | | | | | |
| Diisopropyl methyl phosphonate | | | | | | | | | | |
| Dimethoate | | | | | | | | | | |
| Dimethrin | | | | | | | | | | |
| 4-Dimethylaminoazobenzene | | | | | | | | | | |
| trans-2-[(Dimethylamino)-methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-oxadiazole | | | | | | | | | | |
| Dimethylaniline | | | | | | | | | | |
| 7,12-Dimethylbenz(a)anthracene | | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | U.S. EPA National Ambient Water Quality Criteria | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Health and Welfare Protection | | | Freshwater Aquatic Life Protection | | | | | | |
| | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | Non-Cancer Public Health Effects | One-in-a-Million Incremental Cancer Risk Estimate | Taste & Odor or Welfare | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| 2,4-D | 100 | | | | | | | | | |
| Dacarbazine | | | | | | | | | | |
| Dacthal (DCPA) | | 0.008 (8) | | | | | 14,300 (8) | | | |
| Dalapon | | | | | | | 110 (54) | | | |
| Damidozide | | | | | | | | | | |
| Dantron | | | | | | | | | | |
| DBCP | | 0.025 | | | | | | | | |
| D&C Red No. 9 | | | | | | | | | | |
| DDD | | 0.00083 / 0.00084 (52) | | | | | | 0.6 | | |
| DDE | | 0.00059 / 0.00059 (52) | | | | | | 1050 | | |
| DDT | | 0.00059 / 0.00059 (52) | | | 0.0010 | | 1.1 | | | |
| Demeton | | | | | | | 0.1 | | | |
| 2,4-Diaminoanisole | | | | | | | | | | |
| 2,4-Diaminoanisole sulfate | | | | | | | | | | |
| 4,4'-Diaminodiphenyl ether | | | | | | | | | | |
| 2,4-Diaminotoluene | | | | | | | | | | |
| Diazinon | | | | | | | 0.009 (54) | | | |
| Dibenz(a,h)anthracene | | 0.0028 / 0.031 (41,119) | | | | | | | | |
| Dibromoacetonitrile | | | | | | | | | | |
| Dibromochloromethane | | 0.41 / 34 (52) | | | | | | 11,000 (20) | | |
| Dibutyl phthalate | 2700 / 12,000 (52) | | | | | | | 940 (45) | 3 (45) | |
| Dicamba | | | | | | | 200 (54) | | | |
| Dichloroacetic acid | | | | | | | | | | |
| Dichloroacetonitrile | | | | | | | | | | |
| 1,2-Dichlorobenzene | 2700 / 17,000 (52) | | | | | | | 1120 (24) | 763 (24) | |
| 1,3-Dichlorobenzene | 400 / 2600 (24,119) | | | | | | | 1120 (24) | 763 (24) | |
| 1,4-Dichlorobenzene | 400 / 2600 (24,119) | | | | | | | 1120 (24) | 763 (24) | |
| 3,3'-Dichlorobenzidine | | 0.04 / 0.077 (52) | | | | | | | | |
| Dichlorodifluoromethane | | 0.19 | | | | | | 11,000 (20) | | |
| 1,1-Dichloroethane | | | | | | | | | | |
| 1,2-Dichloroethane | | 0.38 / 99 (52) | | | | | | 118,000 | 20,000 | |
| 1,1-Dichloroethylene | | 0.057 / 3.2 (52) | | | | | | 11,600 (27) | | |
| cis-1,2-Dichloroethylene | | | | | | | | 11,600 (27) | | |
| trans-1,2-Dichloroethylene | | | | | | | | 11,600 (27) | | |
| Dichloromethane | | 4.7 / 1600 (52) | | | | | | 11,000 (20) | | |
| 2,3-Dichlorophenol | | | 0.04 | | | | | | | |
| 2,4-Dichlorophenol | 93 / 790 (52) | | 0.3 | | | | | 2020 | 365 | 70 (35) |
| 2,5-Dichlorophenol | | | 0.5 | | | | | | | |
| 2,6-Dichlorophenol | | | 0.2 | | | | | | | |
| 3,4-Dichlorophenol | | | 0.3 | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | 23,000 (28) | 5700 (28) | |
| 1,3-Dichloropropene | 10 / 1700 (52) | | | | | | | 6060 (29) | 244 (29) | |
| Dichlorvos | | | | | | | | | | |
| Dieldrin | | 0.00014 / 0.00014 (52) | | | 0.0019 | | 2.5 | | | |
| Diesel Oil | | | | | | | | | | |
| Di(2-ethylhexyl) adipate | | | | | | | | | | |
| Di(2-ethylhexyl)phthalate | | 1.8 / 5.9 (52) | | 360 (100) | | 400 (100) | | 940 (45) | 3 (45) | |
| Diethyl phthalate | 23,000 / 120,000 (52) | | | | | | | 940 (45) | 3 (45) | |
| Diethylstilbesterol | | | | | | | | | | |
| Diglycidyl resorcinol ether | | | | | | | | | | |
| Dihydrosafrole | | | | | | | | | | |
| Diisopropyl methyl phosphonate | | | | | | | | | | |
| Dimethoate | | | | | | | | | | |
| Dimethrin | | | | | | | | | | |
| 4-Dimethylaminoazobenzene | | | | | | | | | | |
| trans-2-[(Dimethylamino)-methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-oxadiazole | | | | | | | | | | |
| Dimethylaniline | | | | | | | | | | |
| 7,12-Dimethylbenz(a)anthracene | | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | California Ocean Plan Numerical Water Quality Objectives | | | | | | U.S. EPA National Ambient Water Quality Criteria Saltwater Aquatic Life Protection | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | Marine Aquatic Life Protection | | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | | 6-month Median | 30-day Average | 7-day Average | Daily Maximum | Instantaneous Maximum | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| 2,4-D | | | | | | | | | | | | | |
| Dacarbazine | | | | | | | | | | | | | |
| Dacthal (DCPA) | | | | | | | | | | | | | |
| Dalapon | | | | | | | | | | | | | |
| Damidozide | | | | | | | | | | | | | |
| Dantron | | | | | | | | | | | | | |
| DBCP | | | | | | | | | | | | | |
| D&C Red No. 9 | | | | | | | | | | | | | |
| DDD | 0.00017 ‡ (50) | | | | | | | | | | 3.6 | | |
| DDE | 0.00017 ‡ (50) | | | | | | | | | | 14 | | |
| DDT | 0.00017 ‡ (50) | | | | | | | 0.001 | | 0.13 | | | |
| Demeton | | | | | | | | | | 0.1 | | | |
| 2,4-Diaminoanisole | | | | | | | | | | | | | |
| 2,4-Diaminoanisole sulfate | | | | | | | | | | | | | |
| 4,4'-Diaminodiphenyl ether | | | | | | | | | | | | | |
| 2,4-Diaminotoluene | | | | | | | | | | | | | |
| Diazinon | | | | | | | | | | | | | |
| Dibenz(a,h)anthracene | 0.0088 ‡ (115) | | | | | | | | | | 300 (41) | | |
| Dibromoacetonitrile | | | | | | | | | | | | | |
| Dibromochloromethane | 130 ‡ (113) | | | | | | | | | | 12,000 (20) | 6400 (20) | 11,500 (20,83) |
| Dibutyl phthalate | 3500 | | | | | | | | | | 2944 (45) | | 3.4 (38,45) |
| Dicamba | | | | | | | | | | | | | |
| Dichloroacetic acid | | | | | | | | | | | | | |
| Dichloroacetonitrile | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | 5100 (77) | | | | | | | | | | 1970 (24) | 129 (22) | |
| 1,3-Dichlorobenzene | 5100 (77) | | | | | | | | | | 1970 (24) | 129 (22) | |
| 1,4-Dichlorobenzene | 18 ‡ | | | | | | | | | | 1970 (24) | 129 (22) | |
| 3,3'-Dichlorobenzidine | 0.0081 ‡ | | | | | | | | | | | | |
| Dichlorodifluoromethane | | | | | | | | | | | 12,000 (20) | 6400 (20) | 11,500 (20,83) |
| 1,1-Dichloroethane | | | | | | | | | | | | | |
| 1,2-Dichloroethane | 130 ‡ | | | | | | | | | | 113,000 | | |
| 1,1-Dichloroethylene | 7100 | | | | | | | | | | 224,000 (27) | | |
| cis-1,2-Dichloroethylene | | | | | | | | | | | 224,000 (27) | | |
| trans-1,2-Dichloroethylene | | | | | | | | | | | 224,000 (27) | | |
| Dichloromethane | 450 ‡ | | | | | | | | | | 12,000 (20) | 6400 (20) | 11,500 (20,83) |
| 2,3-Dichlorophenol | | 1 (87) | | | 4 (87) | 10 (87) | | | | | | | |
| 2,4-Dichlorophenol | | 1 (87) | | | 4 (87) | 10 (87) | | | | | | | |
| 2,5-Dichlorophenol | | 1 (87) | | | 4 (87) | 10 (87) | | | | | | | |
| 2,6-Dichlorophenol | | 1 (87) | | | 4 (87) | 10 (87) | | | | | | | |
| 3,4-Dichlorophenol | | 1 (87) | | | 4 (87) | 10 (87) | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | 10,300 (28) | 3040 (28) | |
| 1,3-Dichloropropene | 8.9 ‡ | | | | | | | | | | 790 (29) | | |
| Dichlorvos | | | | | | | | | | | | | |
| Dieldrin | 0.000040 ‡ | | | | | | | 0.0019 | | 0.71 | | | |
| Diesel Oil | | | | | | | | | | | | | |
| Di(2-ethylhexyl) adipate | | | | | | | | | | | | | |
| Di(2-ethylhexyl)phthalate | 3.5 ‡ | | | | | | 360 (100) | | 400 (100) | | 2,944 (45) | | 3.4 (38,45) |
| Diethyl phthalate | 33,000 | | | | | | | | | | 2944 (45) | | 3.4 (38,45) |
| Diethylstilbesterol | | | | | | | | | | | | | |
| Diglycidyl resorcinol ether | | | | | | | | | | | | | |
| Dihydrosafrole | | | | | | | | | | | | | |
| Diisopropyl methyl phosphonate | | | | | | | | | | | | | |
| Dimethoate | | | | | | | | | | | | | |
| Dimethrin | | | | | | | | | | | | | |
| 4-Dimethylaminoazobenzene | | | | | | | | | | | | | |
| trans-2-[(Dimethylamino)-methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-oxadiazole | | | | | | | | | | | | | |
| Dimethylaniline | | | | | | | | | | | | | |
| 7,12-Dimethylbenz(a)anthracene | | | | | | | | | | | | | |



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs) | | | | | California Recommended Public Health Level (RPHL) Department of Health Services | California State Action Levels Department of Health Services | | Other Taste & Odor Thresholds |
|---|---|---|---|---|---|---|---|---|---|
| | California Dept. of Health Services | | U.S. Environmental Protection Agency | | | | | | |
| | Primary MCL | Secondary MCL | Primary MCL | Secondary MCL | MCL Goal | | Toxicity | Taste & Odor | |
| Dimethylcarbamoyl chloride | | | | | | | | | |
| 1,1-Dimethylhydrazine | | | | | | | | | |
| 1,2-Dimethylhydrazine | | | | | | | | | |
| Dimethyl methyl phosphonate | | | | | | | | | |
| 2,4-Dimethylphenol | | | | | | | | 400 | |
| Dimethyl phthalate | | | | | | | | | |
| Dimethyl sulfate | | | | | | | | | |
| Dimethylvinylchloride | | | | | | | | | |
| 1,3-Dinitrobenzene | | | | | | | | | |
| 4,6-Dinitro-o-cresol | | | | | | | | | |
| Dinitrophenol | | | | | | | | | |
| 2,4-Dinitrophenol | | | | | | | | | |
| 2,4-Dinitrotoluene | | | | | | | | | |
| 2,6-Dinitrotoluene | | | | | | | | | |
| Dinoseb | | | 7 (93) | | 7 (93) | | | | |
| Di(n-octyl) phthalate | | | | | | | | | |
| 1,4-Dioxane | | | | | | | | | |
| Diphenamid | | | | | | | 40 | | |
| Diphenylamine | | | | | | | | | |
| 1,2-Diphenylhydrazine | | | | | | | | | |
| Diquat | | | 20 (93) | | 20 (93) | | | | |
| Direct Black 38 | | | | | | | | | |
| Direct Blue 6 | | | | | | | | | |
| Direct Brown 95 | | | | | | | | | |
| Disperse Blue 1 | | | | | | | | | |
| Disyston | | | | | | | | | |
| 1,4-Dithiane | | | | | | | | | |
| Diuron | | | | | | | | | |
| Endosulfan | | | | | | | | | |
| Endosulfan sulfate | | | | | | | | | |
| Endothall | | | 100 (93) | | 100 (93) | | | | |
| Endrin | 0.2 | | 2 (93) / 0.2 | | 2 (93) | | | | |
| Epichlorohydrin | | | (105) | | zero | | | | |
| Estradiol 17beta | | | | | | | | | |
| Ethers, chloroalkyl- | | | | | | | | | |
| Ethers, halo- | | | | | | | | | |
| Ethion | | | | | | | 35 | | |
| Ethylbenzene | 680 | | 700 | 30 (100) | 700 | 680 (100) | | | 29 (26) |
| Ethyl-4,4'-dichlorobenzilate | | | | | | | | | |
| Ethylene dibromide (EDB) | 0.02 | | 0.05 | | zero | 0.01 (100) | | | |
| Ethylene glycol | | | | | | | | | |
| Ethyleneimine | | | | | | | | | |
| Ethylene oxide (ETO) | | | | | | | | | |
| Ethylenes, dichloro- | | | | | | | | | |
| Ethylene thiourea (ETU) | | | | | | | | | |
| Fenamiphos | | | | | | | | | |
| Ferbam | | | | | | | | | |
| Fluometuron | | | | | | | | | |
| Fluoranthene | | | | | | | | | |
| Fluorene | | | | | | | | | |
| Folpet | | | | | | | | | |
| Fonofos | | | | | | | | | |
| Formaldehyde | | | | | | | 30 | | |
| 2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole | | | | | | | | | |
| Furmecyclox | | | | | | | | | |
| Gasoline | | | | | | | | | 5 (117) |
| Glu-P-1 | | | | | | | | | |
| Glu-P-2 | | | | | | | | | |
| Glycidol | | | | | | | | | |

