PROPOSED RULEMAKING

ENVIRONMENTAL QUALITY BOARD

[25 PA. CODE CH. 250]

Administration of the Land Recycling Program

The Environmental Quality Board (Board) proposes to amend Chapter 250 (relating to administration of Land Recycling Program). This rulemaking is proposed under 25 Pa. Code § 250.11 (relating to periodic review of MSCs), which requires that the Department of Environmental Protection (Department) review new scientific information that relates to the basis of the Statewide health standard medium-specific concentrations (MSC) at least 36 months after the effective date of the most recently promulgated MSCs and to propose to the Board any changes to the MSCs as necessary. In addition to updating the existing MSCs, this proposed rulemaking would add MSCs for three new contaminants, namely Perfluorooctanoic Acid (PFOA), Perfluorooctane Sulfonate (PFOS) and Perfluorobutane Sulfonate (PFBS). These contaminants are within the Per-fluoroalkyl and Polyfluoroalkyl Acid (PFAS) family of compounds for which the United States Environmental Protection Agency (EPA) has published toxicological data. This proposed rulemaking would also clarify several other regulatory requirements.

This proposed rulemaking was adopted by the Board at its meeting on November 19, 2019.

A. *Effective Date*

This proposed rulemaking would go into effect upon final-form publication in the *Pennsylvania Bulletin*.

B. *Contact Persons*

For further information contact Michael Maddigan, Environmental Group Manager, Land Recycling Program, P.O. Box 8471, Rachel Carson State Office Building, Harrisburg, PA 17105-8471, (717) 772-3609; or Robert "Bo" Reiley, Acting Director, Bureau of Regulatory Counsel, Rachel Carson State Office Building, P.O. Box 8464, Harrisburg, PA 17105-8464, (717) 787-7060. Information regarding submitting comments on this proposed rulemaking appears in Section J of this preamble. Persons with a disability may use the Pennsylvania AT&T Relay Service by calling (800) 654-5988 (voice users). This proposed rulemaking is available on the Department's web site at www.dep.pa.gov (select "Public Participation," then "Environmental Quality Board").

C. *Statutory Authority*

This proposed rulemaking is authorized under sections 104(a) and 303(a) of the Land Recycling and Environmental Remediation Standards Act (Act 2) (35 P.S. §§ 6026.104(a) and 6026.303(a)), which direct the Board to adopt and amend periodically by regulation Statewide health standards for regulated substances for each environmental medium, including any health-based standards adopted by the Federal government by regulation or statute, and health advisory levels (HAL), and which direct the Board to promulgate appropriate mathematically valid statistical tests to define compliance with Act 2, and other regulations as necessary to implement the provisions of Act 2; and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20), which authorizes the Board to formulate, adopt and promulgate rules and regulations that are necessary for the proper work of the Department.

D. *Background and Purpose*

Section 250.11 requires that the Department review new scientific information that is used to calculate MSCs under the Statewide health standard and propose appropriate changes at least every 36 months following the effective date of the most recently promulgated MSCs. The Board's most recently promulgated MSCs became effective upon publication in the *Pennsylvania Bulletin* at 46 Pa.B. 5655 (August 27, 2016). These proposed changes, based on new information, would protect public health and the environment and would provide the regulated community with clear information regarding the requirements of Act 2 and Chapter 250 related to the remediation of contaminated sites.

In addition to updating Chapter 250 MSCs, this proposed rulemaking would include changes that would add groundwater and soil MSCs for three compounds in the PFAS family—PFBS, PFOS and PFOA. The proposed standards for these three chemicals are based on data in toxicological studies published by the EPA. Under Act 2, the Department has directly incorporated the EPA's 2016 HALs regarding PFOS and PFOA as groundwater MSCs and has used the data developed by the EPA for those HALs to calculate soil MSCs for both compounds. With respect to PFBS, the Department is proposing soil and groundwater standards based on a 2014 EPA Provisional Peer-Reviewed Toxicity Value (PPRTV).

Finally, this proposed rulemaking would clarify a number of procedural issues related to the administrative requirements of Act 2. In particular, this proposed rulemaking would clarify requirements for remediators and municipalities regarding public participation and public involvement plans, update requirements for acceptable "practical quantitation limits" related to the precision of laboratory testing, update requirements for professional seals from professional geologists or engineers, provide resources to calculate MSCs, and clarify the proper submission of various reports related to the Act 2 Site-Specific Standard.

This proposed rulemaking would impact any person addressing a release of a regulated substance at a property, whether voluntarily or as a result of an order by the Department. This proposed rulemaking would not impact any particular category of person with additional or new regulatory obligations. Under Act 2, a remediator may select the standard to which to remediate. To complete a remediation, the remediator must then comply with all relevant remediation and administrative standards.

As noted previously, this proposed rulemaking will not singularly affect one specific industry or person. This proposed rulemaking will impact the owners and operators of storage tank facilities that have had a release of a petroleum or hazardous substance. There are approximately 12,000 storage facilities in this Commonwealth. Some of these facilities are owned or operated, or both, by small businesses. Because of the broad potential reach of this proposed rulemaking, it is not possible to identify specifics on the types and numbers of small businesses that could potentially be affected by property contamination. In addition, Act 2 and Chapter 250 are unique from other statutes and regulations because they do not create permitting or corrective action obligations. Instead, Act 2 and Chapter 250 provide remediators with options to address contamination and any associated liability that

arises under other statutes. For example, adding PFOS to the Chapter 250 Appendix does not create any liability or obligation related to PFOS. Instead, a person's liability arises under The Clean Streams Law (35 P.S. §§ 691.1—691.1001) while Act 2 and Chapter 250 provide that person the means to resolve their Clean Streams Law liability and to address the contamination. In this way, Act 2 and Chapter 250 do not create new obligations that will impact a particular category of person like a new permitting obligation or corrective action regulation would.

The soil numeric values represent a proposed decrease for approximately 83% of the values and an increase for 17% of the values. For groundwater, the proposed changes reflect a decrease for approximately 92% of the values and an increase in approximately 8% of the values. Lowering the values may indicate a more stringent cleanup is required at a site and increasing the values may indicate a less stringent cleanup is required at a site. These proposed changes reflect updated information related to exposure limitations to these substances and recognize that a higher or lower standard is better representative of those substances' exposure thresholds.

The number of completed remediations vary each year. On average, remediators apply the Act 2 remediation standard to approximately 800 contaminated properties across this Commonwealth. Generally, any cost related to a given site remediation depends in large part on which regulated substances are being remediated and what the specific soil and groundwater conditions are at the site.

The Department worked with the Cleanup Standards Scientific Advisory Board (CSSAB) during the development of this proposed rulemaking. The CSSAB, which was established by section 105 of Act 2 (35 P.S. § 6026.105), consists of persons representing a cross-section of experience, including engineering, biology, hydrogeology, statistics, medicine, chemistry, toxicology and other related fields. The purpose of the CSSAB is to assist the Department and the Board in developing Statewide health standards, determining the appropriate statistically and scientifically valid procedures and risk factors to be used, and providing other technical advice as needed to implement Act 2. During CSSAB meetings on August 1, 2018, February 13, 2019, June 12, 2019, and October 29, 2019, CSSAB members were given the opportunity to review and provide feedback on draft regulatory amendments to Chapter 250. The Department worked with the CSSAB to resolve concerns and agreed to evaluate additional suggestions during the next review cycle for this proposed rulemaking. Following these presentations and discussions, the CSSAB issued a letter related to the proposed regulatory amendments included in this proposed rulemaking. Specifically, the CSSAB noted concern related to the MSCs for vanadium.

A listing of CSSAB members and minutes of CSSAB meetings are available on the Department's web site at www.dep.pa.gov (select "Public Participation," then "Advisory Committees," then "Cleanup and Brownfields Advisory Committees," then "Cleanup Standards Scientific Advisory Board").

E. *Summary of Regulatory Requirements*

§ 250.1. Definitions

This proposed rulemaking would add a definition for the term "MDL—Method detection limit" because both "method detection limit" and "MDL" are used in Chapter 250 but are not defined. The proposed definition is consistent with the EPA's definition in (U.S. EPA Office of Water Publication EPA 821-R-16-006, 2016).

This proposed rulemaking would amend the definition of "volatile compound" to match the description in Section IV, Appendix IV-A.1 of the Department's Land Recycling Program Technical Guidance Manual (TGM) and to match the EPA's definition in their *OSWER* (Office of Solid Waste and Emergency Response) *Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air* (OSWER Publication 9200.2-154, 2015). The current definition excludes naphthalene as well as several other semi-volatiles that are considered volatiles in the vapor intrusion section of the TGM. The Department's TGM is available at https://www.dep.pa.gov/Business/Land/LandRecycling/Standards-Guidance-Procedures/Guidance-Technical-Tools/Pages/Technical-Guidance-Manual.aspx.

§ 250.4. Limits related to PQLs

Proposed amendments to this section would update the references and procedures for determining the practical quantitation limit (PQL) and would remove confusing and outdated language. Improvements in laboratory instrument technology and the removal of PQLs and estimated quantitation limits (EQL) from revised laboratory methods resulted in the need to update this section.

§ 250.6. Public participation

The proposed amendments to § 250.6(c) would clarify that if a public involvement plan (PIP) has been initiated, the public has a right to be involved in the development and review of the remedial investigation report, risk assessment report, cleanup plan and final report consistent with section 304(o) of Act 2 (35 P.S. § 6026.304(o)), regarding community involvement, and outlines the necessary measures to involve the public.

The proposed amendments to § 250.6(d) would help to ensure that the Department and the municipality requesting the PIP are notified of the submission of the PIP and receive copies of the PIP. These proposed amendments necessitate the removal of § 250.6(d)(1) and (2) because it no longer makes sense to include them in subsection (d). These subsections were also removed because they are already discussed in Chapter 250 in the final report requirements section for the site-specific standard in § 250.411(e) (relating to final report) and remediation requirements section for special industrial area (SIA) sites in § 250.503(f) (relating to remediation requirements). Finally, these two subsections were removed because the current Chapter 250 regulations require that the public involvement plan be submitted with the remedial investigation report or baseline environmental report. The proposed change is necessary because the Department needs notice of PIPs in advance of receipt of those reports.

§ 250.10. Measurement of regulated substances in media

The proposed amendments to § 250.10(d) would change the references from the Groundwater Monitoring Guidance Manual to reference the most current version of Appendix A of the TGM or an alternative method that appropriately measures regulated substances in groundwater.

§ 250.12. Professional seal

This proposed new section mirrors language from § 245.314 (relating to professional seals) of the storage tank regulations, requiring that reports submitted to the Department which include professional geologic or engineering work be sealed by a professional geologist or engineer.

§ 250.304. MSCs for groundwater

Under subsection (c), the EPA publication number has been revised.

Under subsection (g), this proposed rulemaking would list additional sources of aqueous solubility information to support the new compounds proposed to be added to the MSC tables in this proposed rulemaking. The following aqueous solubility sources are proposed be added to subsection (g):

19. ATSDR (Agency for Toxic Substances and Disease Registry). 2015. *Toxicological Profile for Perfluoroalkyls. Draft for Public Comment*. Agency for Toxic Substances and Disease Registry, Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. Accessed May 2016. http://www.atsdr.cdc.gov/ToxProfiles/tp200.pdf.

20. Hekster, F.M., R.W. Laane, and P. de Voogt. 2003. *Environmental and toxicity effects of perfluoroalkylated substances. Reviews of Environmental Contamination and Toxicology* 179:99—121.

21. HSDB (Hazardous Substances Data Bank). 2012. U.S. National Library of Medicine, Bethesda, MD. Accessed May 2016. http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB.

22. Kauck, E.A., and A.R. Diesslin. 1951. *Some properties of perfluorocarboxylic acids. Industrial & Engineering Chemistry Research* 43(10):2332—2334.

23. SRC (Syracuse Research Corporation). 2016. PHYSPROP Database. Accessed May 2016. http://www.srcinc.com/what-we-do/environmental/scientific-databases.html.

24. OECD (Organisation for Economic Co-operation and Development). 2002. *Hazard Assessment of Perfluorooctane Sulfonate (PFOS) and its Salts*. ENV/JM/RD (2002) 17/FINAL. Report of the Environment Directorate, Joint Meeting of the Chemicals Committee and the Working Party on Chemicals, Pesticides and Biotechnology, Co-operation on Existing Chemicals, Paris, November 21, 2002.

§ 250.305. MSCs for soil

Under subsection (c), a minor correction to a cross-reference is proposed.

The proposed amendments to § 250.305(g) would alleviate confusion as to the need to evaluate the soil-to-groundwater pathway for compounds that have secondary maximum contaminant levels (SMCL) and either a primary Maximum Containment Level (MCL) or a HAL. These proposed changes would also allow for the determination of soil MSC values for substances with SMCLs but no toxicological information in Appendix A, Table 5B, of Chapter 250. This determination would be based on the physical capacity of the soil to contain a regulated substance as described in § 250.305(b). This proposed change, along with other proposed changes to subsection (g), would result in the ability of remediators to determine soil MSCs for chloride and sulfate that also incorporate impacts to ecological receptors as described in § 250.311(a)—(f) (relating to evaluation of ecological receptors).

§ 250.306. Ingestion numeric values

Due to new information published by the EPA in Exposure Factors Handbook 2011 Edition, EPA/600/R-090/052F, the residential groundwater ingestion rate would increase from 2 liters a day (L/day) to 2.4 L/day. This proposed amendment would result in additional changes to other exposure factors listed in the table and footnotes in § 250.306(d). Formatting errors in the table footnotes in this section would also be corrected. Some of the equations in the footnotes contain brackets that should not be confused with brackets used to delineate changes proposed in the proposed rulemaking. Bolded text within bolded brackets represents text to be deleted while unbolded brackets encompass existing text not proposed for removal.

Proposed amendments to § 250.306(e) would update the models used to calculate blood lead levels that are applied to the corresponding lead numeric value calculations. The new model references would also be updated in this subsection.

§ 250.307. Inhalation numeric values

A proposed amendment to the equation in § 250.307(g)(1) would add a "× 24 hr/day" multiplier to the numerator. This component was inadvertently omitted from this equation in the previous rulemaking.

§ 250.308. Soil to groundwater pathway numeric values

In section § 250.308(a)(2)(ii), the word "standard" would be replaced with "generic numeric value" to avoid the implication that the 1/10th value is always the soil MSC for saturated soil and to avoid the implication that the comparison process should be bypassed.

§ 250.311. Evaluation of ecological receptors

Amendments to § 250.311(b) are proposed to directly reference the proposed changes to § 250.305(g) and to reference the physical capacity of the soil to contain a regulated substance as described in § 250.305(b).

§ 250.402. Human health and environmental protection goals

Proposed amendments to § 250.402(d) would resolve confusion and ensure the correct application of § 250.311(e) to protect ecological receptors under the site-specific standard.

A proposed amendment to § 250.402(d)(3) would correct and replace the reference to § 230.311(f) with § 250.311(f).

§ 250.404. Pathway identification and elimination

Under subsection (a), proposing to add the words "Department or" to allow for the use of Department guidance in identifying exposure pathways.

§ 250.409. Risk assessment report

Proposed amendments to § 250.409(1) would clarify that an approved remedial investigation report is needed in advance of submitting an approvable risk assessment report when the reports are submitted separately. This proposed amendment is part of a clarification regarding the appropriate sequence of reports submitted under Subchapter D (relating to the site-specific standard), including a proposed new section for "combined reports," in § 250.412 (relating to combined reports), described as follows.

§ 250.410. Cleanup plan

A new proposed subsection (d) would remove any ambiguity regarding the need for a cleanup plan in situations in which a remedy is already present. The current language in subsection (d) would be moved into a newly created subsection (e).

§ 250.412. Combined reports

This newly proposed section would explain that prior approval of a remedial investigation report is not neces-

sary when combined with either a risk assessment report or a cleanup plan. This proposed section is necessary as a result of the changes made to § 250.410 (relating to cleanup plan).

§ 250.503. Remediation requirements

The proposed amendments to § 250.503(e) would clarify that a revised baseline environmental report, not just a new remediation plan, may need to be submitted when land use changes from nonresidential to residential at a SIA site.

§ 250.603. Exposure factors for site-specific standards

The proposed amendment to § 250.603(a) would update the citation of the 1992 version of the EPA's Final Guidelines for Exposure Assessment to EPA's 2011 Exposure Factors Handbook.

§ 250.605. Sources of toxicity information

The proposed updates to § 250.605(a)(3) would add the EPA's Office of Pesticide Programs Human Health Benchmarks for Pesticides and the EPA's PPRTV Appendix databases to the toxicity value source hierarchy.

§ 250.707. Statistical tests

The term "Statewide health standard" would be changed to "MSC" in the proposed amendment to § 250.707(b)(1)(ii) for clarification.

A new clause (D) would be added to § 250.707(b)(1)(iii) clarifying when or whether a vapor intrusion analysis is necessary for sites with small petroleum releases where full site characterization is not performed.

Appendix A, Tables 1—7

Proposed amendments to the "Medium-Specific Concentrations" tables would update the MSCs for certain regulated substances. Updates to footnotes would be necessary to help explain some of the changes to the MSCs. Numeric values would be calculated for several new substances, including PFOS, PFOA and PFBS in groundwater and soil, and total polychlorinated biphenyls in soil. Ingestion-based numeric values would all decrease slightly due to the proposed increase in water ingestion rate under § 250.306(d) from 2 L/day to 2.4 L/day. Other proposed numeric value changes would mostly be attributed to updates in toxicity values in Tables 5A and 5B. However, proposed corrections to the numeric value calculation process would also cause some numeric values to change.

The proposed update to the definition of a "volatile compound" would cause some of the values to change because the new definition would include the consideration of Henry's law constant and molecular weight. Additionally, some of the numeric values changes would be due to rounding adjustments. When the Department calculates the numeric MSC values for inclusion in Chapter 250, some values are rounded during one of the early calculation steps instead of at the end of the calculation. To be consistent, the rounding procedure would now be changed so that all rounding occurs at the final value calculation step. Elimination of the rounding of transfer factors would also cause changes to the numeric values. Transfer factors used for the calculation of inhalation numeric values from soil are calculated and listed in Table 5A. The transfer factors currently in Table 5A were rounded inconsistently. To be consistent with the other proposed rounding corrections, these values would no longer be rounded because they are calculated and used in the early stages of the numeric value calculation process.

In the proposed amendments, information would be updated on the "Threshold of Regulation Compounds" table (Table 6) by the removal of compounds that would have numeric values calculated on other tables.

Proposed amendments to the "Default Values for Calculating MSCs for Lead" table (Table 7) would update the input parameters for use in the Integrated Exposure Uptake Biokinetic (IEUBK) Model for Lead in Children for residential exposure. Proposed amendments for nonresidential exposure would update the model input parameters for the Adult Lead Model. References for both models would also be updated. These proposed amendments would result in updates to the lead residential and nonresidential direct contact values provided in Table 4A.

F. *Benefits, Costs and Compliance*

Benefits

In enacting Act 2, the General Assembly found and declared among its policy goals that "[p]ublic health and environmental hazards cannot be eliminated without clear, predictable environmental remediation standards and a process for developing those standards," that "[a]ny remediation standards adopted by this Commonwealth must provide for the protection of public health and the environment," and that "[c]leanup plans should be based on actual risk that contamination on the site may pose to public health and the environment, taking into account its current and future use and the degree to which contamination can spread offsite and expose the public or the environment to risk." See 35 P.S. § 6026.102 regarding declaration of policy.

To effectuate this, the General Assembly authorized the Board and the Department to develop standards and methods to effectuate those goals. 35 P.S. §§ 6026.104 and 6026.303. The Department's regulatory structure, as authorized under Act 2 and as implemented by Chapter 250, provides those important benefits articulated in the General Assembly's declaration of policy.

The amendments to the MSCs in this proposed rulemaking would serve both the public and the regulated community because they would provide MSCs based on the most up-to-date health and scientific information for substances that cause cancer or have other toxic effects on human health. The Board first published Chapter 250 regulations in 1997 at 27 Pa.B. 4181 (August 16, 1997). The General Assembly recognized, in section 104(a) of Act 2 (35 P.S. § 6026.104(a)), that these standards must be updated over time as better science becomes available and as the need for clarification or enhancement of the program becomes apparent.

Potential contamination of soil and groundwater from accidental spills and unlawful disposal can impact almost any resident of this Commonwealth. Many of the chemical substances addressed in this proposed rulemaking are systemic toxicants or carcinogens as defined under Act 2 and, in some cases, are widespread in use. Examples of substances that contain toxic or carcinogenic properties include gasoline and other petroleum products, solvents, elements used in the manufacture of metals and alloys, pesticides, and some dielectric fluids previously contained in transformers and capacitors. Releases of regulated substances not only pose a threat to the environment, but also could affect the health of the general public if inhaled or ingested. New research on many of these substances is ongoing and provides the basis for protection of the residents of this Commonwealth through site cleanup requirements.

Although most of the changes to soil numeric values in this proposed rulemaking would decrease the numeric values, 17% of the values would increase. Increases in values reflect updated information related to exposure limitations to the substances and acknowledge that a higher standard is better representative of those substances' exposure threshold.

An additional benefit of this proposed rulemaking would be the promulgation of soil and groundwater MSCs for PFOS, PFOA and PFBS. Establishing these MSCs would allow remediators to address groundwater and soil contamination and thereby lessen public exposure to the contaminants. This will also benefit remediators wishing to remediate contaminated sites, who tend to be owners, operators or purchasers—or their contractors—of properties and facilities including, or at or near, military bases, municipalities and other locations that used or stored fire-fighting foam. The EPA reports that contamination from these chemicals has also been associated with manufacturing textiles, food packaging, personal care products, and other materials such as cookware that are resistant to water, grease and stains. See Fact Sheet, EPA, PFOA & PFOS Drinking Water Health Advisories (November 2016) (available at https://www.epa.gov/sites/production/files/2016-06/documents/drinkingwaterhealthadvisories_pfoa_pfos_updated_5.31.16.pdf).

Finally, remediators would benefit from the proposed amendments that clarify many of the administrative elements of Act 2, making for a more efficient and streamlined Act 2 remediation process.

The benefits of this proposed rulemaking are difficult to quantify because, unlike other statutory or permitting schemes, Act 2 does not prevent contamination but instead provides remediators with a variety of options to address sites that have already been contaminated. In that sense, this proposed rulemaking, consistent with Act 2, benefits the public because it can lead to more efficient and more expedient remediation and reuse of contaminated areas.

Compliance costs

Financially and economically, the Department believes that any potential impact to the regulated community would be insignificant. Under this proposal, the MSC values for many regulated substances are being amended for a variety of reasons. The two most common reasons for amendments are Federal agency (including the EPA and United States Department of Health Agency for Toxic Substances and Disease Registry) changes in toxicity values that are used in calculating MSC and a change in the EPA's underlying assumption of a person's average daily consumption of water from 2 L/day to 2.4 L/day. The soil numeric values represent a decrease for approximately 83% of the values and an increase for 17% of the values. For groundwater, the proposed changes reflect a decrease for approximately 92% of the values and an increase in approximately 8% of the values. Lowering the values may indicate a more stringent cleanup is required at a site and increasing the values may indicate a less stringent cleanup is required at a site. The number of completed remediations vary each year. On average, remediators apply the Act 2 remediation standard to approximately 800 contaminated properties across this Commonwealth. The Department does not expect that the proposed amendments would impact the number of remediations voluntarily completed or the number that must be completed as a result of Department enforcement actions.

The proposed amendments to Statewide health standard MSCs would not affect the cleanup options available to remediators under other cleanup standards. Persons conducting remediation under Act 2 may choose from three different cleanup standards: background, Statewide health or site-specific.

The Department does not expect that this proposed rulemaking, as it relates to new MSCs for PFOA, PFOS and PFBS, would create any additional costs. Act 2 does not create liability for, or the obligation to, address contamination for these and other chemicals. Instead, that obligation comes from other environmental statutes, including The Clean Streams Law (35 P.S. §§ 691.1—691.1001) and the Solid Waste Management Act (35 P.S. §§ 6018.101—6018.1003). Act 2 provides remediators with options to remediate contamination. Having these new MSCs would allow remediators to address PFOS, PFOA and PFBS groundwater and soil contamination. This would benefit the public by lessening public exposure to these contaminants.

Compliance assistance plan

The Land Recycling Program would disseminate information concerning these updates using the Department web site and e-mails to environmental consultants involved in the program.

Paperwork requirements

This proposed rulemaking would not result in any additional forms or reports, beyond those that are already required by Act 2 and Chapter 250.

G. *Pollution Prevention*

The Federal Pollution Prevention Act of 1990 (42 U.S.C.A. §§ 13101—13109) established a National policy that promotes pollution prevention as the preferred means for achieving state environmental protection goals. The Department encourages pollution prevention, which is the reduction or elimination of pollution at its source, through the substitution of environmentally friendly materials, more efficient use of raw materials and the incorporation of energy efficiency strategies. Pollution prevention practices can provide greater environmental protection with greater efficiency because they can result in significant cost savings to facilities that permanently achieve or move beyond compliance.

Act 2 encourages cleanup plans that have as a goal remedies which treat, destroy or remove regulated substances whenever technically and economically feasible. This proposed rulemaking would provide the necessary Statewide health standard MSCs for remediators to remove contamination or eliminate exposure, where appropriate. This proposed rulemaking reflects the most up-to-date science, especially as it relates to the characterization and removal of contamination that exceeds Act 2 MSCs. During the remediation of a contaminated site, potential sources of pollution are often removed to attain the Act 2 standards, eliminating or minimizing the potential for continued migration of the sources of pollution to other areas.

H. *Sunset Review*

The Board is not establishing a sunset date for this proposed rulemaking because it is needed for the Department to carry out its statutory authority.

I. *Regulatory Review*

Under Section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on January 27, 2020, the Department submitted a copy of these proposed amendments to the

Independent Regulatory Review Commission (IRRC) and the Chairpersons of the House and Senate Environmental Resources and Energy Committees. In addition to submitting the proposed amendments, the Department has provided IRRC and the Committees with a copy of a detailed regulatory analysis form prepared by the Department. A copy of this material is available to the public upon request.

Under section 5(g) of the Regulatory Review Act, IRRC may convey any comments, recommendations or objections to the proposed regulations within 30 days of the close of the public comment period. The comments, recommendations or objections shall specify the regulatory review criteria that have not been met. The Act specifies detailed procedures for review of these issues by the Department, the General Assembly and the Governor prior to final publication of the regulations.

J. *Public Comments*

Interested persons are invited to submit written comments, suggestions, support or objections regarding this proposed rulemaking to the Board. Comments, suggestions, support or objections must be received by the Board by April 14, 2020.

Comments may be submitted to the Board online, by e-mail, by mail or express mail as follows. Comments submitted by facsimile will not be accepted.

Comments may be submitted to the Board by accessing eComment at http://www.ahs.dep.pa.gov/eComment.

Comments may be submitted to the Board by e-mail at RegComments@pa.gov. A subject heading of this proposed rulemaking and a return name and address must be included in each transmission.

If an acknowledgement of comments submitted online or by e-mail is not received by the sender within 2 working days, the comments should be retransmitted to the Board to ensure receipt.

Written comments should be mailed to the Environmental Quality Board, P.O. Box 8477, Harrisburg, PA 17105-8477. Express mail should be sent to the Environmental Quality Board, Rachel Carson State Office Building, 16th Floor, 400 Market Street, Harrisburg, PA 17101-2301.

K. *Public Hearings*

The Board will hold 3 public hearings for the purpose of accepting comments on this proposed rulemaking. The hearings will be held at 6 p.m. on the following dates:

March 17, 2020	Department of Environmental Protection Southcentral Regional Office Susquehanna Conference Rooms A & B 909 Elmerton Avenue Harrisburg, PA 17110
March 18, 2020	Department of Environmental Protection Southwest Regional Office Waterfront Conference Rooms A & B 400 Waterfront Drive Pittsburgh, PA 15222
March 25, 2020	Warminster Township Library 1076 Emma Lane Warminster, PA 18974

Persons wishing to present testimony at a hearing are requested to contact the Environmental Quality Board, P.O. Box 8477, Harrisburg, PA 17105-8477, (717) 787-4526 at least 1 week in advance of the hearing to reserve a time to present testimony. Oral testimony is limited to 5 minutes for each witness. Witnesses are requested to submit three written copies of their oral testimony to the hearing chairperson at the hearing. Organizations are limited to designating one witness to present testimony on their behalf at each hearing.

Persons in need of accommodations as provided for in the Americans with Disabilities Act of 1990 should contact the Board at (717) 787-4526 or through the Pennsylvania AT&T Relay Service at (800) 654-5984 (TDD) or (800) 654-5988 (voice users) to discuss how the Board may accommodate their needs

PATRICK McDONNELL,
Chairperson

Fiscal Note: 7-552. No fiscal impact; (8) recommends adoption.

Annex A

TITLE 25. ENVIRONMENTAL PROTECTION

PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

Subpart D. ENVIRONMENTAL HEALTH AND SAFETY

ARTICLE VI. GENERAL HEALTH AND SAFETY

CHAPTER 250. ADMINISTRATION OF LAND RECYCLING PROGRAM

Subchapter A. GENERAL PROVISIONS

§ 250.1. Definitions.

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MCL—Maximum contaminant level.

***MDL—Method detection limit*—The instrument-specific minimum measured concentration of a substance that can be reported with 99% confidence to be distinguishable from the method blank result.**

MSC—Medium-specific concentration.

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TF—Transfer factor.

Volatile compound—A chemical compound with **either** a boiling point less than 200° centigrade at 1 atmosphere **or a Henry's law constant greater than or equal to 1 × 10^{-5} atm-m^3/mol and a molecular weight less than 200 g/mol, where:**

atm = standard atmosphere
m^3 = cubic meter
mol = mole
g = gram
g/mol = molar mass

§ 250.4. Limits related to PQLs.

(a) The PQLs shall be selected from the PQLs **or EQLs** specified by the EPA **[as EQLs]** in the most current version of **[the EPA RCRA Manual SW-846 (U.S. EPA, 1990. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*. Third Edition. Office of Solid Waste and Emergency Response) for soil listed as "low level soil" and for groundwater listed as "groundwater" in accordance with the following:] EPA's drinking water or solid waste analytical methods.**

[(1) For inorganic compounds, the PQLs under this chapter shall be the values listed for methods associated with analysis by Inductively Coupled Plasma (ICP) with the following exceptions:

(i) For lead, cadmium, arsenic and selenium, values listed for the atomic absorption graphite furnace methods for water shall be used.

(ii) Mercury shall be the value listed for the cold vapor method.

(2) For organic compounds, the PQLs shall be the EQLs listed for the GC/Mass spec methods—for example, Method 8240 for volatile organic compounds.

(b) If the PQL selected under subsection (a) is higher than the MCL or HAL for an organic regulated substance in groundwater, the PQLs shall be derived from the analytical methodologies published under the drinking water program in the most current version of *Methods for the Determination of Organic Compounds in Drinking Water* (U.S. EPA, 1988, Environmental Monitoring Systems Laboratory, EPA/600/4-88/039) If a PQL determined under this subsection is not below a HAL, the methodologies in subsection (c)(1) or (2) shall be used unless those quantitation limits are higher than the PQL determined under this subsection.

(c)] **(b)** For regulated substances when **PQLs or** EQLs set by the EPA **exceed an MCL or HAL or** have a health risk that is greater (less protective) than the risk levels set in sections 303(c) and 304(b) and (c) of the act (35 P.S. §§ 6026.303(c) and 6026.304(b) and (c)) **[or] and** for substances when no EQL has been established by the EPA, the **[limits related to the]** PQL shall be **[the quantitation limits]** established by the methodologies in paragraph (1) or (2).

(1) A level set by multiplying 3.18 by the published method detection limit (MDL) of the most recently approved EPA methodology.

(2) A level **[representing the lowest calibration point that can consistently be determined to have a percent relative standard deviation (%RSD) of less than 30% or correlation coefficient of greater than 0.995 using reagent water]** **set by multiplying 3.18 by the instrument-specific MDL. If multiple instruments are used, then the PQL is set by averaging the instrument-specific MDLs and multiplying that value by 3.18**.

[(d)] **(c)** For regulated substances which have no limits related to PQLs identified in subsection **[(c)(1)]** **(b)(1)** or (2), a person shall demonstrate attainment under the site-specific standard or the background standard.

[(e)] **(d)** When a minimum threshold MSC is used as a Statewide health standard, the minimum threshold MSC is the Statewide health standard regardless of whether it is higher or lower than a quantitation limit established by this section.

[(f)] **(e)** Nothing in this section restricts the selection of valid and generally accepted methods to be used to analyze samples of environmental media.

§ 250.6. Public participation.

* * * * *

(c) If a public involvement plan has been initiated, the person proposing remediation shall, at a minimum, **[provide]** **include the following three measures in the plan to involve the public in the development and review of the remedial investigation report, risk assessment report, cleanup plan and final report**:

(1) **[Public]** **Provide public** access at convenient locations for document review.

(2) **[Designation of]** **Designate** a single contact person to address questions from the community.

(3) **[A]** **Use a** location near the remediation site for any public hearings and meetings that may be part of the public involvement plan.

(d) If a public involvement plan has been requested, **[it shall be submitted with one of the following:]** **the person proposing the remediation shall notify the Department and submit the plan to the municipality and the Department prior to its implementation.**

[(1) A remedial investigation report under a site-specific remediation.

(2) A baseline environmental report under an SIA cleanup.]

§ 250.10. Measurement of regulated substances in media.

* * * * *

(d) For groundwater where monitoring is being performed at a drinking water well, samples for metals analysis shall be field acidified and unfiltered in accordance with the most current version of **[*Groundwater Monitoring Guidance Manual*]** ***Land Recycling Program Technical Guidance Manual, Appendix A: Groundwater Monitoring Guidance,*** Department of Environmental Protection, **[3610-BK-DEP1973]** **document number 261-0300-101, or in accordance with an alternative sampling method that accurately measures regulated substances in groundwater**.