 *Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.* 

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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk | | U.S. EPA Integrated Risk Information System (IRIS) Reference Dose as a Water Quality Criterion (118) | One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water | | | | California Proposition 65 Regulatory Level as a Water Quality Criterion (14) | Agricultural Water Quality Goals (78) |
|---|---|---|---|---|---|---|---|---|---|
| | U.S. EPA | National Academy of Sciences (NAS) | | Cal/EPA Cancer Potency Factor as a Water Quality Criterion (102) | U.S. EPA Integrated Risk Information System (IRIS) | U.S. EPA Health Advisory or SNARL | National Academy of Sciences (NAS) *Drinking Water and Health* | | |
| Dimethylcarbamoyl chloride | | | | | | | | 0.025 | |
| 1,1-Dimethylhydrazine | | | | | | | | 0.15 (100) | |
| 1,2-Dimethylhydrazine | | | | | | | | 0.0005 | |
| Dimethyl methyl phosphonate | 100 | | | | | 7 (C) | | | |
| 2,4-Dimethylphenol | | | 140 | | | | | | |
| Dimethyl phthalate | | | | | | (D) | | | |
| Dimethyl sulfate | | | | | | | | 0.025 (100) | |
| Dimethylvinylchloride | | | | | | | | 10 | |
| 1,3-Dinitrobenzene | 1 | | 0.7 | | | (D) | | | |
| 4,6-Dinitro-o-cresol | | | | | | | | | |
| Dinitrophenol | | 110 | | | | | | | |
| 2,4-Dinitrophenol | | 110 | | | | | | | |
| 2,4-Dinitrotoluene | 500 (10-day) | | | 0.11 | 50 | 0.05 (B2) | | 1 | |
| 2,6-Dinitrotoluene | 400 (10-day) | | | | 50 | 0.05 (B2) | | | |
| Dinoseb | 7 | 39 | 7 | | | (D) | | | |
| Di(n-octyl) phthalate | | | | | | | | | |
| 1,4-Dioxane | 400 (10-day) | | | 1.3 | 7 | 7 (B2) | | 15 | |
| Diphenamid | 200 | | 210 | | | (D) | | | |
| Diphenylamine | 200 | | | | | (D) | | | |
| 1,2-Diphenylhydrazine | | | | | | | | 0.4 | |
| Diquat | 20 | | 15 | | | (D) | | | |
| Direct Black 38 | | | | | | | | 0.045 | |
| Direct Blue 6 | | | | | | | | 0.045 | |
| Direct Brown 95 | | | | | | | | 0.05 | |
| Disperse Blue 1 | | | | | | | | 100 | |
| Disyston | 0.3 | 0.7 | 0.3 | | | (E) | | | |
| 1,4-Dithiane | 80 | | | | | (D) | | | |
| Diuron | 10 | | 14 | | | (D) | | | |
| Endosulfan | | | | | | | | | |
| Endosulfan sulfate | | | | | | | | | |
| Endothall | 100 | | 140 | | | (D) | | | |
| Endrin | 2 | | 2.1 | | | (D) | | | |
| Epichlorohydrin | 100 (10-day) | 530 (7-day) | | 0.44 | 4 | 4 (B2) | | 4.5 | |
| Estradiol 17beta | | | | | | | | 0.01 | |
| Ethers, chloroalkyl- | | | | | | | | | |
| Ethers, halo- | | | | | | | | | |
| Ethion | | | 3.5 | | | | | | |
| Ethylbenzene | 700 | | 700 | | | (D) | | | |
| Ethyl-4,4'-dichlorobenzilate | | | | | | | | 3.5 | |
| Ethylene dibromide (EDB) | 8 (10-day) | | | 0.0097 | 0.0004 | 0.0004 (B2) | 0.055 | 0.1 | |
| Ethylene glycol | 7000 | | 14,000 | | | (D) | | | |
| Ethyleneimine | | | | | | | | 0.005 | |
| Ethylene oxide (ETO) | | | | 0.11 | | | | 10 (5) / 1 | |
| Ethylenes, dichloro- | | | | | | | | | |
| Ethylene thiourea (ETU) | 300 (10-day) | | | | 1 | 0.3 (B2) | 0.23 | 5 | |
| Fenamiphos | 2 | | 1.8 | | | (D) | | | |
| Ferbam | | 87.5 | | | | | | | |
| Fluometuron | 90 | | 91 | | | (D) | | | |
| Fluoranthene | | | | | | (D) | | | |
| Fluorene | | | 280 | | | (D) | | | |
| Folpet | | 1120 | | | 10 | (B2) | | 100 | |
| Fonofos | 10 | | 14 | | | (D) | | | |
| Formaldehyde | 1000 | | 1100 | 1.9 / 0.76 | | (B1-inhalation) | | 20 | |
| 2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole | | | | | | | | 0.15 | |
| Furmecyclox | | | | 1.2 | | | | 10 | |
| Gasoline | | | | | | | | | |
| Glu-P-1 | | | | | | | | 0.05 | |
| Glu-P-2 | | | | | | | | 0.25 | |
| Glycidol | | | | | | | | 0.045 (100) | |