* * * * *

(*Editor's Note*: The following rule is proposed to be added and printed in regular type to enhance readability.)

§ 250.12. Professional seal.

Reports submitted to satisfy this subchapter containing information or analysis that constitutes professional geologic or engineering work as defined by the Engineer, Land Surveyor and Geologist Registration Law (63 P.S. §§ 148—158.2) must be sealed by a professional geologist or engineer who is in compliance with that statute.

Subchapter C. STATEWIDE HEALTH STANDARDS

§ 250.304. MSCs for groundwater.

* * * * *

(c) The MSCs for regulated substances contained in groundwater in aquifers used or currently planned to be used for drinking water or for agricultural purposes are the MCLs as established by the Department or the EPA in § 109.202 (relating to State MCLs, MRDLs and treatment technique requirements). For regulated substances where no MCL has been established, the MSCs are the Lifetime Health Advisory Levels (HAL) set forth in Drinking Water Standards and Health Advisories (DWSHA), EPA Office of Water Publication No. EPA **[822-S-12-001 (April 2012 or as revised)]** **822-F-18-001 (March 2018 or as revised)**, except for substances designated in the DWSHA with cancer descriptor (L) "Likely to be carcinogenic to humans" or (L/N) "Likely to be carcinogenic above a specific dose but not likely to be carcinogenic below that dose because a key event in

tumor formation does not occur below that dose." New or revised MCLs or HALs promulgated by the Department or the EPA shall become effective immediately for any demonstration of attainment completed after the date the new or revised MCLs or HALs become effective.

* * * * *

(g) The references referred to in subsection (f) are:

(1) Lide, D. R., ed. 1996. *CRC Handbook of Chemistry and Physics*, 77th Edition. CRC Press.

* * * * *

(18) Riddick, J. A., et al. 1986. *Organic Solvents; Physical Properties & Methods of Purification. Techniques of Chemistry*. 11th Edition. New York, NY: Wiley-Interscience.

(19) ATSDR (Agency for Toxic Substances and Disease Registry). 2015. *Toxicological Profile for Perfluoroalkyls. Draft for Public Comment*. Agency for Toxic Substances and Disease Registry, Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. Accessed May 2016. http://www.atsdr.cdc.gov/ToxProfiles/tp200.pdf.

(20) Hekster, F.M., R.W. Laane, and P. de Voogt. 2003. *Environmental and toxicity effects of perfluoroalkylated substances. Reviews of Environmental Contamination and Toxicology* 179:99—121.

(21) HSDB (Hazardous Substances Data Bank). 2012. U.S. National Library of Medicine, Bethesda, MD. Accessed May 2016. http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB.

(22) Kauck, E.A., and A.R. Diesslin. 1951. *Some properties of perfluorocarboxylic acids. Industrial & Engineering Chemistry Research* 43(10):2332—2334.

(23) SRC (Syracuse Research Corporation). 2016. PHYSPROP Database. Accessed May 2016. http://www.srcinc.com/what-we-do/environmental/scientific-databases.html.

(24) OECD (Organisation for Economic Co-operation and Development). 2002. *Hazard Assessment of Perfluorooctane Sulfonate (PFOS) and its Salts*. ENV/JM/RD (2002) 17/FINAL. Report of the Environment Directorate, Joint Meeting of the Chemicals Committee and the Working Party on Chemicals, Pesticides and Biotechnology, Co-operation on Existing Chemicals, Paris, November 21, 2002.

§ 250.305. MSCs for soil.

* * * * *

(c) For the residential standard, the MSC for regulated substances contained in soil is one of the following:

(1) The lowest of the following:

(i) The ingestion numeric value throughout the soil column to a depth of up to 15 feet from the existing ground surface as determined by the methodology in § 250.306 (relating to ingestion numeric values), using the appropriate default residential exposure assumptions contained in **[§ 250.306(e)]** **§ 250.306(d)**.

* * * * *

(g) A person conducting a remediation of soils contaminated with **[a substance]** **one or more substances** having a secondary MCL**, but no toxicological properties listed in Appendix A, Table 5B,** will not be required to comply with **either the direct contact pathway or** the soil-to-groundwater pathway requirements for those substances **[to protect groundwater in aquifers for drinking water]**. **The substances shall be subject to the requirements of § 250.311(a) through (f) (relating to evaluation of ecological receptors) with respect to evaluation of ecological receptors.**

§ 250.306. Ingestion numeric values.

* * * * *

(d) The default exposure assumptions used to calculate the ingestion numeric values are as follows:

Term		*Residential*		*Nonresidential (Onsite Worker)*
		Systemic[1]	*Carcinogens*[2,6]	
THQ	Target Hazard Quotient	1	N/A	1
RfD_o	Oral Reference Dose (mg/kg-day)	Chemical-specific	N/A	Chemical-specific
BW	Body Weight (kg)		N/A	
	Soil	15		80
	Groundwater	80		80
AT_{nc}	Averaging Time for systemic toxicants (yr)			
	Soil	6	N/A	25
	Groundwater	30	N/A	25
Abs	Absorption (unitless)[3]	1	1	1
EF	Exposure Frequency (d/yr)			
	Soil	250	250	180
	Groundwater	350	350	250
ED	Exposure Duration (yr)			
	Soil	6	N/A	25
	Groundwater	30	N/A	25
IngR	Ingestion Rate			
	Soil (mg/day)	100	N/A	50
	GW (L/day)	**[2]** **2.4**	N/A	**[1]** **1.2**

Term		Residential		Nonresidential (Onsite Worker)
		Systemic[1]	Carcinogens[2,6]	
CF	Conversion Factor Soil (kg/mg) GW (unitless)	 1×10^{-6} 1	 1×10^{-6} 1	 1×10^{-6} 1
TR	Target Risk	N/A	1×10^{-5}	1×10^{-5}
CSF_o	Oral Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	N/A	Chemical-specific	Chemical-specific
AT_c	Averaging Time for carcinogens (yr)	N/A	70	70
IFadj[4]	Ingestion Factor Soil (mg-yr/kg-day) GW (L-yr/kg day)	N/A	 55 **[1]** **1.2**	 15.6 **[0.3]** **0.38**
AIFadj[5]	Combined Age-Dependent Adjustment Factor and Ingestion Factor Soil (mg-yr/kg-day) GW (L-yr/kg-day)	N/A	 241 **[3.23]** **3.45**	N/A
$CSFo_k$	TCE oral cancer slope factor for kidney cancer $(mg/kg/day)^{-1}$		9.3×10^{-3}	
$CSFo_l$	TCE oral cancer slope factor for non-Hodgkin lymphoma and liver cancer $(mg/kg/day)^{-1}$		3.7×10^{-2}	

Notes:

* * * * *

[4] The Ingestion Factor for the residential scenario is calculated using the equation $If_{[adj]}$**adj** = $ED_c \times IR_c/BW_c + ED_a \times IR_a/B$**[w]**$W_a$, where ED_c = 6 yr, IR_c = 100 mg/day for soils and 1 L/day for groundwater, BW_c = 15 kg, ED_a = 24 yr, IR_a = 50 mg/day for soils and **[2]** **2.4** L/day for groundwater, and BW_a = 80 kg. The ingestion factor for the nonresidential scenario is calculated using the equation $If_{[adj]}$**adj** = ED × IR/BW, where ED = 25 yr, IR = 50 mg/day for soils and **[1]** **1.2** L/day for groundwater, and BW = 80 kg.

[5] The Combined Age-Dependent Adjustment Factor and Ingestion Factor (AIFadj) for the residential scenario is calculated using the equation AIFadj = $[(ADAF_{<2} \times ED_{<2}) + (ADAF_{2\text{-}6} \times ED_{2\text{-}6})] \times IR$**[c]**$_c$ / BW**[c]**$_c$ + $[(ADAF_{[>]6\text{-}16} \times ED_{[>]6\text{-}16} + (ADAF_{>16} \times ED_{>[6\text{-}]16})] \times IR$**[a]**$_a$ / BW**[a]**$_a$, where $ADAF_{<2}$ = 10, $ED_{<2}$ = 2 yr, $ADAF_{2\text{-}6}$ = 3, $ED_{2\text{-}6}$ = 4 yr, IR**[c]**$_c$ = 100mg/day for soils and 1 L/day for groundwater, BW**[c]**$_c$ = 15 kg, $ADAF_{[>]6\text{-}16}$ = 3, $ED_{[>]6\text{-}16}$ = 10 yr, $ADAF_{>16}$ = 1, $ED_{>16}$ = 14 yr, IR**[a]**$_a$ = 50 mg/day for soils and **[2]** **2.4** L/day for groundwater, and BW**[a]**$_a$ = 80 kg.

* * * * *

(e) The residential ingestion numeric value for lead in soil was developed using the **[Uptake Biokinetic (UBK) Model for Lead (version 0.4)]** **Integrated Exposure Uptake Biokinetic (IEUBK) Model for Lead in Children, Windows® version (IEUBKwin v1.1 build 11) 32-bit version** developed by the EPA (U.S. Environmental Protection Agency. (**[1990]** **February 2010**) **[Uptake Biokinetic (UBK) Model for Lead (version 0.4). U.S. EPA/ECAO. August 1990,]** in lieu of the algorithms presented in subsections (a) and (b). Default input values are identified in Appendix A, Table 7. Because the **[UBK]** **IEUBK** model is applicable only to children, the nonresidential ingestion numeric value was calculated **[according to the method developed by the Society for Environmental Geochemistry and Health (Wixson, B. G. (1991)). The Society for Environmental Geochemistry and Health (SEGH) Task Force Approach to the Assessment of Lead in Soil. *Trace Substances in Environmental Health*. (11-20), using the following equations:**

$$S = \frac{1000\left[\left(\frac{T}{G^n}\right) - B\right]}{\delta}$$

]

using EPA's Adult Lead Methodology (ALM) in accordance with the guidance, exposure factors, equations, and spreadsheets provided in EPA's *Recommendations of the Technical Review Workgroup for Lead for an Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil* (EPA-540-R-03-001, OSWER Dir # 9285.7-54, January 2003), *OLEM Directive 9285.6-56 "Update to the Adult Lead Methodology's Default Baseline Blood Lead Concentration and Geometric Standard Deviation Parameters"* (May 2017) and the associated June 14, 2017, version of the *Calculations of Preliminary Remediation Goals (PRGs) for Soil in Nonresidential Areas U.S. EPA Technical Review Workgroup for Lead, Adult Lead Committee* spreadsheets. Table 7 identi-

fies each of the variables **[in this equation]** **used to calculate the nonresidential ingestion numeric value for lead**.

§ 250.307. Inhalation numeric values.

* * * * *

(g) For a regulated substance which is a carcinogen and is a volatile compound, the numeric value for the inhalation of volatiles from groundwater shall be calculated by using the appropriate residential or nonresidential exposure assumptions from subsection (h) according to the following equations:

(1) For regulated substances not identified as a mutagen in § 250.301(b):

$$MSC = \frac{TR \times AT_c \times 365 \text{ days/year } \textbf{\times 24 hr/day}}{IUR \times ET \times EF \times ED \times TF \times CF}$$

* * * * *

§ 250.308. Soil to groundwater pathway numeric values.

(a) A person may use the soil-to-groundwater pathway numeric values listed in Appendix A, Tables 3B and 4B, as developed using the methods contained in paragraph (1), (2) or (4), may use a concentration in soil at the site which does not produce a leachate in excess of the MSC for groundwater contained in Appendix A, Tables 1 and 2, when subjected to the Synthetic Precipitation Leaching Procedure (Method 1312 of SW-846, Test Methods for Evaluating Solid Waste, promulgated by the U.S. EPA), or may use the soil-to-groundwater pathway soil buffer criteria in subsection (b) or may use the soil-to-groundwater pathway equivalency demonstration in subsection (d).

* * * * *

(2) For organic compounds, a generic value determined not to produce a concentration in groundwater in the aquifer in excess of the MSC for groundwater as calculated by the equation in paragraph (3).

(i) For soil not in the zone of groundwater saturation, the generic value shall be calculated by the equation in paragraph (3).

(ii) For soil in the zone of groundwater saturation, the **[standard]** **generic numeric value** is 1/10th of the generic value calculated by the equation in paragraph (3).

* * * * *

§ 250.311. Evaluation of ecological receptors.

* * * * *

(b) For purposes of determining impacts on ecological receptors, no additional evaluation is required if the remediation attains a level equal to 1/10th of the value in Appendix A, Tables 3 and 4 **or, for substances identified in § 250.305(g), 1/10th of the physical limitation identified in § 250.305(b)**, except for constituents of potential ecological concern identified in Table 8, or if the criteria in paragraph (1), (2) or (3) are met. Information that supports a determination that no additional evaluation is required shall be documented in the final report.

* * * * *

Subchapter D. SITE-SPECIFIC STANDARD

§ 250.402. Human health and environmental protection goals.

* * * * *

(d) If a person is using the site-specific standard to protect ecological receptors under this subchapter or **[in accordance with § 250.311(e)]** **as a result of selecting § 250.311(e)(4) when ecological receptors cannot be evaluated under the Statewide health standard**, the following shall be performed:

* * * * *

(3) Implementation of the selected remedy, which may include mitigation measures under § **[230.311(f)]** **250.311(f)**, that is protective of the ecological receptors.

§ 250.404. Pathway identification and elimination.

(a) The person shall use **Department or** Department-approved EPA or ASTM guidance to identify any potential current and future exposure pathways for both human receptors and environmental receptors identified in § 250.402 (relating to human health and environmental protection goals).

* * * * *

§ 250.409. Risk assessment report.

The risk assessment report shall conform to this subchapter and Subchapter F (relating to exposure and risk determinations), and shall include the following unless not required under § 250.405 (relating to when to perform a risk assessment):

(1) **[A]** **Except when submitted in combination with a remedial investigation report, a** risk assessment report that **[describes]** **uses site characterization information from an approved remedial investigation report to describe** the potential adverse effects, including the evaluation of ecological receptors, under both current and planned future conditions caused by the presence of regulated substances in the absence of any further control, remediation or mitigation measures.

* * * * *

§ 250.410. Cleanup plan.

* * * * *

(c) When a person proposes a remedy that relies on access to properties owned by third parties, for remediation or monitoring, documentation of cooperation or agreement shall be submitted as part of the cleanup plan.

(d) **A cleanup plan is required when an institutional or engineering control is used as a remedy to address current and future exposure pathways or exposure pathways that existed prior to submitting an NIR.**

(e) A cleanup plan is not required and no remedy is required to be proposed or completed if no current or future exposure pathways exist.

(*Editor's Note*: The following rule is proposed to be added and printed in regular type to enhance readability.)

§ 250.412. Combined reports.

A person does not need prior Department approval of a remedial investigation report if the remedial investigation report is submitted together with either a risk assessment report or a cleanup plan.

Subchapter E. SIA STANDARDS

§ 250.503. Remediation requirements.

* * * * *

(e) A person that changes the use of the property from nonresidential to residential, or changes the use of the property to create substantial changes in exposure condi-

tions to contamination that existed prior to the person's reuse shall notify the Department of the changes and may be required to **amend the baseline environmental report and** implement a remediation plan to address any new imminent, direct or immediate threats to human health and the environment resulting from the changes.

* * * * *

Subchapter F. EXPOSURE AND RISK DETERMINATIONS

§ 250.603. Exposure factors for site-specific standards.

(a) A risk assessment for the site-specific standard shall use site-specific exposure factors under the EPA's **[** ***Final Guidelines for Exposure Assessment*****, 1992 (57 FR 22888—22938)]** ***Exposure Factors Handbook: 2011 Edition*****, 2011 (EPA/600/R-090/052F)** or exposure factors used in the development of the Statewide health standards identified in Subchapter C (relating to Statewide health standards).

* * * * *

§ 250.605. Sources of toxicity information.

(a) For site-specific standards, the person shall use appropriate reference doses, reference concentrations, cancer slope factors and unit risk factors identified in Subchapter C (relating to Statewide health standards), unless the person can demonstrate that published data, available from one of the following sources, provides more current reference doses, reference concentrations, cancer slope factors or unit risk factors:

(1) Integrated Risk Information System (IRIS).

(2) United States Environmental Protection Agency, National Center for Environmental Assessment (NCEA) Provisional Peer-Reviewed Toxicity Values (PPRTV).

(3) Other sources**:**

(i) Health Effects Assessment Summary Tables (HEAST)

(ii) Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profiles.

(iii) California EPA, California Cancer Potency Factors and Chronic Reference Exposure Levels.

(iv) EPA criteria documents, including drinking water criteria documents, drinking water health advisory summaries, ambient water quality criteria documents and air quality criteria documents.

(v) EPA Human Health Benchmarks for Pesticides (HHBP)

(vi) EPA PPRTV Appendix

(b) If no toxicity values are available from sources identified in subsection (a), the person may use the background standard or meet one of the following:

* * * * *

Subchapter G. DEMONSTRATION OF ATTAINMENT

§ 250.707. Statistical tests.

* * * * *

(b) The following statistical tests may be accepted by the Department to demonstrate attainment of the Statewide health standard. The statistical test for soil shall apply to each distinct area of contamination. The statistical test for groundwater will apply to each compliance monitoring well. Testing shall be performed individually for each regulated substance identified in the final report site investigation as being present at the site for which a person wants relief from liability under the act. The application of a statistical method must meet the criteria in subsection (d).

(1) For soil attainment determination at each distinct area of contamination, subparagraph (i), (ii) or (iii) shall be met in addition to the attainment requirements in §§ 250.702 and 250.703 (relating to attainment requirements; and general attainment requirements for soil).

* * * * *

(ii) As applied in accordance with EPA approved methods on statistical analysis of environmental data, as identified in subsection (e), the 95% UCL of the arithmetic mean shall be at or below the **[Statewide health standard]** **MSC**.

(iii) For sites with a petroleum release where full site characterization, as defined in § 250.204(b) (relating to final report), has not been done in association with an excavation remediation, attainment of the Statewide health standard shall be demonstrated using the following procedure:

(A) For sites regulated under Chapter 245 (relating to administration of the storage tank and spill prevention program) where there is localized contamination as defined in the document "Closure Requirements for Underground Storage Tank Systems" (DEP technical document 2530-BK-DEP2008), samples shall be taken in accordance with that document.

(B) For sites not covered by clause (A), including all sites being remediated under an NIR under this chapter, samples shall be taken from the bottom and sidewalls of the excavation in a biased fashion that concentrates on areas where any remaining contamination above the Statewide health standard would most likely be found. The samples shall be taken from these suspect areas based on visual observation and the use of field instruments. If a sufficient number of samples has been collected from all suspect locations and the minimum number of samples has not been collected, or if there are no suspect areas, the locations to meet the minimum number of samples shall be based on a random procedure. The number of sample points required shall be determined in the following way:

(I) For 250 cubic yards or less of excavated contaminated soil, five samples shall be collected.

(II) For each additional 100 cubic yards of excavated contaminated soil, one sample shall be collected.

(III) For excavations involving more than 1,000 cubic yards of contaminated soil, the remediator shall identify the number and locations of samples in a confirmatory sampling plan submitted to the Department. The remediator shall obtain the Department's approval of the confirmatory sampling plan prior to conducting attainment sampling.

(IV) Where water is encountered in the excavation and no obvious contamination is observed or indicated, soil samples collected just above the soil/water interface shall be equal to or less than the applicable Statewide health MSC determined by § 250.308(a)(2)(ii) (relating to soil to groundwater pathway numeric values).

(V) Where water is encountered in the excavation and no obvious contamination is observed or indicated, a minimum of two samples shall be collected from the water surface in the excavation.

(VI) For sites where there is a release to surface soils resulting in excavation of 50 cubic yards or less of contaminated soil, samples shall be collected as described in this clause, except that two samples shall be collected.

(C) All sample results shall be equal to or less than the applicable Statewide health MSC as determined using Tables 1—4 and 6 in Appendix A.

(D) A vapor intrusion analysis is not necessary if the requirements of § 250.707(b)(1)(iii) are met in addition to the following:

(I) At least one soil sample is collected on the sidewall nearest an inhabited building within the appropriate proximity distance to a potential vapor intrusion source and there are not substantially higher field instrument readings elsewhere.

(II) Observations of obvious contamination and the use of appropriate field screening instruments verify that contamination has not contacted or penetrated the foundation of an inhabited building.

(III) Groundwater contamination has not been identified as a potential vapor intrusion concern.

(2) For groundwater attainment determination at each compliance monitoring well, subparagraph (i) or (ii) shall be met in addition to the attainment requirements in § 250.702 and § 250.704 (relating to general attainment requirements for groundwater).

* * * * *

Appendix A

Table 1 – Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Groundwater

Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L			
		R	NR	R	NR	R	NR
ACENAPHTHENE	83-32-9	**[2,500] 2,100** G	3,800 S	3,800 S	3,800 S	3,800 S	3,800 S
ACENAPHTHYLENE	208-96-8	**[2,500] 2,100** G	**[7,000] 5,800** G	16,000 S	16,000 S	16,000 S	16,000 S
ACEPHATE	30560-19-1	**[84] 42** G	**[390] 120** G	**[8,400] 4,200** G	**[39,000] 12,000** G	**[84] 42** G	**[390] 120** G
ACETALDEHYDE	75-07-0	19 N	79 N	1,900 N	7,900 N	19 N	79 N
ACETONE	67-64-1	**[38,000] 31,000** G	**[110,000] 88,000** G	**[3,800,000] 3,100,000** G	**[11,000,000] 8,800,000** G	**[380,000] 310,000** G	**[1,100,000] 880,000** G
ACETONITRILE	75-05-8	130 N	530 N	13,000 N	53,000 N	1,300 N	5,300 N
ACETOPHENONE	98-86-2	**[4,200] 3,500** G	**[12,000] 9,700** G	**[420,000] 350,000** G	**[1,200,000] 970,000** G	**[4,200] 3,500** G	**[12,000] 9,700** G
ACETYLAMINOFLUORENE, 2- (2AAF)	53-96-3	**[0.19] 0.17** G	**[0.89] 0.72** G	**[19] 17** G	**[89] 72** G	**[190] 170** G	**[890] 720** G
ACROLEIN	107-02-8	0.042 N	0.18 N	4.2 N	18 N	0.42 N	1.8 N
ACRYLAMIDE	79-06-1	0.19 N	2.5 N	19 N	250 N	0.19 N	2.5 N
ACRYLIC ACID	79-10-7	2.1 N	8.8 N	210 N	880 N	210 N	880 N
ACRYLONITRILE	107-13-1	0.72 N	3.7 N	72 N	370 N	72 N	370 N
ALACHLOR	15972-60-8	2 M	2 M	200 M	200 M	2 M	2 M
ALDICARB	116-06-3	3 M	3 M	300 M	300 M	3,000 M	3,000 M
ALDICARB SULFONE	1646-88-4	2 M	2 M	200 M	200 M	2 M	2 M
ALDICARB SULFOXIDE	1646-87-3	4 M	4 M	400 M	400 M	4 M	4 M
ALDRIN	309-00-2	**[0.043] 0.038** G	**[0.2] 0.16** G	**[4.3] 3.8** G	**[20] 16** G	20 S	20 S
ALLYL ALCOHOL	107-18-6	0.21 N	0.88 N	21 N	88 N	21 N	88 N
AMETRYN	834-12-8	60 H	60 H	6,000 H	6,000 H	60 H	60 H
AMINOBIPHENYL, 4-	92-67-1	**[0.035] 0.031** G	**[0.16] 0.13** G	**[3.5] 3.1** G	**[16] 13** G	**[35] 31** G	**[160] 130** G
AMITROLE	61-82-5	**[0.78] 0.69** G	**[3.6] 2.9** G	**[78] 69** G	**[360] 290** G	**[780] 690** G	**[3,600] 2,900** G
AMMONIA	7664-41-7	30,000 H	30,000 H	3,000,000 H	3,000,000 H	30,000 H	30,000 H
AMMONIUM SULFAMATE	7773-06-0	2,000 H	2,000 H	200,000 H	200,000 H	2,000 H	2,000 H
ANILINE	62-53-3	2.1 N	8.8 N	210 N	880 N	2.1 N	8.8 N
ANTHRACENE	120-12-7	66 S	66 S	66 S	66 S	66 S	66 S

All concentrations in µg/L
R = Residential
NR = Non-Residential
M = Maximum Contaminant Level
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Appendix A

Table 1 – Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Groundwater

Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L			
		R	NR	R	NR	R	NR
ATRAZINE	1912-24-9	3 M	3 M	300 M	300 M	3 M	3 M
AZINPHOS-METHYL (GUTHION)	86-50-0	**[130] 52** G	**[350] 150** G	**[13,000] 5,200** G	**[32,000] 15,000** **[S] G**	**[130] 52** G	**[350] 150** G
BAYGON (PROPOXUR)	114-26-1	3 H	3 H	300 H	300 H	3,000 H	3,000 H
BENOMYL	17804-35-2	**[2,000] 270** **[S] G**	**[2,000] 1,100** **[S] G**	2,000 S	2,000 S	**[2,000] 270** **[S] G**	**[2,000] 1,100** **[S] G**
BENTAZON	25057-89-0	200 H	200 H	20,000 H	20,000 H	200 H	200 H
BENZENE	71-43-2	5 M	5 M	500 M	500 M	500 M	500 M
BENZIDINE	92-87-5	**[0.00098] 0.00092** G	**[0.015] 0.012** G	**[0.098] 0.092** G	**[1.5] 1.2** G	**[0.98] 0.92** G	**[15] 12** G
BENZO[A]ANTHRACENE	56-55-3	**[0.32] 0.3** G	**[4.9] 3.9** G	11 S	11 S	11 S	11 S
BENZO[A]PYRENE	50-32-8	0.2 M	0.2 M	3.8 S	3.8 S	3.8 S	3.8 S
BENZO[B]FLUORANTHENE	205-99-2	**[0.19] 0.18** G	1.2 S	1.2 S	1.2 S	1.2 S	1.2 S
BENZO[GHI]PERYLENE	191-24-2	0.26 S	0.26 S	0.26 S	0.26 S	0.26 S	0.26 S
BENZO[K]FLUORANTHENE	207-08-9	**[0.19] 0.18** G	0.55 S	0.55 S	0.55 S	0.55 S	0.55 S
BENZOIC ACID	65-85-0	**[170,000] 140,000** G	**[470,000] 390,000** G	2,700,000 S	2,700,000 S	**[170,000] 140,000** G	**[470,000] 390,000** G
BENZOTRICHLORIDE	98-07-7	**[0.056] 0.05** G	**[0.26] 0.21** G	**[5.6] 5** G	**[26] 21** G	**[56] 5** G	**[260] 21** G
BENZYL ALCOHOL	100-51-6	**[4,200] 3,500** G	**[12,000] 9,700** G	**[420,000] 350,000** G	**[1,200,000] 970,000** G	**[4,200] 3,500** G	**[12,000] 9,700** G
BENZYL CHLORIDE	100-44-7	1 N	5.1 N	100 N	510 N	100 N	510 N
BETA PROPIOLACTONE	57-57-8	0.012 N	0.063 N	1.2 N	6.3 N	0.12 N	0.63 N
BHC, ALPHA-	319-84-6	**[0.12] 0.1** G	**[0.54] 0.43** G	**[12] 10** G	**[54] 43** G	**[120] 100** G	**[540] 430** G
BHC, BETA-	319-85-7	**[0.41] 0.36** G	**[1.9] 1.5** G	**[41] 36** G	100 S	100 S	100 S
BHC, GAMMA (LINDANE)	58-89-9	0.2 M	0.2 M	20 M	20 M	200 M	200 M
BIPHENYL, 1,1-	92-52-4	**[91] 0.84** **[G] N**	**[430] 3.5** **[G] N**	**[7,200] 84** **[S] N**	**[7,200] 350** **[S] N**	**[7,200] 84** **[S] N**	**[7,200] 350** **[S] N**
BIS(2-CHLOROETHOXY)METHANE	111-91-1	**[130] 100** G	**[350] 290** G	**[13,000] 10,000** G	**[35,000] 29,000** G	**[130] 100** G	**[350] 290** G
BIS(2-CHLOROETHYL)ETHER	111-44-4	0.15 N	0.76 N	15 N	76 N	15 N	76 N
BIS(2-CHLORO-ISOPROPYL)ETHER	108-60-1	300 H	300 H	30,000 H	30,000 H	30,000 H	30,000 H

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Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L			
		R	NR	R	NR	R	NR
BIS(CHLOROMETHYL)ETHER	542-88-1	0.00079 N	0.004 N	0.079 N	0.4 N	0.079 N	0.4 N
BIS[2-ETHYLHEXYL] PHTHALATE	117-81-7	6 M	6 M	290 S	290 S	290 S	290 S
BISPHENOL A	80-05-7	**[2,100] 1,700** G	**[5,800] 4,900** G	120,000 S	120,000 S	120,000 S	120,000 S
BROMACIL	314-40-9	70 H	70 H	7,000 H	7,000 H	70 H	70 H
BROMOBENZENE	**108-86-1**	**0.06 H**	**0.06 H**	**6 H**	**6 H**	**0.06 H**	**0.06 H**
BROMOCHLOROMETHANE	74-97-5	90 H	90 H	9,000 H	9,000 H	90 H	90 H
BROMODICHLOROMETHANE (THM)	75-27-4	80 M	80 M	8,000 M	8,000 M	80 M	80 M
BROMOMETHANE	74-83-9	10 H	10 H	1,000 H	1,000 H	1,000 H	1,000 H
BROMOXYNIL	1689-84-5	**[830] 6.3** G	**[2,300] 26** G	**[83,000] 630** G	**[130,000] 2,600 [S] G**	**[830] 6.3** G	**[2,300] 26** G
BROMOXYNIL OCTANOATE	1689-99-2	**[80] 6.3 [S] G**	**[80] 26 [S] G**	80 S	80 S	80 S	80 S
BUTADIENE, 1,3-	106-99-0	**[0.21] 1.1** G	**[1] 4.5** G	**[21] 110** G	**[100] 450** G	**[21] 110** G	**[100] 450** G
BUTYL ALCOHOL, N-	71-36-3	**[4,200] 3,500** G	**[12,000] 9,700** G	**[420,000] 350,000** G	**[1,200,000] 970,000** G	**[42,000] 35,000** G	**[120,000] 97,000** G
BUTYLATE	2008-41-5	400 H	400 H	40,000 H	40,000 H	400 H	400 H
BUTYLBENZENE, N-	104-51-8	**[2,100] 1,700** G	**[5,800] 4,900** G	15,000 S	15,000 S	**[2,100] 1,700** G	**[5,800] 4,900** G
BUTYLBENZENE, SEC-	135-98-8	**[4,200] 3,500** G	**[12,000] 9,700** G	17,000 S	17,000 S	**[4,200] 3,500** G	**[12,000] 9,700** G
BUTYLBENZENE, TERT-	98-06-6	**[4,200] 3,500** G	**[12,000] 9,700** G	30,000 S	30,000 S	**[4,200] 3,500** G	**[12,000] 9,700** G
BUTYLBENZYL PHTHALATE	85-68-7	**[380] 340** G	**[1,800] 1,400** G	2,700 S	2,700 S	2,700 S	2,700 S
CAPTAN	133-06-2	**[320] 280** G	500 S	500 S	500 S	500 S	500 S
CARBARYL	63-25-2	**[4,200] 3,500** G	**[12,000] 9,700** G	120,000 S	120,000 S	120,000 S	120,000 S
CARBAZOLE	86-74-8	**[37] 33** G	**[170] 140** G	1,200 S	1,200 S	**[37] 33 [S] G**	**[170] 140 [S] G**
CARBOFURAN	1563-66-2	40 M	40 M	4,000 M	4,000 M	40 M	40 M
CARBON DISULFIDE	75-15-0	1,500 N	6,200 N	150,000 N	620,000 N	1,500 N	6,200 N

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Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L			
		R	NR	R	NR	R	NR
CARBON TETRACHLORIDE	56-23-5	5 M	5 M	500 M	500 M	50 M	50 M
CARBOXIN	5234-68-4	700 H	700 H	70,000 H	70,000 H	700 H	700 H
CHLORAMBEN	133-90-4	100 H	100 H	10,000 H	10,000 H	100 H	100 H
CHLORDANE	57-74-9	2 M	2 M	56 S	56 S	56 S	56 S
CHLORO-1,1-DIFLUOROETHANE, 1-	75-68-3	110,000 N	440,000 N	1,400,000 S	1,400,000 S	110,000 N	440,000 N
CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE)	107-05-1	2.1 N	8.8 N	210 N	880 N	210 N	880 N
CHLOROACETALDEHYDE	107-20-0	2.4 G	**[11]** **10** G	240 G	**[1,100]** **1,000** G	2.4 G	**[11]** **10** G
[CHLOROACETOPHENONE, 2-]	**[532-27-4]**	**[1.3] [G]**	**[3.5] [G]**	**[130] [G]**	**[350] [G]**	**[1,300] [G]**	**[3,500] [G]**
CHLOROANILINE, P-	106-47-8	**[3.7]** **3.3** G	**[17]** **14** G	**[370]** **330** G	**[1,700]** **1,400** G	**[3.7]** **3.3** G	**[17]** **14** G
CHLOROBENZENE	108-90-7	100 M	100 M	10,000 M	10,000 M	10,000 M	10,000 M
CHLOROBENZILATE	510-15-6	**[6.6]** **5.9** G	**[31]** **25** G	**[660]** **590** G	**[3,100]** **2,500** G	**[6,600]** **5,900** G	13,000 S
CHLOROBUTANE, 1-	109-69-3	**[1,700]** **1,400** G	**[4,700]** **3,900** G	**[170,000]** **140,000** G	**[470,000]** **390,000** G	**[1,700]** **1,400** G	**[4,700]** **3,900** G
CHLORODIBROMOMETHANE (THM)	124-48-1	80 M	80 M	8,000 M	8,000 M	8,000 M	8,000 M
CHLORODIFLUOROMETHANE	75-45-6	110,000 N	440,000 N	2,900,000 S	2,900,000 S	110,000 N	440,000 N
CHLOROETHANE	75-00-3	**[250]** **21,000** **[G] N**	**[1,200]** **88,000** **[G] N**	**[25,000]** **2,100,000** **[G] N**	**[20,000]** **5,700,000** **[G] S**	**[25,000]** **2,100,000** **[G] N**	**[120,000]** **5,700,000** **[G] S**
CHLOROFORM (THM)	67-66-3	80 M	80 M	8,000 M	8,000 M	800 M	800 M
CHLORONAPHTHALENE, 2-	91-58-7	**[3,300]** **2,800** G	**[9,300]** **7,800** G	12,000 S	12,000 S	**[3,300]** **2,800** G	**[9,300]** **7,800** G
CHLORONITROBENZENE, P-	100-00-5	**[42]** **4.2** **[G] N**	**[120]** **18** **[G] N**	**[4,200]** **420** **[G] N**	**[12,000]** **1,800** **[G] N**	**[42]** **4.2** **[G] N**	**[120]** **18** **[G] N**
CHLOROPHENOL, 2-	95-57-8	40 H	40 H	4,000 H	4,000 H	40 H	40 H
CHLOROPRENE	126-99-8	0.16 N	0.83 N	16 N	83 N	16 N	83 N
CHLOROPROPANE, 2-	75-29-6	210 N	880 N	21,000 N	88,000 N	210 N	880 N

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		TDS ≤ 2500 mg/L		TDS > 2500 mg/L			
		R	NR	R	NR	R	NR
CHLOROTHALONIL	1897-45-6	[240] 38 G	[600] 160 [S] G	600 S	600 S	[240] 38 G	[600] 160 [S] G
CHLOROTOLUENE, O-	95-49-8	100 H	100 H	10,000 H	10,000 H	100 H	100 H
CHLOROTOLUENE, P-	106-43-4	100 H	100 H	10,000 H	10,000 H	100 H	100 H
CHLORPYRIFOS	2921-88-2	2 H	2 H	200 H	200 H	2 H	2 H
CHLORSULFURON	64902-72-3	[2,100] 690 G	[5,800] 1,900 G	[190,000] 69,000 [S] G	190,000 [S] G	[2,100] 690 G	[5,800] 1,900 G
CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)	1861-32-1	70 H	70 H	500 S	500 S	500 S	500 S
CHRYSENE	218-01-9	[1.9] 1.8 G	1.9 S	1.9 S	1.9 S	1.9 S	1.9 S
CRESOL(S)	1319-77-3	1,300 N	5,300 N	130,000 N	530,000 N	130,000 N	530,000 N
CRESOL, DINITRO-O-,4,6-	534-52-1	[3.3] 2.8 G	[9.3] 7.8 G	[330] 280 G	[930] 780 G	[3,300] 280 G	[9,300] 780 G
CRESOL, O- (METHYLPHENOL, 2-)	95-48-7	[2,100] 1,700 G	[5,800] 4,900 G	[210,000] 170,000 G	[580,000] 490,000 G	[210,000] 170,000 G	[580,000] 490,000 G
CRESOL, M (METHYLPHENOL, 3-)	108-39-4	[2,100] 1,700 G	[5,800] 4,900 G	[210,000] 170,000 G	[580,000] 490,000 G	[2,100,000] 1,700,000 G	2,500,000 S
CRESOL, P (METHYLPHENOL, 4-)	106-44-5	[210] 170 G	[580] 490 G	[21,000] 17,000 G	[58,000] 49,000 G	[210,000] 170,000 G	[580,000] 490,000 G
CRESOL, P-CHLORO-M-	59-50-7	[4,200] 3,500 G	[12,000] 9,700 G	[420,000] 350,000 G	[1,200,000] 970,000 G	[4,200] 3,500 G	[12,000] 9,700 G
CROTONALDEHYDE	4170-30-3	[0.38] 0.34 G	[1.8] 1.4 G	[38] 34 G	[180] 140 G	[38] 34 G	[180] 140 G
CROTONALDEHYDE, TRANS-	123-73-9	[0.38] 0.34 G	[1.8] 1.4 G	[38] 34 G	[180] 140 G	[38] 34 G	[180] 140 G
CUMENE (ISOPROPYL BENZENE)	98-82-8	840 N	3,500 N	50,000 S	50,000 S	50,000 S	50,000 S
CYANAZINE	21725-46-2	1 H	1 H	100 H	100 H	1 H	1 H
CYCLOHEXANE	110-82-7	13,000 N	53,000 N	55,000 S	55,000 S	13,000 N	53,000 N
CYCLOHEXANONE	108-94-1	1,500 N	6,200 N	150,000 N	620,000 N	1,500 N	6,200 N
CYFLUTHRIN	68359-37-5	1 S	1 S	1 S	1 S	1 S	1 S
CYROMAZINE	66215-27-8	[310] 17,000 G	[880] 49,000 G	[31,000] 1,700,000 G	[88,000] 4,900,000 G	[310] 17,000 G	[880] 49,000 G
DDD, 4,4'-	72-54-8	[3] 2.7 G	[14] 11 G	160 S	160 S	160 S	160 S
DDE, 4,4'-	72-55-9	[2.1] 1.9 G	[10] 8 G	40 S	40 S	40 S	40 S
DDT, 4,4'-	50-29-3	[2.1] 1.9 G	5.5 S	5.5 S	5.5 S	5.5 S	5.5 S

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		TDS ≤ 2500 mg/L		TDS > 2500 mg/L			
		R	NR	R	NR	R	NR
DI(2-ETHYLHEXYL)ADIPATE	103-23-1	400 M	400 M	40,000 M	40,000 M	200,000 S	200,000 S
DIALLATE	2303-16-4	**[12]** 11 G	**[56]** 45 G	**[1,200]** 1,100 G	**[5,600]** 4,500 G	**[12,000]** 11,000 G	40,000 S
DIAMINOTOLUENE, 2,4-	95-80-7	**[0.18]** 0.16 G	**[0.85]** 0.68 G	**[18]** 16 G	**[85]** 68 G	**[180]** 160 G	**[850]** 680 G
DIAZINON	333-41-5	1 H	1 H	100 H	100 H	1 H	1 H
DIBENZO[A,H]ANTHRACENE	53-70-3	**[0.055]** 0.052 G	0.6 S	0.6 S	0.6 S	0.6 S	0.6 S
DIBENZOFURAN	132-64-9	**[42]** 35 G	**[120]** 97 G	**[4,200]** 3,500 G	4,500 S	**[4,500]** 3,500 **[S]** G	4,500 S
DIBROMO-3-CHLOROPROPANE, 1,2-	96-12-8	0.2 M	0.2 M	20 M	20 M	20 M	20 M
DIBROMOBENZENE, 1,4-	106-37-6	**[420]** 350 G	**[1,200]** 970 G	20,000 S	20,000 S	**[420]** 350 G	**[1,200]** 970 G
DIBROMOETHANE, 1,2- (ETHYLENE DIBROMIDE)	106-93-4	0.05 M	0.05 M	5 M	5 M	5 M	5 M
DIBROMOMETHANE	74-95-3	8.4 N	35 N	840 N	3,500 N	840 N	3,500 N
DIBUTYL PHTHALATE, N-	84-74-2	**[4,200]** 3,500 G	**[12,000]** 9,700 G	**[400,000]** 350,000 **[S]** G	400,000 S	400,000 S	400,000 S
DICAMBA	1918-00-9	4,000 H	4,000 H	400,000 H	400,000 H	4,000 H	4,000 H
DICHLOROACETIC ACID (HAA)	7**[6]**9-43-6	60 M	60 M	6,000 M	6,000 M	60 M	60 M
DICHLORO-2-BUTENE, 1,4-	764-41-0	0.012 N	0.06 N	1.2 N	6 N	0.012 N	0.06 N
DICHLORO-2-BUTENE, TRANS-1,4-	110-57-6	0.012 N	0.06 N	1.2 N	6 N	0.012 N	0.06 N
DICHLOROBENZENE, 1,2-	95-50-1	600 M	600 M	60,000 M	60,000 M	60,000 M	60,000 M
DICHLOROBENZENE, 1,3-	541-73-1	600 H	600 H	60,000 H	60,000 H	60,000 H	60,000 H
DICHLOROBENZENE, P-	106-46-7	75 M	75 M	7,500 M	7,500 M	7,500 M	7,500 M
DICHLOROBENZIDINE, 3,3'-	91-94-1	**[1.6]** 1.4 G	**[7.6]** 6 G	**[160]** 140 G	**[760]** 600 G	**[1,600]** 1,400 G	3,100 S
DICHLORODIFLUOROMETHANE (FREON 12)	75-71-8	1,000 H	1,000 H	100,000 H	100,000 H	100,000 H	100,000 H
DICHLOROETHANE, 1,1-	75-34-3	31 N	160 N	3,100 N	16,000 N	310 N	1,600 N
DICHLOROETHANE, 1,2-	107-06-2	5 M	5 M	500 M	500 M	50 M	50 M
DICHLOROETHYLENE, 1,1-	75-35-4	7 M	7 M	700 M	700 M	70 M	70 M
DICHLOROETHYLENE, CIS-1,2-	156-59-2	70 M	70 M	7,000 M	7,000 M	700 M	700 M
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	100 M	100 M	10,000 M	10,000 M	1,000 M	1,000 M
DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	5 M	5 M	500 M	500 M	500 M	500 M

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		R	NR	R	NR	R	NR
DICHLOROPHENOL, 2,4-	120-83-2	20 H	20 H	2,000 H	2,000 H	20,000 H	20,000 H
DICHLOROPHENOXYACETIC ACID, 2,4- (2,4-D)	94-75-7	70 M	70 M	7,000 M	7,000 M	70,000 M	70,000 M
DICHLOROPROPANE, 1,2-	78-87-5	5 M	5 M	500 M	500 M	50 M	50 M
DICHLOROPROPENE, 1,3-	542-75-6	**[7.3] 6.5** G	**[34] 27** G	**[730] 650** G	**[3,400] G 2,700**	**[730] 650** G	**[3,400] G 2,700**
DICHLOROPROPIONIC ACID, 2,2- (DALAPON)	75-99-0	200 M	200 M	20,000 M	20,000 M	20,000 M	20,000 M
DICHLORVOS	62-73-7	**[2.5] 2.2** G	**[12] 9.4** G	**[250] 220** G	**[1,200] G 940**	**[2.5] 2.2** G	**[12] 9.4** G
DICYCLOPENTADIENE	77-73-6	0.63 N	2.6 N	63 N	260 N	0.63 N	2.6 N
DIELDRIN	60-57-1	**[0.046] G 0.041**	**[0.21] 0.17** G	**[4.6] 4.1** G	**[21] 17** G	**[46] 41** G	170 S
DIETHYL PHTHALATE	84-66-2	**[33,000] G 28,000**	**[93,000] G 78,000**	1,100,000 S	1,100,000 S	1,100,000 S	1,100,000 S
DIFLUBENZURON	35367-38-5	200 S	200 S	200 S	200 S	200 S	200 S
DIISOPROPYL METHYLPHOSPHONATE	1445-75-6	600 H	600 H	60,000 H	60,000 H	600 H	600 H
DIMETHOATE	60-51-5	**[8.3] 76** G	**[23] 210** G	**[830] G 7,600**	**[2,300] G 21,000**	**[8,300] G 76,000**	**[23,000] G 210,000**
DIMETHOXYBENZIDINE, 3,3-	119-90-4	**[0.46] 0.41** G	**[2] 1.7** G	**[46] 41** G	**[210] 170** G	**[460] 410** G	**[2,100] G 1,700**
DIMETHRIN	70-38-2	36 S	36 S	36 S	36 S	36 S	36 S
DIMETHYLAMINOAZOBENZENE, P-	60-11-7	**[0.16] 0.14** G	**[0.74] 0.59** G	**[16] 14** G	**[74] 59** G	**[160] 140** G	**[740] 590** G
DIMETHYLANILINE, N,N-	121-69-7	**[83] 24** G	**[230] 100** G	**[8,300] G 2,400**	**[23,000] G 10,000**	**[8,300] G 2,400**	**[23,000] G 10,000**
DIMETHYLBENZIDINE, 3,3-	119-93-7	**[0.066] G 0.059**	**[0.31] 0.25** G	**[6.6] 5.9** G	**[31] 25** G	**[66] 59** G	**[310] 250** G
DIMETHYL METHYLPHOSPHONATE	756-79-6	100 H	100 H	10,000 H	10,000 H	100 H	100 H
DIMETHYLPHENOL, 2,4-	105-67-9	**[830] 690** G	**[2,300] G 1,900**	**[83,000] G 69,000**	**[230,000] G 190,000**	**[830,000] G 690,000**	**[2,300,000] G 1,900,000**
DINITROBENZENE, 1,3-	99-65-0	1 H	1 H	100 H	100 H	1,000 H	1,000 H
DINITROPHENOL, 2,4-	51-28-5	**[83] 69** G	**[230] 190** G	**[8,300] G 6,900**	**[23,000] G 19,000**	**[83,000] G 69,000**	**[230,000] G 190,000**
DINITROTOLUENE, 2,4-	121-14-2	**[2.4] 2.1** G	**[11] 8.8** G	**[240] 210** G	**[1,100] G 880**	**[2,400] G 2,100**	**[11,000] G 8,800**

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Appendix A

Table 1 – Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Groundwater

Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L			
		R	NR	R	NR	R	NR
DINITROTOLUENE, 2,6- (2,6-DNT)	606-20-2	**[0.49] 0.43** G	**[2] 1.8** G	**[49] 43** G	**[230] 180** G	**[490] 430** G	**[2,300] 1,800** G
DINOSEB	88-85-7	7 M	7 M	700 M	700 M	7,000 M	7,000 M
DIOXANE, 1,4-	123-91-1	**[6.4] 6.5 [N] G**	**[32] 27 [N] G**	**[640] 650 [N] G**	**[3,200] 2,700 [N] G**	**[64] 65 [N] G**	**[320] 270 [N] G**
DIPHENAMID	957-51-7	200 H	200 H	20,000 H	20,000 H	200 H	200 H
DIPHENYLAMINE	122-39-4	**[1,000] 3,500** G	**[2,900] 9,700** G	**[100,000] 300,000 [G] S**	**[290,000] 300,000 [G] S**	300,000 S	300,000 S
DIPHENYLHYDRAZINE, 1,2-	122-66-7	**[0.91] 0.22 [G] N**	**[4.3] 1.1 [G] N**	**[91] 22 [G] N**	**[250] 110 [S] N**	**[250] 22 [S] N**	**[250] 110 [S] N**
DIQUAT	85-00-7	20 M	20 M	2,000 M	2,000 M	20 M	20 M
DISULFOTON	298-04-4	0.7 H	0.7 H	70 H	70 H	700 H	700 H
DITHIANE, 1,4-	505-29-3	80 H	80 H	8,000 H	8,000 H	80 H	80 H
DIURON	330-54-1	**[83] 69** G	**[230] 190** G	**[8,300] 6,900** G	**[23,000] 19,000** G	**[83] 69** G	**[230] 190** G
ENDOSULFAN	115-29-7	**[250] 210** G	480 S	480 S	480 S	480 S	480 S
ENDOSULFAN I (APLHA)	959-98-8	**[250] 210** G	500 S	500 S	500 S	**[250] 210** G	500 S
ENDOSULFAN II (BETA)	33213-65-9	**[250] 210** G	450 S	450 S	450 S	**[250] 210** G	450 S
ENDOSULFAN SULFATE	1031-07-8	120 S	120 S	120 S	120 S	120 S	120 S
ENDOTHALL	145-73-3	100 M	100 M	10,000 M	10,000 M	100 M	100 M
ENDRIN	72-20-8	2 M	2 M	200 M	200 M	2 M	2 M
EPICHLOROHYDRIN	106-89-8	2.1 N	8.8 N	210 N	880 N	210 N	880 N
ETHEPHON	16672-87-0	**[210] 170** G	**[580] 490** G	**[21,000] 17,000** G	**[58,000] 49,000** G	**[210] 170** G	**[580] 490** G
ETHION	563-12-2	**[21] 17** G	**[58] 49** G	850 S	850 S	**[21] 17** G	**[58] 49** G
ETHOXYETHANOL, 2- (EGEE)	110-80-5	420 N	1,800 N	42,000 N	180,000 N	42,000 N	180,000 N
ETHYL ACETATE	141-78-6	150 **[G] N**	620 **[G] N**	**[150,000] 15,000 [G] N**	62,000 **[G] N**	**[150,000] 15,000 [G] N**	62,000 **[G] N**

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Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L			
		R	NR	R	NR	R	NR
ETHYL ACRYLATE	140-88-5	[15] 14 G	[70] 57 [N] G	[1,500] 1,400 G	[7,000] 5,700 [N] G	[1,500] 1,400 G	[7,000] 5,700 [N] G
ETHYL BENZENE	100-41-4	700 M	700 M	70,000 M	70,000 M	70,000 M	70,000 M
ETHYL DIPROPYLTHIOCARBAMATE, S- (EPTC)	759-94-4	[1,000] 1,700 G	[2,900] 4,900 G	[100,000] 170,000 G	[290,000] 370,000 [G] S	[1,000] 1,700 G	[2,900] 4,900 G
ETHYL ETHER	60-29-7	[8,300] 6,900 G	[23,000] 19,000 G	[830,000] 690,000 G	[2,300,000] 1,900,000 G	[8,300] 6,900 G	[23,000] 19,000 G
ETHYL METHACRYLATE	97-63-2	630 N	2,600 N	63,000 N	260,000 N	630 N	2,600 N
ETHYLENE CHLORHYDRIN	107-07-3	[830] 690 G	[2,300] 1,900 G	[83,000] 69,000 G	[230,000] 190,000 G	[830] 690 G	[2,300] 1,900 G
ETHYLENE GLYCOL	107-21-1	14,000 H	14,000 H	1,400,000 H	1,400,000 H	1,400,000 H	1,400,000 H
ETHYLENE THIOUREA (ETU)	96-45-7	[3.3] 2.8 G	[9.3] 7.8 G	[330] 280 G	[930] 780 G	[3,300] 2,800 G	[9,300] 7,800 G
ETHYLP-NITROPHENYL PHENYLPHOSPHOROTHIOATE	2104-64-5	[0.42] 0.35 G	[1] 0.97 G	[42] 35 G	[120] 97 G	[0.42] 0.35 G	[1.2] 0.97 G
FENAMIPHOS	22224-92-6	0.7 H	0.7 H	70 H	70 H	0.7 H	0.7 H
FENVALERATE (PYDRIN)	51630-58-1	85 S	85 S	85 S	85 S	85 S	85 S
FLUOMETURON	2164-17-2	90 H	90 H	9,000 H	9,000 H	90 H	90 H
FLUORANTHENE	206-44-0	260 S	260 S	260 S	260 S	260 S	260 S
FLUORENE	86-73-7	[1,700] 1,400 G	1,900 S	1,900 S	1,900 S	1,900 S	1,900 S
FLUOROTRICHLOROMETHANE (FREON 11)	75-69-4	2,000 H	2,000 H	200,000 H	200,000 H	200,000 H	200,000 H
FONOFOS	944-22-9	10 H	10 H	1,000 H	1,000 H	10 H	10 H
FORMALDEHYDE	50-00-0	1,000 H	1,000 H	100,000 H	100,000 H	100,000 H	100,000 H
FORMIC ACID	64-18-6	0.63 N	2.6 N	63 N	260 N	6.3 N	26 N
FOSETYL-AL	39148-24-8	[130,000] 87,000 G	[350,000] 240,000 G	[13,000,000] 8,700,000 G	[35,000,000] 24,000,000 G	[130,000] 87,000 G	[350,000] 240,000 G
FURAN	110-00-9	[42] 35 G	[120] 97 G	[4,200] 3,500 G	[12,000] 9,700 G	[4,200] 3,500 G	[12,000] 9,700 G

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		TDS ≤ 2500 mg/L		TDS > 2500 mg/L			
		R	NR	R	NR	R	NR
FURFURAL	98-01-1	**[110] 19 [N] G**	**[350] 78** G	**[11,000] 1,900 [N] G**	**[35,000] 7,800** G	**[110] 19 [N] G**	**[350] 78** G
GLYPHOSATE	1071-83-6	700 M	700 M	70,000 M	70,000 M	700 M	700 M
HEPTACHLOR	76-44-8	0.4 M	0.4 M	40 M	40 M	180 S	180 S
HEPTACHLOR EPOXIDE	1024-57-3	0.2 M	0.2 M	20 M	20 M	200 M	200 M
HEXACHLOROBENZENE	118-74-1	1 M	1 M	6 S	6 S	6 S	6 S
HEXACHLOROBUTADIENE	87-68-3	**[9.4] 8.4** G	**[44] 35** G	**[940] 840** G	2,900 S	2,900 S	2,900 S
HEXACHLOROCYCLOPENTADIENE	77-47-4	50 M	50 M	1,800 S	1,800 S	1,800 S	1,800 S
HEXACHLOROETHANE	67-72-1	1 H	1 H	100 H	100 H	100 H	100 H
HEXANE	110-54-3	1,500 N	**[6,200] 5,800 [N] G**	9,500 S	9,500 S	1,500 N	**[6,200] 5,800 [N] G**
HEXAZINONE	51235-04-2	400 H	400 H	40,000 H	40,000 H	400 H	400 H
HEXYTHIAZOX (SAVEY)	78587-05-0	500 S	500 S	500 S	500 S	500 S	500 S
HMX	2691-41-0	400 H	400 H	5,000 S	5,000 S	400 H	400 H
HYDRAZINE/HYDRAZINE SULFATE	302-01-2	0.01 N	0.051 N	1 N	5.1 N	0.1 N	0.51 N
HYDROQUINONE	123-31-9	**[12] 11** G	**[57] 45** G	**[1,200] 1,100** G	**[5,700] 4,500** G	**[12,000] 11,000** G	**[57,000] 45,000** G
INDENO[1,2,3-CD]PYRENE	193-39-5	**[0.19] 0.18** G	**[2.8] 2.3** G	**[19] 18** G	62 S	62 S	62 S
IPRODIONE	36734-19-7	**[1,700] 15** G	**[4,700] 62** G	**[13,000] 1,500 [S] G**	**[13,000] 6,200 [S] G**	**[1,700] 15** G	**[4,700] 62** G
ISOBUTYL ALCOHOL	78-83-1	**[13,000] 10,000** G	**[35,000] 29,000** G	**[1,300,000] 1,000,000** G	**[3,500,000] 2,900,000** G	**[1,300,000] 1,000,000** G	**[3,500,000] 2,900,000** G
ISOPHORONE	78-59-1	100 H	100 H	10,000 H	10,000 H	100,000 H	100,000 H
ISOPROPYL METHYLPHOSPHONATE	1832-54-8	700 H	700 H	70,000 H	70,000 H	700 H	700 H
KEPONE	143-50-0	**[0.073] 0.065** G	**[0.34] 0.27** G	**[7.3] 6.5** G	**[34] 27** G	**[73] 65** G	**[340] 270** G
MALATHION	121-75-5	500 H	500 H	50,000 H	50,000 H	140,000 S	140,000 S
MALEIC HYDRAZIDE	123-33-1	4,000 H	4,000 H	400,000 H	400,000 H	4,000 H	4,000 H
MANEB	12427-38-2	**[210] 11** G	**[580] 45** G	**[21,000] 1,100** G	**[23,000] 4,500 [S] G**	**[210] 11** G	**[580] 45** G

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		TDS ≤ 2500 mg/L		TDS > 2500 mg/L			
		R	NR	R	NR	R	NR
MERPHOS OXIDE	78-48-8	[1.3] 35 G	[3.5] 97 G	[130] 2,300 [G] S	[350] 2,300 [G] S	[1.3] 35 G	[3.5] 97 G
METHACRYLONITRILE	126-98-7	[4.2] 3.5 G	[12] 9.7 G	[420] 350 G	[1,200] 970 G	[4.2] 3.5 G	[12] 9.7 G
METHAMIDOPHOS	10265-92-6	[2.1] 1.7 G	[5.8] 4.9 G	[210] 170 G	[580] 490 G	[2.1] 1.7 G	[5.8] 4.9 G
METHANOL	67-56-1	[8,400] 42,000 N	[35,000] 180,000 N	[840,000] 4,200,000 N	[3,500,000] 18,000,000 N	[840,000] 4,200,000 N	[3,500,000] 18,000,000 N
METHOMYL	16752-77-5	200 H	200 H	20,000 H	20,000 H	200 H	200 H
METHOXYCHLOR	72-43-5	40 M	40 M	45 S	45 S	45 S	45 S
METHOXYETHANOL, 2-	109-86-4	42 N	180 N	4,200 N	18,000 N	[42] 420 N	[180] 1,800 N
METHYL ACETATE	79-20-9	[42,000] 35,000 G	[120,000] 97,000 G	[4,200,000] 3,500,000 G	[12,000,000] 9,700,000 G	[42,000] 35,000 G	[120,000] 97,000 G
METHYL ACRYLATE	96-33-3	42 N	180 N	4,200 N	18,000 N	4,200 N	18,000 N
METHYL CHLORIDE	74-87-3	30 H	30 H	3,000 H	3,000 H	3,000 H	3,000 H
METHYL ETHYL KETONE	78-93-3	4,000 H	4,000 H	400,000 H	400,000 H	400,000 H	400,000 H
METHYL HYDRAZINE	60-34-4	0.042 N	0.18 N	4.2 N	18 N	0.42 N	1.8 N
METHYL ISOBUTYL KETONE	108-10-1	[3,300] 2,800 G	[9,300] 7,800 G	[330,000] 280,000 G	[930,000] 780,000 G	[330,000] 280,000 G	[930,000] 780,000 G
METHYL ISOCYANATE	624-83-9	2.1 N	8.8 N	210 N	880 N	2.1 N	8.8 N
METHYL N-BUTYL KETONE	591-78-6	63 N	260 N	6,300 N	26,000 N	63 N	260 N
METHYL METHACRYLATE	80-62-6	1,500 N	6,200 N	150,000 N	620,000 N	150,000 N	620,000 N
METHYL METHANESULFONATE	66-27-3	[7.4] 6.6 G	[34] 27 G	[740] 660 G	[3,400] 2,700 G	[7.4] 6.6 G	[34] 27 G
METHYL PARATHION	298-00-0	1 H	1 H	100 H	100 H	1,000 H	1,000 H
METHYL STYRENE (MIXED ISOMERS)	25013-15-4	84 N	350 N	8,400 N	35,000 N	84 N	350 N
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	20	20	2,000	2,000	200	200
METHYLCHLOROPHENOXYACETIC ACID (MCPA)	94-74-6	30 H	30 H	3,000 H	3,000 H	30,000 H	30,000 H
METHYLENE BIS(2-CHLOROANILINE), 4,4'-	101-14-4	[2.3] 2.1 G	[34] 27 G	[230] 210 G	[3,400] 2,700 G	[2.3] 2.1 G	[34] 27 G

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		R	NR	R	NR	R	NR
METHYLNAPHTHALENE, 2-	91-57-6	[170] 6.3 [G] N	[470] 26 [G] N	[17,000] 630 [G] N	[25,000] 2,600 [S] N	[170] 6.3 [G] N	[470] 26 [G] N
METHYLSTYRENE, ALPHA	98-83-9	[2,900] 2,400 G	[8,200] 6,800 G	[290,000] 240,000 G	560,000 S	[2,900] 2,400 G	[8,200] 6,800 G
METOLACHLOR	51218-45-2	700 H	700 H	70,000 H	70,000 H	700 H	700 H
METRIBUZIN	21087-64-9	70 H	70 H	7,000 H	7,000 H	70 H	70 H
MEVINPHOS	**7786-34-7**	**0.87 G**	**2.4 G**	**87 G**	**240 G**	**0.87 G**	**2.4 G**
MONOCHLOROACETIC ACID (HAA)	79-11-8	60 H	60 H	6,000 H	6,000 H	60 H	60 H
NAPHTHALENE	91-20-3	100 H	100 H	10,000 H	10,000 H	[30,000] 10,000 [S] H	[30,000] 10,000 [S] H
NAPHTHYLAMINE, 1-	134-32-7	[0.41] 0.36 G	[1.9] 1.5 G	[41] 36 G	[190] 150 G	[410] 36 G	[1,900] 150 G
NAPHTHYLAMINE, 2-	91-59-8	[0.41] 0.36 G	[1.9] 1.5 G	[41] 36 G	[190] 150 G	[410] 360 G	[1,900] 1,500 G
NAPROPAMIDE	15299-99-7	4,200 G	12,000 G	70,000 S	70,000 S	4,200 G	12,000 G
NITROANILINE, O-	88-74-4	[420] 0.11 [G] N	[1,200] 0.44 [G] N	[42,000] 11 [G] N	[120,000] 44 [G] N	[420] 0.11 [G] N	[1,200] 0.44 [G] N
NITROANILINE, P-	100-01-6	[37] 33 G	[170] 140 G	[3,700] 3,300 G	[17,000] 14,000 G	[37] 33 G	[170] 140 G
NITROBENZENE	98-95-3	[83] 1.2 [G] N	[230] 6.3 [G] N	[8,300] 120 [G] N	[23,000] 630 [G] N	[83,000] 120 [G] N	[230,000] 630 [G] N
NITROGUANIDINE	556-88-7	700 H	700 H	70,000 H	70,000 H	700 H	700 H
NITROPHENOL, 2-	88-75-5	[330] 280 G	[930] 780 G	[33,000] 28,000 G	[93,000] 78,000 G	[330,000] 28,000 G	[930,000] 78,000 G
NITROPHENOL, 4-	100-02-7	60 H	60 H	6,000 H	6,000 H	[60,000] 6,000 H	[60,000] 6,000 H
NITROPROPANE, 2-	79-46-9	0.018 N	0.093 N	1.8 N	9.3 N	0.18 N	0.93 N
NITROSODIETHYLAMINE, N-	55-18-5	0.00045 N	0.0058 N	0.045 N	0.58 N	0.0045 N	0.058 N
NITROSODIMETHYLAMINE, N-	62-75-9	0.0014 N	0.018 N	0.14 N	1.8 N	0.014 N	0.18 N

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		TDS ≤ 2500 mg/L		TDS > 2500 mg/L			
		R	NR	R	NR	R	NR
NITROSO-DI-N-BUTYLAMINE, N-	924-16-3	**[0.14] 0.031** [G] N	**[0.63] 0.16** [G] N	**[14] 3.1** [G] N	**[63] 16** [G] N	**[140] 3.1** [G] N	**[630] 16** [G] N
NITROSODI-N-PROPYLAMINE, N-	621-64-7	**[0.1] 0.025** [G] N	**[0.49] 0.13** [G] N	**[10] 2.5** [G] N	**[49] 13** [G] N	**[100] 0.25** [G] N	**[490] 1.3** [G] N
NITROSODIPHENYLAMINE, N-	86-30-6	**[150] 19** [G] N	**[690] 96** [G] N	**[15,000] 1,900** [G] N	**[35,000] 9,600** [S] N	**[35,000] 1,900** [S] N	**[35,000] 9,600** [S] N
NITROSO-N-ETHYLUREA, N-	759-73-9	**[0.0084] 0.0079** G	**[0.13] 0.1** G	**[0.84] 0.79** G	**[13] 10** G	**[8.4] 7.9** G	**[130] 100** G
OCTYL PHTHALATE, DI-N-	117-84-0	**[420] 350** G	**[1,200] 970** G	3,000 S	3,000 S	3,000 S	3,000 S
OXAMYL (VYDATE)	23135-22-0	200 M	200 M	20,000 M	20,000 M	200 M	200 M
PARAQUAT	1910-42-5	30 H	30 H	3,000 H	3,000 H	30 H	30 H
PARATHION	56-38-2	**[250] 1** G	**[700] 2.9** G	**[20,000] 100** [S] G	**[20,000] 290** [S] G	**[250] 1** G	**[700] 2.9** G
PCBS, TOTAL (POLYCHLORINATED BIPHENYLS) (AROCLORS)	**1336-36-3**	**0.5 M**	**0.5 M**	**50 M**	**50 M**	**0.5 M**	**0.5 M**
PCB-1016 (AROCLOR)	12674-11-2	**[0.37] 2.4** G	**[1.7] 6.8** G	**[37] 240** G	**[170] 250** [G] S	**[0.37] 2.4** G	**[1.7] 6.8** G
PCB-1221 (AROCLOR)	11104-28-2	**[0.37] 0.33 G**	**[1.7] 1.4** G	**[37] 33** G	**[170] 140** G	**[0.37] 0.33** G	**[1.7] 1.4** G
PCB-1232 (AROCLOR)	11141-16-5	**[0.37] 0.33 G**	**[1.7] 1.4** G	**[37] 33** G	**[170] 140** G	**[0.37] 0.33** G	**[1.7] 1.4** G
PCB-1242 (AROCLOR)	53469-21-9	**[0.37] 0.33** G	**[1.7] 1.4** G	**[37] 33** G	100 S	**[0.37] 0.33** G	**[1.7] 1.4** G
PCB-1248 (AROCLOR)	12672-29-6	**[0.37] 0.33** G	**[1.7] 1.4** G	**[37] 33** G	54 S	**[0.37] 0.33** G	**[1.7] 1.4** G
PCB-1254 (AROCLOR)	11097-69-1	**[0.37] 0.69** G	**[1.7] 1.9** G	**[37] 57** [G] S	57 S	**[0.37] 0.69** G	**[1.7] 1.9** G
PCB-1260 (AROCLOR)	11096-82-5	**[0.37] 0.33** G	**[1.7] 1.4** G	**[37] 33** G	80 S	**[0.37] 0.33** G	**[1.7] 1.4** G
PEBULATE	1114-71-2	**[2,100] 1,700** G	**[5,800] 4,900** G	92,000 S	92,000 S	**[2,100] 1,700** G	**[5,800] 4,900** G
PENTACHLOROBENZENE	608-93-5	**[33] 28** G	**[93] 78** G	740 S	740 S	740 S	740 S

All concentrations in µg/L
M = Maximum Contaminant Level
N = Inhalation
R = Residential
H = Lifetime health advisory level
S = Aqueous solubility cap
NR = Non-Residential
G = Ingestion

THMs – The values listed for trihalomethanes (THMs) are the total for all THMs combined.