 *Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.* 

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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | California Inland Surface Waters Plan Numerical Water Quality Objectives | | | | | | California Enclosed Bays & Estuaries Plan Numerical Water Quality Objectives | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | | Freshwater Aquatic Life Protection | | | | Human Health Protection (30-day Average) "‡" = carcinogen | Saltwater Aquatic Life Protection | | |
| | Sources of Drinking Water | Other Waters | 4-day Average | Daily Average | 1-hour Average | Instantaneous Maximum | | 4-day Average | Daily Average | 1-hour Average |
| Dimethylcarbamoyl chloride | | | | | | | | | | |
| 1,1-Dimethylhydrazine | | | | | | | | | | |
| 1,2-Dimethylhydrazine | | | | | | | | | | |
| Dimethyl methyl phosphonate | | | | | | | | | | |
| 2,4-Dimethylphenol | 400 (36,100) | 2300 (100) | | | | | 2300 (100) | | | |
| Dimethyl phthalate | 310,000 (100) | 2,900,000 (100) | | | | | 2,900,000 (100) | | | |
| Dimethyl sulfate | | | | | | | | | | |
| Dimethylvinylchloride | | | | | | | | | | |
| 1,3-Dinitrobenzene | | | | | | | | | | |
| 4,6-Dinitro-o-cresol | 13 (100) | 770 (100) | | | | | 765 (100) | | | |
| Dinitrophenol | | | | | | | | | | |
| 2,4-Dinitrophenol | 70 (100) | 14,000 (100) | | | | | 14,000 (100) | | | |
| 2,4-Dinitrotoluene | 0.11 ‡ (100) | 9.1 ‡ (100) | | | | | 9.1 ‡ (100) | | | |
| 2,6-Dinitrotoluene | | | | | | | | | | |
| Dinoseb | | | | | | | | | | |
| Di(n-octyl) phthalate | | | | | | | | | | |
| 1,4-Dioxane | | | | | | | | | | |
| Diphenamid | | | | | | | | | | |
| Diphenylamine | | | | | | | | | | |
| 1,2-Diphenylhydrazine | 0.040 ‡ (100) | 0.54 ‡ (100) | | | | | 0.54 ‡ (100) | | | |
| Diquat | | | | | | | | | | |
| Direct Black 38 | | | | | | | | | | |
| Direct Blue 6 | | | | | | | | | | |
| Direct Brown 95 | | | | | | | | | | |
| Disperse Blue 1 | | | | | | | | | | |
| Disyston | | | | | | | | | | |
| 1,4-Dithiane | | | | | | | | | | |
| Diuron | | | | | | | | | | |
| Endosulfan | 0.9 (42) | 2.0 (42) | | 0.056 (42) | | 0.22 (42) | 2.0 (42) | | 0.0087 (42) | 0.034 (42) |
| Endosulfan sulfate | 0.9 (42) | 2.0 (42) | | 0.056 (42) | | 0.22 (42) | 2.0 (42) | | 0.0087 (42) | 0.034 (42) |
| Endothall | | | | | | | | | | |
| Endrin | 0.8 | 0.8 | | 0.0023 | | 0.18 | 0.8 | | 0.0023 | 0.037 |
| Epichlorohydrin | | | | | | | | | | |
| Estradiol 17beta | | | | | | | | | | |
| Ethers, chloroalkyl- | | | | | | | | | | |
| Ethers, halo- | | | | | | | | | | |
| Ethion | | | | | | | | | | |
| Ethylbenzene | 680 (100) | 29,000 (100) | | | | | 29,000 (100) | | | |
| Ethyl-4,4'-dichlorobenzilate | | | | | | | | | | |
| Ethylene dibromide (EDB) | | | | | | | | | | |
| Ethylene glycol | | | | | | | | | | |
| Ethyleneimine | | | | | | | | | | |
| Ethylene oxide (ETO) | | | | | | | | | | |
| Ethylenes, dichloro- | | | | | | | | | | |
| Ethylene thiourea (ETU) | | | | | | | | | | |
| Fenamiphos | | | | | | | | | | |
| Ferbam | | | | | | | | | | |
| Fluometuron | | | | | | | | | | |
| Fluoranthene | 42 | 42 | | | | | 42 | | | |
| Fluorene | 0.0028 ‡ (115) | 0.031 ‡ (115) | | | | | 0.031 ‡ (115) | | | |
| Folpet | | | | | | | | | | |
| Fonofos | | | | | | | | | | |
| Formaldehyde | | | | | | | | | | |
| 2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole | | | | | | | | | | |
| Furmecyclox | | | | | | | | | | |
| Gasoline | | | | | | | | | | |
| Glu-P-1 | | | | | | | | | | |
| Glu-P-2 | | | | | | | | | | |
| Glycidol | | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | U.S. EPA National Ambient Water Quality Criteria | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Health and Welfare Protection | | | Freshwater Aquatic Life Protection | | | | | | |
| | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | Non-Cancer Public Health Effects | One-in-a-Million Incremental Cancer Risk Estimate | Taste & Odor or Welfare | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| Dimethylcarbamoyl chloride | | | | | | | | | | |
| 1,1-Dimethylhydrazine | | | | | | | | | | |
| 1,2-Dimethylhydrazine | | | | | | | | | | |
| Dimethyl methyl phosphonate | | | | | | | | | | |
| 2,4-Dimethylphenol | | | 400 | | | | | 2120 | | |
| Dimethyl phthalate | 313,000 / 2,900,000(52) | | | | | | | 940 (45) | 3 (45) | |
| Dimethyl sulfate | | | | | | | | | | |
| Dimethylvinylchloride | | | | | | | | | | |
| 1,3-Dinitrobenzene | | | | | | | | | | |
| 4,6-Dinitro-o-cresol | 13.4 / 765 (52) | | | | | | | 230 (88) | | 150 (38,88) |
| Dinitrophenol | 70 | | | | | | | 230 (88) | | 150 (38,88) |
| 2,4-Dinitrophenol | 70 / 14,000 (52) | | | | | | | 230 (88) | | 150 (38,88) |
| 2,4-Dinitrotoluene | | 0.11 / 9.1 (52) | | | | | | 330 (53) | 230 (53) | |
| 2,6-Dinitrotoluene | | | | | | | | 330 (53) | 230 (53) | |
| Dinoseb | | | | | | | | | | |
| Di(n-octyl) phthalate | | | | | | | | 940 (45) | 3 (45) | |
| 1,4-Dioxane | | | | | | | | | | |
| Diphenamid | | | | | | | | | | |
| Diphenylamine | | | | | | | | | | |
| 1,2-Diphenylhydrazine | | 0.040 / 0.54 (52) | | | | | | 270 (77) | | |
| Diquat | | | | | | | 0.5 (54) | | | |
| Direct Black 38 | | | | | | | | | | |
| Direct Blue 6 | | | | | | | | | | |
| Direct Brown 95 | | | | | | | | | | |
| Disperse Blue 1 | | | | | | | | | | |
| Disyston | | | | | | | 0.05 (54) | | | |
| 1,4-Dithiane | | | | | | | | | | |
| Diuron | | | | | | | | | | |
| Endosulfan | 0.93 / 2.0 (52) | | | | 0.056 | | 0.22 | | | |
| Endosulfan sulfate | 0.93 / 2.0 (52) | | | | 0.056 (104) | | | | | |
| Endothall | | | | | | | | | | |
| Endrin | 0.76 / 0.81 (18,52) | | | | 0.0023 | | 0.18 | | | |
| Epichlorohydrin | | | | | | | | | | |
| Estradiol 17beta | | | | | | | | | | |
| Ethers, chloroalkyl- | | | | | | | | 238,000 | 122 (58) | |
| Ethers, halo- | | | | | | | | 360 | 122 | |
| Ethion | | | | | | | 0.02 (54) | | | |
| Ethylbenzene | 3100 / 29,000 (52) | | | | | | | 32,000 | | |
| Ethyl-4,4'-dichlorobenzilate | | | | | | | | | | |
| Ethylene dibromide (EDB) | | | | | | | | | | |
| Ethylene glycol | | | | | | | | | | |
| Ethyleneimine | | | | | | | | | | |
| Ethylene oxide (ETO) | | | | | | | | | | |
| Ethylenes, dichloro- | | | | | | | | 11,600 | | |
| Ethylene thiourea (ETU) | | | | | | | | | | |
| Fenamiphos | | | | | | | | | | |
| Ferbam | | | | | | | | | | |
| Fluometuron | | | | | | | | | | |
| Fluoranthene | 300 / 370 (52) | | | | | | | 3980 | | |
| Fluorene | 1300 / 14,000 (52) | | | | | | | | | |
| Folpet | | | | | | | | | | |
| Fonofos | | | | | | | | | | |
| Formaldehyde | | | | | | | | | | |
| 2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole | | | | | | | | | | |
| Furmecyclox | | | | | | | | | | |
| Gasoline | | | | | | | | | | |
| Glu-P-1 | | | | | | | | | | |
| Glu-P-2 | | | | | | | | | | |
| Glycidol | | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | California Ocean Plan Numerical Water Quality Objectives | | | | | | U.S. EPA National Ambient Water Quality Criteria Saltwater Aquatic Life Protection | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | Marine Aquatic Life Protection | | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | | 6-month Median | 30-day Average | 7-day Average | Daily Maximum | Instantaneous Maximum | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (instantaneous) | Acute | Chronic | Other |
| Dimethylcarbamoyl chloride | | | | | | | | | | | | | |
| 1,1-Dimethylhydrazine | | | | | | | | | | | | | |
| 1,2-Dimethylhydrazine | | | | | | | | | | | | | |
| Dimethyl methyl phosphonate | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | | 30 (86) | | | 120 (86) | 300 (86) | | | | | | | |
| Dimethyl phthalate | 820,000 | | | | | | | | | | 2944 (45) | | 3.4 (38,45) |
| Dimethyl sulfate | | | | | | | | | | | | | |
| Dimethylvinylchloride | | | | | | | | | | | | | |
| 1,3-Dinitrobenzene | | | | | | | | | | | | | |
| 4,6-Dinitro-o-cresol | 220 | 30 (86) | | | 120 (86) | 300 (86) | | | | | 4850 (88) | | |
| Dinitrophenol | | 30 (86) | | | 120 (86) | 300 (86) | | | | | 4850 (88) | | |
| 2,4-Dinitrophenol | 4 | 30 (86) | | | 120 (86) | 300 (86) | | | | | 4850 (88) | | |
| 2,4-Dinitrotoluene | 2.6 ‡ | | | | | | | | | | 590 (53) | | 370 (53,83) |
| 2,6-Dinitrotoluene | | | | | | | | | | | 590 (53) | | 370 (53,83) |
| Dinoseb | | | | | | | | | | | | | |
| Di(n-octyl) phthalate | | | | | | | | | | | 2944 (45) | | 3.4 (38,45) |
| 1,4-Dioxane | | | | | | | | | | | | | |
| Diphenamid | | | | | | | | | | | | | |
| Diphenylamine | | | | | | | | | | | | | |
| 1,2-Diphenylhydrazine | 0.16 ‡ | | | | | | | | | | | | |
| Diquat | | | | | | | | | | | | | |
| Direct Black 38 | | | | | | | | | | | | | |
| Direct Blue 6 | | | | | | | | | | | | | |
| Direct Brown 95 | | | | | | | | | | | | | |
| Disperse Blue 1 | | | | | | | | | | | | | |
| Disyston | | | | | | | | | | | | | |
| 1,4-Dithiane | | | | | | | | | | | | | |
| Diuron | | | | | | | | | | | | | |
| Endosulfan | | 9 (42) | | | 18 (42) | 27 (42) | | 0.0087 | | 0.034 | | | |
| Endosulfan sulfate | | 9 (42) | | | 18 (42) | 27 (42) | | 0.0087 (104) | | | | | |
| Endothall | | | | | | | | | | | | | |
| Endrin | | 0.002 | | | 0.004 | 0.006 | | 0.0023 | | 0.037 | | | |
| Epichlorohydrin | | | | | | | | | | | | | |
| Estradiol 17beta | | | | | | | | | | | | | |
| Ethers, chloroalkyl- | | | | | | | | | | | | | |
| Ethers, halo- | | | | | | | | | | | | | |
| Ethion | | | | | | | | | | | | | |
| Ethylbenzene | 4100 | | | | | | | | | | 430 | | |
| Ethyl-4,4'-dichlorobenzilate | | | | | | | | | | | | | |
| Ethylene dibromide (EDB) | | | | | | | | | | | | | |
| Ethylene glycol | | | | | | | | | | | | | |
| Ethyleneimine | | | | | | | | | | | | | |
| Ethylene oxide (ETO) | | | | | | | | | | | | | |
| Ethylenes, dichloro- | | | | | | | | | | | 224,000 | | |
| Ethylene thiourea (ETU) | | | | | | | | | | | | | |
| Fenamiphos | | | | | | | | | | | | | |
| Ferbam | | | | | | | | | | | | | |
| Fluometuron | | | | | | | | | | | | | |
| Fluoranthene | 15 | | | | | | | | | | 40 | 16 | |
| Fluorene | 0.0088 ‡ (115) | | | | | | | | | | 300 (41) | | |
| Folpet | | | | | | | | | | | | | |
| Fonofos | | | | | | | | | | | | | |
| Formaldehyde | | | | | | | | | | | | | |
| 2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole | | | | | | | | | | | | | |
| Furmecyclox | | | | | | | | | | | | | |
| Gasoline | | | | | | | | | | | | | |
| Glu-P-1 | | | | | | | | | | | | | |
| Glu-P-2 | | | | | | | | | | | | | |
| Glycidol | | | | | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs) | | | | | California Recommended Public Health Level (RPHL) Department of Health Services | California State Action Levels Department of Health Services | | Other Taste & Odor Thresholds |
|---|---|---|---|---|---|---|---|---|---|
| | California Dept. of Health Services | | U.S. Environmental Protection Agency | | | | | | |
| | Primary MCL | Secondary MCL | Primary MCL | Secondary MCL | MCL Goal | | Toxicity | Taste & Odor | |
| Glyphosate | 700 | | 700 (93) | | 700 (93) | 700 (100) | | | |
| Griseofluvin | | | | | | | | | |
| Gyromitrin | | | | | | | | | |
| HC Blue 1 | | | | | | | | | |
| Heptachlor | 0.01 | | 0.4 | | zero | 0.01 (100) | | | |
| Heptachlor epoxide | 0.01 | | 0.2 | | zero | 0.007 (100) | | | |
| Hexachlorobenzene | | | 1 (93) | | zero (93) | | | | |
| Hexachlorobutadiene | | | | | | | | | |
| Hexachlorocyclopentadiene | | | 50 (93) | 8 (100) | 50 (93) | | | | |
| Hexachlorodibenzodioxin | | | | | | | | | |
| Hexachloroethane | | | | | | | | | |
| Hexachlorophene | | | | | | | | | |
| Hexamethylphosphoramide | | | | | | | | | |
| n-Hexane | | | | | | | | | |
| Hexazinone | | | | | | | | | |
| HMX | | | | | | | | | |
| Indeno(1,2,3-c,d)pyrene | | | 0.4 (100) | | zero (100) | | | | |
| IQ | | | | | | | | | |
| Isophorone | | | | | | | | | |
| Isopropanol | | | | | | | | | |
| Isopropyl methylphosphonate | | | | | | | | | |
| Kepone | | | | | | | | | |
| Kerosene | | | | | | | | | |
| Lactofen | | | | | | | | | |
| Lasiocarpine | | | | | | | | | |
| Lead acetate | | | | | | | | | |
| Lead subacetate | | | | | | | | | |
| Linuron | | | | | | | | | |
| Malathion | | | | | | | 160 | | |
| Maleic hydrazide | | | | | | | | | |
| Maneb | | | | | | | | | |
| MCPA | | | | | | | | | |
| Me-A-alpha-C | | | | | | | | | |
| Melphalan | | | | | | | | | |
| Merphos | | | | | | | | | |
| Methanes, halo- | | | 100 (19) | | | | | | |
| Methomyl | | | | | | | | | |
| Methoxychlor | 100 | | 40 | | 40 | | | | |
| Methyl t-butyl ether (MTBE) | | | | | | | | | |
| 3-Methylcholanthrene | | | | | | | | | |
| 4,4'-Methylenebis(2-chloroaniline) | | | | | | | | | |
| 4,4'-Methylenebis(N,N-dimethylaniline) | | | | | | | | | |
| 4,4'-Methylenebis(2-methylaniline) | | | | | | | | | |
| 4,4'-Methylenedianiline dihydrochloride | | | | | | | | | |
| 4,4'-Methylenedianiline | | | | | | | | | |
| Methyl ethyl ketone (MEK) | | | | | | | | | |
| Methyl methacrylate | | | | | | | | | |
| Methyl methanesulfonate | | | | | | | | | |
| 2-Methyl-1-nitroanthraquinone | | | | | | | | | |
| N-Methyl-N'-nitro-N-nitrosoguanidine | | | | | | | | | |
| N-Methylolacrylamide | | | | | | | | | |
| Methyl parathion | | | | | | | 30 | | |
| Methylthiouracil | | | | | | | | | |
| Metolachlor | | | | | | | | | |
| Metribuzin | | | | | | | | | |
| Metronidazole | | | | | | | | | |
| Michler's ketone | | | | | | | | | |
| Mirex | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk | | U.S. EPA Integrated Risk Information System (IRIS) Reference Dose as a Water Quality Criterion (118) | One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water | | | | California Proposition 65 Regulatory Level as a Water Quality Criterion (14) | Agricultural Water Quality Goals (78) |
|---|---|---|---|---|---|---|---|---|---|
| | U.S. EPA | National Academy of Sciences (NAS) | | Cal/EPA Cancer Potency Factor as a Water Quality Criterion (102) | U.S. EPA Integrated Risk Information System (IRIS) | U.S. EPA Health Advisory or SNARL | National Academy of Sciences (NAS) *Drinking Water and Health* | | |
| Glyphosate | 700 | | 700 | | | (D) | | | |
| Griseofluvin | | | | | | | | 25 (100) | |
| Gyromitrin | | | | | | | | 0.035 | |
| HC Blue 1 | | | | | | | | 5 | |
| Heptachlor | 10 (10-day) | | | 0.0061 / 0.0078 | 0.008 | 0.008 (B2) | 0.012 | 0.1 | |
| Heptachlor epoxide | 0.1 (7-yr) | | | 0.0027 / 0.0038 | 0.004 | 0.004 (B2) | | 0.04 | |
| Hexachlorobenzene | 50 (10-day) | 30 (7-day) | | 0.019 | | 0.02 (B2) | 0.017 | 0.2 | |
| Hexachlorobutadiene | 1 | | 1.4 | | | (C) | | | |
| Hexachlorocyclopentadiene | | | 49 | | | (D) | | | |
| Hexachlorodibenzodioxin | | | | 0.000011 (100) | | | | 0.0001 | |
| Hexachloroethane | 1 | | | | | (C) | | 10 | |
| Hexachlorophene | 0.35 (68) | 7 | | | | | | | |
| Hexamethylphosphoramide | | | | | | | | 0.004 (100) | |
| n-Hexane | 4000 (10-day) | | | | | (D) | | | |
| Hexazinone | 200 | | 230 | | | (D) | | | |
| HMX | 400 | | 350 | | | (D) | | | |
| Indeno(1,2,3-c,d)pyrene | | | | | | (B2) | | | |
| IQ | | | | | | | | 0.25 | |
| Isophorone | 100 | | 140 | | | 40 (C) | | | |
| Isopropanol | 1000 (24-hr,68) | | | | | | | | |
| Isopropyl methylphosphonate | 700 (68) | | | | | (D) | | | |
| Kepone | | | | | | | 0.011 | 0.02 | |
| Kerosene | 100 (10-day,116) | | | | | | | | |
| Lactofen | | | | | | | | 4 (68) | |
| Lasiocarpine | | | | | | | | 0.045 | |
| Lead acetate | | | | | | | | 1.5 | |
| Lead subacetate | | | | | | | | 10 | |
| Linuron | | | 1.4 | | | (C) | | | |
| Malathion | 200 | 160 | 140 | | | (D) | | | |
| Maleic hydrazide | 4000 | | 3500 | | | (D) | | | |
| Maneb | | 35 | | | | | | | |
| MCPA | 11 | 8.75 | 11 | | | (E) | | | |
| Me-A-alpha-C | | | | | | | | 0.3 | |
| Melphalan | | | | | | | | 0.0025 | |
| Merphos | | | 0.21 | | | | | | |
| Methanes, halo- | | | | | | | | | |
| Methomyl | 200 | 175 | 180 | | | (D) | | | |
| Methoxychlor | 40 | 700 | 35 | | | (D) | | | |
| Methyl t-butyl ether (MTBE) | 40 | | 35 | | | (D) | | | |
| 3-Methylcholanthrene | | | | | | | | 0.015 | |
| 4,4'-Methylenebis(2-chloroaniline) | | | | | | | | 0.25 | |
| 4,4'-Methylenebis(N,N-dimethylaniline) | | | | 0.76 | | | | 10 | |
| 4,4'-Methylenebis(2-methylaniline) | | | | | | | | 0.4 | |
| 4,4'-Methylenedianiline dihydrochloride | | | | | | | | 0.3 | |
| 4,4'-Methylenedianiline | | | | | | | | 0.2 | |
| Methyl ethyl ketone (MEK) | 200 | | 350 | | | (D) | | | |
| Methyl methacrylate | 35 (68) | 800 | | | | | | | |
| Methyl methanesulfonate | | | | | | | | 3.5 | |
| 2-Methyl-1-nitroanthraquinone | | | | | | | | 0.1 | |
| N-Methyl-N'-nitro-N-nitrosoguanidine | | | | | | | | 0.04 | |
| N-Methylolacrylamide | | | | | | | | 1 (100) | |
| Methyl parathion | 2 | 30 | 1.8 | | | (D) | | | |
| Methylthiouracil | | | | | | | | 1 | |
| Metolachlor | 100 | | 110 | | | (C) | | | |
| Metribuzin | 200 | | 180 | | | (D) | | | |
| Metronidazole | | | | | | | | 2 (100) | |
| Michler's ketone | | | | | | | | 0.4 | |
| Mirex | | | | | 0.02 | (B2) | | 0.02 | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | California Inland Surface Waters Plan Numerical Water Quality Objectives | | | | | | California Enclosed Bays & Estuaries Plan Numerical Water Quality Objectives | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | | Freshwater Aquatic Life Protection | | | | Human Health Protection (30-day Average) "‡" = carcinogen | Saltwater Aquatic Life Protection | | |
| | Sources of Drinking Water | Other Waters | 4-day Average | Daily Average | 1-hour Average | Instantaneous Maximum | | 4-day Average | Daily Average | 1-hour Average |
| Glyphosate | | | | | | | | | | |
| Griseofluvin | | | | | | | | | | |
| Gyromitrin | | | | | | | | | | |
| HC Blue 1 | | | | | | | | | | |
| Heptachlor | 0.00016 ‡ | 0.00017 ‡ | | 0.0038 | | | 0.00017 ‡ | | 0.0036 | |
| Heptachlor epoxide | 0.00007 ‡ | 0.00007 ‡ | | | | | 0.00007 ‡ | | | |
| Hexachlorobenzene | 0.00066 ‡ | 0.00069 ‡ | | | | | 0.00069 ‡ | | | |
| Hexachlorobutadiene | 0.44 ‡ (100) | 50 ‡ (100) | | | | | 50 ‡ (100) | | | |
| Hexachlorocyclopentadiene | 1.0 (36,100) | 17,000 (100) | | | | | 17,000 (100) | | | |
| Hexachlorodibenzodioxin | | | | | | | | | | |
| Hexachloroethane | 1.9 ‡ (100) | 8.9 ‡ (100) | | | | | 8.9 ‡ (100) | | | |
| Hexachlorophene | | | | | | | | | | |
| Hexamethylphosphoramide | | | | | | | | | | |
| n-Hexane | | | | | | | | | | |
| Hexazinone | | | | | | | | | | |
| HMX | | | | | | | | | | |
| Indeno(1,2,3-c,d)pyrene | 0.0028 ‡ (115) | 0.031 ‡ (115) | | | | | 0.031 ‡ (115) | | | |
| IQ | | | | | | | | | | |
| Isophorone | 8.6 ‡ (100) | 610 ‡ (100) | | | | | 610 ‡ (100) | | | |
| Isopropanol | | | | | | | | | | |
| Isopropyl methylphosphonate | | | | | | | | | | |
| Kepone | | | | | | | | | | |
| Kerosene | | | | | | | | | | |
| Lactofen | | | | | | | | | | |
| Lasiocarpine | | | | | | | | | | |
| Lead acetate | | | | | | | | | | |
| Lead subacetate | | | | | | | | | | |
| Linuron | | | | | | | | | | |
| Malathion | | | | | | | | | | |
| Maleic hydrazide | | | | | | | | | | |
| Maneb | | | | | | | | | | |
| MCPA | | | | | | | | | | |
| Me-A-alpha-C | | | | | | | | | | |
| Melphalan | | | | | | | | | | |
| Merphos | | | | | | | | | | |
| Methanes, halo- | | | | | | | | | | |
| Methomyl | | | | | | | | | | |
| Methoxychlor | | | | | | | | | | |
| Methyl t-butyl ether (MTBE) | | | | | | | | | | |
| 3-Methylcholanthrene | | | | | | | | | | |
| 4,4'-Methylenebis(2-chloroaniline) | | | | | | | | | | |
| 4,4'-Methylenebis(N,N-dimethylaniline) | | | | | | | | | | |
| 4,4'-Methylenebis(2-methylaniline) | | | | | | | | | | |
| 4,4'-Methylenedianiline dihydrochloride | | | | | | | | | | |
| 4,4'-Methylenedianiline | | | | | | | | | | |
| Methyl ethyl ketone (MEK) | | | | | | | | | | |
| Methyl methacrylate | | | | | | | | | | |
| Methyl methanesulfonate | | | | | | | | | | |
| 2-Methyl-1-nitroanthraquinone | | | | | | | | | | |
| N-Methyl-N'-nitro-N-nitrosoguanidine | | | | | | | | | | |
| N-Methylolacrylamide | | | | | | | | | | |
| Methyl parathion | | | | | | | | | | |
| Methylthiouracil | | | | | | | | | | |
| Metolachlor | | | | | | | | | | |
| Metribuzin | | | | | | | | | | |
| Metronidazole | | | | | | | | | | |
| Michler's ketone | | | | | | | | | | |
| Mirex | | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | U.S. EPA National Ambient Water Quality Criteria | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Health and Welfare Protection | | | Freshwater Aquatic Life Protection | | | | | | |
| | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | Non-Cancer Public Health Effects | One-in-a-Million Incremental Cancer Risk Estimate | Taste & Odor or Welfare | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| Glyphosate | | | | | | | | | | |
| Griseofluvin | | | | | | | | | | |
| Gyromitrin | | | | | | | | | | |
| HC Blue 1 | | | | | | | | | | |
| Heptachlor | | 0.00021 / 0.00021 (52) | | | 0.0038 | | 0.52 | | | |
| Heptachlor epoxide | | 0.00010 / 0.00011 (52) | | | 0.0038 | | 0.52 | | | |
| Hexachlorobenzene | | 0.00075 / 0.00077 (52) | | 3.68 (100) | | 6 (100) | | 250 (22) | | 50 (22,23) |
| Hexachlorobutadiene | | 0.44 / 50 (52) | | | | | | 90 | 9.3 | |
| Hexachlorocyclopentadiene | 240 / 17,000 (52) | | 1 | | | | | 7.0 | 5.2 | |
| Hexachlorodibenzodioxin | | | | | | | | | | |
| Hexachloroethane | | 1.9 / 8.9 (52) | | | | | | 980 | 540 | |
| Hexachlorophene | | | | | | | | | | |
| Hexamethylphosphoramide | | | | | | | | | | |
| n-Hexane | | | | | | | | | | |
| Hexazinone | | | | | | | | | | |
| HMX | | | | | | | | | | |
| Indeno(1,2,3-c,d)pyrene | | 0.0028 / 0.031 (41,52) | | | | | | | | |
| IQ | | | | | | | | | | |
| Isophorone | | 8.4 / 600 (52) | | | | | | 117,000 | | |
| Isopropanol | | | | | | | | | | |
| Isopropyl methylphosphonate | | | | | | | | | | |
| Kepone | | | | | | | | | | |
| Kerosene | | | | | | | | | | |
| Lactofen | | | | | | | | | | |
| Lasiocarpine | | | | | | | | | | |
| Lead acetate | | | | | | | | | | |
| Lead subacetate | | | | | | | | | | |
| Linuron | | | | | | | | | | |
| Malathion | | | | | | | 0.1 | | | |
| Maleic hydrazide | | | | | | | | | | |
| Maneb | | | | | | | | | | |
| MCPA | | | | | | | | | | |
| Me-A-alpha-C | | | | | | | | | | |
| Melphalan | | | | | | | | | | |
| Merphos | | | | | | | | | | |
| Methanes, halo- | | | | | | | | 11,000 | | |
| Methomyl | | | | | | | | | | |
| Methoxychlor | 100 | | | | | | 0.03 | | | |
| Methyl t-butyl ether (MTBE) | | | | | | | | | | |
| 3-Methylcholanthrene | | | | | | | | | | |
| 4,4'-Methylenebis(2-chloroaniline) | | | | | | | | | | |
| 4,4'-Methylenebis(N,N-dimethylaniline) | | | | | | | | | | |
| 4,4'-Methylenebis(2-methylaniline) | | | | | | | | | | |
| 4,4'-Methylenedianiline dihydrochloride | | | | | | | | | | |
| 4,4'-Methylenedianiline | | | | | | | | | | |
| Methyl ethyl ketone (MEK) | | | | | | | | | | |
| Methyl methacrylate | | | | | | | | | | |
| Methyl methanesulfonate | | | | | | | | | | |
| 2-Methyl-1-nitroanthraquinone | | | | | | | | | | |
| N-Methyl-N'-nitro-N-nitrosoguanidine | | | | | | | | | | |
| N-Methylolacrylamide | | | | | | | | | | |
| Methyl parathion | | | | | | | | | | |
| Methylthiouracil | | | | | | | | | | |
| Metolachlor | 44 (8) | | | | | | 100 (8) | | | |
| Metribuzin | 5250 (8) | | | | | | 100 (8) | | | |
| Metronidazole | | | | | | | | | | |
| Michler's ketone | | | | | | | | | | |
| Mirex | | 4.9 / 0.093 ng/l (51) | | | | | 0.001 | | | |