HAAs – The values listed for haloacetic acids (HAAs) are the total for all HAAs combined.

PFOA and PFOS values listed are for individual or total combined.

Appendix A

Table 1 – Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Groundwater

Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L			
		R	NR	R	NR	R	NR
PENTACHLOROETHANE	76-01-7	[8.1] 7.2 G	[38] 30 G	[810] 720 G	[3,800] 3,000 G	[8.1] 7.2 G	[38] 30 G
PENTACHLORONITROBENZENE	82-68-8	[2.8] 2.5 G	[13] 10 G	[280] 250 G	440 S	440 S	440 S
PENTACHLOROPHENOL	87-86-5	1 M	1 M	100 M	100 M	1,000 M	1,000 M
PERFLUOROBUTANE SULFONATE (PFBS)	**375-73-5**	**690 G**	**1,900 G**	**69,000 G**	**190,000 G**	**690 G**	**1,900 G**
PERFLUOROOCTANE SULFONATE (PFOS)	**1763-23-1**	**0.07 H**	**0.07 H**	**7 H**	**7 H**	**0.07 H**	**0.07 H**
PERFLUOROOCTANOIC ACID (PFOA)	**335-67-1**	**0.07 H**	**0.07 H**	**7 H**	**7 H**	**0.07 H**	**0.07 H**
PHENACETIN	62-44-2	[330] 300 G	[1,500] 1,200 G	[33,000] 30,000 G	[150,000] 120,000 G	[330,000] 300,000 G	760,000 S
PHENANTHRENE	85-01-8	1,100 S	1,100 S	1,100 S	1,100 S	1,100 S	1,100 S
PHENOL	108-95-2	2,000 H	2,000 H	200,000 H	200,000 H	200,000 H	200,000 H
PHENYL MERCAPTAN	108-98-5	[42] 35 G	[120] 97 G	[4,200] 3,500 G	[12,000] 9,700 G	[42] 35 G	[120] 97 G
PHENYLENEDIAMINE, M-	108-45-2	[250] 210 G	[700] 580 G	[25,000] 21,000 G	[70,000] 58,000 G	[250,000] 210,000 G	[700,000] 580,000 G
PHENYLPHENOL, 2-	90-43-7	[380] 340 G	[1,800] 1,400 G	[38,000] 34,000 G	[180,000] 140,000 G	[380,000] 340,000 G	700,000 S
PHORATE	298-02-2	[8.3] 6.9 G	[23] 19 G	[830] 690 G	[2,300] 1,900 G	[8.3] 6.9 G	[23] 19 G
PHTHALIC ANHYDRIDE	85-44-9	[83,000] 42 [G] N	[230,000] 180 [G] N	[6,200,000] 4,200 [S] N	[6,200,000] 18,000 [S] N	[6,200,000] 4,200 [S] N	[6,200,000] 18,000 [S] N
PICLORAM	1918-02-1	500 M	500 M	50,000 M	50,000 M	500 M	500 M
[POLYCHLORINATED BIPHENYLS (PCBS)]	**[1336-36-3]**	**[0.5] [M]**	**[0.5] [M]**	**[50] [M]**	**[50] [M]**	**[0.5] [M]**	**[0.5] [M]**
PROMETON	1610-18-0	400 H	400 H	40,000 H	40,000 H	400 H	400 H
PRONAMIDE	23950-58-5	[3,100] 2,600 G	[8,800] 7,300 G	15,000 S	15,000 S	[3,100] 2,600 G	[8,800] 7,300 G
PROPACHLOR	**1918-16-7**	**0.1 H**	**0.1 H**	**10 H**	**10 H**	**10 H**	**10 H**
PROPANIL	709-98-8	[210] 170 G	[580] 490 G	[21,000] 17,000 G	[58,000] 49,000 G	[210] 170 G	[580] 490 G
PROPANOL, 2- (ISOPROPYL ALCOHOL)	67-63-0	420 N	1,800 N	42,000 N	180,000 N	420 N	1,800 N
PROPAZINE	139-40-2	10 H	10 H	1,000 H	1,000 H	10 H	10 H
PROPHAM	122-42-9	100 H	100 H	10,000 H	10,000 H	100 H	100 H

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THMs – The values listed for trihalomethanes (THMs) are the total for all THMs combined.
HAAs – The values listed for haloacetic acids (HAAs) are the total for all HAAs combined.
PFOA and PFOS values listed are for individual or total combined.

Appendix A

Table 1 – Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Groundwater

Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L			
		R	NR	R	NR	R	NR
PROPYLBENZENE, N-	103-65-1	2,100 N	8,800 N	52,000 S	52,000 S	2,100 N	8,800 N
PROPYLENE OXIDE	75-56-9	[3] 2.7 G	[14] 11 G	[300] 270 G	[1,400] 1,100 G	[3] 2.7 G	[14] 11 G
PYRENE	129-00-0	130 S	130 S	130 S	130 S	130 S	130 S
PYRETHRUM	**8003-34-7**	**350 S**	**350 S**	**350 S**	**350 S**	**350 S**	**350 S**
PYRIDINE	110-86-1	[42] 35 G	[120] 97 G	[4,200] 3,500 G	[12,000] 9,700 G	[420] 350 G	[1,200] 970 G
QUINOLINE	91-22-5	[0.24] 0.22 G	[1.1] 0.91 G	[24] 22 G	[110] 91 G	[240] 220 G	[1,100] 910 G
QUIZALOFOP (ASSURE)	76578-14-8	300 S	300 S	300 S	300 S	300 S	300 S
RDX	121-82-4	2 H	2 H	200 H	200 H	2 H	2 H
RESORCINOL	108-46-3	[83,000] 69,000 G	[230,000] 190,000 G	[8,300,000] 6,900,000 G	[23,000,000] 19,000,000 G	[83,000] 69,000 G	[230,000] 190,000 G
RONNEL	299-84-3	[2,100] 1,700 G	[5,800] 4,900 G	40,000 S	40,000 S	[2,100] 1,700 G	[5,800] 4,900 G
SIMAZINE	122-34-9	4 M	4 M	400 M	400 M	4 M	4 M
STRYCHNINE	57-24-9	[13] 10 G	[35] 29 G	[1,300] 1,000 G	[3,500] 2,900 G	[13,000] 10,000 G	[35,000] 29,000 G
STYRENE	100-42-5	100 M	100 M	10,000 M	10,000 M	10,000 M	10,000 M
TEBUTHIURON	34014-18-1	500 H	500 H	50,000 H	50,000 H	500 H	500 H
TERBACIL	5902-51-2	90 H	90 H	9,000 H	9,000 H	90 H	90 H
TERBUFOS	13071-79-9	0.4 H	0.4 H	40 H	40 H	0.4 H	0.4 H
TETRACHLOROBENZENE, 1,2,4,5-	95-94-3	[13] 10 G	[35] 29 G	580 S	580 S	580 S	580 S
TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8- (TCDD)	1746-01-6	0.00003 M	0.00003 M	0.003 M	0.003 M	0.019 S	0.019 S
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	70 H	70 H	7,000 H	7,000 H	7,000 H	7,000 H
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	0.84 N	4.3 N	84 N	430 N	84 N	430 N
TETRACHLOROETHYLENE (PCE)	127-18-4	5 M	5 M	500 M	500 M	50 M	50 M
TETRACHLOROPHENOL, 2,3,4,6-	58-90-2	[1,300] 1,000 G	[3,500] 2,900 G	[130,000] 100,000 G	180,000 S	180,000 S	180,000 S
TETRAETHYL LEAD	78-00-2	[0.0042] 0.0035 G	[0.012] 0.0097 G	[0.42] 0.35 G	[1] 0.97 G	[4.2] 3.5 G	[12] 9.7 G
TETRAETHYLDITHIOPYROPHOSPHATE	3689-24-5	[21] 17 G	[58] 49 G	[2,100] 1,700 G	[5,800] 4,900 G	[21] 17 G	[58] 49 G

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Appendix A

Table 1 – Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Groundwater

Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L			
		R	NR	R	NR	R	NR
TETRAHYDROFURAN	109-99-9	**[26] 25** N	130 N	**[2,600] 2,500** N	13,000 N	**[26] 25** N	130 N
THIOFANOX	39196-18-4	**[13] 10** G	**[35] 29** G	**[1,300] 1,000** G	**[3,500] 2,900** G	**[13] 10** G	**[35] 29** G
THIRAM	137-26-8	**[210] 520** G	**[580] 1,500** G	**[21,000] 30,000** **[G] S**	30,000 S	**[210] 520** G	**[580] 1,500** G
TOLUENE	108-88-3	1,000 M	1,000 M	100,000 M	100,000 M	100,000 M	100,000 M
TOLUIDINE, M-	108-44-1	**[46] 41** G	**[210] 170** G	**[4,600] 4,100** G	**[21,000] 17,000** G	**[46] 41** G	**[210] 170** G
TOLUIDINE, O	95-53-4	**[46] 41** G	**[210] 170** G	**[4,600] 4,100** G	**[21,000] 17,000** G	**[46,000] 41,000** G	**[210,000] 170,000** G
TOLUIDINE, P-	106-49-0	**[24] 22** G	**[110] 91** G	**[2,400] 2,200** G	**[11,000] 9,100** G	**[24] 22** G	**[110] 91** G
TOXAPHENE	8001-35-2	3 M	3 M	300 M	300 M	3 M	3 M
TRIALLATE	2303-17-5[	**[540] 0.91** G	**[1,500] 3.8** G	**[4,000] 91** **[S] G**	**[4,000] 380** **[S] G**	**[540] 0.91** G	**[1,500] 3.8** G
TRIBROMOMETHANE (BROMOFORM) (THM)	75-25-2	80 M	80 M	8,000 M	8,000 M	8,000 M	8,000 M
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2-	76-13-1	**[63,000] 11,000** N	**[170,000] 44,000** **[S] N**	170,000 S	170,000 S	170,000 S	170,000 S
TRICHLOROACETIC ACID (HAA)	76-03-9	60 **[H] M**	60 **[H] M**	6,000 **[H] M**	6,000 **[H] M**	60 **[H] M**	60 **[H] M**
TRICHLOROBENZENE, 1,2,4-	120-82-1	70 M	70 M	7,000 M	7,000 M	**[44,000] 7,000** **[S] M**	**[44,000] 7,000** **[S] M**
TRICHLOROBENZENE, 1,3,5-	108-70-3	40 H	40 H	4,000 H	4,000 H	40 H	40 H
TRICHLOROETHANE, 1,1,1-	71-55-6	200 M	200 M	20,000 M	20,000 M	2,000 M	2,000 M
TRICHLOROETHANE, 1,1,2-	79-00-5	5 M	5 M	500 M	500 M	50 M	50 M
TRICHLOROETHYLENE (TCE)	79-01-6	5 M	5 M	500 M	500 M	50 M	50 M
TRICHLOROPHENOL, 2,4,5-	95-95-4	**[4,200] 3,500** G	**[12,000] 9,700** G	**[420,000] 350,000** G	**[1,000,000] 970,000** **[S] G**	1,000,000 S	1,000,000 S

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THMs – The values listed for trihalomethanes (THMs) are the total for all THMs combined.
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PFOA and PFOS values listed are for individual or total combined.

Appendix A

Table 1 – Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Groundwater

Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L			
		R	NR	R	NR	R	NR
TRICHLOROPHENOL, 2,4,6-	88-06-2	[42] 35 G	[120] 97 G	[4,200] 3,500 G	[12,000] 9,700 G	[42,000] 35,000 G	[120,000] 97,000 G
TRICHLOROPHENOXYACETIC ACID, 2,4,5- (2,4,5-T)	93-76-5	70 H	70 H	7,000 H	7,000 H	70,000 H	70,000 H
TRICHLOROPHENOXYPROPIONIC ACID, 2,4,5- (2,4,5-TP)	93-72-1	50 M	50 M	5,000 M	5,000 M	50 M	50 M
TRICHLOROPROPANE, 1,1,2-	598-77-6	[210] 170 G	[580] 490 G	[21,000] 17,000 G	[58,000] 49,000 G	[210] 170 G	[580] 490 G
TRICHLOROPROPANE, 1,2,3-	96-18-4	40 H	40 H	4,000 H	4,000 H	4,000 H	4,000 H
TRICHLOROPROPENE, 1,2,3-	96-19-5	0.63 N	2.6 N	63 N	260 N	0.63 N	2.6 N
TRIETHYLAMINE	121-44-8	15 N	62 N	1,500 N	6,200 N	15 N	62 N
TRIETHYLENE GLYCOL	112-27-6	[83,000] 69,000 G	[230,000] 190,000 G	[8,300,000] 6,900,000 G	[23,000,000] 19,000,000 G	[83,000] 69,000 G	[230,000] 190,000 G
TRIFLURALIN	1582-09-8	10 H	10 H	1,000 H	1,000 H	10 H	10 H
TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6	[15] 130 N	[62] 530 N	[1,500] 13,000 N	[6,200] 53,000 N	[1,500] 13,000 N	[6,200] 53,000 N
TRIMETHYLBENZENE, 1,3,5-	108-67-8	[420] 130 [G] N	[1,200] 530 [G] N	[42,000] 13,000 [G] N	49,000 S	[420] 130 [G] N	[1,200] 530 [G] N
TRINITROGLYCEROL (NITROGLYCERIN)	55-63-0	5 H	5 H	500 H	500 H	[5] 500 H	[5] 500 H
TRINITROTOLUENE, 2,4,6-	118-96-7	2 H	2 H	200 H	200 H	2 H	2 H
VINYL ACETATE	108-05-4	420 N	1,800 N	42,000 N	180,000 N	420 N	1,800 N
VINYL BROMIDE (BROMOETHENE)	593-60-2	1.5 N	7.8 N	150 N	780 N	15 N	78 N
VINYL CHLORIDE	75-01-4	2 M	2 M	200 M	200 M	20 M	20 M
WARFARIN	81-81-2	[13] 10 G	[35] 29 G	[1,300] 1,000 G	[3,500] 2,900 G	[13,000] 10,000 G	17,000 S
XYLENES (TOTAL)	1330-20-7	10,000 M	10,000 M	180,000 S	180,000 S	180,000 S	180,000 S
ZINEB	12122-67-7	[2,100] 1,700 G	[5,800] 4,900 G	10,000 S	10,000 S	[2,100] 1,700 G	[5,800] 4,900 G

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THMs – The values listed for trihalomethanes (THMs) are the total for all THMs combined.
HAAs – The values listed for haloacetic acids (HAAs) are the total for all HAAs combined.
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Appendix A

Table 2 – Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Groundwater

Regulated Substance	CASRN	Used Aquifers								Nonuse Aquifers			
		TDS ≤ 2500 mg/L				TDS > 2500 mg/L							
		R		NR		R		NR		R		NR	
ANTIMONY	7440-36-0	6	M	6	M	600	M	600	M	6,000	M	6,000	M
ARSENIC	7440-38-2	10	M	10	M	1,000	M	1,000	M	10,000	M	10,000	M
ASBESTOS (fibers/L)	12001-29-5	7,000,000	M	7,000,000	M	7,000,000	M	7,000,000	M	7,000,000	M	7,000,000	M
BARIUM AND COMPOUNDS	7440-39-3	2,000	M	2,000	M	200,000	M	200,000	M	2,000,000	M	2,000,000	M
BERYLLIUM	7440-41-7	4	M	4	M	400	M	400	M	4,000	M	4,000	M
BORON AND COMPOUNDS	7440-42-8	6,000	H	6,000	H	600,000	H	600,000	H	6,000,000	H	6,000,000	H
CADMIUM	7440-43-9	5	M	5	M	500	M	500	M	5,000	M	5,000	M
CHROMIUM (TOTAL)	7440-47-3	100	M	100	M	10,000	M	10,000	M	100,000	M	100,000	M
COBALT	7440-48-4	**[13] 10**	G	**[35] 29**	G	**[1,300] 1,000**	G	**[3,500] 2,900**	G	**[13,000] 10,000**	G	**[35,000] 29,000**	G
COPPER	**7440-50-8**	**1,000**	**M**	**1,000**	**M**	**100,000**	**M**	**100,000**	**M**	**1,000,000**	**M**	**1,000,000**	**M**
CYANIDE, FREE	57-12-5	200	M	200	M	20,000	M	20,000	M	200,000	M	200,000	M
FLUORIDE	16984-48-8	4,000	M	4,000	M	400,000	M	400,000	M	4,000,000	M	4,000,000	M
LEAD	7439-92-1	5	M	5	M	500	M	500	M	5,000	M	5,000	M
LITHIUM	7439-93-2	**[83] 69**	G	**[230] 190**	G	**[8,300] 6,900**	G	**[23,000] 19,000**	G	**[83,000] 69,000**	G	**[230,000] 190,000**	G
MANGANESE	7439-96-5	300	H	300	H	30,000	H	30,000	H	300,000	H	300,000	H
MERCURY	7439-97-6	2	M	2	M	200	M	200	M	2,000	M	2,000	M
MOLYBDENUM	7439-98-7	40	H	40	H	4,000	H	4,000	H	40,000	H	40,000	H
NICKEL	7440-02-0	100	H	100	H	10,000	H	10,000	H	100,000	H	100,000	H
NITRATE NITROGEN	14797-55-8	10,000	M	10,000	M	1,000,000	M	1,000,000	M	10,000,000	M	10,000,000	M
NITRITE NITROGEN	14797-65-0	1,000	M	1,000	M	100,000	M	100,000	M	1,000,000	M	1,000,000	M
PERCHLORATE	7790-98-9	15	H	15	H	1,500	H	1,500	H	15,000	H	15,000	H
SELENIUM	7782-49-2	50	M	50	M	5,000	M	5,000	M	50,000	M	50,000	M
SILVER	7440-22-4	100	H	100	H	10,000	H	10,000	H	100,000	H	100,000	H
STRONTIUM	7440-24-6	4,000	H	4,000	H	400,000	H	400,000	H	4,000,000	H	4,000,000	H
THALLIUM	7440-28-0	2	M	2	M	200	M	200	M	2,000	M	2,000	M
TIN	7440-31-5	**[25,000] 21,000**	G	**[70,000] 58,000**	G	**[2,500,000] 2,100,000**	G	**[7,000,000] 5,800,000**	G	**[25,000,000] 21,000,000**	G	**[70,000,000] 58,000,000**	G

All concentrations in µg/L (except asbestos)
M = Maximum Contaminant Level
H = Lifetime Health Advisory Level
SMCL = Secondary Maximum Contaminant Level
G = Ingestion
N = Inhalation
PA State MCL adopted as MSC for Copper and Lead

R = Residential
NR = Nonresidential

Appendix A

Table 2 – Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Groundwater

Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L			
		R	NR	R	NR	R	NR
VANADIUM	7440-62-2	**[2.9] 2.4** G	**[8.2] 6.8** G	**[290] 240** G	**[820] 680** G	**[2,900] 2,400** G	**[8,200] 6,800** G
ZINC AND COMPOUNDS	7440-66-6	2,000 H	2,000 H	200,000 H	200,000 H	2,000,000 H	2,000,000 H

SECONDARY CONTAMINANTS			
REGULATED SUBSTANCE	**CASRN**	**SMCL**	**UNITS**
ALUMINUM	7429-90-5	200	µg/L
CHLORIDE	7647-14-5	250,000	µg/L
[COPPER]	**[7440-50-8]**	**[1000]**	**[µg/L]**
[FLUORIDE]	**[7681-49-4]**	**[2,000]**	**[µg/L]**
IRON	7439-89-6	300	µg/L
[MANGANESE]	**[7439-96-5]**	**[50]**	**[µg/L]**
SULFATE	7757-82-6	250,000	µg/L

All concentrations in µg/L (except asbestos)
M = Maximum Contaminant Level
H = Lifetime Health Advisory Level
SMCL = Secondary Maximum Contaminant Level
G = Ingestion
N = Inhalation
PA State MCL adopted as MSC for Copper and Lead

R = Residential
NR = Nonresidential

Appendix A
Table 3 – Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
A. Direct Contact Numeric Values

REGULATED SUBSTANCE	CASRN	Residential 0-15 feet		Nonresidential Surface Soil 0-2 feet		Nonresidential Subsurface Soil 2-15 feet	
ACENAPHTHENE	83-32-9	13,000	G	190,000	C	190,000	C
ACENAPHTHYLENE	208-96-8	13,000	G	190,000	C	190,000	C
ACEPHATE	30560-19-1	**[880] 260**	G	**[10,000] 3,800**	G	190,000	C
ACETALDEHYDE	75-07-0	170	N	**[720] 710**	N	**[830] 820**	N
ACETONE	67-64-1	10,000	C	10,000	C	10,000	C
ACETONITRILE	75-05-8	1,100	N	**[4,800] 4,700**	N	5,500	N
ACETOPHENONE	98-86-2	10,000	C	10,000	C	10,000	C
ACETYLAMINOFLUORENE, 2- (2AAF)	53-96-3	4.9	G	24	G	190,000	C
ACROLEIN	107-02-8	0.38	N	1.6	N	1.8	N
ACRYLAMIDE	79-06-1	1.7	N	22	N	**[26] 25**	N
ACRYLIC ACID	79-10-7	19	N	79	N	91	N
ACRYLONITRILE	107-13-1	**[6.6] 6.5**	N	33	N	**[38] 37**	N
ALACHLOR	15972-60-8	330	G	1,600	G	190,000	C
ALDICARB	116-06-3	220	G	3,200	G	190,000	C
ALDICARB SULFONE	1646-88-4	220	G	3,200	G	190,000	C
ALDICARB SULFOXIDE	1646-87-3	220	G	3,200	G	190,000	C
ALDRIN	309-00-2	1.1	G	5.4	G	190,000	C
ALLYL ALCOHOL	107-18-6	1.9	N	**[8] 7.9**	N	9.1	N
AMETRYN	834-12-8	2,000	G	29,000	G	190,000	C
AMINOBIPHENYL, 4-	92-67-1	0.89	G	4.3	G	190,000	C
AMITROLE	61-82-5	20	G	97	G	190,000	C
AMMONIA	7664-41-7	**[1,900] 9,600**	N	**[8,000] 10,000**	**[N] C**	**[9,100] 10,000**	**[N] C**
AMMONIUM SULFAMATE	7773-06-0	44,000	G	190,000	C	190,000	C
ANILINE	62-53-3	19	N	79	N	**[91] 90**	N
ANTHRACENE	120-12-7	66,000	G	190,000	C	190,000	C
ATRAZINE	1912-24-9	81	G	400	G	190,000	C
AZINPHOS-METHYL (GUTHION)	86-50-0	**[660] 330**	G	**[9,600] 4,800**	G	190,000	C
BAYGON (PROPOXUR)	114-26-1	880	G	13,000	G	190,000	C
BENOMYL	17804-35-2	**[11,000] 7,800**	G	**[160,000] 38,000**	G	190,000	C
BENTAZON	25057-89-0	6,600	G	96,000	G	190,000	C
BENZENE	71-43-2	57	N	**[290] 280**	N	330	N
BENZIDINE	92-87-5	0.018	G	0.4	G	190,000	C
BENZO[A]ANTHRACENE	56-55-3	**[6] 6.1**	G	130	G	190,000	C
BENZO[A]PYRENE	50-32-8	**[0.58] 4.2**	G	**[12] 91**	G	190,000	C
BENZO[B]FLUORANTHENE	205-99-2	3.5	G	76	G	190,000	C
BENZO[GHI]PERYLENE	191-24-2	13,000	G	190,000	C	190,000	C
BENZO[K]FLUORANTHENE	207-08-9	**[4] 3.5**	G	76	G	190,000	C
BENZOIC ACID	65-85-0	190,000	C	190,000	C	190,000	C
BENZOTRICHLORIDE	98-07-7	1.4	G	7	G	10,000	C
BENZYL ALCOHOL	100-51-6	10,000	C	10,000	C	10,000	C
BENZYL CHLORIDE	100-44-7	9	N	45	N	52	N
BETA PROPIOLACTONE	57-57-8	0.11	N	**[0.56] 0.55**	N	**[0.64] 0.63**	N
BHC, ALPHA	319-84-6	3	G	14	G	190,000	C
BHC, BETA-	319-85-7	10	G	51	G	190,000	C
BHC, GAMMA (LINDANE)	58-89-9	17	G	83	G	190,000	C

All concentrations in mg/kg
G – Ingestion
N- Inhalation
C- Cap

Appendix A
Table 3 – Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
A. Direct Contact Numeric Values

REGULATED SUBSTANCE	CASRN	Residential 0-15 feet		Nonresidential			
				Surface Soil 0-2 feet		Subsurface Soil 2-15 feet	
BIPHENYL, 1,1-	92-52-4	[2,300] 8.2	[G] N	[11,000] 34	[G] N	[190,000] 40	[C] N
BIS(2-CHLOROETHOXY)METHANE	111-91-1	660	G	9,600	G	10,000	C
BIS(2-CHLOROETHYL)ETHER	111-44-4	1.3	N	6.7	N	[7.7] 7.6	N
BIS(2-CHLORO-ISOPROPYL)ETHER	108-60-1	44	N	220	N	250	N
BIS(CHLOROMETHYL)ETHER	542-88-1	[0.0072] 0.0071	N	0.036	N	0.041	N
BIS[2-ETHYLHEXYL] PHTHALATE	117-81-7	1,300	G	6,500	G	10,000	C
BISPHENOL A	80-05-7	11,000	G	160,000	G	190,000	C
BROMACIL	314-40-9	22,000	G	190,000	C	190,000	C
BROMOBENZENE	**108-86-1**	**1,100**	**N**	**4,700**	**N**	**5,400**	**N**
BROMOCHLOROMETHANE	74-97-5	[770] 760	N	3,200	N	3,600	N
BROMODICHLOROMETHANE	75-27-4	12	N	60	N	69	N
BROMOMETHANE	74-83-9	[96] 95	N	400	N	460	N
BROMOXYNIL	1689-84-5	[4,400] 180	G	[64,000] 880	G	190,000	C
BROMOXYNIL OCTANOATE	1689-99-2	[4,400] 180	G	[64,000] 880	G	190,000	C
BUTADIENE, 1,3-	106-99-0	[5.5] 15	[G] N	[27] 74	[G] N	85	N
BUTYL ALCOHOL, N-	71-36-3	10,000	C	10,000	C	10,000	C
BUTYLATE	2008-41-5	10,000	C	10,000	C	10,000	C
BUTYLBENZENE, N-	104-51-8	10,000	C	10,000	C	10,000	C
BUTYLBENZENE, SEC-	135-98-8	10,000	C	10,000	C	10,000	C
BUTYLBENZENE, TERT-	98-06-6	10,000	C	10,000	C	10,000	C
BUTYLBENZYL PHTHALATE	85-68-7	9,800	G	10,000	C	10,000	C
CAPTAN	133-06-2	8,100	G	40,000	G	190,000	C
CARBARYL	63-25-2	22,000	G	190,000	C	190,000	C
CARBAZOLE	86-74-8	930	G	4,600	G	190,000	C
CARBOFURAN	1563-66-2	1,100	G	16,000	G	190,000	C
CARBON DISULFIDE	75-15-0	10,000	C	10,000	C	10,000	C
CARBON TETRACHLORIDE	56-23-5	[74] 75	N	370	N	430	N
CARBOXIN	5234-68-4	22,000	G	190,000	C	190,000	C
CHLORAMBEN	133-90-4	3,300	G	48,000	G	190,000	C
CHLORDANE	57-74-9	53	G	260	G	190,000	C
CHLORO-1,1-DIFLUOROETHANE, 1-	75-68-3	10,000	C	10,000	C	10,000	C
CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE)	107-05-1	19	N	80	N	[91] 92	N
CHLOROACETALDEHYDE	107-20-0	[62] 69	G	[300] 340	G	10,000	C
CHLOROACETOPHENONE, 2-	532-27-4	190,000	C	190,000	C	190,000	C
CHLOROANILINE, P-	106-47-8	93	G	460	G	190,000	C
CHLOROBENZENE	108-90-7	[960] 950	N	[4,000] 3,900	N	[4,600] 4,500	N
CHLOROBENZILATE	510-15-6	170	G	830	G	190,000	C
CHLOROBUTANE, 1-	109-69-3	8,800	G	10,000	C	10,000	C
CHLORODIBROMOMETHANE	124-48-1	[17] 220	[N] G	[82] 1,100	[N] G	[95] 10,000	[N] C
CHLORODIFLUOROMETHANE	75-45-6	10,000	C	10,000	C	10,000	C
CHLOROETHANE	75-00-3	[6,400] 10,000	[G] C	10,000	C	10,000	C
CHLOROFORM	67-66-3	19	N	[97] 96	N	110	N
CHLORONAPHTHALENE, 2-	91-58-7	18,000	G	190,000	C	190,000	C

All concentrations in mg/kg
G – Ingestion
N- Inhalation
C- Cap

Appendix A
Table 3 – Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
A. Direct Contact Numeric Values

REGULATED SUBSTANCE	CASRN	Residential 0-15 feet		Nonresidential			
				Surface Soil 0-2 feet		Subsurface Soil 2-15 feet	
CHLORONITROBENZENE, P-	100-00-5	**[220] 39**	**[G] N**	**[3,200] 160**	**[G] N**	**[190,000] 180**	**[C] N**
CHLOROPHENOL, 2-	95-57-8	1,100	G	10,000	C	10,000	C
CHLOROPRENE	126-99-8	1.5	N	7.4	N	8.5	N
CHLOROPROPANE, 2-	75-29-6	1,900	N	**[8,000] 7,900**	N	9,100	N
CHLOROTHALONIL	1897-45-6	**[3,300] 1,100**	G	**[29,000] 5,400**	G	190,000	C
CHLOROTOLUENE, O-	95-49-8	4,400	G	10,000	C	10,000	C
CHLOROTOLUENE, P-	106-43-4	4,400	C	10,000	C	10,000	C
CHLORPYRIFOS	2921-88-2	220	G	3,200	G	190,000	C
CHLORSULFURON	64902-72-3	**[11,000] 4,400**	G	**[160,000] 64,000**	G	190,000	C
CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)	1861-32-1	2,200	G	32,000	G	190,000	C
CHRYSENE	218-01-9	35	G	760	G	190,000	C
CRESOL(S)	1319-77-3	10,000	C	10,000	C	10,000	C
CRESOL, 4,6-DINITRO-O-	534-52-1	18	G	260	G	190,000	C
CRESOL, O- (2-METHYLPHENOL)	95-48-7	11,000	G	160,000	G	190,000	C
CRESOL, M- (3-METHYLPHENOL)	108-39-4	10,000	C	10,000	C	10,000	C
CRESOL, P- (4-METHYLPHENOL)	106-44-5	1,100	G	16,000	G	190,000	C
CRESOL, P-CHLORO-M-	59-50-7	22,000	G	190,000	G	190,000	C
CROTONALDEHYDE	4170-30-3	9.8	G	48	G	10,000	C
CROTONALDEHYDE, TRANS-	123-73-9	9.8	G	48	G	10,000	C
CUMENE (ISOPROPYL BENZENE)	98-82-8	**[7,700] 7,600**	N	10,000	C	10,000	C
CYANAZINE	21725-46-2	22	G	110	G	190,000	C
CYCLOHEXANE	110-82-7	10,000	C	10,000	C	10,000	C
CYCLOHEXANONE	108-94-1	10,000	C	10,000	C	10,000	C
CYFLUTHRIN	68359-37-5	5,500	G	80,000	G	190,000	C
CYROMAZINE	66215-27-8	**[1,700] 110,000**	G	**[24,000] 190,000**	**[G] C**	190,000	C
DDD, 4,4'-	72-54-8	78	G	380	G	190,000	C
DDE, 4,4'-	72-55-9	55	G	270	G	190,000	C
DDT, 4,4'-	50-29-3	55	G	270	G	190,000	C
DI(2-ETHYLHEXYL)ADIPATE	103-23-1	10,000	C	10,000	C	10,000	C
DIALLATE	2303-16-4	300	G	1,500	G	10,000	C
DIAMINOTOLUENE, 2,4-	95-80-7	4.7	G	23	G	190,000	C
DIAZINON	333-41-5	150	G	2,200	G	10,000	C
DIBENZO[A,H]ANTHRACENE	53-70-3	1	G	22	G	190,000	C
DIBENZOFURAN	132-64-9	220	G	3,200	G	190,000	C
DIBROMO-3-CHLOROPROPANE, 1,2-	96-12-8	0.029	N	0.37	N	**[0.43] 0.42**	N
DIBROMOBENZENE, 1,4-	106-37-6	2,200	G	32,000	G	190,000	C
DIBROMOETHANE, 1,2- (ETHYLENE DIBROMIDE)	106-93-4	0.74	N	3.7	N	**[4.3] 4.2**	N
DIBROMOMETHANE	74-95-3	**[77] 76**	N	**[320] 310**	N	**[370] 360**	N
DIBUTYL PHTHALATE, N-	84-74-2	10,000	C	10,000	C	10,000	C
DICAMBA	1918-00-9	6,600	G	96,000	G	190,000	C
DICHLOROACETIC ACID	76-43-6	370	G	1,800	G	10,000	C
DICHLORO-2-BUTENE, 1,4-	764-41-0	0.11	N	**[0.53] 0.52**	N	**[0.61] 0.6**	N
DICHLORO-2-BUTENE, TRANS-1,4-	110-57-6	**[0.1] 0.11**	N	0.52	N	0.6	N
DICHLOROBENZENE, 1,2-	95-50-1	3,800	N	10,000	C	10,000	C

All concentrations in mg/kg
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C- Cap

Appendix A
Table 3 – Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
A. Direct Contact Numeric Values

REGULATED SUBSTANCE	CASRN	Residential 0-15 feet		Nonresidential Surface Soil 0-2 feet		Nonresidential Subsurface Soil 2-15 feet	
DICHLOROBENZENE, 1,3-	541-73-1	10,000	C	10,000	C	10,000	C
DICHLOROBENZENE, P-	106-46-7	40	N	200	N	230	N
DICHLOROBENZIDINE, 3,3'-	91-94-1	41	G	200	G	190,000	C
DICHLORODIFLUOROMETHANE (FREON 12)	75-71-8	1,900	N	8,000	N	9,100	N
DICHLOROETHANE, 1,1-	75-34-3	280	N	1,400	N	1,600	N
DICHLOROETHANE, 1,2-	107-06-2	17	N	**[86] 85**	N	98	N
DICHLOROETHYLENE, 1,1-	75-35-4	3,800	N	10,000	C	10,000	C
DICHLOROETHYLENE, CIS-1,2-	156-59-2	440	G	6,400	G	10,000	C
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	**[1,100] 4,400**	**[N] G**	**[4,800] 10,000**	**[N] C**	**[5,500] 10,000**	**[N] C**
DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	1,300	G	10,000	C	10,000	C
DICHLOROPHENOL, 2,4-	120-83-2	660	G	9,600	G	190,000	C
DICHLOROPHENOXYACETIC ACID, 2,4- (2,4-D)	94-75-7	2,200	G	32,000	G	190,000	C
DICHLOROPROPANE, 1,2-	78-87-5	**[45] 0.12**	N	**[220] 0.6**	N	**[260] 0.69**	N
DICHLOROPROPENE, 1,3-	542-75-6	110	N	**[560] 550**	N	640	N
DICHLOROPROPIONIC ACID, 2,2- (DALAPON)	75-99-0	6,600	G	10,000	C	10,000	C
DICHLORVOS	62-73-7	64	G	310	G	10,000	C
DICYCLOPENTADIENE	77-73-6	**[6] 5.7**	N	24	N	27	N
DIELDRIN	60-57-1	1.2	G	**[6] 5.7**	G	190,000	C
DIETHANOLAMINE	111-42-2	440	G	6,400	G	10,000	C
DIETHYL PHTHALATE	84-66-2	10,000	C	10,000	C	10,000	C
DIFLUBENZURON	35367-38-5	4,400	G	64,000	G	190,000	C
DIISOPROPYL METHYLPHOSPHONATE	1445-75-6	10,000	C	10,000	C	10,000	C
DIMETHOATE	60-51-5	**[44] 480**	G	**[40] 7,000**	G	190,000	C
DIMETHOXYBENZIDINE, 3,3-	119-90-4	**[1,300] 12**	G	**[6,500] 57**	G	190,000	C
DIMETHRIN	70-38-2	66,000	G	190,000	C	190,000	C
DIMETHYLAMINOAZOBENZENE, P-	60-11-7	4	G	20	G	190,000	C
DIMETHYLANILINE, N,N-	121-69-7	440	G	**[6,400] 3,400**	G	10,000	C
DIMETHYLBENZIDINE, 3,3-	119-93-7	1.7	G	8.3	G	190,000	C
DIMETHYL METHYLPHOSPHONATE	756-79-6	10,000	C	10,000	C	10,000	C
DIMETHYLPHENOL, 2,4-	105-67-9	4,400	G	10,000	C	10,000	C
DINITROBENZENE, 1,3-	99-65-0	22	G	320	G	190,000	C
DINITROPHENOL, 2,4-	51-28-5	440	G	6,400	G	190,000	C
DINITROTOLUENE, 2,4-	121-14-2	60	G	290	G	190,000	C
DINITROTOLUENE, 2,6- (2,6-DNT)	606-20-2	12	G	61	G	190,000	C
DINOSEB	88-85-7	220	G	3,200	G	190,000	C
DIOXANE, 1,4-	123-91-1	**[58] 89**	N	**[290] 440**	N	**[330] 510**	N
DIPHENAMID	957-51-7	6,600	G	96,000	G	190,000	C
DIPHENYLAMINE	122-39-4	**[5,500] 22,000**	G	**[80,000] 190,000**	**[G] C**	190,000	C
DIPHENYLHYDRAZINE, 1,2-	122-66-7	**[23] 2.1**	**[G] N**	**[110] 10**	**[G] N**	**[190,000] 12**	**[C] N**
DIQUAT	85-00-7	480	G	7,000	G	190,000	C
DISULFOTON	298-04-4	8.8	G	130	G	10,000	C
DITHIANE, 1,4-	505-29-3	2,200	G	32,000	G	190,000	C
DIURON	330-54-1	440	G	6,400	G	190,000	C
ENDOSULFAN	115-29-7	1,300	G	19,000	G	190,000	C
ENDOSULFAN I (ALPHA)	959-98-8	1,300	G	19,000	G	190,000	C
ENDOSULFAN II (BETA)	33213-65-9	1,300	G	19,000	G	190,000	C
ENDOSULFAN SULFATE	1031-07-8	1,300	G	19,000	G	190,000	C

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C- Cap

Appendix A
Table 3 – Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
A. Direct Contact Numeric Values

REGULATED SUBSTANCE	CASRN	Residential 0-15 feet		Nonresidential Surface Soil 0-2 feet		Nonresidential Subsurface Soil 2-15 feet	
ENDOTHALL	145-73-3	4,400	G	64,000	G	190,000	C
ENDRIN	72-20-8	66	G	960	G	190,000	C
EPICHLOROHYDRIN	106-89-8	19	N	79	N	91	N
ETHEPHON	16672-87-0	1,100	G	16,000	G	190,000	C
ETHION	563-12-2	110	G	1,600	G	10,000	C
ETHOXYETHANOL, 2- (EGEE)	110-80-5	**[3,900] 3,800**	N	10,000	C	10,000	C
ETHYL ACETATE	141-78-6	1,300	N	**[5,600] 5,500**	N	**[6,400] 6,300**	N
ETHYL ACRYLATE	140-88-5	150	N	**[640] 630**	N	**[730] 720**	N
ETHYL BENZENE	100-41-4	180	N	**[890] 880**	N	1,000	N
ETHYL DIPROPYLTHIOCARBAMATE, S- (EPTC)	759-94-4	**[5,500] 10,000**	**[G] C**	10,000	C	10,000	C
ETHYL ETHER	60-29-7	10,000	C	10,000	C	10,000	C
ETHYL METHACRYLATE	97-63-2	5,700	N	10,000	C	10,000	C
ETHYLENE CHLORHYDRIN	107-07-3	4,400	G	10,000	C	10,000	C
ETHYLENE GLYCOL	107-21-1	**[7,700] 7,600**	N	10,000	C	10,000	C
ETHYLENE THIOUREA (ETU)	96-45-7	18	G	260	G	190,000	C
ETHYLP-NITROPHENYL PHENYLPHOSPHOROTHIOATE	2104-64-5	2.2	G	32	G	190,000	C
FENAMIPHOS	22224-92-6	55	G	800	G	190,000	C
FENVALERATE (PYDRIN)	51630-58-1	5,500	G	10,000	C	10,000	C
FLUOMETURON	2164-17-2	2,900	G	42,000	G	190,000	C
FLUORANTHENE	206-44-0	8,800	G	130,000	G	190,000	C
FLUORENE	86-73-7	8,800	G	130,000	G	190,000	C
FLUOROTRICHLOROMETHANE (FREON 11)	75-69-4	10,000	C	10,000	C	10,000	C
FONOFOS	944-22-9	440	G	6,400	G	10,000	C
FORMALDEHYDE	50-00-0	34	N	170	N	200	N
FORMIC ACID	64-18-6	**[6] 5.7**	N	24	N	27	N
FOSETYL-AL	39148-24-8	190,000	C	190,000	C	190,000	C
FURAN	110-00-9	220	G	3,200	G	10,000	C
FURFURAL	98-01-1	**[660] 530**	G	**[4,000] 2,600**	**[N] G**	4,500	N
GLYPHOSATE	1071-83-6	22,000	G	190,000	C	190,000	C
HEPTACHLOR	76-44-8	**[4] 4.1**	G	20	G	190,000	C
HEPTACHLOR EPOXIDE	1024-57-3	2	G	10	G	190,000	C
HEXACHLOROBENZENE	118-74-1	12	G	57	G	190,000	C
HEXACHLOROBUTADIENE	87-68-3	220	G	1,200	G	10,000	C
HEXACHLOROCYCLOPENTADIENE	77-47-4	1,300	G	10,000	C	10,000	C
HEXACHLOROETHANE	67-72-1	**[44] 46**	N	**[220] 230**	N	**[260] 270**	N
HEXANE	110-54-3	10,000	C	10,000	C	10,000	C
HEXAZINONE	51235-04-2	7,300	G	110,000	G	190,000	C
HEXYTHIAZOX (SAVEY)	78587-05-0	5,500	G	80,000	G	190,000	C
HMX	2691-41-0	11,000	G	160,000	G	190,000	C
HYDRAZINE/HYDRAZINE SULFATE	302-01-2	**[0.09] 0.091**	N	0.45	N	0.52	N
HYDROQUINONE	123-31-9	310	G	1,500	G	190,000	C
INDENO[1,2,3-CD]PYRENE	193-39-5	3.5	G	76	G	190,000	C
IPRODIONE	36734-19-7	**[8,800] 420**	G	**[130,000] 2,100**	G	190,000	C
ISOBUTYL ALCOHOL	78-83-1	10,000	C	10,000	C	10,000	C

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A. Direct Contact Numeric Values

REGULATED SUBSTANCE	CASRN	Residential 0-15 feet		Nonresidential Surface Soil 0-2 feet		Nonresidential Subsurface Soil 2-15 feet	
ISOPHORONE	78-59-1	10,000	C	10,000	C	10,000	C
ISOPROPYL METHYLPHOSPHONATE	1832-54-8	10,000	C	10,000	C	10,000	C
KEPONE	143-50-0	1.9	G	9.1	G	190,000	C
MALATHION	121-75-5	4,400	G	10,000	C	10,000	C
MALEIC HYDRAZIDE	123-33-1	110,000	G	190,000	C	190,000	C
MANEB	12427-38-2	**[1,100] 310**	G	**[16,000] 1,500**	G	190,000	C
MERPHOS OXIDE	78-48-8	**[6.6] 220**	G	**[96] 3,200**	G	10,000	C
METHACRYLONITRILE	126-98-7	22	G	320	G	**[2,800] 2,700**	N
METHAMIDOPHOS	10265-92-6	11	G	160	G	190,000	C
METHANOL	67-56-1	10,000	C	10,000	C	10,000	C
METHOMYL	16752-77-5	5,500	G	80,000	G	190,000	C
METHOXYCHLOR	72-43-5	1,100	G	16,000	G	190,000	C
METHOXYETHANOL, 2-	109-86-4	380	N	1,600	N	1,800	N
METHYL ACETATE	79-20-9	10,000	C	10,000	C	10,000	C
METHYL ACRYLATE	96-33-3	380	N	1,600	N	1,800	N
METHYL CHLORIDE	74-87-3	250	N	1,200	N	1,400	N
METHYL ETHYL KETONE	78-93-3	10,000	C	10,000	C	10,000	C
METHYL HYDRAZINE	60-34-4	0.38	N	1.6	N	1.8	N
METHYL ISOBUTYL KETONE	108-10-1	10,000	C	10,000	C	10,000	C
METHYL ISOCYANATE	624-83-9	19	N	79	N	91	N
METHYL N-BUTYL KETONE (2-HEXANONE)	591-78-6	570	N	2,400	N	**[2,800] 2,700**	N
METHYL METHACRYLATE	80-62-6	10,000	C	10,000	C	10,000	C
METHYL METHANESULFONATE	66-27-3	190	G	920	G	10,000	C
METHYL PARATHION	298-00-0	55	G	800	G	190,000	C
METHYL STYRENE (MIXED ISOMERS)	25013-15-4	**[770] 760**	N	**[3,200] 3,100**	N	3,600	N
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	1,700	N	**[8,600] 8,500**	N	**[9,900] 9,800**	N
METHYLCHLOROPHENOXYACETIC ACD (MCPA)	94-74-6	110	G	1,600	C	190,000	C
METHYLENE BIS(2-CHLOROANILINE), 4,4'-	101-14-4	42	G	910	G	190,000	C
METHYLNAPHTHALENE, 2-	91-57-6	**[880] 57**	**[G] N**	**[13,000] 240**	**[G] N**	**[190,000] 270**	**[C] N**
METHYLSTYRENE, ALPHA	98-83-9	10,000	C	10,000	C	10,000	C
METOLACHLOR	51218-45-2	10,000	C	10,000	C	10,000	C
METRIBUZIN	21087-64-9	5,500	G	80,000	G	190,000	C
MEVINPHOS	**7786-34-7**	**5.5**	**G**	**80**	**G**	**190,000**	**C**
MONOCHLOROACETIC ACID	79-11-8	440	G	6,400	G	190,000	C
NAPHTHALENE	91-20-3	**[160] 13**	**[G] N**	**[760] 66**	**[G] N**	**[190,000] 77**	**[C] N**
NAPHTHYLAMINE, 1-	134-32-7	10	G	51	G	190,000	C
NAPHTHYLAMINE, 2-	91-59-8	10	G	51	G	190,000	C
NAPROPAMIDE	15299-99-7	**[22,000] 26,000**	G	190,000	C	190,000	C
NITROANILINE, O-	88-74-4	**[2,200] 0.95**	**[G] N**	**[32,000] 3.9**	**[G] N**	**[190,000] 4.5**	**[C] N**
NITROANILINE, P-	100-01-6	880	G	4,600	G	190,000	C
NITROBENZENE	98-95-3	**[440] 11**	**[G] N**	**[6,400] 55**	**[G] N**	**[10,000] 63**	**[C] N**
NITROGUANIDINE	556-88-7	22,000	G	190,000	C	190,000	C

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NITROPHENOL, 2-	88-75-5	1,800	G	26,000	G	190,000	C
NITROPHENOL, 4-	100-02-7	1,800	G	26,000	G	190,000	C
NITROPROPANE, 2-	79-46-9	0.16	N	0.82	N	0.94	N
NITROSODIETHYLAMINE, N-	55-18-5	0.0041	N	0.051	N	0.059	N
NITROSODIMETHYLAMINE, N-	62-75-9	0.012	N	0.16	N	0.18	N
NITROSO-DI-N-BUTYLAMINE, N-	924-16-3	**[3.4] 0.28**	**[G] N**	**[17] 1.4**	**[G] N**	**[10,000] 1.6**	**[C] N**
NITROSODI-N-PROPYLAMINE, N-	621-64-7	**[2.7] 0.22**	**[G] N**	**[13] 1.1**	**[G] N**	**[10,000] 1.3**	**[C] N**
NITROSODIPHENYLAMINE, N-	86-30-6	**[3,800] 170**	**[G] N**	**[19,000] 860**	**[G] N**	**[190,000] 990**	**[C] N**
NITROSO-N-ETHYLUREA, N-	759-73-9	0.16	G	3.4	G	190,000	C
OCTYL PHTHALATE, DI-N-	117-84-0	2,200	G	10,000	C	10,000	C
OXAMYL (VYDATE)	23135-22-0	5,500	G	80,000	G	190,000	C
PARAQUAT	1910-42-5	990	G	14,000	G	190,000	C
PARATHION	56-38-2	**[1,300] 6.6**	G	**[10,000] 96**	**[C] G**	10,000	C
PCBS, TOTAL (POLYCHLORINATED BIPHENYLS) (AROCLORS)	**1336-36-3**	**9.3**	**G**	**46**	**G**	**190,000**	**C**
PCB-1016 (AROCLOR)	12674-11-2	**[9] 15**	G	**[46] 220**	G	10,000	C
PCB-1221 (AROCLOR)	11104-28-2	**[9] 4.7**	**[G] N**	**[46] 23**	**[G] N**	**[10,000] 27**	**[C] N**
PCB-1232 (AROCLOR)	11141-16-5	**[9] 9.3**	G	46	G	10,000	C
PCB-1242 (AROCLOR)	53469-21-9	**[9] 9.3**	G	46	G	10,000	C
PCB-1248 (AROCLOR)	12672-29-6	9.3	G	46	G	10,000	C
PCB-1254 (AROCLOR)	11097-69-1	4.4	G	**[46] 64**	G	10,000	C
PCB-1260 (AROCLOR)	11096-82-5	**[9] 9.3**	G	46	G	190,000	C
PEBULATE	1114-71-2	10,000	C	10,000	C	10,000	C
PENTACHLOROBENZENE	608-93-5	180	G	2,600	G	190,000	C
PENTACHLOROETHANE	76-01-7	210	G	1,000	G	10,000	C
PENTACHLORONITROBENZENE	82-68-8	72	G	350	G	190,000	C
PENTACHLOROPHENOL	87-86-5	47	G	230	G	190,000	C
PERFLUOROBUTANE SULFONATE (PFBS)	**375-73-5**	**4,400**	**G**	**10,000**	**C**	**10,000**	**C**
PERFLUOROOCTANE SULFONATE (PFOS)	**1763-23-1**	**4.4**	**G**	**64**	**G**	**190,000**	**C**
PERFLUOROOCTANOIC ACID (PFOA)	**335-67-1**	**4.4**	**G**	**64**	**G**	**190,000**	**C**
PHENACETIN	62-44-2	8,500	G	41,000	G	190,000	C
PHENANTHRENE	85-01-8	66,000	G	190,000	C	190,000	C
PHENOL	108-95-2	3,800	N	16,000	N	18,000	N
PHENYL MERCAPTAN	108-98-5	220	G	3,200	G	10,000	C
PHENYLENEDIAMINE, M-	108-45-2	1,300	G	19,000	G	190,000	C
PHENYLPHENOL, 2-	90-43-7	**[9,800] 9,600**	G	**[48,000] 47,000**	G	190,000	C
PHORATE	298-02-2	44	G	640	G	10,000	C
PHTHALIC ANHYDRIDE	85-44-9	**[190,000] 380**	**[C] N**	**[190,000] 1,600**	**[C] N**	**[190,000] 1,800**	**[C] N**
PICLORAM	1918-02-1	15,000	G	190,000	C	190,000	C
PROMETON	1610-18-0	3,300	G	48,000	G	190,000	C
PRONAMIDE	23950-58-5	17,000	G	190,000	C	190,000	C
PROPACHLOR	**1918-16-7**	**2,900**	**G**	**42,000**	**G**	**190,000**	**C**
PROPANIL	709-98-8	1,100	G	16,000	G	190,000	C
PROPANOL, 2- (ISOPROPYL ALCOHOL)	67-63-0	3,800	N	10,000	C	10,000	C
PROPAZINE	139-40-2	4,400	G	10,000	C	10,000	C

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REGULATED SUBSTANCE	CASRN	Residential 0-15 feet		Nonresidential Surface Soil 0-2 feet		Nonresidential Subsurface Soil 2-15 feet	
PROPHAM	122-42-9	4,400	G	64,000	G	190,000	C
PROPYLBENZENE, N-	103-65-1	10,000	C	10,000	C	10,000	C
PROPYLENE OXIDE	75-56-9	78	G	380	G	690	N
PYRENE	129-00-0	6,600	G	96,000	G	190,000	C
PYRETHRUM	**8003-34-7**	**220**	**G**	**3,200**	**G**	**10,000**	**C**
PYRIDINE	110-86-1	220	G	3,200	G	10,000	C
QUINOLINE	91-22-5	**[6] 6.2**	G	30	G	10,000	C
QUIZALOFOP (ASSURE)	76578-14-8	2,000	G	29,000	G	190,000	C
RDX	121-82-4	**[170] 230**	G	**[830] 1,100**	G	190,000	C
RESORCINOL	108-46-3	190,000	C	190,000	C	190,000	C
RONNEL	299-84-3	11,000	G	160,000	G	190,000	C
SIMAZINE	122-34-9	160	G	760	G	190,000	C
STRYCHNINE	57-24-9	66	G	960	G	190,000	C
STYRENE	100-42-5	10,000	C	10,000	C	10,000	C
TEBUTHIURON	34014-18-1	15,000	G	190,000	C	190,000	C
TERBACIL	5902-51-2	2,900	G	42,000	G	190,000	C
TERBUFOS	13071-79-9	5.5	G	80	G	10,000	C
TETRACHLOROBENZENE, 1,2,4,5-	95-94-3	66	G	960	G	190,000	C
TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8- (TCDD)	1746-01-6	0.00014	G	0.0007	G	190,000	C
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	60	N	300	N	340	N
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	**[7.7] 7.6**	N	38	N	44	N
TETRACHLOROETHYLENE (PCE)	127-18-4	**[770] 760**	N	3,200	N	3,600	N
TETRACHLOROPHENOL, 2,3,4,6-	58-90-2	6,600	G	96,000	G	190,000	C
TETRAETHYL LEAD	78-00-2	0.022	G	0.32	G	10,000	C
TETRAETHYLDITHIOPYROPHOSPHATE	3689-24-5	110	G	1,600	G	10,000	C
TETRAHYDROFURAN	109-99-9	**[240] 230**	N	**[1,200] 1,100**	N	**[1,400] 1,300**	N
THIOFANOX	39196-18-4	66	G	960	G	190,000	C
THIRAM	137-26-8	**[1,100] 3,300**	G	**[16,000] 48,000**	G	190,000	C
TOLUENE	108-88-3	10,000	C	10,000	C	10,000	C
TOLUIDINE, M-	108-44-1	1,200	G	5,700	G	10,000	C
TOLUIDINE, O-	95-53-4	1,200	G	5,700	G	10,000	C
TOLUIDINE, P-	106-49-0	620	G	3,000	G	190,000	C
TOXAPHENE	8001-35-2	17	G	83	G	190,000	C
TRIALLATE	2303-17-5	**[2,900] 26**	G	**[10,000] 130**	**[C] G**	10,000	C
TRIBROMOMETHANE (BROMOFORM)	75-25-2	**[410] 400**	N	2,000	N	2,300	N
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2-	76-13-1	10,000	C	10,000	C	10,000	C
TRICHLOROACETIC ACID	76-03-9	270	G	1,300	G	190,000	C
TRICHLOROBENZENE, 1,2,4-	120-82-1	**[640] 39**	**[G] N**	**[3,100] 160**	**[G] N**	**[10,000] 190**	**[C] N**
TRICHLOROBENZENE, 1,3,5-	108-70-3	**[1,300] 46**	**[G] N**	**[19,000] 190**	**[G] N**	**[190,000] 230**	**[C] N**
TRICHLOROETHANE, 1,1,1-	71-55-6	10,000	C	10,000	C	10,000	C
TRICHLOROETHANE, 1,1,2-	79-00-5	**[4] 3.8**	N	16	N	18	N
TRICHLOROETHYLENE (TCE)	79-01-6	38	N	160	N	180	N
TRICHLOROPHENOL, 2,4,5-	95-95-4	22,000	G	190,000	C	190,000	C
TRICHLOROPHENOL, 2,4,6-	88-06-2	220	G	3,200	G	190,000	C
TRICHLOROPHENOXYACETIC ACID, 2,4,5- (2,4,5-T)	93-76-5	2,200	G	32,000	G	190,000	C

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TRICHLOROPHENOXYPROPIONIC ACID, 2,4,5-(2,4,5-TP)(SILVEX)	93-72-1	1,800	G	26,000	G	190,000	C
TRICHLOROPROPANE, 1,1,2-	598-77-6	1,100	G	10,000	C	10,000	C
TRICHLOROPROPANE, 1,2,3-	96-18-4	0.14	G	3.0	G	**[28] 27**	N
TRICHLOROPROPENE, 1,2,3-	96-19-5	5.7	N	24	N	27	N
TRIETHYLAMINE	121-44-8	130	N	**[560] 550**	N	**[640] 630**	N
TRIETHYLENE GLYCOL	112-27-6	10,000	C	10,000	C	10,000	C
TRIFLURALIN	1582-09-8	1,700	G	12,000	G	190,000	C
TRIMETHYLBENZENE, 1,3,4-(TRIMETHYLBENZENE, 1,2,4-)	95-63-6	**[130] 1,100**	N	**[560] 4,700**	N	**[640] 5,400**	N
TRIMETHYLBENZENE, 1,3,5-	108-67-8	**[2,200] 1,100**	**[G] N**	**[10,000] 4,700**	**[C] N**	**[10,000] 5,400**	**[C] N**
TRINITROGLYCEROL (NITROGLYCERIN)	55-63-0	22	G	320	G	10,000	C
TRINITROTOLUENE, 2,4,6-	118-96-7	110	G	1,600	G	190,000	C
VINYL ACETATE	108-05-4	**[3,900] 3,800**	N	10,000	C	10,000	C
VINYL BROMIDE (BROMOETHENE)	593-60-2	14	N	70	N	80	N
VINYL CHLORIDE	75-01-4	**[0.9] 0.93**	G	61	G	**[280] 290**	N
WARFARIN	81-81-2	66	G	960	G	190,000	C
XYLENES (TOTAL)	1330-20-7	1,900	N	**[8,000] 7,900**	N	9,100	N
ZINEB	12122-67-7	11,000	G	160,000	G	190,000	C

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Appendix A
Table 3 – Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers												Nonuse Aquifers						Soil Buffer Distance (feet)
		TDS ≤ 2500 mg/L				TDS > 2500 mg/L														
		Residential				Nonresidential				Residential				Nonresidential				Residential				Nonresidential				
		100 X GW MSC		Generic Value		100 X GW MSC		Generic Value		100 X GW MSC		Generic Value		100 X GW MSC		Generic Value		100 X GW MSC		Generic Value		100 X GW MSC		Generic Value		
ACENAPHTHENE	83-32-9	**[250] 210**		**[3,100] 2,600**	E	380		4,700	E	380		4,700	E	380		4,700	E	380		4,700	E	380		4,700	E	15
ACENAPHTHYLENE	208-96-8	**[250] 210**		**[2,800] 2,400**	E	**[700] 580**		**[8,000] 6,600**	E	1,600		18,000	E	1,600		18,000	E	1,600		18,000	E	1,600		18,000	E	15
ACEPHATE	30560-19-1	**[8.4] 4.2**		**[1.0] 0.5**	E	**[39] 12**		**[4.6] 1.4**	E	**[840] 420**		**[100] 50**	E	**[3,900] 1,200**		**[460] 140**	E	**[8.4] 4.2**		**[1.0] 0.5**	E	**[39] 12**		**[4.6] 1.4**	E	NA
ACETALDEHYDE	75-07-0	1.9		0.23	E	7.9		0.96	E	190		23	E	790		96	E	1.9		0.23	E	7.9		0.96	E	NA
ACETONE	67-64-1	**[3,800] 3,100**		**[430] 350**	E	**[10,000] 8,800**		**[1,200] 980**	E	10,000		10,000	C	10,000		10,000	C	10,000		**[4,300] 3,500**	E	10,000		**[10,000] 9,800**	**[C] E**	NA
ACETONITRILE	75-05-8	13		1.5	E	53		6	E	1,300		150	E	5,300		600	E	130		15	E	530		60	E	NA
ACETOPHENONE	98-86-2	**[420] 350**		**[230] 190**	E	**[1,200] 970**		**[640] 520**	E	10,000		10,000	C	10,000		10,000	C	**[420] 350**		**[230] 190**	E	**[1,200] 970**		**[640] 520**	E	NA
ACETYLAMINOFLUORENE, 2- (2AAF)	53-96-3	**[0.019] 0.017**		**[0.08] 0.07**	E	**[0.089] 0.072**		**[0.37] 0.3**	E	**[1.9] 1.7**		**[8] 7**	E	**[8.9] 7.2**		**[37] 30**	E	**[19] 17**		**[78] 70**	E	**[89] 72**		**[370] 300**	E	20
ACROLEIN	107-02-8	0.0042		0.00047	E	0.018		0.002	E	0.42		0.047	E	1.8		0.2	E	0.042		0.0047	E	0.18		0.02	E	NA
ACRYLAMIDE	79-06-1	0.019		0.0033	E	0.25		0.043	E	1.9		0.33	E	25		4.3	E	0.019		0.0033	E	0.25		0.043	E	NA
ACRYLIC ACID	79-10-7	0.21		0.039	E	0.88		0.16	E	21		3.9	E	88		16	E	21		3.9	E	88		16	E	NA
ACRYLONITRILE	107-13-1	0.072		0.01	E	0.37		0.051	E	7.2		1	E	37		5.1	E	7.2		1	E	37		5.1	E	NA
ALACHLOR	15972-60-8	0.2		0.077	E	0.2		0.077	E	20		7.7	E	20		7.7	E	0.2		0.077	E	0.2		0.077	E	NA
ALDICARB	116-06-3	0.3		0.05	E	0.3		0.05	E	30		5	E	30		5	E	300		50	E	300		50	E	NA
ALDICARB SULFONE	1646-88-4	0.2		0.027	E	0.2		0.027	E	20		2.7	E	20		2.7	E	0.2		0.027	E	0.2		0.027	E	NA
ALDICARB SULFOXIDE	1646-87-3	0.4		0.045	E	0.4		0.045	E	40		4.5	E	40		4.5	E	0.4		0.045	E	0.4		0.045	E	NA
ALDRIN	309-00-2	**[0.0043] 0.0038**		**[0.52] 0.46**	E	**[0.02] 0.016**		**[2.4] 1.9**	E	**[0.43] 0.38**		**[52] 46**	E	**[2.0] 1.6**		**[240] 190**	E	2		240	E	2		240	E	10
ALLYL ALCOHOL	107-18-6	0.021		0.0025	E	0.088		0.01	E	2.1		0.25	E	**[9] 8.8**		1	E	2.1		0.25	E	**[9] 8.8**		1	E	NA
AMETRYN	834-12-8	6		6.5	E	6		6.5	E	600		650	E	600		650	E	6		6.5	E	6		6.5	E	NA
AMINOBIPHENYL, 4-	92-67-1	**[0.0035] 0.0031**		**[0.0014] 0.0012**	E	**[0.016] 0.013**		**[0.0062] 0.005**	E	**[0.35] 0.31**		**[0.14] 0.12**	E	**[1.6] 1.3**		**[0.62] 0.5**	E	**[3.5] 3.1**		**[1.4] 1.2**	E	**[16] 13**		**[6.2] 5**	E	NA

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REGULATED SUBSTANCE	CASRN	Used Aquifers										Nonuse Aquifers						Soil Buffer Distance (feet)
		TDS ≤ 2500 mg/L						TDS > 2500 mg/L										
		Residential			Nonresidential			Residential			Nonresidential			Residential		Nonresidential		
		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value		
AMITROLE	61-82-5	**[0.078] 0.069**	**[0.032] 0.028**	E	**[0.36] 0.29**	**[0.15] 0.12**	E	**[8] 6.9**	**[3.2] 2.8**	E	**[36] 29**	**[15] 12**	E	**[78] 69**	**[32] 28**	E	**[360] 290**	**[150] 120**	E	NA
AMMONIA	7664-41-7	3,000	360	E	3,000	360	E	10,000	10,000	C	10,000	10,000	C	3,000	360	E	3,000	360	E	NA
AMMONIUM SULFAMATE	7773-06-0	200	24	E	200	24	E	20,000	2,400	E	20,000	2,400	E	200	24	E	200	24	E	NA
ANILINE	62-53-3	0.21	0.12	E	0.88	0.52	E	21	12	E	88	52	E	0.21	0.12	E	0.88	0.52	E	NA
ANTHRACENE	120-12-7	6.6	350	E	6.6	350	E	6.6	350	E	6.6	350	E	6.6	350	E	6.6	350	E	10
ATRAZINE	1912-24-9	0.3	0.13	E	0.3	0.13	E	30	13	E	30	13	E	0.3	0.13	E	0.3	0.13	E	NA
AZINPHOS-METHYL (GUTHION)	86-50-0	**[13] 5.2**	**[15] 5.9**	E	**[35] 15**	**[40] 17**	E	**[1,300] 520**	**[1,500] 590**	E	**[3,200] 1,500**	**[3,600] 1,700**	E	**[13] 5.2**	**[15] 5.9**	E	**[35] 15**	**[40] 17**	E	NA
BAYGON (PROPOXUR)	114-26-1	0.3	0.057	E	0.3	0.057	E	30	5.7	E	30	5.7	E	300	57	E	300	57	E	NA
BENOMYL	17804-35-2	**[200] 27**	**[970] 130**	E	**[200] 110**	**[970] 530**	E	200	970	E	200	970	E	**[200] 27**	**[970] 130**	E	**[200] 110**	**[970] 530**	E	20
BENTAZON	25057-89-0	20	2.9	E	20	2.9	E	2,000	290	E	2,000	290	E	20	2.9	E	20	2.9	E	NA
BENZENE	71-43-2	0.5	0.13	E	0.5	0.13	E	50	13	E	50	13	E	50	13	E	50	13	E	NA
BENZIDINE	92-87-5	**[0.000098] 0.000092**	**[0.13] 0.12**	E	**[0.0015] 0.0012**	**[2] 1.6**	E	**[0.0098] 0.0092**	**[13] 12**	E	**[0.15] 0.12**	**[200] 160**	E	**[0.098] 0.092**	**[130] 120**	E	**[1.5] 1.2**	**[2,000] 1,600**	E	5
BENZO[A]ANTHRACENE	56-55-3	**[0.032] 0.03**	**[28] 26**	E	**[0.49] 0.39**	**[430] 340**	E	1.1	960	E	1.1	960	E	1.1	960	E	1.1	960	E	5
BENZO[A]PYRENE	50-32-8	0.02	46	E	0.02	46	E	0.38	860	E	0.38	860	E	0.38	860	E	0.38	860	E	5
BENZO[B]FLUORANTHENE	205-99-2	**[0.019] 0.018**	**[26] 25**	E	0.12	170	E	0.12	170	E	0.12	170	E	0.12	170	E	0.12	170	E	5
BENZO[GHI]PERYLENE	191-24-2	0.026	180	E	0.026	180	E	0.026	180	E	0.026	180	E	0.026	180	E	0.026	180	E	5
BENZO[K]FLUORANTHENE	207-08-9	**[0.019] 0.018**	**[210] 200**	E	0.055	610	E	0.055	610	E	0.055	610	E	0.055	610	E	0.055	610	E	5
BENZOIC ACID	65-85-0	**[17,000] 14,000**	**[3,200] 2,700**	E	**[47,000] 39,000**	**[9,000] 7,500**	E	190,000	52,000	E	190,000	52,000	E	**[17,000] 14,000**	**[3,200] 2,700**	E	**[47,000] 39,000**	**[9,000] 7,500**	E	NA
BENZOTRICHLORIDE	98-07-7	**[0.0056] 0.005**	**[0.014] 0.012**	E	**[0.026] 0.021**	**[0.063] 0.051**	E	**[0.56] 0.5**	**[1.4] 1.2**	E	**[3] 2.1**	**[6.3] 5.1**	E	**[5.6] 0.5**	**[14] 1.2**	E	**[26] 2.1**	**[63] 5.1**	E	30