 *Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.* 

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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | California Ocean Plan Numerical Water Quality Objectives | | | | | | U.S. EPA National Ambient Water Quality Criteria Saltwater Aquatic Life Protection | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | Marine Aquatic Life Protection | | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | | 6-month Median | 30-day Average | 7-day Average | Daily Maximum | Instantaneous Maximum | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| Glyphosate | | | | | | | | | | | | | |
| Griseofluvin | | | | | | | | | | | | | |
| Gyromitrin | | | | | | | | | | | | | |
| HC Blue 1 | | | | | | | | | | | | | |
| Heptachlor | 0.00072 ‡ (114) | | | | | | | 0.0036 | | 0.053 | | | |
| Heptachlor epoxide | 0.00072 ‡ (114) | | | | | | | 0.0036 | | 0.053 | | | |
| Hexachlorobenzene | 0.00021 ‡ | | | | | | | | | | 160 (22) | 129 (22) | |
| Hexachlorobutadiene | 14 ‡ | | | | | | | | | | 32 | | |
| Hexachlorocyclopentadiene | 58 | | | | | | | | | | 7 | | |
| Hexachlorodibenzodioxin | | | | | | | | | | | | | |
| Hexachloroethane | 2.5 ‡ | | | | | | | | | | 940 | | |
| Hexachlorophene | | | | | | | | | | | | | |
| Hexamethylphosphoramide | | | | | | | | | | | | | |
| n-Hexane | | | | | | | | | | | | | |
| Hexazinone | | | | | | | | | | | | | |
| HMX | | | | | | | | | | | | | |
| Indeno(1,2,3-c,d)pyrene | 0.0088 ‡ (115) | | | | | | | | | | 300 (41) | | |
| IQ | | | | | | | | | | | | | |
| Isophorone | 150,000 | | | | | | | | | | 12,900 | | |
| Isopropanol | | | | | | | | | | | | | |
| Isopropyl methylphosphonate | | | | | | | | | | | | | |
| Kepone | | | | | | | | | | | | | |
| Kerosene | | | | | | | | | | | | | |
| Lactofen | | | | | | | | | | | | | |
| Lasiocarpine | | | | | | | | | | | | | |
| Lead acetate | | | | | | | | | | | | | |
| Lead subacetate | | | | | | | | | | | | | |
| Linuron | | | | | | | | | | | | | |
| Malathion | | | | | | | | | | 0.1 | | | |
| Maleic hydrazide | | | | | | | | | | | | | |
| Maneb | | | | | | | | | | | | | |
| MCPA | | | | | | | | | | | | | |
| Me-A-alpha-C | | | | | | | | | | | | | |
| Melphalan | | | | | | | | | | | | | |
| Merphos | | | | | | | | | | | | | |
| Methanes, halo- | 130 ‡ (113) | | | | | | | | | | 12000 | 6400 | 11,500 (83) |
| Methomyl | | | | | | | | | | | | | |
| Methoxychlor | | | | | | | | | | 0.03 | | | |
| Methyl t-butyl ether (MTBE) | | | | | | | | | | | | | |
| 3-Methylcholanthrene | | | | | | | | | | | | | |
| 4,4'-Methylenebis(2-chloroaniline) | | | | | | | | | | | | | |
| 4,4'-Methylenebis(N,N-dimethylaniline) | | | | | | | | | | | | | |
| 4,4'-Methylenebis(2-methylaniline) | | | | | | | | | | | | | |
| 4,4'-Methylenedianiline dihydrochloride | | | | | | | | | | | | | |
| 4,4'-Methylenedianiline | | | | | | | | | | | | | |
| Methyl ethyl ketone (MEK) | | | | | | | | | | | | | |
| Methyl methacrylate | | | | | | | | | | | | | |
| Methyl methanesulfonate | | | | | | | | | | | | | |
| 2-Methyl-1-nitroanthraquinone | | | | | | | | | | | | | |
| N-Methyl-N'-nitro-N-nitrosoguanidine | | | | | | | | | | | | | |
| N-Methylolacrylamide | | | | | | | | | | | | | |
| Methyl parathion | | | | | | | | | | | | | |
| Methylthiouracil | | | | | | | | | | | | | |
| Metolachlor | | | | | | | | | | | | | |
| Metribuzin | | | | | | | | | | | | | |
| Metronidazole | | | | | | | | | | | | | |
| Michler's ketone | | | | | | | | | | | | | |
| Mirex | | | | | | | | | | 0.001 | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs) | | | | | California Recommended Public Health Level (RPHL) Department of Health Services | California State Action Levels Department of Health Services | | Other Taste & Odor Thresholds |
|---|---|---|---|---|---|---|---|---|---|
| | California Dept. of Health Services | | U.S. Environmental Protection Agency | | | | | | |
| | Primary MCL | Secondary MCL | Primary MCL | Secondary MCL | MCL Goal | | Toxicity | Taste & Odor | |
| Mitomycin C | | | | | | | | | |
| Molinate | 20 | | | | | 20 (100) | | | |
| Monocratiline | | | | | | | | | |
| Naphthalene | | | | | | | | | |
| Naphthalenes, chlorinated | | | | | | | | | |
| 2-Naphthylamine | | | | | | | | | |
| Nitralin | | | | | | | | | |
| Nitrilotriacetate, trisodium monohydrate | | | | | | | | | |
| Nitrilotriacetic acid | | | | | | | | | |
| 5-Nitroacenaphthene | | | | | | | | | |
| 5-Nitro-o-anisidine | | | | | | | | | |
| Nitrobenzene | | | | | | | | | |
| Nitrofen | | | | | | | | | |
| Nitrofurazone | | | | | | | | | |
| 1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone | | | | | | | | | |
| N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide | | | | | | | | | |
| Nitroguanidine | | | | | | | | | |
| 2-Nitrophenol | | | | | | | | | |
| Nitrophenol | | | | | | | | | |
| 4-Nitrophenol | | | | | | | | | |
| Nitrosamines | | | | | | | | | |
| N-Nitrosodi-n-butylamine | | | | | | | | | |
| N-Nitrosodiethanolamine | | | | | | | | | |
| N-Nitrosodiethylamine | | | | | | | | | |
| N-Nitrosodimethylamine | | | | | | | | | |
| N-Nitrosodiphenylamine | | | | | | | | | |
| p-Nitrosodiphenylamine | | | | | | | | | |
| N-Nitrosodipropylamine | | | | | | | | | |
| N-Nitroso-N-ethylurea | | | | | | | | | |
| N-Nitrosomethylethylamine | | | | | | | | | |
| N-Nitroso-N-methylurea | | | | | | | | | |
| N-Nitroso-N-methylurethane | | | | | | | | | |
| N-Nitrosomorpholine | | | | | | | | | |
| N-Nitrosonornicotine | | | | | | | | | |
| N-Nitrosopiperidine | | | | | | | | | |
| N-Nitrosopyrrolidine | | | | | | | | | |
| trans-Nonachlor | | | | | | | | | |
| Ochratoxin A | | | | | | | | | |
| Oil & grease | | | | | | | | | |
| Oxamyl | | | 200 (93) | | 200 (93) | | | | |
| Oxychlordane | | | | | | | | | |
| PAHs | | | see individual chemicals | | see individual chemicals | | | | |
| Paraquat | | | | | | | | | |
| Parathion | | | | | | | 30 | | |
| Pentachlorobenzene | | | | | | | | | |
| Pentachloroethane | | | | | | | | | |
| Pentachloronitrobenzene | | | | | | | 0.9 | | |
| Pentachlorophenol | | | 1 | | zero | | 30 | | |
| Phenacetin | | | | | | | | | |
| Phenanthrene | | | | | | | | | |
| Phenazopyridine | | | | | | | | | |
| Phenazopyridine hydrochloride | | | | | | | | | |
| Phenesterin | | | | | | | | | |
| Phenobarbital | | | | | | | | | |
| Phenol | | | | | | | | 5.0 (39) | |
| Phenols, chlorinated | | | | | | | | | |
| Phenols, nitro- | | | | | | | | | |

 *Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.* 

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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk | | U.S. EPA Integrated Risk Information System (IRIS) Reference Dose as a Water Quality Criterion (118) | One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water | | | | California Proposition 65 Regulatory Level as a Water Quality Criterion (14) | Agricultural Water Quality Goals (78) |
|---|---|---|---|---|---|---|---|---|---|
| | U.S. EPA | National Academy of Sciences (NAS) | | Cal/EPA Cancer Potency Factor as a Water Quality Criterion (102) | U.S. EPA Integrated Risk Information System (IRIS) | U.S. EPA Health Advisory or SNARL | National Academy of Sciences (NAS) *Drinking Water and Health* | | |
| Mitomycin C | | | | | | | | 0.000045 | |
| Molinate | | | 14 | | | | | | |
| Monocratiline | | | | | | | | 0.035 | |
| Naphthalene | 20 | | 28 | | | (D) | | | |
| Naphthalenes, chlorinated | | | | | | | | | |
| 2-Naphthylamine | | | | | | | | 0.2 | |
| Nitralin | | 700 | | | | | | | |
| Nitrilotriacetate, trisodium monohydrate | | | | | | | | 35 | |
| Nitrilotriacetic acid | | | | | | | | 50 | |
| 5-Nitroacenaphthene | | | | | | | | 3 | |
| 5-Nitro-o-anisidine | | | | | | | | 5 | |
| Nitrobenzene | | 5 (7-day) | | | | | | | |
| Nitrofen | | | | | | | 0.0089 | 4.5 | |
| Nitrofurazone | | | | | | | | 0.25 | |
| 1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone | | | | | | | | 0.2 | |
| N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide | | | | | | | | 0.25 | |
| Nitroguanidine | 700 | | 700 | | | (D) | | | |
| 2-Nitrophenol | | 290 (7-day,37) | | | | | | | |
| Nitrophenol | | 290 (7-day) | | | | | | | |
| 4-Nitrophenol | 60 (68) | 290 (7-day,37) | | | | (D) | | | |
| Nitrosamines | | | | | | | | | |
| N-Nitrosodi-n-butylamine | | | | 0.0032 | | 0.0064 | | 0.03 | |
| N-Nitrosodiethanolamine | | | | 0.013 | | | | 0.15 | |
| N-Nitrosodiethylamine | | | | 0.00097 | | | | 0.01 | |
| N-Nitrosodimethylamine | | | | 0.0022 | | | | 0.02 | |
| N-Nitrosodiphenylamine | | | | 3.9 | | | | 40 | |
| p-Nitrosodiphenylamine | | | | | | | | 15 | |
| N-Nitrosodipropylamine | | | | 0.005 | | | | 0.05 | |
| N-Nitroso-N-ethylurea | | | | 0.0013 | | | | 0.015 | |
| N-Nitrosomethylethylamine | | | | 0.0016 | | | | 0.015 | |
| N-Nitroso-N-methylurea | | | | 0.00029 | | | | 0.003 | |
| N-Nitroso-N-methylurethane | | | | | | | | 0.003 | |
| N-Nitrosomorpholine | | | | | | | | 0.05 | |
| N-Nitrosonornicotine | | | | | | | | 0.25 | |
| N-Nitrosopiperidine | | | | | | | | 0.035 | |
| N-Nitrosopyrrolidine | | | | 0.017 | | | | 0.15 | |
| trans-Nonachlor | | | | | | | | | |
| Ochratoxin A | | | | | | | | 0.015 (100) | |
| Oil & grease | | | | | | | | | |
| Oxamyl | 200 | | 180 | | | (E) | | | |
| Oxychlordane | | | | | | | | | |
| PAHs | see individual chemicals | | | | | | | | |
| Paraquat | 30 | 59.5 | 32 | | | (E) | | | |
| Parathion | | 30 | 4.2 | | | (C) | | | |
| Pentachlorobenzene | | | | | | | | | |
| Pentachloroethane | | | | | | | | | |
| Pentachloronitrobenzene | | | 2.1 | | 0.1 | (C) | 3.6 | | |
| Pentachlorophenol | 300 (10-day) | 6 / 21 (7) | | 1.9 | 0.3 | 0.3 (B2) | | 20 | |
| Phenacetin | | | | | | | | 150 | |
| Phenanthrene | | | | | | | | | |
| Phenazopyridine | | | | | | | | 2 | |
| Phenazopyridine hydrochloride | | | | | | | | 2.5 | |
| Phenesterin | | | | | | | | 0.0025 | |
| Phenobarbital | | | | | | | | 1 | |
| Phenol | 4000 | | 4200 | | | (D) | | | |
| Phenols, chlorinated | | | | | | | | | |
| Phenols, nitro- | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