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		TDS ≤ 2500 mg/L						TDS > 2500 mg/L												
		Residential				Nonresidential			Residential			Nonresidential			Residential			Nonresidential			
		100 X GW MSC	Generic Value			100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		
BENZYL ALCOHOL	100-51-6	**[420] 350**	**[150] 130**	E	**[1,200] 970**	**[430] 350**	E	10,000	10,000	C	10,000	10,000	C	**[420] 350**	**[150] 130**	E	**[1,200] 970**	**[430] 350**	E	NA
BENZYL CHLORIDE	100-44-7	0.1	0.059	E	0.51	0.3	E	10	5.9	E	51	30	E	10	5.9	E	51	30	E	NA
BETA PROPIOLACTONE	57-57-8	0.0012	0.00015	E	0.006 3	0.0007 6	E	**[0.1] 0.12**	0.015	E	0.63	0.076	E	0.012	0.0015	E	0.063	0.0076	E	NA
BHC, ALPHA	319-84-6	**[0.012] 0.01**	**[0.055] 0.046**	E	**[0.054] 0.043**	**[0.25] 0.2**	E	1	**[5.5] 4.6**	E	**[5.4] 4.3**	**[25] 20**	E	**[12] 10**	**[55] 46**	E	**[54] 43**	**[250] 200**	E	20
BHC, BETA-	319-85-7	**[0.041] 0.036**	**[0.24] 0.21**	E	**[0.19] 0.15**	**[1.1] 0.88**	E	**[4.1] 3.6**	**[24] 21**	E	10	59	E	10	59	E	10	59	E	15
BHC, GAMMA (LINDANE)	58-89-9	0.02	0.072	E	0.02	0.072	E	2	7.2	E	2	7.2	E	20	72	E	20	72	E	20
BIPHENYL, 1,1-	92-52-4	**[9.1] 0.084**	**[40] 0.37**	E	**[43] 0.35**	**[190] 1.5**	E	**[720] 8.4**	**[3,100] 37**	E	**[720] 35**	**[3,100] 150**	E	**[720] 8.4**	**[3,100] 37**	E	**[720] 35**	**[3,100] 150**	E	20
BIS(2-CHLOROETHOXY) METHANE	111-91-1	**[13] 10**	**[3.4] 2.6**	E	**[35] 29**	**[9.2] 7.6**	E	**[1,300] 1,000**	**[340] 260**	E	**[3,500] 2,900**	**[920] 760**	E	**[13] 10**	**[3.4] 2.6**	E	**[35] 29**	**[9.2] 7.6**	E	NA
BIS(2-CHLOROETHYL)ETHER	111-44-4	0.015	0.0045	E	0.076	0.023	E	1.5	0.45	E	7.6	2.3	E	1.5	0.45	E	7.6	2.3	E	NA
BIS(2-CHLORO-ISOPROPYL)ETHER	108-60-1	30	8	E	30	8	E	3,000	800	E	3,000	800	E	3,000	800	E	3,000	800	E	NA
BIS(CHLOROMETHYL)ETHER	542-88-1	0.0000 79	0.000012	E	0.000 4	0.0000 6	E	0.0079	**[0.001] 0.0012**	E	0.04	0.006	E	0.0079	**[0.001] 0.0012**	E	0.04	0.006	E	NA
BIS[2-ETHYLHEXYL] PHTHALATE	117-81-7	0.6	130	E	0.6	130	E	29	6,300	E	29	6,300	E	29	6,300	E	29	6,300	E	10
BISPHENOL A	80-05-7	**[210] 170**	**[810] 660**	E	**[580] 490**	**[2,200] 1,900**	E	12,000	46,000	E	12,000	46,000	E	12,000	46,000	E	12,000	46,000	E	20
BROMACIL	314-40-9	7	1.8	E	7	1.8	E	700	180	E	700	180	E	7	1.8	E	7	1.8	E	NA
BROMOBENZENE	**108-86-1**	**0.006**	**0.0047**	**E**	**0.006**	**0.0047**	**E**	**0.6**	**0.47**	**E**	**0.6**	**0.47**	**E**	**0.006**	**0.0047**	**E**	**0.006**	**0.0047**	**E**	**NA**
BROMOCHLOROMETHANE	74-97-5	9	1.6	E	9	1.6	E	900	160	E	900	160	E	9	1.6	E	9	1.6	E	NA
BROMODICHLORO METHANE (THM)	75-27-4	8	2.7	E	8	2.7	E	800	270	E	800	270	E	8	2.7	E	8	2.7	E	NA
BROMOMETHANE	74-83-9	1	0.54	E	1	0.54	E	100	54	E	100	54	E	100	54	E	100	54	E	NA
BROMOXYNIL	1689-84-5	**[83] 0.63**	**[71] 0.54**	E	**[230] 2.6**	**[200] 2.2**	E	**[8,300] 63**	**[7,100] 54**	E	**[13,00 0] 260**	**[11,000] 220**	E	**[83] 0.63**	**[71] 0.54**	E	**[230] 2.6**	**[200] 2.2**	E	NA
BROMOXYNIL OCTANOATE	1689-99-2	**[8] 0.63**	**[360] 28**	E	**[8] 2.6**	**[360] 120**	E	8	360	E	8	360	E	8	360	E	8	360	E	15

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		Residential		Nonresidential		Residential		Nonresidential				Residential		Nonresidential				
		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		
BUTADIENE, 1,3-	106-99-0	**[0.021] 0.11**	**[0.0086] 0.045**	E	**[0.1] 0.45**	**[0.041] 0.19**	E	**[2.1] 11**	**[0.86] 4.5**	E	**[10] 45**	**[4.1] 19**	E	**[2.1] 11**	**[0.86] 4.5**	E	**[10] 45**	**[4.1] 19**	E	NA
BUTYL ALCOHOL, N-	71-36-3	**[420] 350**	**[50] 42**	E	**[1,200] 970**	**[140] 120**	E	10,000	**[5,000] 4,200**	E	10,000	10,000	C	**[4,200] 3,500**	**[500] 420**	E	**[10,000] 9,700**	**[1,400] 1,200**	E	NA
BUTYLATE	2008-41-5	40	58	E	40	58	E	4,000	5,800	E	4,000	5,800	E	40	58	E	40	58	E	30
BUTYLBENZENE, N-	104-51-8	**[210] 170**	**[1,300] 1,100**	E	**[580] 490**	**[3,700] 3,100**	E	1,500	9,500	E	1,500	9,500	E	**[210] 170**	**[1,300] 1,100**	E	**[580] 490**	**[3,700] 3,100**	E	15
BUTYLBENZENE, SEC-	135-98-8	**[420] 350**	**[980] 820**	E	**[1,200] 970**	**[2,800] 2,300**	E	1,700	4,000	E	1,700	4,000	E	**[420] 350**	**[980] 820**	E	**[1,200] 970**	**[2,800] 2,300**	E	30
BUTYLBENZENE, TERT-	98-06-6	**[420] 350**	**[760] 630**	E	**[1,200] 970**	**[2,200] 1,800**	E	3,000	5,400	E	3,000	5,400	E	**[420] 350**	**[760] 630**	E	**[1,200] 970**	**[2,200] 1,800**	E	30
BUTYLBENZYL PHTHALATE	85-68-7	**[38] 34**	**[3,200] 2,900**	E	**[180] 140**	10,000	C	270	10,000	C	270	10,000	C	270	10,000	C	270	10,000	C	10
CAPTAN	133-06-2	**[32] 28**	**[20] 17**	E	50	31	E	50	31	E	50	31	E	50	31	E	50	31	E	NA
CARBARYL	63-25-2	**[420] 350**	**[250] 210**	E	**[1,200] 970**	**[700] 570**	E	12,000	7,000	E	12,000	7,000	E	12,000	7,000	E	12,000	7,000	E	NA
CARBAZOLE	86-74-8	**[3.7] 3.3**	**[24] 21**	E	**[17] 14**	**[110] 89**	E	120	760	E	120	760	E	**[4] 3.3**	**[24] 21**	E	**[17] 14**	**[110] 89**	E	15
CARBOFURAN	1563-66-2	4	0.87	E	4	0.87	E	400	87	E	400	87	E	4	0.87	E	4	0.87	E	NA
CARBON DISULFIDE	75-15-0	150	130	E	620	530	E	10,000	10,000	C	10,000	10,000	C	150	130	E	620	530	E	NA
CARBON TETRACHLORIDE	56-23-5	0.5	0.26	E	0.5	0.26	E	50	26	E	50	26	E	5	2.6	E	5	2.6	E	NA
CARBOXIN	5234-68-4	70	53	E	70	53	E	7,000	5,300	E	7,000	5,300	E	70	53	E	70	53	E	NA
CHLORAMBEN	133-90-4	10	1.6	E	10	1.6	E	1,000	160	E	1,000	160	E	10	1.6	E	10	1.6	E	NA
CHLORDANE	57-74-9	0.2	49	E	0.2	49	E	5.6	1,400	E	5.6	1,400	E	5.6	1,400	E	5.6	1,400	E	10
CHLORO-1,1-DIFLUOROETHANE, 1-	75-68-3	10,000	1,800	E	10,000	7,300	E	10,000	10,000	C	10,000	10,000	C	10,000	1,800	E	10,000	7,300	E	NA
CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE)	107-05-1	0.21	0.049	E	0.88	0.2	E	21	4.9	E	88	20	E	21	4.9	E	88	20	E	NA
CHLOROACETALDEHYDE	107-20-0	0.24	0.029	E	**[1.1] 1**	**[0.13] 0.12**	E	24	2.9	E	**[110] 100**	**[13] 12**	E	0.24	0.029	E	**[1.1] 1**	**[0.1] 0.12**	E	NA
[CHLOROACETOPHENONE, 2-]	**[532-27-4]**	**[0.13]**	**[0.039]**	**[E]**	**[0.35]**	**[0.11]**	**[E]**	**[13]**	**[3.9]**	**[E]**	**[35]**	**[11.0]**	**[E]**	**[130]**	**[39]**	**[E]**	**[350]**	**[110]**	**[E]**	**[NA]**

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REGULATED SUBSTANCE	CASRN	Used Aquifers												Nonuse Aquifers						Soil Buffer Distance (feet)
		TDS ≤ 2500 mg/L				TDS > 2500 mg/L				Residential			Nonresidential							
		Residential		Nonresidential		Residential		Nonresidential		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value	
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value											
CHLOROANILINE, P-	106-47-8	**[0.37] 0.33**	**[0.47] 0.42** E	**[1.7] 1.4**	**[2.1] 1.8** E	**[37] 33**	**[47] 42** E	**[170] 140**	**[210] 180** E	**[0.37] 0.33**	**[0.47] 0.42** E		**[1.7] 1.4**	**[2.1] 1.8** E		NA
CHLOROBENZENE	108-90-7	10	6.1 E	10	6.1 E	1,000	610 E	1,000	610 E	1,000	610 E		1,000	610 E		NA
CHLOROBENZILATE	510-15-6	**[0.66] 0.59**	**[4.4] 3.9** E	**[3.1] 2.5**	**[20] 17** E	**[66] 59**	**[440] 390** E	**[310] 250**	**[2,000] 1,700** E	**[660] 590**	**[4,400] 3,900** E	1,300	8,600 E		15
CHLOROBUTANE, 1-	109-69-3	**[170] 140**	**[270] 220** E	**[470] 390**	**[730] 610** E	10,000	10,000 C	10,000	10,000 C	**[170] 140**	**[270] 220** E	**[470] 390**	**[730] 610** E		30
CHLORODIBROMO METHANE (THM)	124-48-1	8	2.5 E	8	2.5 E	800	250 E	800	250 E	800	250 E	800	250 E		NA
CHLORODIFLUORO METHANE (THM)	75-45-6	10,000	2,800 E	10,000	10,000 C	10,000	10,000 C	10,000	10,000 C	10,000	2,800 E	10,000	10,000 C		NA
CHLOROETHANE	75-00-3	**[25] 2,100**	**[5.4] 450** E	**[120] 8,800**	**[26] 1,900** E	**[2,500] 10,000**	**[540] 10,000**	**[E] C**	10,000	**[2,600] 10,000**	**[E] C**	**[2,500] 10,000**	**[540] 10,000**	**[E] C**	10,000	**[2,600] 10,000**	**[E] C**	NA
CHLOROFORM (THM)	67-66-3	8	2 E	8	2 E	800	200 E	800	200 E	80	20 E	80	20 E		NA
CHLORONAPHTHALENE, 2-	91-58-7	**[330] 280**	**[7,000] 6,000** E	**[930] 780**	**[20,000] 17,000** E	1,200	26,000 E	1,200	26,000 E	**[330] 280**	**[7,000] 6,000** E	**[930] 780**	**[20,000] 17,000** E		15
CHLORONITROBENZENE, P-	100-00-5	**[4.2] 0.42**	**[5.5] 0.55** E	**[12] 1.8**	**[16] 2.4** E	**[420] 42**	**[550] 55** E	**[1,200] 180**	**[1,600] 240** E	**[4.2] 0.42**	**[5.5] 0.55** E	**[12] 1.8**	**[16] 2.4** E		NA
CHLOROPHENOL, 2-	95-57-8	4	4.4 E	4	4.4 E	400	440 E	400	440 E	4	4.4 E	4	4.4 E		NA
CHLOROPRENE	126-99-8	0.016	0.0038 E	0.083	0.02 E	1.6	0.38 E	8.3	2 E	1.6	0.38 E	8.3	2 E		NA
CHLOROPROPANE, 2-	75-29-6	21	16 E	88	67 E	2,100	1,600 E	8,800	6,700 E	21	16 E	88	67 E		NA
CHLOROTHALONIL	1897-45-6	**[24] 3.8**	**[61] 9.7** E	**[60] 16**	**[150] 41** E	60	150 E	60	150 E	**[24] 3.8**	**[61] 9.7** E	**[60] 16**	**[150] 41** E		30
CHLOROTOLUENE, O-	95-49-8	10	20 E	10	20 E	1,000	2,000 E	1,000	2,000 E	10	20 E	10	20 E		30
CHLOROTOLUENE, P-	106-43-4	10	10 E	10	10 E	1,000	1,000 E	1,000	1,000 E	10	10 E	10	10 E		NA
CHLORPYRIFOS	2921-88-2	0.2	2.3 E	0.2	2.3 E	20	230 E	20	230 E	0.2	2.3 E	0.2	2.3 E		15
CHLORSULFURON	64902-72-3	**[210] 69**	**[29] 9.6** E	**[580] 190**	**[80] 26** E	**[19,000] 6,900**	**[2,600] 960** E	19,000	2,600 E	**[210] 69**	**[29] 9.6** E	**[580] 190**	**[80] 26** E		NA
CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)	1861-32-1	7	110 E	7	110 E	50	820 E	50	820 E	50	820 E	50	820 E		15

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		TDS ≤ 2500 mg/L				TDS > 2500 mg/L														
		Residential				Nonresidential				Residential				Nonresidential				Residential				Nonresidential				
		100 X GW MSC		Generic Value		100 X GW MSC		Generic Value		100 X GW MSC		Generic Value		100 X GW MSC		Generic Value		100 X GW MSC		Generic Value		100 X GW MSC		Generic Value		
CHRYSENE	218-01-9	**[0.19] 0.18**		**[230] 220**	E	0.19		230	E	0.19		230	E	0.19		230	E	0.19		230	E	0.19		230	E	5
CRESOL(S)	1319-77-3	130		23	E	530		92	E	10,000		2,300	E	10,000		9,200	E	10,000		2,300	E	10,000		9,200	E	NA
CRESOL, 4,6-DINITRO-O-	534-52-1	**[0.33] 0.28**		**[0.25] 0.21**	E	**[0.93] 0.78**		**[0.7] 0.59**	E	**[33] 28**		**[25] 21**	E	**[93] 78**		**[70] 59**	E	**[330] 28**		**[250] 21**	E	**[930] 78**		**[700] 59**	E	NA
CRESOL, O- (2-METHYLPHENOL)	95-48-7	**[210] 170**		**[35] 28**	E	**[580] 490**		**[96] 81**	E	**[21,000] 17,000**		**[3,500] 2,800**	E	**[58,000]49,000**		**[9,600] 8,100**	E	**[21,000] 17,000**		**[3,500] 2,800**	E	**[58,000] 49,000**		**[9,600] 8,100**	E	NA
CRESOL, M- (3-METHYLPHENOL)	108-39-4	**[210] 170**		**[41] 34**	E	**[580] 490**		**[110] 97**	E	10,000		**[4,100] 3,400**	E	10,000		**[10,000] 9,700**	**[C] E**	10,000		10,000	C	10,000		10,000	C	NA
CRESOL, P- (4-METHYLPHENOL)	106-44-5	**[21] 17**		**[4.9] 4**	E	**[58] 49**		**[14] 11**	E	**[2,100] 1,700**		**[490] 400**	E	**[5,800] 4,900**		**[1,400] 1,100**	E	**[21,000] 17,000**		**[4,900] 4,000**	E	**[58,000] 49,000**		**[14,000] 11,000**	E	NA
CRESOL, P-CHLORO-M-	59-50-7	**[420] 350**		**[870] 720**	E	**[1,200] 970**		**[2,500] 2,000**	E	**[42,000] 35,000**		**[87,000] 72,000**	E	**[120,000] 97,000**		190,000	C	**[420] 350**		**[870] 720**	E	**[1,200] 970**		**[2,500] 2,000**	E	30
CROTONALDEHYDE	4170-30-3	**[0.038] 0.034**		**[0.0048] 0.0043**	E	**[0.18] 0.14**		**[0.023] 0.018**	E	**[3.8] 3.4**		**[0.48] 0.43**	E	**[18] 14**		**[2.3] 1.8**	E	**[3.8] 3.4**		**[0.48] 0.43**	E	**[18] 14**		**[2.3] 1.8**	E	NA
CROTONALDEHYDE, TRANS-	123-73-9	**[0.038] 0.034**		**[0.0048] 0.0043**	E	**[0.18] 0.14**		**[0.023] 0.018**	E	**[3.8] 3.4**		**[0.48] 0.43**	E	**[18] 14**		**[2.3] 1.8**	E	**[3.8] 3.4**		**[0.48] 0.43**	E	**[18] 14**		**[2.3] 1.8**	E	NA
CUMENE (ISOPROPYL BENZENE)	98-82-8	84		600	E	350		2,500	E	5,000		10,000	C	5,000		10,000	C	5,000		10,000	C	5,000		10,000	C	15
CYANAZINE	21725-46-2	0.1		0.061	E	0.1		0.061	E	10		6.1	E	10		6.1	E	0.1		0.061	E	0.1		0.061	E	NA
CYCLOHEXANE	110-82-7	1,300		1,700	E	5,300		6,900	E	5,500		7,200	E	5,500		7,200	E	1,300		1,700	E	5,300		6,900	E	NA
CYCLOHEXANONE	108-94-1	150		41	E	620		170	E	10,000		4,100	E	10,000		10,000	C	150		41	E	620		170	E	NA
CYFLUTHRIN	68359-37-5	0.1		33	E	0.1		33	E	0.1		33	E	0.1		33	E	0.1		33	E	0.1		33	E	10
CYROMAZINE	66215-27-8	**[31] 1,700**		**[96] 5,300**	E	**[88] 4,900**		**[270] 15,000**	E	**[3,100] 170,000**		**[9,600] 190,000**	**[E] C**	**[8,800] 190,000**		**[27,000] 190,000**	**[E] C**	**[31] 1,700**		**[96] 5,300**	E	**[88] 4,900**		**[270] 15,000**	E	20
DDD, 4,4'-	72-54-8	**[0.3] 0.27**		**[33] 30**	E	**[1.4] 1.1**		**[150] 120**	E	16		1,800	E	16		1,800	E	16		1,800	E	16		1,800	E	10

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		TDS ≤ 2500 mg/L				TDS > 2500 mg/L				Residential			Nonresidential							
		Residential		Nonresidential		Residential		Nonresidential		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value											
DDE, 4,4'-	72-55-9	**[0.21] 0.19**	**[46] 41** E	**[1] 0.8**	**[220] 170** E	4	870 E	4	870 E	4	870 E		4	870 E		4	870 E		10
DDT, 4,4'-	50-29-3	**[0.21] 0.19**	**[130] 110** E	0.55	330 E	0.55	330 E	0.55	330 E	0.55	330 E		0.55	330 E		0.55	330 E		5
DI(2-ETHYLHEXYL)ADIPATE	103-23-1	40	10,000 C	40	10,000 C	4,000	10,000 C	4,000	10,000 C	10,000	10,000 C		10,000	10,000 C		10,000	10,000 C		5
DIALLATE	2303-16-4	**[1.2] 1.1**	**[0.7] 0.64** E	**[5.6] 4.5**	**[3.3] 2.6** E	**[120] 110**	**[70] 64** E	**[560] 450**	**[330] 260** E	**[1,200] 1,100**	**[700] 640** E		**[4,000] 4,000**	**[2,300] 2,300** E		NA			
DIAMINOTOLUENE, 2,4-	95-80-7	**[0.018] 0.016**	**[0.0036] 0.0032** E	**[0.085] 0.068**	**[0.017] 0.014** E	**[1.8] 1.6**	**[0.36] 0.32** E	**[8.5] 6.8**	**[1.7] 1.4** E	**[18] 16**	**[3.6] 3.2** E		**[85] 68**	**[17] 14** E		NA			
DIAZINON	333-41-5	0.1	0.14 E	0.1	0.14 E	10	14 E	10	14 E	0.1	0.14 E		0.1	0.14 E		30			
DIBENZO[A,H] ANTHRACENE	53-70-3	**[0.0055] 0.0052**	**[25] 23** E	0.06	270 E	0.06	270 E	0.06	270 E	0.06	270 E		0.06	270 E		5			
DIBENZOFURAN	132-64-9	**[4.2] 3.5**	**[110] 90** E	**[12] 9.7**	**[310] 250** E	**[420] 350**	**[11,000] 9,000** E	450	12,000 E	**[450] 350**	**[12,000] 9,000** E		450	12,000 E		15			
DIBROMO-3-CHLOROPROPANE, 1,2-	96-12-8	0.02	0.0092 E	0.02	0.0092 E	2	0.92 E	2	0.92 E	2	0.92 E		2	0.92 E		2	0.92 E		NA
DIBROMOBENZENE, 1,4-	106-37-6	**[42] 35**	**[170] 140** E	**[120] 97**	**[490] 400** E	2,000	8,200 E	2,000	8,200 E	**[42] 35**	**[170] 140** E		**[120] 97**	**[490] 400** E		20			
DIBROMOETHANE, 1,2-(ETHYLENE DIBROMIDE)	106-93-4	0.005	0.0012 E	0.005	0.0012 E	0.5	0.12 E	0.5	0.12 E	0.5	0.12 E		0.5	0.12 E		NA			
DIBROMOMETHANE	74-95-3	0.84	0.32 E	3.5	1.4 E	84	32 E	350	140 E	84	32 E		350	140 E		NA			
DIBUTYL PHTHALATE, N-	84-74-2	**[420] 350**	**[1,700] 1,400** E	**[1,200] 970**	**[4,900] 4,000** E	10,000	10,000 C	10,000	10,000 C	10,000	10,000 C		10,000	10,000 C		20			
DICAMBA	1918-00-9	400	45 E	400	45 E	40,000	4,500 E	40,000	4,500 E	400	45 E		400	45 E		NA			
DICHLOROACETIC ACID (HAA)	76-43-6	6	0.79 E	6	0.79 E	600	79 E	600	79 E	6	0.79 E		6	0.79 E		NA			
DICHLORO-2-BUTENE, 1,4-	764-41-0	0.0012	0.00067 E	0.006	0.0034 E	0.12	**[0.07] 0.067** E	0.6	0.34 E	0.0012	**[0.0007] 0.00067** E		0.006	0.0034 E		NA			

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		TDS ≤ 2500 mg/L						TDS > 2500 mg/L												
		Residential			Nonresidential			Residential			Nonresidential			Residential			Nonresidential			
		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		
DICHLORO-2-BUTENE, TRANS-1,4-	110-57-6	0.0012	0.00078	E	0.006	0.0039	E	0.12	0.078	E	0.6	0.39	E	0.0012	0.00078	E	0.006	0.0039	E	NA
DICHLOROBENZENE, 1,2-	95-50-1	60	59	E	60	59	E	6,000	5,900	E	6,000	5,900	E	6,000	5,900	E	6,000	5,900	E	NA
DICHLOROBENZENE, 1,3-	541-73-1	60	61	E	60	61	E	6,000	6,100	E	6,000	6,100	E	6,000	6,100	E	6,000	6,100	E	NA
DICHLOROBENZENE, P-	106-46-7	7.5	10	E	7.5	10	E	750	1,000	E	750	1,000	E	750	1,000	E	750	1,000	E	30
DICHLOROBENZIDINE, 3,3'-	91-94-1	**[0.16] 0.14**	**[8.8] 7.7**	E	**[0.76] 0.6**	**[42] 33**	E	**[16] 14**	**[880] 770**	E	**[76] 60**	**[4,200] 3,300**	E	**[160] 140**	**[8,800] 7,700**	E	310	17,000	E	10
DICHLORODIFLUORO-METHANE (FREON 12)	75-71-8	100	100	E	100	100	E	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	NA
DICHLOROETHANE, 1,1-	75-34-3	3.1	0.75	E	16	3.9	E	310	75	E	1,600	390	E	31	7.5	E	160	39	E	NA
DICHLOROETHANE, 1,2-	107-06-2	0.5	0.1	E	0.5	0.1	E	50	10	E	50	10	E	5	1	E	5	1	E	NA
DICHLOROETHYLENE, 1,1-	75-35-4	0.7	0.19	E	0.7	0.19	E	70	19	E	70	19	E	7	1.9	E	7	1.9	E	NA
DICHLOROETHYLENE, CIS-1,2-	156-59-2	7	1.6	E	7	1.6	E	700	160	E	700	160	E	70	16	E	70	16	E	NA
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	10	2.3	E	10	2.3	E	1,000	230	E	1,000	230	E	100	23	E	100	23	E	NA
DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	0.5	0.076	E	0.5	0.076	E	50	7.6	E	50	7.6	E	50	7.6	E	50	7.6	E	NA
DICHLOROPHENOL, 2,4-	120-83-2	2	1	E	2	1	E	200	100	E	200	100	E	2,000	1,000	E	2,000	1,000	E	NA
DICHLOROPHENOXY ACETIC ACID, 2,4- (2,4-D)	94-75-7	7	1.8	E	7	1.8	E	700	180	E	700	180	E	7,000	1,800	E	7,000	1,800	E	NA
DICHLOROPROPANE, 1,2-	78-87-5	0.5	0.11	E	0.5	0.11	E	50	11	E	50	11	E	5	1.1	E	5	1.1	E	NA
DICHLOROPROPENE, 1,3-	542-75-6	**[0.73] 0.65**	**[0.13] 0.12**	E	**[3.4] 2.7**	**[0.61] 0.48**	E	**[73] 65**	**[13] 12**	E	**[340] 270**	**[61] 48**	E	**[73] 65**	**[13] 12**	E	**[340] 270**	**[61] 48**	E	NA
DICHLOROPROPIONIC ACID, 2,2- (DALAPON)	75-99-0	20	5.3	E	20	5.3	E	2,000	530	E	2,000	530	E	2,000	530	E	2,000	530	E	NA
DICHLORVOS	62-73-7	**[0.25] 0.22**	**[0.059] 0.052**	E	**[1.2] 0.94**	**[0.28] 0.22**	E	**[25] 22**	**[5.9] 5.2**	E	**[120] 94**	**[28] 22**	E	**[0.25] 0.22**	**[0.059] 0.052**	E	**[1.2] 0.94**	**[0.28] 0.22**	E	NA
DICYCLOPENTADIENE	77-73-6	0.063	0.13	E	0.26	0.56	E	**[6] 6.3**	13	E	26	56	E	**[0.1] 0.063**	**[0.1] 0.13**	E	**[0.3] 0.26**	**[1] 0.56**	E	30
DIELDRIN	60-57-1	**[0.0046] 0.0041**	**[0.13] 0.11**	E	**[0.021] 0.017**	**[0.58] 0.47**	E	**[0.46] 0.41**	**[13] 11**	E	**[2.1] 1.7**	**[58] 47**	E	**[4.6] 4.1**	**[130] 110**	E	**[17] 17**	**[470] 470**	E	15
[DIETHANOLAMINE]	**[111-42-2]**	**[NA]**	**[NA]**		**[NA]**	**[NA]**		**[NA]**	**[NA]**		**[NA]**	**[NA]**		**[NA]**	**[NA]**		**[NA]**	**[NA]**		**[NA]**

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REGULATED SUBSTANCE	CASRN	Used Aquifers												Nonuse Aquifers						Soil Buffer Distance (feet)
		TDS ≤ 2500 mg/L				TDS > 2500 mg/L				Residential			Nonresidential							
		Residential		Nonresidential		Residential		Nonresidential												
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value							
DIETHYL PHTHALATE	84-66-2	[3,300] 2,800	[1,000] 880 E	[9,300] 7,800	[2,900] 2,400 E	10,000	10,000 C	10,000	10,000 C	10,000	10,000 C	10,000	10,000 C							NA
DIFLUBENZURON	35367-38-5	20	52 E	20	52 E	20	52 E	20	52 E	20	52 E	20	52 E							20
DIISOPROPYL METHYLPHOSPHONATE	1445-75-6	60	8.2 E	60	8.2 E	6,000	820 E	6,000	820 E	60	8.2 E	60	8.2 E							NA
DIMETHOATE	60-51-5	[0.83] 7.6	[0.32] 2.9 E	[2.3] 21	[0.89] 8.1 E	[83] 760	[32] 290 E	[230] 2,100	[89] 810 E	[830] 7,600	[320] 2,900 E	[2,300] 21,000	[890] 8,100 E							NA
DIMETHOXYBENZIDINE, 3,3-	119-90-4	[0.046] 0.041	[0.15] 0.14 E	[0.21] 0.17	[0.71] 0.57 E	[5] 4.1	[15] 14 E	[21] 17	[71] 57 E	[46] 41	[150] 140 E	[210] 170	[710] 570 E							20
DIMETHRIN	70-38-2	3.6	240 E	3.6	240 E	3.6	240 E	3.6	240 E	3.6	240 E	3.6	240 E							10
DIMETHYLAMINOAZO BENZENE, P-	60-11-7	[0.016] 0.014	[0.042] 0.037 E	[0.074] 0.059	[0.19] 0.15 E	[1.6] 1.4	[4.2] 3.7 E	[7.4] 5.9	[19] 15 E	[16] 14	[42] 37 E	[74] 59	[190] 150 E							20
DIMETHYLANILINE, N,N-	121-69-7	[8.3] 2.4	[4.7] 1.3 E	[23] 10	[13] 5.6 E	[830] 240	[470] 130 E	[2,300] 1,000	[1,300] 560 E	[830] 240	[470] 130 E	[2,300] 1,000	[1,300] 560 E							NA
DIMETHYLBENZIDINE, 3,3-	119-93-7	[0.0066] 0.0059	[0.36] 0.33 E	[0.031] 0.025	[1.7] 1.4 E	[0.7] 0.59	[36] 33 E	[3.1] 2.5	[170] 140 E	[7] 5.9	[360] 330 E	[31] 25	[1,700] 1,400 E							10
DIMETHYL METHYLPHOSPHONATE	756-79-6	10	1.2 E	10	1.2 E	1,000	120 E	1,000	120 E	10	1.2 E	10	1.2 E							NA
DIMETHYLPHENOL, 2,4-	105-67-9	[83] 69	[36] 30 E	[230] 190	[100] 83 E	[8,300] 6,900	[3,600] 3,000 E	10,000	[10,000] 8,300 [C] E	10,000	10,000 C	10,000	10,000 C							NA
DINITROBENZENE, 1,3-	99-65-0	0.1	0.049 E	0.1	0.049 E	10	4.9 E	10	4.9 E	100	49 E	100	49 E							NA
DINITROPHENOL, 2,4-	51-28-5	[8.3] 6.9	[0.94] 0.78 E	[23] 19	[2.6] 2.1 E	[830] 690	[94] 78 E	[2,300] 1,900	[260] 210 E	[8,300] 6,900	[940] 780 E	[23,000] 19,000	[2,600] 2,100 E							NA
DINITROTOLUENE, 2,4-	121-14-2	[0.24] 0.21	[0.057] 0.05 E	[1.1] 0.88	[0.26] 0.21 E	[24] 21	[6] 5 E	[110] 88	[26] 21 E	[240] 210	[57] 50 E	[1,100] 880	[260] 210 E							NA
DINITROTOLUENE, 2,6- (2,6-DNT)	606-20-2	[0.049] 0.043	[0.015] 0.013 E	[0.23] 0.18	[0.068] 0.053 E	[5] 4.3	[2] 1.3 E	[23] 18	[7] 5.3 E	[49] 43	[15] 13 E	[230] 180	[68] 53 E							NA
DINOSEB	88-85-7	0.7	0.29 E	0.7	0.29 E	70	29 E	70	29 E	700	290 E	700	290 E							NA

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		TDS ≤ 2500 mg/L				TDS > 2500 mg/L								
		Residential		Nonresidential		Residential		Nonresidential		Residential		Nonresidential		
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	
DIOXANE, 1,4-	123-91-1	**[0.64] 0.65**	**[0.084] 0.085** E	**[3.2] 2.7**	**[0.42] 0.35** E	**[64] 65**	**[8.4] 8.5** E	**[320] 270**	**[42] 35** E	**[6.4] 6.5**	**[0.84] 0.85** E	**[32] 27**	**[4.2] 3.5** E	NA
DIPHENAMID	957-51-7	20	12 E	20	12 E	2,000	1,200 E	2,000	1,200 E	20	12 E	20	12 E	NA
DIPHENYLAMINE	122-39-4	**[100] 350**	**[59] 210** E	**[290] 970**	**[170] 570** E	**[10,000] 30,000**	**[5,900] 18,000** E	**[29,000] 30,000**	**[17,000] 18,000** E	30,000	18,000 E	30,000	18,000 E	NA
DIPHENYLHYDRAZINE, 1,2-	122-66-7	**[0.091] 0.022**	**[0.16] 0.039** E	**[0.43] 0.11**	**[0.76] 0.19** E	**[9.1] 2.2**	**[16] 3.9** E	**[25] 11**	**[44] 19** E	**[25] 2.2**	**[44] 3.9** E	**[25] 11**	**[44] 19** E	30
DIQUAT	85-00-7	2	0.24 E	2	0.24 E	200	24 E	200	24 E	2	0.24 E	2	0.24 E	NA
DISULFOTON	298-04-4	0.07	0.18 E	0.07	0.18 E	7	18 E	7	18 E	70	180 E	70	180 E	20
DITHIANE, 1,4-	505-29-3	8	1.3 E	8	1.3 E	800	130 E	800	130 E	8	1.3 E	8	1.3 E	NA
DIURON	330-54-1	**[8.3] 6.9**	**[7.1] 5.9** E	**[23] 19**	**[20] 16** E	**[830] 690**	**[710] 590** E	**[2,300] 1,900**	**[2,000] 1,600** E	**[8.3] 6.9**	**[7.1] 5.9** E	**[23] 19**	**[20] 16** E	NA
ENDOSULFAN	115-29-7	**[25] 21**	**[130] 110** E	48	250 E	48	250 E	48	250 E	48	250 E	48	250 E	15
ENDOSULFAN I (ALPHA)	959-98-8	**[25] 21**	**[130] 110** E	50	260 E	50	260 E	50	260 E	**[25] 21**	**[130] 110** E	50	260 E	15
ENDOSULFAN II (BETA)	33213-65-9	**[25] 21**	**[150] 120** E	45	260 E	45	260 E	45	260 E	**[25] 21**	**[150] 120** E	45	260 E	15
ENDOSULFAN SULFATE	1031-07-8	12	70 E	12	70 E	12	70 E	12	70 E	12	70 E	12	70 E	15
ENDOTHALL	145-73-3	10	4.1 E	10	4.1 E	1,000	410 E	1,000	410 E	10	4.1 E	10	4.1 E	NA
ENDRIN	72-20-8	0.2	5.5 E	0.2	5.5 E	20	550 E	20	550 E	0.2	5.5 E	0.2	5.5 E	15
EPICHLOROHYDRIN	106-89-8	0.21	0.042 E	0.88	0.17 E	21	4.2 E	88	17 E	21	4.2 E	88	17 E	NA
ETHEPHON	16672-87-0	**[21] 17**	**[2.4] 2** E	**[58] 49**	**[6.7] 5.7** E	**[2,100] 1,700**	**[240] 200** E	**[5,800] 4,900**	**[670] 570** E	**[21] 17**	**[2.4] 2** E	**[58] 49**	**[6.7] 5.7** E	NA
ETHION	563-12-2	**[2.1] 1.7**	**[46] 37** E	**[5.8] 4.9**	**[130] 110** E	85	1,900 E	85	1,900 E	**[2.1] 1.7**	**[46] 37** E	**[5.8] 4.9**	**[130] 110** E	15
ETHOXYETHANOL, 2- (EGEE)	110-80-5	42	5.9 E	180	25 E	4,200	590 E	10,000	2,500 E	4,200	590 E	10,000	2,500 E	NA
ETHYL ACETATE	141-78-6	15	3.9 E	62	16 E	1,500	390 E	6,200	1,600 E	1,500	390 E	6,200	1,600 E	NA
ETHYL ACRYLATE	140-88-5	**[1.5] 1.4**	**[0.58] 0.54** E	**[7.0] 5.7**	**[2.7] 2.2** E	**[150] 140**	**[58] 54** E	**[700] 570**	**[270] 220** E	**[150] 140**	**[58] 54** E	**[700] 570**	**[270] 220** E	NA
ETHYL BENZENE	100-41-4	70	46 E	70	46 E	7,000	4,600 E	7,000	4,600 E	7,000	4,600 E	7,000	4,600 E	NA

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		Residential		Nonresidential		Residential		Nonresidential		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value				
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value									
ETHYL DIPROPYL THIOCARBAMATE, S-(EPTC)	759-94-4	**[100] 170**	**[71] 120** E	**[290] 490**	**[210] 350** E	10,000	**[7,100] 10,000**	10,000	10,000 C	**[100] 170**	**[71] 120** E		**[290] 490**	**[210] 350** E			NA
ETHYL ETHER	60-29-7	**[830] 690**	**[230] 190** E	**[2,300] 1,900**	**[650] 530** E	10,000	10,000 C	10,000	10,000 C	**[830] 690**	**[230] 190** E		**[2,300] 1,900**	**[650] 530** E			NA
ETHYL METHACRYLATE	97-63-2	63	10 E	260	43 E	6,300	1,000 E	10,000	4,300 E	63	10 E		260	43 E			NA
ETHYLENE CHLORHYDRIN	107-07-3	**[83] 69**	**[10] 7.9** E	**[230] 190**	**[26] 22** E	**[8,300] 6,900**	**[950] 790** E	10,000	**[2,600] 2,200** E	**[83] 69**	**[10] 7.9** E		**[230] 190**	**[26] 22** E			NA
ETHYLENE GLYCOL	107-21-1	1,400	170 E	1,400	170 E	10,000	10,000 C	10,000	10,000 C	10,000	10,000 C		10,000	10,000 C			NA
ETHYLENE THIOUREA (ETU)	96-45-7	**[0.33] 0.28**	**[0.037] 0.031** E	**[0.93] 0.78**	**[0.1] 0.087** E	**[33] 28**	**[3.7] 3.1** E	**[93] 78**	**[10] 8.7** E	**[330] 280**	**[37] 31** E		**[930] 780**	**[100] 87** E			NA
ETHYLP-NITROPHENYL PHENYLPHOSPHORO THIOATE	2104-64-5	**[0.042] 0.035**	**[0.13] 0.11** E	**[0.12] 0.097**	**[0.37] 0.3** E	**[4.2] 3.5**	**[13] 11** E	**[12] 9.7**	**[37] 30** E	**[0.042] 0.035**	**[0.13] 0.11** E		**[0.12] 0.097**	**[0.37] 0.3** E			20
FENAMIPHOS	22224-92-6	0.07	0.06 E	0.07	0.06 E	7	6 E	7	6 E	0.07	0.06 E		0.07	0.06 E			NA
FENVALERATE (PYDRIN)	51630-58-1	8.5	94 E	8.5	94 E	8.5	94 E	8.5	94 E	8.5	94 E		8.5	94 E			15
FLUOMETURON	2164-17-2	9	2.5 E	9	2.5 E	900	250 E	900	250 E	9	2.5 E		9	2.5 E			NA
FLUORANTHENE	206-44-0	26	3,200 E	26	3,200 E	26	3,200 E	26	3,200 E	26	3,200 E		26	3,200 E			10
FLUORENE	86-73-7	**[170] 140**	**[3,400] 2,800** E	190	3,800 E	190	3,800 E	190	3,800 E	190	3,800 E		190	3,800 E			15
FLUOROTRICHLORO METHANE (FREON 11)	75-69-4	200	87 E	200	87 E	10,000	8,700 E	10,000	8,700 E	10,000	8,700 E		10,000	8,700 E			NA
FONOFOS	944-22-9	1	2.9 E	1	2.9 E	100	290 E	100	290 E	1	2.9 E		1	2.9 E			20
FORMALDEHYDE	50-00-0	100	12 E	100	12 E	10,000	1,200 E	10,000	1,200 E	10,000	1,200 E		10,000	1,200 E			NA
FORMIC ACID	64-18-6	0.063	0.0071 E	0.26	0.029 E	6.3	0.71 E	26	2.9 E	0.63	0.071 E		2.6	0.29 E			NA
FOSETYL-AL	39148-24-8	**[13,000] 8,700**	**[12,000] 7,700** E	**[35,000] 24,000**	**[31,000] 21,000** E	190,000	190,000 C	190,000	190,000 C	**[13,000] 8,700**	**[12,000] 7,700** E		**[35,000] 24,000**	**[31,000] 21,000** E			NA
FURAN	110-00-9	**[4.2] 3.5**	**[1.8] 1.5** E	**[12] 9.7**	**[5.2] 4.2** E	**[420] 350**	**[180] 150** E	**[1,200] 970**	**[520] 420** E	**[420] 350**	**[180] 150** E		**[1,200] 970**	**[520] 420** E			NA

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		Residential		Nonresidential		Residential		Nonresidential				Residential		Nonresidential				
		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		
FURFURAL	98-01-1	**[11] 1.9**	**[1.4] 0.24**	E	**[35] 7.8**	**[4.4] 0.99**	E	**[1,100] 190**	**[140] 24**	E	**[3,500] 780**	**[440] 99**	E	**[11] 1.9**	**[1.4] 0.24**	E	**[35] 7.8**	**[4.4] 0.99**	E	NA
GLYPHOSATE	1071-83-6	70	620	E	70	620	E	7,000	62,000	E	7,000	62,000	E	70	620	E	70	620	E	15
HEPTACHLOR	76-44-8	0.04	0.68	E	0.04	0.68	E	4	68	E	4	68	E	18	310	E	18	310	E	15
HEPTACHLOR EPOXIDE	1024-57-3	0.02	1.1	E	0.02	1.1	E	2	110	E	2	110	E	20	1,100	E	20	1,100	E	10
HEXACHLOROBENZENE	118-74-1	0.1	0.96	E	0.1	0.96	E	0.6	5.8	E	0.6	5.8	E	0.6	5.8	E	0.6	5.8	E	15
HEXACHLOROBUTADIENE	87-68-3	**[0.94] 0.84**	**[11] 10**	E	**[4.4] 3.5**	**[52] 42**	E	**[94] 84**	**[1,100] 1,000**	E	290	3,400	E	290	3,400	E	290	3,400	E	15
HEXACHLOROCYCLO PENTADIENE	77-47-4	5	91	E	5	91	E	180	3,300	E	180	3,300	E	180	3,300	E	180	3,300	E	15
HEXACHLOROETHANE	67-72-1	0.1	0.56	E	0.1	0.56	E	10	56	E	10	56	E	10	56	E	10	56	E	15
HEXANE	110-54-3	150	1,400	E	**[620] 580**	**[5,600] 5,300**	E	950	8,700	E	950	8,700	E	150	1,400	E	**[620] 580**	**[5,600] 5,300**	E	15
HEXAZINONE	51235-04-2	40	8.5	E	40	8.5	E	4,000	850	E	4,000	850	E	40	8.5	E	40	8.5	E	NA
HEXYTHIAZOX (SAVEY)	78587-05-0	50	820	E	50	820	E	50	820	E	50	820	E	50	820	E	50	820	E	15
HMX	2691-41-0	40	4.8	E	40	4.8	E	500	60	E	500	60	E	40	4.8	E	40	4.8	E	NA
HYDRAZINE/HYDRAZINE SULFATE	302-01-2	0.001	0.00011	E	0.0051	0.00057	E	0.1	0.011	E	0.51	0.057	E	0.01	0.0011	E	0.051	0.0057	E	NA
HYDROQUINONE	123-31-9	**[1.2] 1.1**	**[0.16] 0.15**	E	**[5.7] 4.5**	**[0.77] 0.61**	E	**[120] 110**	**[16] 15**	E	**[570] 450**	**[77] 61**	E	**[1,200] 1,100**	**[160] 150**	E	**[5,700] 4,500**	**[770] 610**	E	NA
INDENO[1,2,3-CD]PYRENE	193-39-5	**[0.019] 0.018**	**[1,500] 1,400**	E	**[0.28] 0.23**	**[22,000] 18,000**	E	**[1.9] 1.8**	**[150,000] 140,000**	E	6.2	190,000	C	6.2	190,000	C	6.2	190,000	C	5
IPRODIONE	36734-19-7	**[170] 1.5**	**[490] 4.3**	E	**[470] 6.2**	**[1,300] 18**	E	**[1,300] 150**	**[3,700] 430**	E	**[1,300] 620**	**[3,700] 1,800**	E	**[170] 1.5**	**[490] 4.3**	E	**[470] 6.2**	**[1,300] 18**	E	20
ISOBUTYL ALCOHOL	78-83-1	**[1,300] 1,000**	**[340] 260**	E	**[3,500] 2,900**	**[910] 760**	E	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	NA
ISOPHORONE	78-59-1	10	1.9	E	10	1.9	E	1,000	190	E	1,000	190	E	10,000	1,900	E	10,000	1,900	E	NA
ISOPROPYL METHYLPHOSPHONATE	1832-54-8	70	8.1	E	70	8.1	E	7,000	810	E	7,000	810	E	70	8.1	E	70	8.1	E	NA

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Appendix A
Table 3 – Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers												Nonuse Aquifers						Soil Buffer Distance (feet)
		TDS ≤ 2500 mg/L				TDS > 2500 mg/L														
		Residential				Nonresidential				Residential				Nonresidential				Residential				Nonresidential				
		100 X GW MSC		Generic Value		100 X GW MSC		Generic Value		100 X GW MSC		Generic Value		100 X GW MSC		Generic Value		100 X GW MSC		Generic Value		100 X GW MSC		Generic Value		
KEPONE	143-50-0	[0.0073] 0.0065		[1] 0.89	E	[0.034] 0.027		[4.7] 3.7	E	[0.73] 0.65		[100] 89	E	[3.4] 2.7		[470] 370	E	[7.3] 6.5		[1,000] 890	E	[34] 27		[4,700] 3,700	E	10
MALATHION	121-75-5	50		170	E	50		170	E	5,000		10,000	C	5,000		10,000	C	10,000		10,000	C	10,000		10,000	C	20
MALEIC HYDRAZIDE	123-33-1	400		47	E	400		47	E	40,000		4,700	E	40,000		4,700	E	400		47	E	400		47	E	NA
MANEB	12427-38-2	[21] 1.1		[2] 0.12	E	[58] 4.5		[6.6] 0.51	E	[2,100] 110		[240] 12	E	[2,300] 450		[260] 51	E	[21] 1.1		[2] 0.12	E	[58] 4.5		[6.6] 0.51	E	NA
MERPHOS OXIDE	78-48-8	[0.13] 3.5		[17] 460	E	[0.35] 9.7		[46] 1,300	E	[13] 230		[1,700] 10,000	[E] C	[35] 230		[4,600] 10,000	[E] C	[0.13] 3.5		[17] 460	E	[0.35] 9.7		[46] 1,300	E	10
METHACRYLONITRILE	126-98-7	[0.42] 0.35		[0.069] 0.057	E	[1.2] 0.97		[0.2] 0.16	E	[42] 35		[6.9] 5.7	E	[120] 97		[20] 16	E	[0.42] 0.35		[0.069] 0.057	E	[1.2] 0.97		[0.2] 0.16	E	NA
METHAMIDOPHOS	10265-92-6	[0.21] 0.17		[0.026] 0.021	E	[0.58] 0.49		[0.072] 0.061	E	[21] 17		[2.6] 2.1	E	[58] 49		[7.2] 6.1	E	[0.21] 0.17		[0.026] 0.021	E	[0.58] 0.49		[0.072] 0.061	E	NA
METHANOL	67-56-1	[840] 4,200		[99] 500	E	[3,500] 10,000		[410] 2,100	E	10,000		[9,900] 10,000	[E] C	10,000		10,000	C	10,000		[9,900] 10,000	[E] C	10,000		10,000	C	NA
METHOMYL	16752-77-5	20		3.2	E	20		3.2	E	2,000		320	E	2,000		320	E	20		3.2	E	20		3.2	E	NA
METHOXYCHLOR	72-43-5	4		630	E	4		630	E	4.5		710	E	4.5		710	E	4.5		710	E	4.5		710	E	10
METHOXYETHANOL, 2-	109-86-4	4.2		0.48	E	18		2	E	420		48	E	1,800		200	E	42		4.8	E	180		20	E	NA
METHYL ACETATE	79-20-9	[4,200] 3,500		[780] 650	E	[10,000] 9,700		[2,200] 1,800	E	10,000		10,000	C	10,000		10,000	C	[4,200] 3,500		[780] 650	E	[10,000] 9,700		[2,200] 1,800	E	NA
METHYL ACRYLATE	96-33-3	[4] 4.2		1	E	18		[5] 4.5	E	420		100	E	1,800		450	E	420		100	E	1,800		450	E	NA
METHYL CHLORIDE	74-87-3	3		0.38	E	3		0.38	E	300		38	E	300		38	E	300		38	E	300		38	E	NA
METHYL ETHYL KETONE	78-93-3	400		76	E	400		76	E	10,000		7,600	E	10,000		7,600	E	10,000		7,600	E	10,000		7,600	E	NA
METHYL HYDRAZINE	60-34-4	0.0042		0.00048	E	0.018		0.002	E	0.42		0.048	E	1.8		0.2	E	0.042		0.0048	E	0.18		0.02	E	NA
METHYL ISOBUTYL KETONE	108-10-1	[330] 280		[51] 43	E	[930] 780		[140] 120	E	10,000		[5,100] 4,300	E	10,000		10,000	C	10,000		[5,100] 4,300	E	10,000		10,000	C	NA
METHYL ISOCYANATE	624-83-9	0.21		0.029	E	0.88		0.12	E	21		2.9	E	88		12	E	0.21		0.029	E	0.88		0.12	E	NA
METHYL N-BUTYL KETONE (2-HEXANONE)	591-78-6	6.3		1.6	E	26		6.4	E	630		160	E	2,600		640	E	6.3		1.6	E	26		6.4	E	NA

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		TDS ≤ 2500 mg/L				TDS > 2500 mg/L												
		Residential		Nonresidential		Residential		Nonresidential				Residential		Nonresidential				
		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		
METHYL METHACRYLATE	80-62-6	150	20	E	620	84	E	10,000	2,000	E	10,000	8,400	E	10,000	2,000	E	10,000	8,400	E	NA
METHYL METHANESULFONATE	66-27-3	**[0.74] 0.66**	**[0.092] 0.082**	E	**[3.4] 2.7**	**[0.42] 0.34**	E	**[74] 66**	**[9.2] 8.2**	E	**[340] 270**	**[42] 34**	E	**[0.74] 0.66**	**[0.092] 0.082**	E	**[3.4] 2.7**	**[0.42] 0.34**	E	NA
METHYL PARATHION	298-00-0	0.1	0.21	E	0.1	0.21	E	10	21	E	10	21	E	100	210	E	100	210	E	30
METHYL STYRENE (MIXED ISOMERS)	25013-15-4	8.4	47	E	35	200	E	840	4,700	E	3,500	10,000	C	8.4	47	E	35	200	E	15
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	2	0.28	E	2	0.28	E	200	28	E	200	28	E	20	2.8	E	20	2.8	E	NA
METHYLCHLOROPHENOXYACETIC ACID (MCPA)	94-74-6	3	1.2	E	3	1.2	E	300	120	E	300	120	E	3,000	1,200	E	3,000	1,200	E	NA
METHYLENE BIS(2-CHLOROANILINE), 4,4'-	101-14-4	**[0.23] 0.21**	**[1.8] 1.6**	E	**[3.4] 2.7**	**[26] 21**	E	**[23] 21**	**[180] 160**	E	**[340] 270**	**[2,600] 2,100**	E	**[0.23] 0.21**	**[1.8] 1.6**	E	**[3.4] 2.7**	**[26] 21**	E	15
METHYLNAPHTHALENE, 2-	91-57-6	**[17] 0.63**	**[680] 25**	E	**[47] 2.6**	**[1,900] 100**	E	**[1,700] 63**	**[68,000] 2,500**	E	**[2,500] 260**	**[100,000] 10,000**	E	**[17] 0.63**	**[680] 25**	E	**[47] 2.6**	**[1,900] 100**	E	15
METHYLSTYRENE, ALPHA	98-83-9	**[290] 240**	**[510] 420**	E	**[820] 680**	**[1,400] 1,200**	E	10,000	10,000	C	10,000	10,000	C	**[290] 240**	**[510] 420**	E	**[820] 680**	**[1,400] 1,200**	E	30
METOLACHLOR	51218-45-2	70	40	E	70	40	E	7,000	4,000	E	7,000	4,000	E	70	40	E	70	40	E	NA
METRIBUZIN	21087-64-9	7	2.4	E	7	2.4	E	700	240	E	700	240	E	7	2.4	E	7	2.4	E	NA
MEVINPHOS	**7786-34-7**	**0.087**	**0.019**	**E**	**0.24**	**0.053**	**E**	**8.7**	**1.9**	**E**	**24**	**5.3**	**E**	**0.087**	**0.019**	**E**	**0.24**	**0.053**	**E**	**NA**
MONOCHLOROACETIC ACID (HAA)	79-11-8	6	0.67	E	6	0.67	E	600	67	E	600	67	E	6	0.67	E	6	0.67	E	NA
NAPHTHALENE	91-20-3	10	25	E	10	25	E	1,000	2,500	E	1,000	2,500	E	**[3,000] 1,000**	**[7,500] 2,500**	E	**[3,000] 1,000**	**[7,500] 2,500**	E	30
NAPHTHYLAMINE, 1-	134-32-7	**[0.041] 0.036**	**[0.33] 0.29**	E	**[0.19] 0.15**	**[1.5] 1.2**	E	**[4.1] 3.6**	**[33] 29**	E	**[19] 15**	**[150] 120**	E	**[41] 3.6**	**[330] 29**	E	**[190] 15**	**[1,500] 120**	E	15
NAPHTHYLAMINE, 2-	91-59-8	**[0.041] 0.036**	**[0.013] 0.012**	E	**[0.19] 0.15**	**[0.062] 0.049**	E	**[4.1] 3.6**	**[1.3] 1.2**	E	**[19] 15**	**[6.2] 4.9**	E	**[41] 36**	**[13] 12**	E	**[190] 150**	**[62] 49**	E	NA
NAPROPAMIDE	15299-99-7	420	970	E	1,200	2,800	E	7,000	16,000	E	7,000	16,000	E	420	970	E	1,200	2,800	E	30
NITROANILINE, O-	88-74-4	**[42] 0.011**	**[8] 0.002**	E	**[120] 0.044**	**[21] 0.0079**	E	**[4,200] 1.1**	**[750] 0.2**	E	**[12,000] 4.4**	**[2,100] 0.79**	E	**[42] 0.011**	**[8] 0.002**	E	**[120] 0.044**	**[21] 0.0079**	E	NA
NITROANILINE, P-	100-01-6	**[3.7] 3.3**	**[0.55] 0.49**	E	**[17] 14**	**[2.5] 2.1**	E	**[370] 330**	**[55] 49**	E	**[1,700] 1,400**	**[250] 210**	E	**[3.7] 3.3**	**[0.55] 0.49**	E	**[17] 14**	**[2.5] 2.1**	E	NA

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		TDS ≤ 2500 mg/L				TDS > 2500 mg/L												
		Residential				Residential						Residential						
		100 X GW MSC	Generic Value			100 X GW MSC	Generic Value			100 X GW MSC	Generic Value							
NITROBENZENE	98-95-3	**[8.3] 0.12**	**[3.6] 0.052**	E		**[23] 0.63**	**[10] 0.27**	E		**[830] 12**	**[360] 5.2**	E		**[2,300] 63**	**[1,000] 27**	E		**[8,300] 12**	**[3,600] 5.2**	E		**[10,000] 63**	**[10,000] 27**	C	NA
NITROGUANIDINE	556-88-7	70	7.8	E		70	7.8	E		7,000	780	E		7,000	780	E		70	7.8	E		70	7.8	E	NA
NITROPHENOL, 2-	88-75-5	**[33] 28**	**[6.7] 5.7**	E		**[93] 78**	**[19] 16**	E		**[3,300] 2,800**	**[670] 570**	E		**[9,300] 7,800**	**[1,900] 1,600**	E		**[33,000] 2,800**	**[6,700] 570**	E		**[93,000] 7,800**	**[19,000] 1,600**	E	NA
NITROPHENOL, 4-	100-02-7	6	4.1	E		6	4.1	E		600	410	E		600	410	E		**[6,000] 600**	**[4,100] 410**	E		**[6,000] 600**	**[4,100] 410**	E	NA
NITROPROPANE, 2-	79-46-9	0.0018	0.00029	E		0.0093	0.0015	E		0.18	0.029	E		0.93	0.15	E		0.018	0.0029	E		0.093	0.015	E	NA
NITROSODIETHYLAMINE, N-	55-18-5	0.000045	0.0000079	E		0.00058	0.0001	E		0.0045	**[0.0008] 0.00079**	E		0.058	0.01	E		0.00045	**[0.00008] 0.000079**	E		0.0058	0.001	E	NA
NITROSODIMETHYLAMINE, N-	62-75-9	0.00014	0.000019	E		0.0018	0.00024	E		0.014	0.0019	E		0.18	0.024	E		0.0014	0.00019	E		0.018	0.0024	E	NA
NITROSO-DI-N-BUTYLAMINE, N-	924-16-3	**[0.014] 0.0031**	**[0.017] 0.0038**	E		**[0.063] 0.016**	**[0.078] 0.02**	E		**[1.4] 0.31**	**[1.7] 0.38**	E		**[6.3] 1.6**	**[7.8] 2**	E		**[14] 0.31**	**[17] 0.38**	E		**[63] 1.6**	**[78] 2**	E	NA
NITROSODI-N-PROPYLAMINE, N-	621-64-7	**[0.01] 0.0025**	**[0.0014] 0.00035**	E		**[0.049] 0.013**	**[0.0068] 0.0018**	E		**[1] 0.25**	**[0.14] 0.035**	E		**[4.9] 1.3**	**[0.68] 0.18**	E		**[10] 0.025**	**[1.4] 0.0035**	E		**[49] 0.13**	**[6.8] 0.018**	E	NA
NITROSODIPHENYLAMINE, N-	86-30-6	**[15] 1.9**	**[23] 3**	E		**[69] 9.6**	**[110] 15**	E		**[1,500] 190**	**[2,300] 300**	E		**[3,500] 960**	**[5,500] 1,500**	E		**[3,500] 190**	**[5,500] 300**	E		**[3,500] 960**	**[5,500] 1,500**	E	30
NITROSO-N-ETHYLUREA, N-	759-73-9	**[0.00084] 0.00079**	**[0.000097] 0.000091**	E		**[0.013] 0.01**	**[0.0015] 0.0012**	E		**[0.08] 0.079**	**[0.0097] 0.0091**	E		**[1.3] 1**	**[0.15] 0.12**	E		**[0.8] 0.79**	**[0.097] 0.091**	E		**[13] 10**	**[1.5] 1.2**	E	NA
OCTYL PHTHALATE, DI-N-	117-84-0	**[42] 35**	10,000	C		**[120] 97**	10,000	C		300	10,000	C		300	10,000	C		300	10,000	C		300	10,000	C	5
OXAMYL (VYDATE)	23135-22-0	20	2.6	E		20	2.6	E		2,000	260	E		2,000	260	E		20	2.6	E		20	2.6	E	NA
PARAQUAT	1910-42-5	3	120	E		3	120	E		300	12,000	E		300	12,000	E		3	120	E		3	120	E	15

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		TDS ≤ 2500 mg/L				TDS > 2500 mg/L				Residential			Nonresidential							
		Residential		Nonresidential		Residential		Nonresidential												
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value											
PARATHION	56-38-2	[25] 0.1	[150] 0.59	E	[70] 0.29	[410] 1.7	E	[2,000] 10	[10,000] 59	[C] E	[2,000] 29	[10,000] 170	[C] E	[25] 0.1	[150] 0.59	E	[70] 0.29	[410] 1.7	E	15
PCBS, TOTAL (POLYCHLORINATED BIPHENLYS) (AROCLORS)	**1336-36-3**	**0.05**	**9.8**	**E**	**0.05**	**9.8**	**E**	**5**	**980**	**E**	**5**	**980**	**E**	**0.05**	**9.8**	**E**	**0.05**	**9.8**	**E**	**10**
PCB-1016 (AROCLOR)	12674-11-2	[0.037] 0.24	[10] 66	E	[0.17] 0.68	[47] 190	E	[4] 24	[1,000] 6,600	E	[17] 25	[4,700] 6,900	E	[0.04] 0.24	[10] 66	E	[0.17] 0.68	[47] 190	E	10
PCB-1221 (AROCLOR)	11104-28-2	[0.037] 0.033	[0.18] 0.16	E	[0.17] 0.14	[0.83] 0.68	E	[3.7] 3.3	[18] 16	E	[17] 14	[83] 68	E	[0.037] 0.033	[0.18] 0.16	E	[0.17] 0.14	[0.83] 0.68	E	20
PCB-1232 (AROCLOR)	11141-16-5	[0.037] 0.033	[0.14] 0.13	E	[0.17] 0.14	[0.7] 0.54	E	[3.7] 3.3	[14] 13	E	[17] 14	[66] 54	E	[0.037] 0.033	[0.14] 0.13	E	[0.17] 0.14	[0.7] 0.54	E	20
PCB-1242 (AROCLOR)	53469-21-9	[0.037] 0.033	4	E	[0.17] 0.14	[20] 17	E	[3.7] 3.3	[440] 400	E	10	1,200	E	[0.037] 0.033	4	E	[0.17] 0.14	[20] 17	E	10
PCB-1248 (AROCLOR)	12672-29-6	[0.037] 0.033	[18] 16	E	[0.17] 0.14	[81] 67	E	[3.7] 3.3	[1,800] 1,600	E	5.4	2,600	E	[0.037] 0.033	[18] 16	E	[0.17] 0.14	[81] 67	E	10
PCB-1254 (AROCLOR)	11097-69-1	[0.037] 0.069	[75] 140	E	[0.17] 0.19	[340] 380	E	[3.7] 5.7	[7,500] 10,000	[E] C	5.7	10,000	C	[0.037] 0.069	[75] 140	E	[0.17] 0.19	[340] 380	E	5
PCB-1260 (AROCLOR)	11096-82-5	[0.037] 0.033	[170] 150	E	[0.17] 0.14	[770] 630	E	[3.7] 3.3	[17,000] 15,000	E	8	36,000	E	[0.037] 0.033	[170] 150	E	[0.17] 0.14	[770] 630	E	5
PEBULATE	1114-71-2	[210] 170	[350] 290	E	[580] 490	[980] 830	E	9,200	10,000	C	9,200	10,000	C	[210] 170	[350] 290	E	[580] 490	[980] 830	E	30
PENTACHLOROBENZENE	608-93-5	[3.3] 2.8	[260] 220	E	[9.3] 7.8	[750] 620	E	74	5,900	E	74	5,900	E	74	5,900	E	74	5,900	E	10
PENTACHLOROETHANE	76-01-7	[0.81] 0.72	[3.9] 3.5	E	[3.8] 3	[19] 15	E	[81] 72	[390] 350	E	[380] 300	[1,900] 1,500	E	[0.81] 0.72	[3.9] 3.5	E	[3.8] 3	[19] 15	E	20
PENTACHLORO NITROBENZENE	82-68-8	[0.28] 0.25	[6] 5	E	1	[26] 20	E	[28] 25	[560] 500	E	44	870	E	44	870	E	44	870	E	15
PENTACHLOROPHENOL	87-86-5	0.1	5	E	0.1	5	E	10	500	E	10	500	E	100	5,000	E	100	5,000	E	10

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		TDS ≤ 2500 mg/L						TDS > 2500 mg/L												
		Residential			Nonresidential			Residential			Nonresidential			Residential			Nonresidential			
		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		
PERFLUOROBUTANE SULFONATE (PFBS)	**375-73-5**	**69**	**NA**	**C**	**190**	**NA**	**C**	**6,900**	**NA**	**C**	**10,000**	**NA**	**C**	**69**	**NA**	**C**	**190**	**NA**	**C**	**NA**
PERFLUOROOCTANE SULFONATE (PFOS)	**1763-23-1**	**0.007**	**NA**	**E**	**0.007**	**NA**	**E**	**0.7**	**NA**	**E**	**0.7**	**NA**	**E**	**0.007**	**NA**	**E**	**0.007**	**NA**	**E**	**NA**
PERFLUOROOCTANOIC ACID (PFOA)	**335-67-1**	**0.007**	**NA**	**E**	**0.007**	**NA**	**E**	**0.7**	**NA**	**E**	**0.7**	**NA**	**E**	**0.007**	**NA**	**E**	**0.007**	**NA**	**E**	**NA**
PHENACETIN	62-44-2	**[33] 30**	**[13] 12**	E	**[150] 120**	**[58] 46**	E	**[3,300] 3,000**	**[1,300] 1,200**	E	**[15,000] 12,000**	**[5,800] 4,600**	E	**[33,000] 30,000**	**[13,000] 12,000**	E	76,000	29,000	E	NA
PHENANTHRENE	85-01-8	110	10,000	E	110	10,000	E	110	10,000	E	110	10,000	E	110	10,000	E	110	10,000	E	10
PHENOL	108-95-2	200	33	E	200	33	E	20,000	3,300	E	20,000	3,300	E	20,000	3,300	E	20,000	3,300	E	NA
PHENYL MERCAPTAN	108-98-5	**[4,200] 3.5**	**[6,400] 5.3**	E	**[12] 9.7**	**[18] 15**	E	**[420] 350**	**[640] 530**	E	**[1,200] 970**	**[1,800] 1,500**	E	**[4.2] 3.5**	**[6.4] 5.3**	E	**[12] 9.7**	**[18] 15**	E	30
PHENYLENEDIAMINE, M-	108-45-2	**[25] 21**	**[3.5] 3**	E	**[70] 58**	**[9.9] 8.2**	E	**[2,500] 2,100**	**[350] 300**	E	**[7,000] 5,800**	**[990] 820**	E	**[25,000] 21,000**	**[3,500] 3,000**	E	**[70,000] 58,000**	**[9,900] 8,200**	E	NA
PHENYLPHENOL, 2-	90-43-7	**[38] 34**	**[550] 490**	E	**[180] 140**	**[2,600] 2,000**	E	**[3,800] 3,400**	**[55,000] 49,000**	E	**[18,000] 14,000**	190,000	C	**[38,000] 34,000**	190,000	C	70,000	190,000	C	15
PHORATE	298-02-2	**[0.83] 0.69**	**[1.8] 1.5**	E	**[2] 1.9**	**[4.9] 4.1**	E	**[83] 69**	**[180] 150**	E	**[230] 190**	**[490] 410**	E	**[0.83] 0.69**	**[1.8] 1.5**	E	**[2] 1.9**	**[4.9] 4.1**	E	30
PHTHALIC ANHYDRIDE	85-44-9	**[8,300] 4.2**	**[2,600] 1.3**	E	**[23,000] 18**	**[7,100] 5.6**	E	**[190,000] 420**	**[190,000] 130**	**[C] E**	**[190,000] 1,800**	**[190,000] 560**	**[C] E**	**[190,000] 420**	**[190,000] 130**	**[C] E**	**[190,000] 1,800**	**[190,000] 560**	C	NA
PICLORAM	1918-02-1	50	7.4	E	50	7.4	E	5,000	740	E	5,000	740	E	50	7.4	E	50	7.4	E	NA
PROMETON	1610-18-0	40	39	E	40	39	E	4,000	3,900	E	4,000	3,900	E	40	39	E	40	39	E	NA
PRONAMIDE	23950-58-5	**[310] 260**	**[190] 160**	E	**[880] 730**	**[540] 450**	E	1,500	920	E	1,500	920	E	**[310] 260**	**[190] 160**	E	**[880] 730**	**[540] 450**	E	NA
PROPACHLOR	**1918-16-7**	**0.01**	**0.0046**	**E**	**0.01**	**0.0046**	**E**	**1**	**0.46**	**E**	**1**	**0.46**	**E**	**1**	**0.46**	**E**	**1**	**0.46**	**E**	**NA**
PROPANIL	709-98-8	**[21] 17**	**[11] 8.7**	E	**[58] 49**	**[30] 25**	E	**[2,100] 1,700**	**[1,100] 870**	E	**[5,800] 4,900**	**[3,000] 2,500**	E	**[21] 17**	**[11] 8.7**	E	**[58] 49**	**[30] 25**	E	NA
PROPANOL, 2- (ISOPROPYL ALCOHOL)	67-63-0	42	7.3	E	180	31	E	4,200	730	E	10,000	3,100	E	42	**[7] 7.3**	E	180	31	E	NA

[1] For other options see Section 250.308
All concentrations in mg/kg
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[THMs – The values listed for trihalomethanes (THMs) are the total for all THMs combined.]
[HAAs – The values listed for haloacetic acids (HAAs) are the total for all HAAs combined.]