C—037107

# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | California Inland Surface Waters Plan Numerical Water Quality Objectives | | | | | | California Enclosed Bays & Estuaries Plan Numerical Water Quality Objectives | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | | Freshwater Aquatic Life Protection | | | | Human Health Protection (30-day Average) "‡" = carcinogen | Saltwater Aquatic Life Protection | | |
| | Sources of Drinking Water | Other Waters | 4-day Average | Daily Average | 1-hour Average | Instantaneous Maximum | | 4-day Average | Daily Average | 1-hour Average |
| Mitomycin C | | | | | | | | | | |
| Molinate | | | | | | | | | | |
| Monocratiline | | | | | | | | | | |
| Naphthalene | | | | | | | | | | |
| Naphthalenes, chlorinated | | | | | | | | | | |
| 2-Naphthylamine | | | | | | | | | | |
| Nitralin | | | | | | | | | | |
| Nitrilotriacetate, trisodium monohydrate | | | | | | | | | | |
| Nitrilotriacetic acid | | | | | | | | | | |
| 5-Nitroacenaphthene | | | | | | | | | | |
| 5-Nitro-o-anisidine | | | | | | | | | | |
| Nitrobenzene | 17 (100) | 1900 (100) | | | | | 1900 (100) | | | |
| Nitrofen | | | | | | | | | | |
| Nitrofurazone | | | | | | | | | | |
| 1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone | | | | | | | | | | |
| N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide | | | | | | | | | | |
| Nitroguanidine | | | | | | | | | | |
| 2-Nitrophenol | | | | | | | | | | |
| Nitrophenol | | | | | | | | | | |
| 4-Nitrophenol | | | | | | | | | | |
| Nitrosamines | | | | | | | | | | |
| N-Nitrosodi-n-butylamine | | | | | | | | | | |
| N-Nitrosodiethanolamine | | | | | | | | | | |
| N-Nitrosodiethylamine | | | | | | | | | | |
| N-Nitrosodimethylamine | 0.0022 ‡ (100) | 26 ‡ (100) | | | | | 26 ‡ (100) | | | |
| N-Nitrosodiphenylamine | 2.7 ‡ (100) | 8.8 ‡ (100) | | | | | 8.8 ‡ (100) | | | |
| p-Nitrosodiphenylamine | | | | | | | | | | |
| N-Nitrosodipropylamine | | | | | | | | | | |
| N-Nitroso-N-ethylurea | | | | | | | | | | |
| N-Nitrosomethylethylamine | | | | | | | | | | |
| N-Nitroso-N-methylurea | | | | | | | | | | |
| N-Nitroso-N-methylurethane | | | | | | | | | | |
| N-Nitrosomorpholine | | | | | | | | | | |
| N-Nitrosonornicotine | | | | | | | | | | |
| N-Nitrosopiperidine | | | | | | | | | | |
| N-Nitrosopyrrolidine | | | | | | | | | | |
| trans-Nonachlor | 0.00008 ‡ (82) | 0.000081 ‡ (82) | | 0.0043 (82) | | | 0.000081 ‡ (82) | | 0.0040 (82) | |
| Ochratoxin A | | | | | | | | | | |
| Oil & grease | | | | | | | | | | |
| Oxamyl | | | | | | | | | | |
| Oxychlordane | 0.00008 ‡ (82) | 0.000081 ‡ (82) | | 0.0043 (82) | | | 0.000081 ‡ (82) | | 0.0040 (82) | |
| PAHs | | | | | | | | | | |
| Paraquat | | | | | | | | | | |
| Parathion | | | | | | | | | | |
| Pentachlorobenzene | | | | | | | | | | |
| Pentachloroethane | | | | | | | | | | |
| Pentachloronitrobenzene | | | | | | | | | | |
| Pentachlorophenol | 0.28 ‡ | 8.2 ‡ | (13) see page 41 | | (11) see page 41 | | 8.2 ‡ | 7.9 | | 13 |
| Phenacetin | | | | | | | | | | |
| Phenanthrene | 0.0028 ‡ (115) | 0.031 ‡ (115) | | | | | 0.031 ‡ (115) | | | |
| Phenazopyridine | | | | | | | | | | |
| Phenazopyridine hydrochloride | | | | | | | | | | |
| Phenesterin | | | | | | | | | | |
| Phenobarbital | | | | | | | | | | |
| Phenol | 300 (36) | | | | | | 4,600,000 (100) | | | |
| Phenols, chlorinated | | | | | | | | | | |
| Phenols, nitro- | | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | U.S. EPA National Ambient Water Quality Criteria | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Health and Welfare Protection | | | Freshwater Aquatic Life Protection | | | | | | |
| | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | Non-Cancer Public Health Effects | One-in-a-Million Incremental Cancer Risk Estimate | Taste & Odor or Welfare | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| Mitomycin C | | | | | | | | | | |
| Molinate | | | | | | | | | | |
| Monocratiline | | | | | | | | | | |
| Naphthalene | | | | | | | | 2300 | 620 | |
| Naphthalenes, chlorinated | | | | | | | | 1600 | | |
| 2-Naphthylamine | | | | | | | | | | |
| Nitralin | | | | | | | | | | |
| Nitrilotriacetate, trisodium monohydrate | | | | | | | | | | |
| Nitrilotriacetic acid | | | | | | | | | | |
| 5-Nitroacenaphthene | | | | | | | | | | |
| 5-Nitro-o-anisidine | | | | | | | | | | |
| Nitrobenzene | 17 / 1900 (52) | | 30 | | | | | 27,000 | | |
| Nitrofen | | | | | | | | | | |
| Nitrofurazone | | | | | | | | | | |
| 1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone | | | | | | | | | | |
| N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide | | | | | | | | | | |
| Nitroguanidine | | | | | | | | | | |
| 2-Nitrophenol | | | | | | | | 230 (88) | | 150 (38,88) |
| Nitrophenol | | | | | | | | 230 (88) | | 150 (38,88) |
| 4-Nitrophenol | | | | | | | | 230 (88) | | 150 (38,88) |
| Nitrosamines | | | | | | | | 5850 | | |
| N-Nitrosodi-n-butylamine | | 0.0064 | | | | | | 5850 (56) | | |
| N-Nitrosodiethanolamine | | | | | | | | | | |
| N-Nitrosodiethylamine | | 0.0008 | | | | | | 5850 (56) | | |
| N-Nitrosodimethylamine | | 0.00069 / 8.1 (52) | | | | | | 5850 (56) | | |
| N-Nitrosodiphenylamine | | 5.0 / 16 (52) | | | | | | 5850 (56) | | |
| p-Nitrosodiphenylamine | | | | | | | | | | |
| N-Nitrosodipropylamine | | | | | | | | 5850 (56) | | |
| N-Nitroso-N-ethylurea | | | | | | | | | | |
| N-Nitrosomethylethylamine | | | | | | | | 5850 (56) | | |
| N-Nitroso-N-methylurea | | | | | | | | | | |
| N-Nitroso-N-methylurethane | | | | | | | | | | |
| N-Nitrosomorpholine | | | | | | | | | | |
| N-Nitrosonornicotine | | | | | | | | | | |
| N-Nitrosopiperidine | | | | | | | | | | |
| N-Nitrosopyrrolidine | | 0.016 | | | | | | 5850 (56) | | |
| trans-Nonachlor | | | | | | | | | | |
| Ochratoxin A | | | | | | | | | | |
| Oil & grease | | | | | | | | | | |
| Oxamyl | | | | | | | | | | |
| Oxychlordane | | | | | | | | | | |
| PAHs | | 0.0028 / 0.31 (52) | | | | | | | | |
| Paraquat | | | | | | | | | | |
| Parathion | | | | 0.013 | | 0.065 | | | | |
| Pentachlorobenzene | 74 | | | | | | | 250 (22) | | 50 (22,23) |
| Pentachloroethane | | | | | | | | 7240 | 1100 | |
| Pentachloronitrobenzene | | | | | | | | | | |
| Pentachlorophenol | | 0.28 / 8.2 (52) | 30 | (13) see page 41 | | (11) see page 41 | | | | 1.74 (70) |
| Phenacetin | | | | | | | | | | |
| Phenanthrene | | | | 6.3 (100) | | 30 (100) | | | | |
| Phenazopyridine | | | | | | | | | | |
| Phenazopyridine hydrochloride | | | | | | | | | | |
| Phenesterin | | | | | | | | | | |
| Phenobarbital | | | | | | | | | | |
| Phenol | 21,000 / 4,600,000 (52) | | 300 | | | | | 10,200 | 2560 | |
| Phenols, chlorinated | | | | | | | | | | |
| Phenols, nitro- | | | | | | | | 230 | | 150 (38) |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | California Ocean Plan Numerical Water Quality Objectives | | | | | | U.S. EPA National Ambient Water Quality Criteria Saltwater Aquatic Life Protection | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | Marine Aquatic Life Protection | | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | | 6-month Median | 30-day Average | 7-day Average | Daily Maximum | Instantaneous Maximum | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| Mitomycin C | | | | | | | | | | | | | |
| Molinate | | | | | | | | | | | | | |
| Monocratiline | | | | | | | | | | | | | |
| Naphthalene | | | | | | | | | | | 2350 | | |
| Naphthalenes, chlorinated | | | | | | | | | | | 7.5 | | |
| 2-Naphthylamine | | | | | | | | | | | | | |
| Nitralin | | | | | | | | | | | | | |
| Nitrilotriacetate, trisodium monohydrate | | | | | | | | | | | | | |
| Nitrilotriacetic acid | | | | | | | | | | | | | |
| 5-Nitroacenaphthene | | | | | | | | | | | | | |
| 5-Nitro-o-anisidine | | | | | | | | | | | | | |
| Nitrobenzene | 4.9 | | | | | | | | | | 6680 | | |
| Nitrofen | | | | | | | | | | | | | |
| Nitrofurazone | | | | | | | | | | | | | |
| 1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone | | | | | | | | | | | | | |
| N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide | | | | | | | | | | | | | |
| Nitroguanidine | | | | | | | | | | | | | |
| 2-Nitrophenol | | 30 (86) | | | 120 (86) | 300 (86) | | | | | 4850 (88) | | |
| Nitrophenol | | 30 (86) | | | 120 (86) | 300 (86) | | | | | 4850 (88) | | |
| 4-Nitrophenol | | 30 (86) | | | 120 (86) | 300 (86) | | | | | 4850 (88) | | |
| Nitrosamines | | | | | | | | | | | 3,300,000 | | |
| N-Nitrosodi-n-butylamine | | | | | | | | | | | 3,300,000 (56) | | |
| N-Nitrosodiethanolamine | | | | | | | | | | | | | |
| N-Nitrosodiethylamine | | | | | | | | | | | 3,300,000 (56) | | |
| N-Nitrosodimethylamine | 7.3 ‡ | | | | | | | | | | 3,300,000 (56) | | |
| N-Nitrosodiphenylamine | 2.5 ‡ | | | | | | | | | | 3,300,000 (56) | | |
| p-Nitrosodiphenylamine | | | | | | | | | | | | | |
| N-Nitrosodipropylamine | | | | | | | | | | | 3,300,000 (56) | | |
| N-Nitroso-N-ethylurea | | | | | | | | | | | | | |
| N-Nitrosomethylethylamine | | | | | | | | | | | 3,300,000 (56) | | |
| N-Nitroso-N-methylurea | | | | | | | | | | | | | |
| N-Nitroso-N-methylurethane | | | | | | | | | | | | | |
| N-Nitrosomorpholine | | | | | | | | | | | | | |
| N-Nitrosonornicotine | | | | | | | | | | | | | |
| N-Nitrosopiperidine | | | | | | | | | | | | | |
| N-Nitrosopyrrolidine | | | | | | | | | | | 3,300,000 (56) | | |
| trans-Nonachlor | 0.000023 ‡ (82) | | | | | | | | | | | | |
| Ochratoxin A | | | | | | | | | | | | | |
| Oil & grease | | | 25,000 | 40,000 | | 75,000 | | | | | | | |
| Oxamyl | | | | | | | | | | | | | |
| Oxychlordane | 0.000023 ‡ (82) | | | | | | | | | | | | |
| PAHs | 0.0088 ‡ (115) | | | | | | | | | | 300 | | |
| Paraquat | | | | | | | | | | | | | |
| Parathion | | | | | | | | | | | | | |
| Pentachlorobenzene | | | | | | | | | | | 160 (22) | 129 (22) | |
| Pentachloroethane | | | | | | | | | | | 390 | 281 | |
| Pentachloronitrobenzene | | | | | | | | | | | | | |
| Pentachlorophenol | | 1 (87) | | | 4 (87) | 10 (87) | 7.9 | | 13 | | | | |
| Phenacetin | | | | | | | | | | | | | |
| Phenanthrene | 0.0088 ‡ (115) | | | | | | 4.6 (100) | | 7.7 (100) | | 300 (41) | | |
| Phenazopyridine | | | | | | | | | | | | | |
| Phenazopyridine hydrochloride | | | | | | | | | | | | | |
| Phenesterin | | | | | | | | | | | | | |
| Phenobarbital | | | | | | | | | | | | | |
| Phenol | | 30 (86) | | | 120 (86) | 300 (86) | | | | | 5800 | | |
| Phenols, chlorinated | | 1 | | | 4 | 10 | | | | | | | |
| Phenols, nitro- | | 30 (86) | | | 120 (86) | 300 (86) | | | | | 4850 | | |

 *Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.* 

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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs) | | | | | California Recommended Public Health Level (RPHL) Department of Health Services | California State Action Levels Department of Health Services | | Other Taste & Odor Thresholds |
|---|---|---|---|---|---|---|---|---|---|
| | California Dept. of Health Services | | U.S. Environmental Protection Agency | | | | | | |
| | Primary MCL | Secondary MCL | Primary MCL | Secondary MCL | MCL Goal | | Toxicity | Taste & Odor | |
| Phenols, non-chlorinated | | | | | | | | | |
| Phenoxybenzamine | | | | | | | | | |
| Phenoxybenzamine hydrochloride | | | | | | | | | |
| Phenyl glycidyl ether | | | | | | | | | |
| o-Phenylphenate, sodium | | | | | | | | | |
| Phorate | | | | | | | | | |
| Phthalate esters | see individual chemicals | | see individual chemicals | | see individual chemicals | | | | |
| Picloram | | | 500 (93) | | 500 (93) | | | | |
| Polybrominated biphenyls | | | | | | | | | |
| Polychlorinated biphenyls | | | 0.5 (106) | | zero (106) | | | | |
| Ponceau 3R | | | | | | | | | |
| Ponceau MX | | | | | | | | | |
| Procarbazine | | | | | | | | | |
| Procarbazine hydrochloride | | | | | | | | | |
| Prometon | | | | | | | | | |
| Pronamide | | | | | | | | | |
| Propachlor | | | | | | | | | |
| Propanes, dichloro- | | | | | | | | | |
| 1,3-Propane sultone | | | | | | | | | |
| Propanil | | | | | | | | | |
| Propazine | | | | | | | | | |
| Propenes, dichloro- | | | | | | | | | |
| Propham | | | | | | | | | |
| beta-Propiolactone | | | | | | | | | |
| Propyleneimine | | | | | | | | | |
| Propylthiouracil | | | | | | | | | |
| Pyrene | | | | | | | | | |
| RDX (Cyclonite) | | | | | | | | | |
| Reserpine | | | | | | | | | |
| Resorcinol | | | | | | | | | |
| Rotenone | | | | | | | | | |
| Safrole | | | | | | | | | |
| Simazine | 10 | | 4 (93) | | 4 (93) | | | | |
| Sterigmatocystin | | | | | | | | | |
| Streptozotocin | | | | | | | | | |
| Styrene | | | 100 | 10 (100) | 100 | | | | |
| Styrene oxide | | | | | | | | | |
| Sulfallate | | | | | | | | | |
| 2,4,5-T | | | | | | | | | |
| 2,3,7,8-TCDD (Dioxin) | | | 0.00003 (93) | | zero (93) | | | | |
| Tebuthiuron | | | | | | | | | |
| Terbacil | | | | | | | | | |
| Terbufos | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 1 | | | | | 1 (100) | | | |
| Tetrachloroethylene (PCE) | 5 | | 5 | | zero | 0.7 (100) | | | |
| 2,3,4,6-Tetrachlorophenol | | | | | | | | | |
| 2,3,5,6-Tetrachlorophenol | | | | | | | | | |
| Tetranitromethane | | | | | | | | | |
| Thioacetamide | | | | | | | | | |
| Thiobencarb | 70 | 1 | | | | 70 (100) | | | |
| 4,4'-Thiodianiline | | | | | | | | | |
| Thiram | | | | | | | | | |
| Toluene | | | 1000 | 40 (100) | 1000 | | 100 | | 42 (26) |
| Toluene diisocyanate | | | | | | | | | |
| o-Toluidine hydrochloride | | | | | | | | | |
| o-Toluidine | | | | | | | | | |
| Toxaphene | 5 | | 3 | | zero | | | | |
| 2,4,5-TP (Silvex) | 10 | | 50 | | 50 | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk | | U.S. EPA Integrated Risk Information System (IRIS) Reference Dose as a Water Quality Criterion (118) | One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water | | | | California Proposition 65 Regulatory Level as a Water Quality Criterion (14) | Agricultural Water Quality Goals (78) |
|---|---|---|---|---|---|---|---|---|---|
| | U.S. EPA | National Academy of Sciences (NAS) | | Cal/EPA Cancer Potency Factor as a Water Quality Criterion (102) | U.S. EPA Integrated Risk Information System (IRIS) | U.S. EPA Health Advisory or SNARL | National Academy of Sciences (NAS) *Drinking Water and Health* | | |
| Phenols, non-chlorinated | | | | | | | | | |
| Phenoxybenzamine | | | | | | | | 0.1 | |
| Phenoxybenzamine hydrochloride | | | | | | | | 0.15 | |
| Phenyl glycidyl ether | | | | | | | | 2.5 (100) | |
| o-Phenylphenate, sodium | | | | | | | | 100 | |
| Phorate | | 0.7 | | | | | | | |
| Phthalate esters | see individual chemicals | see individual chemicals | | | | see individual chemicals | see individual chemicals | see individual chemicals | |
| Picloram | 500 | 1050 | 490 | | | (D) | | | |
| Polybrominated biphenyls | | | | 0.0012 | | | | 0.01 | |
| Polychlorinated biphenyls | | 50 (7-day) | | 0.0045 | 0.005 | 0.005 (B2) | 0.16 (69) | 0.045 | |
| Ponceau 3R | | | | | | | | 20 | |
| Ponceau MX | | | | | | | | 100 | |
| Procarbazine | | | | | | | | 0.025 | |
| Procarbazine hydrochloride | | | | | | | | 0.03 | |
| Prometon | 100 | | 110 | | | (D) | | | |
| Pronamide | 50 | | 53 | | | (C) | | | |
| Propachlor | 90 | 700 | 91 | | | (D) | | | |
| Propanes, dichloro- | | | | | | | | | |
| 1,3-Propane sultone | | | | | | | | 0.15 | |
| Propanil | | 140 | | | | | | | |
| Propazine | 10 | 325 | 14 | | | (C) | | | |
| Propenes, dichloro- | | | | | | | | | |
| Propham | 100 | | 140 | | | (D) | | | |
| beta-Propiolactone | | | | | | | | 0.025 | |
| Propyleneimine | | | | | | | | 0.015 (100) | |
| Propylthiouracil | | | | | | | | 0.35 | |
| Pyrene | | | 210 (68) | | | (D) | | | |
| RDX (Cyclonite) | 2 | | 2.1 | | 0.3 | 0.3 (C) | | | |
| Reserpine | | | | | | | | 0.03 | |
| Resorcinol | | 500 (7-day) | | | | | | | |
| Rotenone | | 14 | | | | | | | |
| Safrole | | | | | | | | 1.5 | |
| Simazine | 4 | 1505 | 3.5 | | | (C) | | | |
| Sterigmatocystin | | | | | | | | 0.01 | |
| Streptozotocin | | | | | | | | 0.003 | |
| Styrene | 100 | 931 | 140 | | | (C) | | | |
| Styrene oxide | | | | | | | | 2 | |
| Sulfallate | | | | | | | 0.31 | 2 | |
| 2,4,5-T | 70 | 700 | 70 | | | (D) | | | |
| 2,3,7,8-TCDD (Dioxin) | 0.0001 (10-day) | 0.0007 | | 0.00000027 | 0.0000002 | 0.0000002 (B2) | | 0.0000025 | |
| Tebuthiuron | 500 | | 490 | | | (D) | | | |
| Terbacil | 90 | | 91 | | | (E) | | | |
| Terbufos | 0.9 | | 0.91 | | | (D) | | | |
| 1,2,4,5-Tetrachlorobenzene | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 70 | | | | 1 | 1 (C) | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | (C) | | 1.5 | |
| Tetrachloroethylene (PCE) | 2000 (10-day) | | | 0.69 | 0.7 | 0.7 (B2) | 3.6 | 7 | |
| 2,3,4,6-Tetrachlorophenol | | | | | | | | | |
| 2,3,5,6-Tetrachlorophenol | | | | | | | | | |
| Tetranitromethane | | | | | | | | 0.025 (100) | |
| Thioacetamide | | | | | | | | 0.05 | |
| Thiobencarb | | | | | | | | | |
| 4,4'-Thiodianiline | | | | | | | | 0.025 | |
| Thiram | | 35 | | | | | | | |
| Toluene | 1000 | 340 | 1400 | | | (D) | | 3500 (5) | |
| Toluene diisocyanate | | | | | | | | 10 | |
| o-Toluidine hydrochloride | | | | | | | | 2.5 | |
| o-Toluidine | | | | | | | | 2 | |
| Toxaphene | 40 (10-day) | 8.75 | | 0.029 | 0.03 | 0.03 (B2) | | 0.3 | |
| 2,4,5-TP (Silvex) | 50 | 5.25 | 53 | | | (D) | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



C-037112

C-037112

# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | California Inland Surface Waters Plan Numerical Water Quality Objectives | | | | | | California Enclosed Bays & Estuaries Plan Numerical Water Quality Objectives | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | | Freshwater Aquatic Life Protection | | | | Human Health Protection (30-day Average) "‡" = carcinogen | Saltwater Aquatic Life Protection | | |
| | Sources of Drinking Water | Other Waters | 4-day Average | Daily Average | 1-hour Average | Instantaneous Maximum | | 4-day Average | Daily Average | 1-hour Average |
| Phenols, non-chlorinated | | | | | | | | | | |
| Phenoxybenzamine | | | | | | | | | | |
| Phenoxybenzamine hydrochloride | | | | | | | | | | |
| Phenyl glycidyl ether | | | | | | | | | | |
| o-Phenylphenate, sodium | | | | | | | | | | |
| Phorate | | | | | | | | | | |
| Phthalate esters | | | | | | | | | | |
| Picloram | | | | | | | | | | |
| Polybrominated biphenyls | | | | | | | | | | |
| Polychlorinated biphenyls | 0.000070 ‡ | 0.000070 ‡ | | 0.014 | | | 0.000070 ‡ | | 0.03 | |
| Ponceau 3R | | | | | | | | | | |
| Ponceau MX | | | | | | | | | | |
| Procarbazine | | | | | | | | | | |
| Procarbazine hydrochloride | | | | | | | | | | |
| Prometon | | | | | | | | | | |
| Pronamide | | | | | | | | | | |
| Propachlor | | | | | | | | | | |
| Propanes, dichloro- | | | | | | | | | | |
| 1,3-Propane sultone | | | | | | | | | | |
| Propanil | | | | | | | | | | |
| Propazine | | | | | | | | | | |
| Propenes, dichloro- | | | | | | | | | | |
| Propham | | | | | | | | | | |
| beta-Propiolactone | | | | | | | | | | |
| Propyleneimine | | | | | | | | | | |
| Propylthiouracil | | | | | | | | | | |
| Pyrene | 0.0028 ‡ (115) | 0.031 ‡ (115) | | | | | 0.031 ‡ (115) | | | |
| RDX (Cyclonite) | | | | | | | | | | |
| Reserpine | | | | | | | | | | |
| Resorcinol | | | | | | | | | | |
| Rotenone | | | | | | | | | | |
| Safrole | | | | | | | | | | |
| Simazine | | | | | | | | | | |
| Sterigmatocystin | | | | | | | | | | |
| Streptozotocin | | | | | | | | | | |
| Styrene | | | | | | | | | | |
| Styrene oxide | | | | | | | | | | |
| Sulfallate | | | | | | | | | | |
| 2,4,5-T | | | | | | | | | | |
| 2,3,7,8-TCDD (Dioxin) | 0.000000013 ‡ (76) | 0.000000014 ‡ (76) | | | | | 0.000000014 ‡ (76) | | | |
| Tebuthiuron | | | | | | | | | | |
| Terbacil | | | | | | | | | | |
| Terbufos | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 0.17 ‡ (100) | 11 ‡ (100) | | | | | 11 ‡ (100) | | | |
| Tetrachloroethylene (PCE) | 0.62 ‡ (100) | 6.9 ‡ (100) | | | | | 6.9 ‡ (100) | | | |
| 2,3,4,6-Tetrachlorophenol | | | | | | | | | | |
| 2,3,5,6-Tetrachlorophenol | | | | | | | | | | |
| Tetranitromethane | | | | | | | | | | |
| Thioacetamide | | | | | | | | | | |
| Thiobencarb | | | | | | | | | | |
| 4,4'-Thiodianiline | | | | | | | | | | |
| Thiram | | | | | | | | | | |
| Toluene | 10,000 | 300,000 | | | | | 300,000 | | | |
| Toluene diisocyanate | | | | | | | | | | |
| o-Toluidine hydrochloride | | | | | | | | | | |
| o-Toluidine | | | | | | | | | | |
| Toxaphene | 0.00067 ‡ | 0.00069 ‡ | 0.0002 | | 0.73 | | 0.00069 ‡ | 0.00002 | | 0.21 |
| 2,4,5-TP (Silvex) | | | | | | | | | | |

 *Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.* 

C-037113

C-037113

# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | U.S. EPA National Ambient Water Quality Criteria | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Health and Welfare Protection | | | Freshwater Aquatic Life Protection | | | | | | |
| | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | Non-Cancer Public Health Effects | One-in-a-Million Incremental Cancer Risk Estimate | Taste & Odor or Welfare | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| Phenols, non-chlorinated | | | | | | | | | | |
| Phenoxybenzamine | | | | | | | | | | |
| Phenoxybenzamine hydrochloride | | | | | | | | | | |
| Phenyl glycidyl ether | | | | | | | | | | |
| o-Phenylphenate, sodium | | | | | | | | | | |
| Phorate | | | | | | | | | | |
| Phthalate esters | see individual chemicals | | | | | | | 940 | 3 | |
| Picloram | | | | | | | | | | |
| Polybrominated biphenyls | | | | | | | | | | |
| Polychlorinated biphenyls | | 0.000044/0.000045(52) | | | 0.014 | | | > 2 | | |
| Ponceau 3R | | | | | | | | | | |
| Ponceau MX | | | | | | | | | | |
| Procarbazine | | | | | | | | | | |
| Procarbazine hydrochloride | | | | | | | | | | |
| Prometon | | | | | | | | | | |
| Pronamide | | | | | | | | | | |
| Propachlor | 466 (8) | | | | | | 8 (8) | | | |
| Propanes, dichloro- | | | | | | | | 23,000 | 5700 | |
| 1,3-Propane sultone | | | | | | | | | | |
| Propanil | | | | | | | | | | |
| Propazine | | | | | | | | | | |
| Propenes, dichloro- | 87 | | | | | | | 6060 | 244 | |
| Propham | | | | | | | | | | |
| beta-Propiolactone | | | | | | | | | | |
| Propyleneimine | | | | | | | | | | |
| Propylthiouracil | | | | | | | | | | |
| Pyrene | 960 / 11,000 (52) | | | | | | | | | |
| RDX (Cyclonite) | | | | | | | | | | |
| Reserpine | | | | | | | | | | |
| Resorcinol | | | | | | | | | | |
| Rotenone | | | | | | | 10 (54) | | | |
| Safrole | | | | | | | | | | |
| Simazine | | | | | | | 10 (54) | | | |
| Sterigmatocystin | | | | | | | | | | |
| Streptozotocin | | | | | | | | | | |
| Styrene | | | | | | | | | | |
| Styrene oxide | | | | | | | | | | |
| Sulfallate | | | | | | | | | | |
| 2,4,5-T | | | | | | | | | | |
| 2,3,7,8-TCDD (Dioxin) | | 1.3E-8 / 1.4E-8 (52) | | | | | | | | |
| Tebuthiuron | | | | | | | | | | |
| Terbacil | | | | | | | | | | |
| Terbufos | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | 38 | | | | | | | 250 (22) | | 50 (22,23) |
| 1,1,1,2-Tetrachloroethane | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | 0.17 / 11 (52) | | | | | | 9320 (47) | 2400 | |
| Tetrachloroethylene (PCE) | | 0.8 / 8.85 (52) | | | | | | 5280 | 840 | |
| 2,3,4,6-Tetrachlorophenol | | | 1 | | | | | | | |
| 2,3,5,6-Tetrachlorophenol | | | | | | | | | | |
| Tetranitromethane | | | | | | | | | | |
| Thioacetamide | | | | | | | | | | |
| Thiobencarb | | | | | | | | | | |
| 4,4'-Thiodianiline | | | | | | | | | | |
| Thiram | | | | | | | | | | |
| Toluene | 6800 / 200,000 (52) | | | | | | | 17,000 | | |
| Toluene diisocyanate | | | | | | | | | | |
| o-Toluidine hydrochloride | | | | | | | | | | |
| o-Toluidine | | | | | | | | | | |
| Toxaphene | | 0.00073 / 0.00075 (52) | | 0.0002 | | 0.73 | | | | |
| 2,4,5-TP (Silvex) | 10 | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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C-037114

# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | California Ocean Plan Numerical Water Quality Objectives | | | | | | U.S. EPA National Ambient Water Quality Criteria Saltwater Aquatic Life Protection | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | Marine Aquatic Life Protection | | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | | 6-month Median | 30-day Average | 7-day Average | Daily Maximum | Instantaneous Maximum | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| Phenols, non-chlorinated | | 30 | | | 120 | 300 | | | | | | | |
| Phenoxybenzamine | | | | | | | | | | | | | |
| Phenoxybenzamine hydrochloride | | | | | | | | | | | | | |
| Phenyl glycidyl ether | | | | | | | | | | | | | |
| o-Phenylphenate, sodium | | | | | | | | | | | | | |
| Phorate | | | | | | | | | | | | | |
| Phthalate esters | | | | | | | | | | | 2944 | | 3.4 (38,45) |
| Picloram | | | | | | | | | | | | | |
| Polybrominated biphenyls | | | | | | | | | | | | | |
| Polychlorinated biphenyls | 0.000019 ‡ | | | | | | | 0.03 | | | >10 | | |
| Ponceau 3R | | | | | | | | | | | | | |
| Ponceau MX | | | | | | | | | | | | | |
| Procarbazine | | | | | | | | | | | | | |
| Procarbazine hydrochloride | | | | | | | | | | | | | |
| Prometon | | | | | | | | | | | | | |
| Pronamide | | | | | | | | | | | | | |
| Propachlor | | | | | | | | | | | | | |
| Propanes, dichloro- | | | | | | | | | | | 10,300 | 3040 | |
| 1,3-Propane sultone | | | | | | | | | | | | | |
| Propanil | | | | | | | | | | | | | |
| Propazine | | | | | | | | | | | | | |
| Propenes, dichloro- | | | | | | | | | | | 790 | | |
| Propham | | | | | | | | | | | | | |
| beta-Propiolactone | | | | | | | | | | | | | |
| Propyleneimine | | | | | | | | | | | | | |
| Propylthiouracil | | | | | | | | | | | | | |
| Pyrene | 0.0088 ‡ (115) | | | | | | | | | | 300 (41) | | |
| RDX (Cyclonite) | | | | | | | | | | | | | |
| Reserpine | | | | | | | | | | | | | |
| Resorcinol | | 30 (86) | | | 120 (86) | 300 (86) | | | | | | | |
| Rotenone | | | | | | | | | | | | | |
| Safrole | | | | | | | | | | | | | |
| Simazine | | | | | | | | | | | | | |
| Sterigmatocystin | | | | | | | | | | | | | |
| Streptozotocin | | | | | | | | | | | | | |
| Styrene | | | | | | | | | | | | | |
| Styrene oxide | | | | | | | | | | | | | |
| Sulfallate | | | | | | | | | | | | | |
| 2,4,5-T | | | | | | | | | | | | | |
| 2,3,7,8-TCDD (Dioxin) | 0.0000000039 ‡ (76) | | | | | | | | | | | | |
| Tebuthiuron | | | | | | | | | | | | | |
| Terbacil | | | | | | | | | | | | | |
| Terbufos | | | | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | | | | | | | | | | | 160 (22) | 129 (22) | |
| 1,1,1,2-Tetrachloroethane | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 1200 | | | | | | | | | | 9020 | | |
| Tetrachloroethylene (PCE) | 99 ‡ | | | | | | | | | | 10,200 | 450 | |
| 2,3,4,6-Tetrachlorophenol | | 1 (87) | | | 4 (87) | 10 (87) | | | | | | | |
| 2,3,5,6-Tetrachlorophenol | | 1 (87) | | | 4 (87) | 10 (87) | | | | | 440 | | |
| Tetranitromethane | | | | | | | | | | | | | |
| Thioacetamide | | | | | | | | | | | | | |
| Thiobencarb | | | | | | | | | | | | | |
| 4,4'-Thiodianiline | | | | | | | | | | | | | |
| Thiram | | | | | | | | | | | | | |
| Toluene | 85,000 | | | | | | | | | | 6300 | 5000 | |
| Toluene diisocyanate | | | | | | | | | | | | | |
| o-Toluidine hydrochloride | | | | | | | | | | | | | |
| o-Toluidine | | | | | | | | | | | | | |
| Toxaphene | 0.00021 ‡ | | | | | | 0.0002 | | 0.21 | | | | |
| 2,4,5-TP (Silvex) | | | | | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



C-037115

C-037115

# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs) | | | | | California Recommended Public Health Level (RPHL) Department of Health Services | California State Action Levels Department of Health Services | | Other Taste & Odor Thresholds |
|---|---|---|---|---|---|---|---|---|---|
| | California Dept. of Health Services | | U.S. Environmental Protection Agency | | | | | | |
| | Primary MCL | Secondary MCL | Primary MCL | Secondary MCL | MCL Goal | | Toxicity | Taste & Odor | |
| Tributyltin | | | | | | | | | |
| Trichlorfon | | | | | | | | | |
| Trichloroacetaldehyde, hydrated | | | | | | | | | |
| Trichloroacetic acid | | | | | | | | | |
| Trichloroacetonitrile | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 70 (93) | | 70 (93) | | | | |
| 1,3,5-Trichlorobenzene | | | | | | | | | |
| 1,1,1-Trichloroethane | 200 | | 200 | | 200 | 200 (100) | | | |
| 1,1,2-Trichloroethane | 32 | | 5 (93) | | 3 (93) | | | | |
| Trichloroethylene (TCE) | 5 | | 5 | | zero | 2.5 (100) | | | |
| Trichlorofluoromethane | 150 | | | | | 150 (100) | | | |
| 2,4,5-Trichlorophenol | | | | | | | | | |
| 2,4,6-Trichlorophenol | | | | | | | | | |
| 1,2,3-Trichloropropane | | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1200 | | | | | 1200 (100) | | | |
| Trifluralin | | | | | | | | | |
| Trinitroglycerol | | | | | | | | | |
| Trinitrophenol | | | | | | | | | |
| Trinitrotoluene (TNT) | | | | | | | | | |
| Tris(1-aziridinyl)phosphine sulfide | | | | | | | | | |
| Tris(2,3-dibromopropyl)phosphate | | | | | | | | | |
| Trithion | | | | | | | 7 | | |
| Tryptophan-P-1 | | | | | | | | | |
| Tryptophan-P-2 | | | | | | | | | |
| Urethane | | | | | | | | | |
| Vinyl bromide | | | | | | | | | |
| Vinyl chloride | 0.5 | | 2 | | zero | 0.15 (100) | | | |
| Xylene(s) | 1750 | | 10,000 | 20 (100) | 10,000 | 1750 (100) | | | 17 (26) |
| 2,6-Xylidine | | | | | | | | | |
| Zineb | | | | | | | | | |
| Ziram | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



C—037116

# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk | | U.S. EPA Integrated Risk Information System (IRIS) Reference Dose as a Water Quality Criterion (118) | One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water | | | | California Proposition 65 Regulatory Level as a Water Quality Criterion (14) | Agricultural Water Quality Goals (78) |
|---|---|---|---|---|---|---|---|---|---|
| | U.S. EPA | National Academy of Sciences (NAS) | | Cal/EPA Cancer Potency Factor as a Water Quality Criterion (102) | U.S. EPA Integrated Risk Information System (IRIS) | U.S. EPA Health Advisory or SNARL | National Academy of Sciences (NAS) *Drinking Water and Health* | | |
| Tributyltin | | | | | | | | | |
| Trichlorfon | | 26 / 88 (7) | | | | | | | |
| Trichloroacetaldehyde, hydrated | 60 (68) | | 11 | | | (C) | | | |
| Trichloroacetic acid | 1000 (68) | 50 / 120 (7) | | | | (C) | | | |
| Trichloroacetonitrile | 50 (10-day,68) | | | | | | | | |
| 1,2,4-Trichlorobenzene | 70 | | 70 | | | (D) | | | |
| 1,3,5-Trichlorobenzene | 40 | | 42 | | | (D) | | | |
| 1,1,1-Trichloroethane | 200 | 3800 | 250 | | | (D) | 17 (21) | | |
| 1,1,2-Trichloroethane | 3 | | 2.8 | | 0.6 | 0.6 (C) | | 5 | |
| Trichloroethylene (TCE) | | | | 2.3 (100) | 3 | 3 (B2) | 1.5 (21) | 25 | |
| Trichlorofluoromethane | 2000 | 8000 (7-day) | 2100 | | | (D) | | | |
| 2,4,5-Trichlorophenol | | | | | | | | | |
| 2,4,6-Trichlorophenol | | 2500 (7-day) | | 0.5 | 3 | 3 (B2,68) | | 5 | |
| 1,2,3-Trichloropropane | 40 | | 42 | | | (B2) | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | | | | | | | | |
| Trifluralin | 5 | 700 | 5.3 | | 4 | 5 (C) | | | |
| Trinitroglycerol | 5 | | | | | | | | |
| Trinitrophenol | | 200 (7-day) | | | | | | | |
| Trinitrotoluene (TNT) | 2 | | 0.35 | | 1 | 1 (C) | | | |
| Tris(1-aziridinyl)phosphine sulfide | | | | | | | | 0.03 | |
| Tris(2,3-dibromopropyl)phosphate | | | | | | | | 0.15 | |
| Trithion | | | | | | | | | |
| Tryptophan-P-1 | | | | | | | | 0.015 | |
| Tryptophan-P-2 | | | | | | | | 0.1 | |
| Urethane | | | | 0.035 | | | | 0.35 | |
| Vinyl bromide | | | | | | | | 0.5 (100) | |
| Vinyl chloride | 3000 (10-day) | | | 0.13 | 0.015 | 0.015 (A) | 1.1 | 1.5 | |
| Xylene(s) | 10,000 | | 14,000 | | | (D) | | | |
| 2,6-Xylidine | | | | | | | | 50 (100) | |
| Zineb | | 35 | | | | | | | |
| Ziram | | 87.5 | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



C—037117

# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | California Inland Surface Waters Plan Numerical Water Quality Objectives | | | | | | California Enclosed Bays & Estuaries Plan Numerical Water Quality Objectives | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | | Freshwater Aquatic Life Protection | | | | Human Health Protection (30-day Average) "‡" = carcinogen | Saltwater Aquatic Life Protection | | |
| | Sources of Drinking Water | Other Waters | 4-day Average | Daily Average | 1-hour Average | Instantaneous Maximum | | 4-day Average | Daily Average | 1-hour Average |
| Tributyltin | | | 0.02 (61) | 0.04 | | 0.06 | 0.005 | | | |
| Trichlorfon | | | | | | | | | | |
| Trichloroacetaldehyde, hydrated | | | | | | | | | | |
| Trichloroacetic acid | | | | | | | | | | |
| Trichloroacetonitrile | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | | | |
| 1,3,5-Trichlorobenzene | | | | | | | | | | |
| 1,1,1-Trichloroethane | 200 (100) | 11,000 (100) | | | | | 11,000 (100) | | | |
| 1,1,2-Trichloroethane | 0.6 ‡ (100) | 42 ‡ (100) | | | | | 42 ‡ (100) | | | |
| Trichloroethylene (TCE) | 3.1 ‡ (100) | 92 ‡ (100) | | | | | 92 ‡ (100) | | | |
| Trichlorofluoromethane | | | | | | | | | | |
| 2,4,5-Trichlorophenol | | | | | | | | | | |
| 2,4,6-Trichlorophenol | 0.34 ‡ | 1.0 ‡ | | | | | 1.0 ‡ | | | |
| 1,2,3-Trichloropropane | | | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | | | | | | | | | |
| Trifluralin | | | | | | | | | | |
| Trinitroglycerol | | | | | | | | | | |
| Trinitrophenol | | | | | | | | | | |
| Trinitrotoluene (TNT) | | | | | | | | | | |
| Tris(1-aziridinyl)phosphine sulfide | | | | | | | | | | |
| Tris(2,3-dibromopropyl)phosphate | | | | | | | | | | |
| Trithion | | | | | | | | | | |
| Tryptophan-P-1 | | | | | | | | | | |
| Tryptophan-P-2 | | | | | | | | | | |
| Urethane | | | | | | | | | | |
| Vinyl bromide | | | | | | | | | | |
| Vinyl chloride | 0.13 ‡ (100) | 34 ‡ (100) | | | | | 34 ‡ (100) | | | |
| Xylene(s) | | | | | | | | | | |
| 2,6-Xylidine | | | | | | | | | | |
| Zineb | | | | | | | | | | |
| Ziram | | | | | | | | | | |



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | U.S. EPA National Ambient Water Quality Criteria | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Health and Welfare Protection | | | Freshwater Aquatic Life Protection | | | | | | |
| | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | Non-Cancer Public Health Effects | One-in-a-Million Incremental Cancer Risk Estimate | Taste & Odor or Welfare | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| Tributyltin | | | | | | | 0.026 (8) | | | |
| Trichlorfon | | | | | | | | | | |
| Trichloroacetaldehyde, hydrated | | | | | | | | | | |
| Trichloroacetic acid | | | | | | | | | | |
| Trichloroacetonitrile | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | 250 (22) | | 50 (22,23) |
| 1,3,5-Trichlorobenzene | | | | | | | | | | |
| 1,1,1-Trichloroethane | | | | | | | | 18,000 | | 200 (33) |
| 1,1,2-Trichloroethane | | 0.60 / 42 (52) | | | | | | 18,000 | 9400 | |
| Trichloroethylene (TCE) | | 2.7 / 81 (52) | | | | | | 45,000 | | 21,900 (31) |
| Trichlorofluoromethane | | 0.19 | | | | | | 11,000 (20) | | |
| 2,4,5-Trichlorophenol | 2600 | | 1 | 63 (100) | | 100 (100) | | | | |
| 2,4,6-Trichlorophenol | | 2.1 / 6.5 (52) | 2 | | | | | | 970 | |
| 1,2,3-Trichloropropane | | | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | | | | | | | | | |
| Trifluralin | | | | | | | | | | |
| Trinitroglycerol | | | | | | | | | | |
| Trinitrophenol | | | | | | | | 230 (88) | | 150 (38,88) |
| Trinitrotoluene (TNT) | | | | | | | | | | |
| Tris(1-aziridinyl)phosphine sulfide | | | | | | | | | | |
| Tris(2,3-dibromopropyl)phosphate | | | | | | | | | | |
| Trithion | | | | | | | | | | |
| Tryptophan-P-1 | | | | | | | | | | |
| Tryptophan-P-2 | | | | | | | | | | |
| Urethane | | | | | | | | | | |
| Vinyl bromide | | | | | | | | | | |
| Vinyl chloride | | 2 / 525 (52) | | | | | | | | |
| Xylene(s) | | | | | | | | | | |
| 2,6-Xylidine | | | | | | | | | | |
| Zineb | | | | | | | | | | |
| Ziram | | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

| ORGANIC CONSTITUENT | California Ocean Plan Numerical Water Quality Objectives | | | | | | U.S. EPA National Ambient Water Quality Criteria Saltwater Aquatic Life Protection | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Human Health Protection (30-day Average) "‡" = carcinogen | Marine Aquatic Life Protection | | | | | Recommended Criteria | | | | Additional Toxicity Information | | |
| | | 6-month Median | 30-day Average | 7-day Average | Daily Maximum | Instantaneous Maximum | Continuous Concentration (4-day Average) | 24-hour Average | Maximum Concentration (1-hour Average) | Maximum (Instantaneous) | Acute | Chronic | Other |
| Tributyltin | 0.0014 | | | | | | | | | 0.010 (8) | | | |
| Trichlorfon | | | | | | | | | | | | | |
| Trichloroacetaldehyde, hydrated | | | | | | | | | | | | | |
| Trichloroacetic acid | | | | | | | | | | | | | |
| Trichloroacetonitrile | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | | | | 160 (22) | 129 (22) | |
| 1,3,5-Trichlorobenzene | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | 540,000 | | | | | | | | | | 31,200 | | |
| 1,1,2-Trichloroethane | 43,000 | | | | | | | | | | | | |
| Trichloroethylene (TCE) | 27 ‡ | | | | | | | | | | 2000 | | |
| Trichlorofluoromethane | | | | | | | | | | | 12,000 (20) | 6400 (20) | 11,500 (20,83) |
| 2,4,5-Trichlorophenol | | 1 (87) | | | 4 (87) | 10 (87) | 11 (100) | | 240 (100) | | | | |
| 2,4,6-Trichlorophenol | 0.29 ‡ | 1 (87) | | | 4 (87) | 10 (87) | | | | | | | |
| 1,2,3-Trichloropropane | | | | | | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | | | | | | | | | | | | |
| Trifluralin | | | | | | | | | | | | | |
| Trinitroglycerol | | | | | | | | | | | | | |
| Trinitrophenol | | 30 (86) | | | 120 (86) | 300 (86) | | | | | 4850 (88) | | |
| Trinitrotoluene (TNT) | | | | | | | | | | | | | |
| Tris(1-aziridinyl)phosphine sulfide | | | | | | | | | | | | | |
| Tris(2,3-dibromopropyl)phosphate | | | | | | | | | | | | | |
| Trithion | | | | | | | | | | | | | |
| Tryptophan-P-1 | | | | | | | | | | | | | |
| Tryptophan-P-2 | | | | | | | | | | | | | |
| Urethane | | | | | | | | | | | | | |
| Vinyl bromide | | | | | | | | | | | | | |
| Vinyl chloride | 36 ‡ | | | | | | | | | | | | |
| Xylene(s) | | | | | | | | | | | | | |
| 2,6-Xylidine | | | | | | | | | | | | | |
| Zineb | | | | | | | | | | | | | |
| Ziram | | | | | | | | | | | | | |



*Values are in µg/l (ppb) unless otherwise indicated. Numbers in parentheses indicate footnotes on next to last page.*



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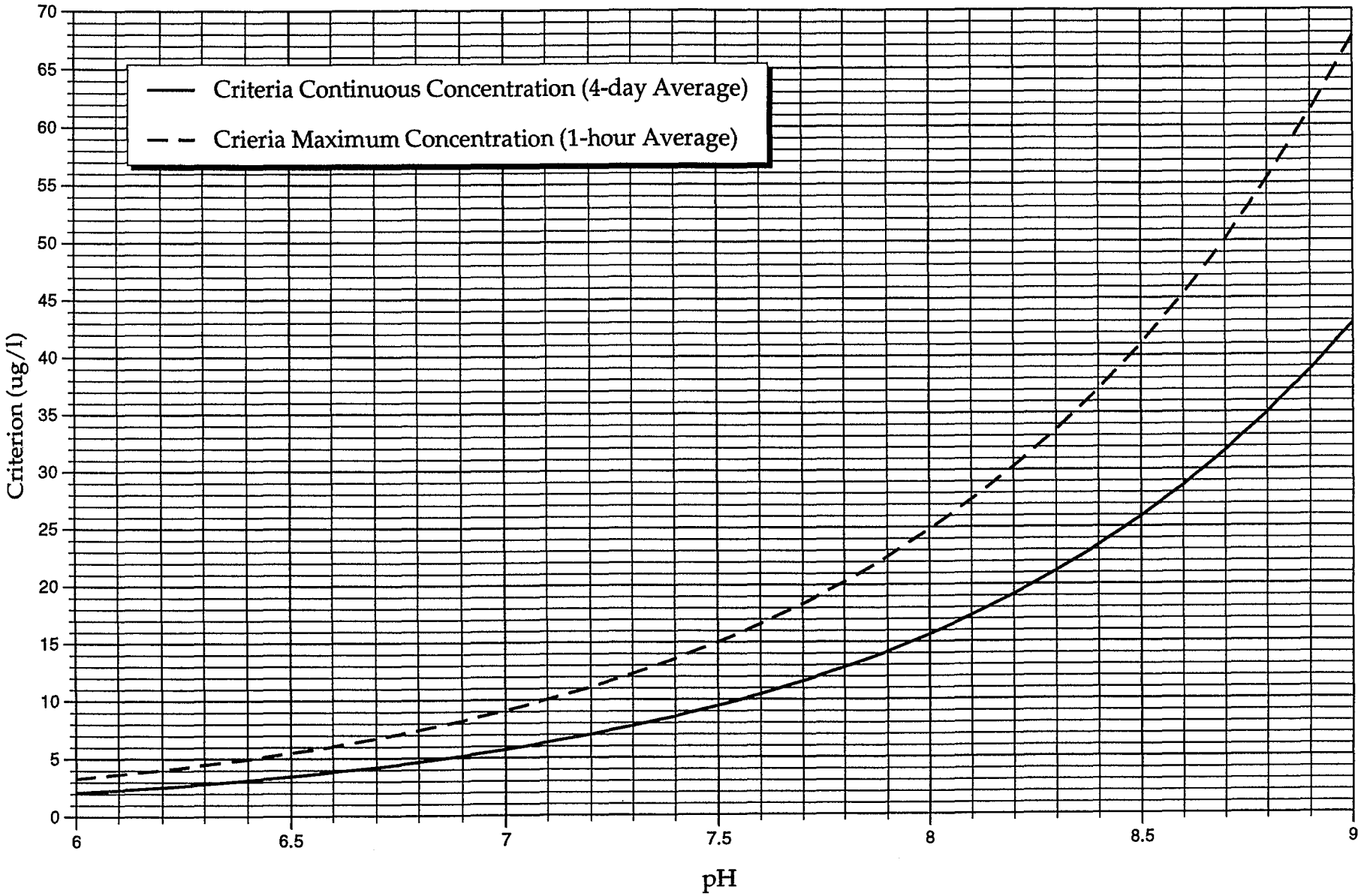
# WATER QUALITY GOALS — ORGANIC CONSTITUENTS

## NATIONAL AMBIENT WATER QUALITY CRITERIA TO PROTECT FRESHWATER AQUATIC LIFE

## PENTACHLOROPHENOL

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*From Reference 15.*

# FOOTNOTES

(7-day) For exposure of 7 days or less.
(10-day) For exposure of 10 days or less.
(24-hr) For exposure of 24 hours or less.
(7-yr) For "longer-term" exposure (7 years or less, EPA).

(A) Known human carcinogen; sufficient epidemiologic evidence in humans.
(B1) Probable human carcinogen; limited epidemiologic evidence in humans.
(B2) Probable human carcinogen; sufficient evidence from animal studies; no or inadequate human data.
(C) Possible human carcinogen; limited evidence from animal studies; no human data.
(D) Not classified as to human carcinogenicity; no data or inadequate evidence.
(E) Evidence of non-carcinogenicity for humans.

(LOQ) Value set equal to the analytical Limit of Quantitation at the time of promulgation.

(1) For hardness in mg/l as CaCO3, criterion = e(0.8473[ln(hardness)] + 0.8604) µg/l; see Inorganics pages 9 & 16.
(2) Value based on hardness of 40 mg/l; value increases with increasing hardness.
(3) Varies from 1.4 to 2.4 mg/l with air temperature; see Title 22, CCR, §64435, Table 4.
(4) For dissolved chloride associated with sodium; criterion probably will not be adequately protective when chloride is associated with potassium, calcium, or magnesium, rather than sodium.
(5) Based on reproductive toxicity.
(6) Pentavalent arsenic [As(V)] effects on plants.
(7) Calculated for child / for adult.
(8) Advisory concentration; U.S. EPA Water Quality Advisory (Reference 13).
(9) For hardness in mg/l as CaCO3, criterion = e(0.8473[ln(hardness)] + 0.7614) µg/l; see Inorganics pages 9 & 16.
(10) For hardness in mg/l as CaCO3, criterion = e(0.7852[ln(hardness)] – 3.490) µg/l; see Inorganics pages 9 & 10.
(11) Criterion = e[1.005(pH) – 4.830] µg/l; criterion = 20 µg/l at pH 7.8; see Organics page 41.
(12) Value developed for chromium VI; may be applied to total chromium if valence unknown.
(13) Criterion = e[1.005(pH) – 5.290] µg/l; criterion = 13 µg/l at pH 7.8; see Organics page 41.
(14) Regulatory dose level divided by 2 liters per day average consumption; represents a 1-in-100,000 incremental cancer risk estimate unless otherwise noted.
(15) Determined not to pose a risk of cancer through ingestion (Title 22, CCR, Division 2).
(16) Toxicity to one species of fish after 2600 hours of exposure.
(17) Mortality in a fish species after 30 day exposure.
(18) For sum of endrin and endrin aldehyde.
(19) For total trihalomethanes (sum of bromoform, bromodichloromethane, chloroform & dibromochloromethane); based largely on technology and economics.
(20) For sum of halomethanes.
(21) Based on limited evidence.
(22) For sum of chlorinated benzenes.
(23) Toxicity to a fish species exposed for 7.5 days.
(24) For sum of dichlorobenzenes.
(25) 1983 SNARL; to be reviewed in the future.
(26) From Reference 30.
(27) For sum of dichloroethylenes.
(28) For sum of dichloropropanes.
(29) For sum of dichloropropenes.
(30) For sum of heptachlor and heptachlor epoxde.
(31) Adverse behavioral effects occur to one species.
(32) As CaCO3; minimum criterion except where natural conditions are less.
(33) For hardness in mg/l as CaCO3, criterion = e(1.128[ln(hardness)] – 3.828) µg/l; see Inorganics pages 9 & 10.
(34) Flavor impairment in a fish species occurs.
(35) Mortality to early life stages of a fish species occurs.
(36) Based on organoleptic considerations (taste, odor, color, laundry staining, etc.)
(37) For sum of mononitrophenols.
(38) Toxicity to algae occurs.
(39) For chlorinated systems.
(40) For white phosphorus.
(41) For sum of carcinogenic polynuclear aromatic hydrocarbons.
(42) For the sum of endosulfan-alpha and -beta and endosulfan sulfate.
(43) For sum of benzene hexachloride isomers.
(44) Calculated from corn oil gavage animal study / from drinking water animal study.
(45) For sum of phthalate esters.
(46) For sum of chloroalkyl ethers.
(47) For sum of tetrachloroethanes.
(48) For sum of chlorinated naphthalenes.
(49) For hardness in mg/l as CaCO3, criterion = e(1.72[ln(hardness)] – 6.52) µg/l; see Inorganics pages 9 & 15.
(50) For sum of DDT, DDD, and DDE.
(51) Based on exposure through water only / through water + fish; U.S. EPA Water Quality Advisory (Reference 13).
(52) For consumption of water and aquatic organisms / for consumption of aquatic organisms only.
(53) For sum of dinitrotoluenes.
(54) From Reference 20.
(55) For hardness in mg/l as CaCO3, criterion = e(0.8190[ln(hardness)] + 1.561) µg/l; see Inorganics pages 9 & 11.
(56) For sum of nitrosamines.
(57) Guidance level (Reference 3) assumes reletive source contribution of 10% from drinking water.
(58) For sum of haloethers.
(59) Chronic SNARL was estimated to be 100-fold lower than the listed 24-hour value in calculating this level.
(60) For hardness in mg/l as CaCO3, criterion = e(0.8190[ln(hardness)] + 3.688) µg/l; see Inorganics pages 9 & 11.
(61) 6-month median.
(62) For pH between 6.5 and 9.0.
(63) For hardness in mg/l as CaCO3, criterion = e(0.8545[ln(hardness)] – 1.465) µg/l; see Inorganics pages 9 & 12.
(64) Based on kepone.
(65) For hardness in mg/l as CaCO3, criterion = e(0.9422[ln(hardness)] – 1.464) µg/l; see Inorganics pages 9 & 12.
(66) For hardness in mg/l as CaCO3, criterion = e(1.273[ln(hardness)] – 4.705) µg/l; see Inorganics pages 9 & 13.
(67) For hardness in mg/l as CaCO3, criterion = e(1.273[ln(hardness)] – 1.460) µg/l; see Inorganics pages 9 & 13.
(68) Draft / tentative / provisional.
(69) For Arochlor 1260.
(70) At pH 6.8, caused 50% reduction in growth of yearling sockeye salmon in 56–day test.
(71) May be present as a decomposition product in Ferbam, Maneb, Nabam, Thiram, Zineb, and Ziram.
(72) As NO3.
(73) Recommended level; Upper level = 500 mg/l; Short-term level = 600 mg/l.
(74) Recommended level; Upper level = 1600; Short-term level = 2200.
(75) Recommended level; Upper level = 1000; Short-term level = 1500 mg/l.
(76) For "TCDD equivalents" calculated as the sum of 2,3,7,8-chlorinated dibenzodioxin and dibenzofuran concentrations multiplied by their respecitve U.S. EPA Toxicity Equivalency Factors.
(77) For sum of 1,2- and 1-3-dichlorobenzenes.
(78) Reference 19 unless noted otherwise.
(79) For elemental phosphorus; marine or estuarine.
(80) Instantaneous maximum.
(81) For hardness in mg/l as CaCO3, criterion = e(0.8460[ln(hardness)] + 1.1645) µg/l; see Inorganics pages 9 & 14.
(82) For the sum of oxychlordane and alpha and gamma isomers of chlordane, chlordene and nonachlor.
(83) A decrease in the number of algal cells occurs.
(84) Adverse effects on a fish species exposed for 168 days.
(85) For hardness in mg/l as CaCO3, criterion = e(0.8460[ln(hardness)] + 3.3612) µg/l; see Inorganics pages 9 & 14.
(86) For sum of nonchlorinated phenolic compounds.
(87) For sum of chlorinated phenolic compounds.
(88) For sum of nitrophenols.
(89) Expressed as nitrogen.
(90) For total chlorine residual; for intermittent chlorine sources see Reference 26, Chapter IV, Table B.
(91) See Reference 16.
(92) For sum of 3,3'-Dichlorobenzidine and its salts.
(93) Effective 17 January 1994.
(94) For the trivalent form.
(95) For the pentavalent form.
(96) EC50 for eastern oyster embryos.
(97) Varies with pH and temperature; see Inorganics Page 7 to select water quality goal.
(98) For total residual chlorine.
(99) For sum of chlorine-produced oxidants.
(100) Proposed.
(101) 7,000,000 fibers/liter; limited to fibers longer than 10 µm.
(102) Assumes 70 kg body weight and 2 liters/day water consumption.
(103) As nitrogen; in addition, MCL for total nitrate and nitrite = 10,000 µg/l (as N).
(104) Based on endosulfan; U.S. EPA Water Quality Advisory (Reference13).
(105) Value based on drinking water treatment technique (Reference 2).
(106) Expressed as decachlorobiphenyl.
(107) Effective date postponed.
(108) For molecules with 60 percent chlorine or greater by molecular weight.
(109) MCL varies with air temperature; 2.4 mg/l (≤ 53.7 °F); 2.2 mg/l (53.8 – 58.3 °F); 2.0 mg/l (58.4 – 63.8 °F); 1.8 mg/l (63.9 – 70.6 °F); 1.6 mg/l (70.0 – 79.2 °F); 1.4 mg/l (79.3 – 90.5 °F).
(110) Includes Radium 226 but excludes Radon and Uranium.
(111) MCL includes this "Action level", to be exceeded in no more than 10 percent of samples.
(112) Unionized ammonia concentrations; criteria based on total ammonia are shown on Inorganics page 8.
(113) For sum of bromoform, bromomethane, chloromethane, dibromochloromethane, and bromodichloromethane.
(114) As CaCO3; minimum concentration except where natural concentrations are less.
(115) For sum of acenaphthylene, anthracene, benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluorene, indeno(1,2,3-c,d)pyrene, phenanthrene, and pyrene.
(116) 1980 U.S. EPA Suggested-No-Adverse-Response Level.
(117) From Reference 29.
(118) Assumes 70 kg body weight, 2 liters/day water consumption, and 20% relative source contribution. An additional uncertainty factor of 10 is used for Class C carcinogens.



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# REFERENCES


**Drinking Water Standards — Maximum Contaminant Levels (MCLs)**

1. California Department of Health Services, California Administrative Code, Title 22, Division 4, Chapter 15, "Domestic Water Quality and Monitoring".
2. U. S. Environmental Protection Agency, 40 Code of Federal Regulations, Parts 141 and 143.
3. U. S. Environmental Protection Agency, Office of Water, "Drinking Water Regulations and Health Advisories" (December 1992).
4. U. S. Environmental Protection Agency, Region 9, Drinking Water Branch, "Drinking Water Standards and Health Advisory Table" (December 1992).
5. U. S. Environmental Protection Agency, Federal Register, Volume 56, No. 110 (Friday, 7 June 1991), pages 26460-26564. Corrected in FR, Vol. 56, No. 135 (Mon., 15 July 1991) pages 32112-32113.
6. U. S. Environmental Protection Agency, Federal Register, Volume 56, No. 126 (Monday, 1 July 1991), pages 30266-30281. Amended by Federal Register, Volume 57, pages 22178 et seq. (27 May 1992).
7. U. S. Environmental Protection Agency, Federal Register, Volume 56, No. 138 (Thursday, 18 July 1991), pages 33050-33127.
8. U. S. Environmental Protection Agency, Federal Register, Volume 57, No. 138 (Friday, 17 July 1992), pages 31776-31849.

**California State Action Levels**

9. California Department of Health Services, Office of Drinking Water, "Summary: Maximum Contaminant Levels (MCLs) and Action Levels (ALs)" (18 October 1990).

**California Recommended Public Health Levels (RPHLs) in Drinking Water**

10. California Department of Health Services, Office of Drinking Water, "Notice of Proposed Rulemaking, Recommended Public Health Levels (RPHLs) for Contaminants in Drinking Water (R-29-91)" (4 December 1991).

**Health Advisories and Suggested No-Adverse-Response Levels (SNARLs)**

References 3 and 4.

11. U. S. Environmental Protection Agency, Office of Drinking Water "Health Advisory" documents (various dates).
12. National Academy of Sciences, "Drinking Water and Health", Vol.1 (1977), Vol. 3 (1980), Vol. 4 (1982), Vol. 5 (1983), Vol. 6 (1986), and Vol. 7 (1987).
13. U. S. Environmental Protection Agency, "Water Quality Advisory" documents (March 1986, September 1987).

**California Proposition 65 Regulatory Levels**

14. California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA), California Code of Regulations, Title 22, Division 2, Chapter 3, Articles 7 and 8.
15. California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA), Proposition 65 "Status Report" (January 1993).

**One-in-a-Million Incremental Cancer Risk Estimates**

References 3, 4, 11, 12, and 13.

16. U. S. Environmental Protection Agency, "Quality Criteria for Water, 1986" (May 1986) plus updates (various dates).
17. U. S. Environmental Protection Agency, Federal Register, Vol. 49, No. 194 (Wednesday, 15 February 1984) [TCDD cancer risk level].
18. "California Environmental Protection Agency Criteria for Carcinogens", Office of Environmental Health Hazard Assessment (July 1992).

**Agricultural Water Quality Goals**

19. Ayers, R. S. and D. W. Westcot, "Water Quality for Agriculture", Food and Agriculture Organization of the United Nations - Irrigation and Drainage Paper No. 29, Rev. 1, Rome (1985).

**U. S. EPA National Ambient Water Quality Criteria**

References 13 and 16.

20. U. S. Environmental Protection Agency, "Water Quality Criteria, 1972" (1973).
21. U. S. Environmental Protection Agency, Federal Register, Volume 55, No. 93, (Monday, 14 May 1990), pp. 19987-19992.
22. U. S. Environmental Protection Agency, Federal Register, Volume 57, No. 246 (Tuesday, 22 December 1992), pp. 60848-60923.
23. U. S. Environmental Protection Agency, "Ambient Water Quality Criteria" documents (various dates).

**California Inland Surface Waters Plan - Numerical Water Quality Objectives**

24. California State Water Resources Control Board, "Water Quality Control Plan for Inland Surface Waters of California", Document 91-12 WQ, Chapter II (11 April 1991).
25. California State Water Resources Control Board, "Functional Equivalent Document: Amendments of the Water Quality Control Plan for Inland Surface Waters of California", Draft (November 1992).

**California Enclosed Bays and Estuaries Plan - Numerical Water Quality Objectives**

26. California State Water Resources Control Board, "Water Quality Control Plan for Enclosed Bays and Estuaries of California", Document 91-13 WQ, Chapter II (11 April 1991).
27. California State Water Resources Control Board, "Functional Equivalent Document: Amendments of the Water Quality Control Plan for Enclosed Bays and Estuaries of California", Draft (November 1992).

**California Ocean Plan - Numerical Water Quality Objectives**

28. California State Water Resources Control Board, "Water Quality Control Plan: Ocean Waters of California", Chapter IV (22 March 1990).

**Other References**

29. McKee & Wolf, California State Water Resources Control Board, "Water Quality Criteria" (1963, 1978).
30. U.S. Environmental Protection Agency, Federal Register, Vol. 54, No. 97 (Mon., 22 May 1989), pp. 22138, 22139.





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