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REGULATED SUBSTANCE	CASRN	Used Aquifers												Nonuse Aquifers						Soil Buffer Distance (feet)
		TDS ≤ 2500 mg/L						TDS > 2500 mg/L												
		Residential			Nonresidential			Residential			Nonresidential			Residential			Nonresidential			
		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		
PROPAZINE	139-40-2	1	0.5	E	1	0.5	E	100	50	E	100	50	E	1	0.5	E	1	0.5	E	NA
PROPHAM	122-42-9	10	2.4	E	10	2.4	E	1,000	240	E	1,000	240	E	10	2.4	E	10	2.4	E	NA
PROPYLBENZENE, N-	103-65-1	210	400	E	880	1,700	E	5,200	9,900	E	5,200	9,900	E	210	400	E	880	1,700	E	30
PROPYLENE OXIDE	75-56-9	**[0.3] 0.27**	**[0.052] 0.047**	E	**[1.4] 1.1**	**[0.24] 0.19**	E	**[30] 27**	**[5.2] 4.7**	E	**[140] 110**	**[24] 19**	E	**[0.3] 0.27**	**[0.052] 0.047**	E	**[1.4] 1.1**	**[0.24] 0.19**	E	NA
PYRENE	129-00-0	13	2,200	E	13	2,200	E	13	2,200	E	13	2,200	E	13	2,200	E	13	2,200	E	10
PYRETHRUM	**8003-34-7**	**35**	**4.4**	**E**	**35**	**4.4**	**E**	**35**	**4.4**	**E**	**35**	**4.4**	**E**	**35**	**4.4**	**E**	**35**	**4.4**	**E**	**NA**
PYRIDINE	110-86-1	**[4.2] 3.4**	**[0.47] 0.39**	E	**[12] 9.7**	**[1.3] 1.1**	E	**[420] 350**	**[47] 39**	E	**[1,200] 970**	**[130] 110**	E	**[42] 35**	**[4.7] 3.9**	E	**[120] 97**	**[13] 11**	E	NA
QUINOLINE	91-22-5	**[0.024] 0.022**	**[0.081] 0.074**	E	**[0.11] 0.091**	**[0.37] 0.31**	E	**[2.4] 2.2**	**[8.1] 7.4**	E	**[11] 9.1**	**[37] 31**	E	**[24] 22**	**[81] 74**	E	**[110] 91**	**[370] 310**	E	20
QUIZALOFOP (ASSURE)	76578-14-8	30	47	E	30	47	E	30	47	E	30	47	E	30	47	E	30	47	E	30
RDX	121-82-4	0.2	0.057	E	0.2	0.057	E	20	5.7	E	20	5.7	E	0.2	0.057	E	0.2	0.057	E	NA
RESORCINOL	108-46-3	**[8,300] 6,900**	**[970] 800**	E	**[23,000] 19,000**	**[2,700] 2,200**	E	190,000	**[97,000] 80,000**	E	190,000	190,000	C	**[8,300] 6,900**	**[970] 800**	E	**[23,000] 19,000**	**[2,700] 2,200**	E	NA
RONNEL	299-84-3	**[210] 170**	**[330] 270**	E	**[580] 490**	**[910] 760**	E	4,000	6,200	E	4,000	6,200	E	**[210] 170**	**[330] 270**	E	**[580] 490**	**[910] 760**	E	30
SIMAZINE	122-34-9	0.4	0.15	E	0.4	0.15	E	40	15	E	40	15	E	0.4	0.15	E	0.4	0.15	E	NA
STRYCHNINE	57-24-9	**[1.3] 1**	**[1.1] 0.81**	E	**[3.5] 2.9**	**[2.8] 2.4**	E	**[130] 100**	**[110] 81**	E	**[350] 290**	**[280] 240**	E	**[1,300] 1,000**	**[1,100] 810**	E	**[3,500] 2,900**	**[2,800] 2,400**	E	NA
STYRENE	100-42-5	10	24	E	10	24	E	1,000	2,400	E	1,000	2,400	E	1,000	2,400	E	1,000	2,400	E	30
TEBUTHIURON	34014-18-1	50	83	E	50	83	E	5,000	8,300	E	5,000	8,300	E	50	83	E	50	83	E	30
TERBACIL	5902-51-2	9	2.2	E	9	2.2	E	900	220	E	900	220	E	9	2.2	E	9	2.2	E	NA
TERBUFOS	13071-79-9	0.04	0.055	E	0.04	0.055	E	4	5.5	E	4	5.5	E	0.04	0.055	E	0.04	0.055	E	30
TETRACHLOROBENZENE, 1,2,4,5-	95-94-3	**[1.3] 1**	**[6] 4.6**	E	**[3.5] 2.9**	**[16] 13**	E	58	270	E	58	270	E	58	270	E	58	270	E	20
TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8- (TCDD)	1746-01-6	0.000003	0.032	E	0.000003	0.032	E	0.0003	3.2	E	0.0003	3.2	E	0.0019	20	E	0.0019	20	E	5
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	7	18	E	7	18	E	700	1,800	E	700	1,800	E	700	1,800	E	700	1,800	E	30
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	**[0.08] 0.084**	0.026	E	0.43	0.13	E	**[8] 8.4**	2.6	E	43	13	E	**[8] 8.4**	2.6	E	43	13	E	NA

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		TDS ≤ 2500 mg/L						TDS > 2500 mg/L												
		Residential			Nonresidential			Residential			Nonresidential			Residential			Nonresidential			
		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		
TETRACHLOROETHYLENE (PCE)	127-18-4	0.5	0.43	E	0.5	0.43	E	50	43	E	50	43	E	5	4.3	E	5	4.3	E	NA
TETRACHLOROPHENOL, 2,3,4,6-	58-90-2	**[130] 100**	**[2,000] 1,600**	E	**[350] 290**	**[5,500] 4,500**	E	**[13,000] 10,000**	**[190,000] 160,000**	**[C] E**	18,000	190,000	C	18,000	190,000	C	18,000	190,000	C	15
TETRAETHYL LEAD	78-00-2	**[0.00042] 0.00035**	**[0.0052] 0.0043**	E	**[0.0012] 0.00097**	**[0.015] 0.012**	E	**[0.042] 0.035**	**[0.52] 0.43**	E	**[0.1] 0.097**	**[1.5] 1.2**	E	**[0.42] 0.35**	**[0.52] 4.3**	E	**[1] 0.97**	**[15] 12**	E	15
TETRAETHYLDITHIO PYROPHOSPHATE	3689-24-5	**[2.1] 1.7**	**[3.1] 2.5**	E	**[5.8] 4.9**	**[8.6] 7.3**	E	**[210] 170**	**[310] 250**	E	**[580] 490**	**[860] 730**	E	**[2.1] 1.7**	**[3.1] 2.5**	E	**[5.8] 4.9**	**[8.6] 7.3**	E	30
TETRAHYDROFURAN	109-99-9	**[2.6] 2.5**	**[0.57] 0.55**	E	13	2.8	E	**[260] 250**	**[57] 55**	E	1,300	280	E	**[2.6] 2.5**	**[0.57] 0.55**	E	13	2.8	E	NA
THIOFANOX	39196-18-4	**[1.3] 1**	**[0.14] 0.11**	E	**[3.5] 2.9**	**[0.39] 0.32**	E	**[130] 100**	**[14] 11**	E	**[350] 290**	**[39] 32**	E	**[1.3] 1**	**[0.14] 0.11**	E	**[3.5] 2.9**	**[0.39] 0.32**	E	NA
THIRAM	137-26-8	**[21] 52**	**[55] 140**	E	**[58] 150**	**[150] 390**	E	**[2,100] 3,000**	**[5,500] 7,800**	E	3,000	7,800	E	**[21] 52**	**[55] 140**	E	**[58] 150**	**[150] 390**	E	20
TOLUENE	108-88-3	100	44	E	100	44	E	10,000	4,400	E	10,000	4,400	E	10,000	4,400	E	10,000	4,400	E	NA
TOLUIDINE, M-	108-44-1	**[4.6] 4.1**	**[2.1] 1.9**	E	**[21] 17**	**[9.7] 7.8**	E	**[460] 410**	**[210] 190**	E	**[2,100] 1,700**	**[970] 780**	E	**[4.6] 4.1**	**[2.1] 1.9**	E	**[21] 17**	**[9.7] 7.8**	E	NA
TOLUIDINE, O-	95-53-4	**[4.6] 4.1**	**[5.2] 4.7**	E	**[21] 17**	**[24] 19**	E	**[460] 410**	**[520] 470**	E	**[2,100] 1,700**	**[2,400] 1,900**	E	**[4,600] 4,100**	**[5,200] 4,700**	E	10,000	10,000	C	NA
TOLUIDINE, P-	106-49-0	**[2.4] 2.2**	**[2.2] 2**	E	**[11] 9.1**	**[10] 8.3**	E	**[240] 220**	**[220] 200**	E	**[1,100] 910**	**[1,000] 830**	E	**[2.4] 2.2**	**[2.2] 2**	E	**[11] 9.1**	**[10] 8.3**	E	NA
TOXAPHENE	8001-35-2	0.3	1.2	E	0.3	1.2	E	30	120	E	30	120	E	0.3	1.2	E	0.3	1.2	E	20
TRIALLATE	2303-17-5	**[54] 0.091**	**[280] 0.47**	E	**[150] 0.38**	**[770] 1.9**	E	**[400] 9.1**	**[2,000] 47**	E	**[400] 38**	**[2,000] 190**	E	**[54] 0.091**	**[280] 0.47**	E	**[150] 0.38**	**[770] 1.9**	E	15
TRIBROMOMETHANE (BROMOFORM) (THM)	75-25-2	8	3.5	E	8	3.5	E	800	350	E	800	350	E	800	350	E	800	350	E	NA
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2-	76-13-1	**[6,300] 1,100**	**[10,000] 3,400**	**[C] E**	**[10,000] 4,400**	10,000	C	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	20

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		TDS ≤ 2500 mg/L				TDS > 2500 mg/L				Residential				Nonresidential						
		Residential		Nonresidential		Residential		Nonresidential		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value			
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value											
TRICHLOROACETIC ACID (HAA)	76-03-9	**[2] 6**	**[0.32] 0.97** E	**[2] 6**	**[0.32] 0.97** E	**[200] 600**	**[32] 97** E	**[200] 600**	**[32] 97** E	**[2] 6**	**[0.32] 0.97**	E	**[2] 6**	**[0.32] 0.97**	E					NA
TRICHLOROBENZENE, 1,2,4-	120-82-1	7	27 E	7	27 E	700	2,700 E	700	2,700 E	**[4,400] 700**	**[10,000] 2,700**	**[C] E**	**[4,400] 700**	**[10,000] 2,700**	**[C] E**					20
TRICHLOROBENZENE, 1,3,5-	108-70-3	4	31 E	4	31 E	400	3,100 E	400	3,100 E	4	31	E	4	31	E					15
TRICHLOROETHANE, 1,1,1-	71-55-6	20	7.2 E	20	7.2 E	2,000	720 E	2,000	720 E	200	72	E	200	72	E					NA
TRICHLOROETHANE, 1,1,2-	79-00-5	0.5	0.15 E	0.5	0.15 E	50	15 E	50	15 E	5	1.5	E	5	1.5	E					NA
TRICHLOROETHYLENE (TCE)	79-01-6	0.5	0.17 E	0.5	0.17 E	50	17 E	50	17 E	5	1.7	E	5	1.7	E					NA
TRICHLOROPHENOL, 2,4,5-	95-95-4	**[420] 350**	**[2,600] 2,100** E	**[1,200] 970**	**[7,300] 5,900** E	**[42,000] 35,000**	190,000 C	**[100,000] 97,000**	190,000 C	100,000	190,000	C	100,000	190,000	C					15
TRICHLOROPHENOL, 2,4,6-	88-06-2	**[4.2] 3.5**	**[12] 10** E	**[12] 9.7**	**[34] 28** E	**[420] 350**	**[1,200] 1,000** E	**[1,200] 970**	**[3,400] 2,800** E	**[4,200] 3,500**	**[12,000] 10,000**	E	**[12,000] 9,700**	**[34,000] 28,000**	E					20
TRICHLOROPHENOXY ACETIC ACID, 2,4,5- (2,4,5-T)	93-76-5	7	1.5 E	7	1.5 E	700	150 E	700	150 E	7,000	1,500	E	7,000	1,500	E					NA
TRICHLOROPHENOXY PROPIONIC ACID, 2,4,5- (2,4,5-TP)(SILVEX)	93-72-1	5	22 E	5	22 E	500	2,200 E	500	2,200 E	5	22	E	5	22	E					20
TRICHLOROPROPANE, 1,1,2-	598-77-6	**[21] 17**	**[3.6] 2.9** E	**[58] 49**	**[9.9] 8.4** E	**[2,100] 1,700**	**[360] 290** E	**[5,800] 4,900**	**[990] 840** E	**[21] 17**	**[3.6] 2.9**	E	**[58] 49**	**[9.9] 8.4**	E					NA
TRICHLOROPROPANE, 1,2,3-	96-18-4	4	3.2 E	4	3.2 E	400	320 E	400	320 E	400	320	E	400	320	E					NA
TRICHLOROPROPENE, 1,2,3-	96-19-5	0.063	0.037 E	0.26	0.15 E	6.3	3.7 E	26	15 E	0.063	0.037	E	0.26	0.15	E					NA
TRIETHYLAMINE	121-44-8	1.5	0.36 E	6.2	1.5 E	150	36 E	620	150 E	1.5	0.36	E	6.2	1.5	E					NA
TRIETHYLENE GLYCOL	112-27-6	**[8,300] 6,900**	**[1,000] 870** E	10,000	**[2,900] 2,400** E	10,000	10,000 C	10,000	10,000 C	**[8,300] 6,900**	**[1,000] 870**	E	10,000	**[2,900] 2,400**	E					NA
TRIFLURALIN	1582-09-8	1	1.9 E	1	1.9 E	100	190 E	100	190 E	1	1.9	E	1	1.9	E					30
TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6	**[1.5] 13**	**[8.4] 73** E	**[6.2] 53**	**[35] 300** E	**[150] 1,300**	**[840] 7,300** E	**[620] 5,300**	**[3,500] 10,000** **[E] C**	**[150] 1,300**	**[840] 7,300**	E	**[620] 5,300**	**[3,500] 10,000**	**[E] C**					15

[1] For other options see Section 250.308
All concentrations in mg/kg
E – Number calculated by the soil to groundwater equation **[is] in** section 250.308
C – Cap
NA – The soil buffer distance option is not available for this substance
[THMs – The values listed for trihalomethanes (THMs) are the total for all THMs combined.]
[HAAs – The values listed for haloacetic acids (HAAs) are the total for all HAAs combined.]

Appendix A
Table 3 – Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers										Nonuse Aquifers						Soil Buffer Distance (feet)
		TDS ≤ 2500 mg/L				TDS > 2500 mg/L				Residential			Nonresidential			
		Residential		Nonresidential		Residential		Nonresidential		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value							
TRIMETHYLBENZENE, 1,3,5-	108-67-8	**[42] 13**	**[74] 23** E	**[120] 53**	**[210] 93** E	**[4,200] 1,300**	**[7,400] 2,300** E	4,900	8,600 E	**[42] 13**	**[74] 23** E	**[120] 53**	**[210] 93** E	30
TRINITROGLYCEROL (NITROGLYCERIN)	55-63-0	0.5	0.2 E	0.5	0.2 E	50	20 E	50	20 E	50	20 E	50	20 E	NA
TRINITROTOLUENE, 2,4,6-	118-96-7	0.2	0.023 E	0.2	0.023 E	20	2.3 E	20	2.3 E	0.2	0.023 E	0.2	0.023 E	NA
VINYL ACETATE	108-05-4	42	5 E	180	21 E	4,200	500 E	10,000	2,100 E	42	5 E	180	21 E	NA
VINYL BROMIDE (BROMOETHENE)	593-60-2	0.15	0.073 E	0.78	0.38 E	15	7.3 E	78	38 E	1.5	0.73 E	7.8	3.8 E	NA
VINYL CHLORIDE	75-01-4	0.2	0.027 E	0.2	0.027 E	20	2.7 E	20	2.7 E	2	0.27 E	2	0.27 E	NA
WARFARIN	81-81-2	**[1.3] 1**	**[3.1] 2.4** E	**[3.5] 2.9**	**[8.4] 6.9** E	**[130] 100**	**[310] 240** E	**[350] 290**	**[840] 690** E	**[1,300] 1,000**	**[3,100] 2,400** E	1,700	4,100 E	30
XYLENES (TOTAL)	1330-20-7	1,000	990 E	1,000	990 E	10,000	10,000 C	10,000	10,000 C	10,000	10,000 C	10,000	10,000 C	NA
ZINEB	12122-67-7	**[210] 170**	**[33] 27** E	**[580] 490**	**[92] 78** E	1,000	160 E	1,000	160 E	**[210] 170**	**[33] 27** E	**[580] 490**	**[92] 78** E	NA

[1] For other options see Section 250.308
All concentrations in mg/kg
E – Number calculated by the soil to groundwater equation **[is] in** section 250.308
C – Cap
NA – The soil buffer distance option is not available for this substance
[THMs – The values listed for trihalomethanes (THMs) are the total for all THMs combined.]
[HAAs – The values listed for haloacetic acids (HAAs) are the total for all HAAs combined.]

Appendix A
Table 4 – Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Soil
A. Direct Contact Numeric Values

REGULATED SUBSTANCE	CASRN	Residential MSC 0-15 feet		Nonresidential MSCs			
				Surface Soil 0-2 feet		Subsurface Soil 2-15 feet	
ALUMINUM	7429-90-5	190,000	C	190,000	C	190,000	C
ANTIMONY	7440-36-0	88	G	1,300	G	190,000	C
ARSENIC	7440-38-2	12	G	61	G	190,000	C
BARIUM AND COMPOUNDS	7440-39-3	44,000	G	190,000	C	190,000	C
BERYLLIUM	7440-41-7	440	G	6,400	G	190,000	C
BORON AND COMPOUNDS	7440-42-8	44,000	G	190,000	C	190,000	C
CADMIUM	7440-43-9	110	G	1,600	G	190,000	C
CHROMIUM III	16065-83-1	190,000	C	190,000	C	190,000	C
CHROMIUM VI	18540-29-9	**[4] 37**	G	**[220] 180**	G	**[20,000] 140,000**	N
COBALT	7440-48-4	66	G	960	G	190,000	N
COPPER	7440-50-8	**[8,100] 7,200**	G	**[120,000] 100,000**	G	190,000	C
CYANIDE, FREE	57-12-5	130	G	1,900	G	190,000	C
FLUORIDE	16984-48-8	8,800	G	130,000	G	190,000	C
IRON	7439-89-6	150,000	G	190,000	C	190,000	C
LEAD	7439-92-1	**[500] 420**	U	**[1,000] 2,500**	**[S] A**	190,000	C
LITHIUM	7439-93-2	440	G	6,400	G	190,000	C
MANGANESE	7439-96-5	**[10,000] 31,000**	G	**[150,000] 190,000**	**[G] C**	190,000	C
MERCURY	7439-97-6	35	G	510	G	190,000	C
MOLYBDENUM	7439-98-7	1,100	G	16,000	G	190,000	C
NICKEL	7440-02-0	4,400	G	64,000	G	190,000	C
PERCHLORATE	7790-98-9	150	G	2,200	G	190,000	C
SELENIUM	7782-49-2	1,100	G	16,000	G	190,000	C
SILVER	7440-22-4	1,100	G	16,000	G	190,000	C
STRONTIUM	7440-24-6	130,000	G	190,000	C	190,000	C
THALLIUM	7440-28-0	**[2] 2.2**	G	32	G	190,000	C
TIN	7440-31-5	130,000	G	190,000	C	190,000	C
VANADIUM	7440-62-2	15	G	220	G	190,000	C
ZINC	7440-66-6	66,000	G	190,000	C	190,000	C

All concentrations in mg/kg
R – Residential
NR – Non-Residential
G – Ingestion
N – Inhalation
C- Cap
U – **[UBK Model] IEUBK Model**
[S – SEGH Model] A – Adult Lead Model
NA – Not Applicable

Appendix A
Table 4 – Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Nonuse Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500 mg/L				TDS > 2500 mg/L								
		R		NR		R		NR		R		NR		
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	
[ALUMINUM]	**[7429-90-5]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**
ANTIMONY	7440-36-0	0.6	27	0.6	27	60	2,700	60	2,700	600	27,000	600	27,000	15
ARSENIC	7440-38-2	1	29	1	29	100	2,900	100	2,900	1,000	29,000	1,000	29,000	15
BARIUM AND COMPOUNDS	7440-39-3	200	8,200	200	8,200	20,000	190,000	20,000	190,000	190,000	190,000	190,000	190,000	15
BERYLLIUM	7440-41-7	0.4	320	0.4	320	40	32,000	40	32,000	400	190,000	400	190,000	10
BORON AND COMPOUNDS	7440-42-8	600	1,900	600	1,900	60,000	190,000	60,000	190,000	190,000	190,000	190,000	190,000	30
CADMIUM	7440-43-9	0.5	38	0.5	38	50	3,800	50	3,800	500	38,000	500	38,000	15
CHROMIUM (III)	16065-83-1	10	190,000	10	190,000	1,000	190,000	1,000	190,000	10,000	190,000	10,000	190,000	5
CHROMIUM (VI)	18540-29-9	10	190	10	190	1,000	19,000	1,000	19,000	10,000	190,000	10,000	190,000	15
COBALT	7440-48-4	1	**[59] 45**	**[4] 2.9**	**[160] 130**	**[130] 100**	**[5,900] 4,500**	**[350] 290**	**[16,000] 13,000**	**[1,300] 1,000**	**[59,000] 45,000**	**[3,500] 2,900**	**[160,000] 130,000**	15
COPPER	7440-50-8	**[NA] 100**	**[NA] 43,000**	**[NA] 100**	**[NA] 43,000**	**[NA] 10,000**	**[NA] 190,000**	**[NA] 10,000**	**[NA] 190,000**	**[NA] 100,000**	**[NA] 190,000**	**[NA] 100,000**	**[NA] 190,000**	**[NA] 10**
CYANIDE, FREE	57-12-5	20	200	20	200	2,000	20,000	2,000	20,000	20,000	190,000	20,000	190,000	20
FLUORIDE	16984-48-8	400	44	400	44	40,000	4,400	40,000	4,400	190,000	44,000	190,000	44,000	NA
[IRON]	**[7439-89-6]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**	**[NA]**
LEAD	7439-92-1	0.5	450	0.5	450	50	45,000	50	45,000	500	190,000	500	190,000	10
LITHIUM	7439-93-2	**[8] 6.9**	**[2,500] 2,100**	**[23] 19**	**[6,900] 5,700**	**[830] 690**	190,000	**[2,300] 1,900**	190,000	**[8,300] 6,900**	190,000	**[23,000] 19,000**	190,000	10
MANGANESE	7439-96-5	30	2,000	30	2,000	3,000	190,000	3,000	190,000	30,000	190,000	30,000	190,000	15
MERCURY	7439-97-6	0.2	10	0.2	10	20	1,000	20	1,000	200	10,000	200	10,000	15
MOLYBDENUM	7439-98-7	4	650	4	650	400	65,000	400	65,000	4,000	190,000	4,000	190,000	15
NICKEL	7440-02-0	10	650	10	650	1,000	65,000	1,000	65,000	10,000	190,000	10,000	190,000	15
PERCHLORATE	7790-98-9	1.5	0.17	1.5	0.17	150	17	150	17	1,500	170	1,500	170	NA
SELENIUM	7782-49-2	5	26	5	26	500	2,600	500	2,600	5,000	26,000	5,000	26,000	20
SILVER	7440-22-4	10	84	10	84	1,000	8,400	1,000	8,400	10,000	84,000	10,000	84,000	20

[1]For other options see Section 250.308
All concentrations in mg/kg
R – Residential
NR – Non-Residential
NA – Not Applicable

Appendix A
Table 4 – Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Nonuse Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500 mg/L				TDS > 2500 mg/L								
		R		NR		R		NR		R		NR		
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	
STRONTIUM	7440-24-6	400	44	400	44	40,000	4,400	40,000	4,400	190,000	44,000	190,000	44,000	NA
THALLIUM	7440-28-0	0.2	14	0.2	14	20	1,400	20	1,400	200	14,000	200	14,000	15
TIN	7440-31-5	**[2,500] 2,100**	190,000	**[7,000] 5,800**	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000	10
VANADIUM	7440-62-2	**[0.29] 0.24**	**[290] 240**	**[0.82] 0.68**	**[820] 680**	**[29] 24**	**[29,000] 24,000**	**[82] 68**	**[82,000] 68,000**	**[290] 240**	190,000	**[820] 680**	190,000	5
ZINC	440-66-6	200	12,000	200	12,000	20,000	190,000	20,000	190,000	190,000	190,000	190,000	190,000	15

[1]For other options see Section 250.308
All concentrations in mg/kg
R – Residential
NR – Non-Residential
NA – Not Applicable

Appendix A
Table 5 – Physical and Toxicological Properties
A. Organic Regulated Substances

Regulated Substance	CAS	RfDo (mg/kg-d)		CSFo (mg/kg-d)$^{-1}$		RfCi (mg/m^3)		IUR (µg/m^3)$^{-1}$		Koc	VOC?	Aqueous Sol (mg/L)	Aqueous Sol Reference[1]	TF Vol from Surface Soil	TF Vol from SubSurface Soil	Organic Liquid	Boiling Point (degrees C)	Degradation Coefficient (K)(yr^{-1})
ACENAPHTHENE	83-32-9	0.06	I							4900	**X**	3.8	1,5,6	**17220**	**20833**		279	1.24
ACENAPHTHYLENE	208-96-8	0.06	S							4500	**X**	16.1	5,6,7	**16493**	**19776**		280	2.11
ACEPHATE	30560-19-1	**[0.004] 0.0012**	**[I] O**	**[0.0087]**	**[I]**					3		818000	6				340	
ACETALDEHYDE	75-07-0					0.009	I	0.0000022	I	4.1	X	1000000	1	**[13100] 13010**	**[15100] 14945**	X	20	
ACETONE	67-64-1	0.9	I			31	D			0.31	X	1000000	1	**[13100] 13007**	**[15000] 14942**	X	56	18.07
ACETONITRILE	75-05-8					0.06	I			0.5	X	1000000	1	**[13100] 13020**	**[15000] 14958**	X	82	4.50
ACETOPHENONE	98-86-2	0.1	I							170		5500	1			X	203	
ACETYLAMINO-FLUORENE, 2- (2AAF)	53-96-3			3.8	C			0.0013	C	1600		10.13	7				303	0.69
ACROLEIN	107-02-8	0.0005	I			0.00002	I			0.56	X	208000	1,2,4	**[13100] 13012**	**[15100] 14948**	X	53	4.50
ACRYLAMIDE	79-06-1	0.002	I	0.5	I	0.006	I	0.0001	I	25	X	2151000	4	**[13000] 12981**	**[15000] 14906**		193	
ACRYLIC ACID	79-10-7	0.5	I			0.001	I			29	X	1000000	2	**[13000] 12978**	**[14900] 14902**	X	141	1.39
ACRYLONITRILE	107-13-1	0.04	D	0.54	I	0.002	I	0.000068	I	11	X	73500	1	**[13100] 13004**	**[15100] 14939**	X	77	5.50
ALACHLOR	15972-60-8	0.01	I	0.056	C					110		140	2				378	
ALDICARB	116-06-3	0.001	I							22		6000	2				287	0.40
ALDICARB SULFONE	1646-88-4	0.001	I							10		8000	5				317	
ALDICARB SULFOXIDE	1646-87-3	0.001	M							0.22		330000	5				307	
ALDRIN	309-00-2	0.00003	I	17	I			0.0049	I	48000		0.02	4,5,6				330	0.22
ALLYL ALCOHOL	107-18-6	0.005	I			0.0001	X			3.2	X	1000000	2	**[13100] 13003**	**[15000] 14937**	X	97	18.07
AMETRYN	834-12-8	0.009	I							389		185	5				345	
AMINOBIPHENYL, 4-	92-67-1			21	C			0.006	C	110		1200	5				302	18.07
AMITROLE	61-82-5			0.94	C			0.00027	C	120		280000	4				258	0.69
AMMONIA	7664-41-7	**[0.97] 0.85**	H			**[0.1] 0.5**	I			3	X	310000	2,5,7	**[13100] 13098**	**[15000] 15059**	X	-33	
AMMONIUM SULFAMATE	7773-06-0	0.2	I							3		2160000	10				603	
ANILINE	62-53-3	0.007	P	0.0057	I	0.001	I	0.0000016	C	190	X	33800	1	**[13000] 12959**	**[14900] 14876**	X	184	
ANTHRACENE	120-12-7	0.3	I							21000	**X**	0.066	1,5,6,7,8,9	**30838**	**44562**		340	0.28
ATRAZINE	1912-24-9	0.035	I	0.23	C					130		70	2,4,5				313	

[1]Aqueous solubility references are keyed to the numbered list found at §250.304(f). Where there are multiple sources cited. The table value is the median of the values in the individual references.

Toxicity Value Sources:
C = California EPA **[Cancer Potency Factor]**
D = ATSDR Minimal Risk Level
H = Health Effects Assessment Summary Table (HEAST)
I = Integrated Risk information System (IRIS)
M = EPA Drinking Water Regulations and Health Advisories
[N = EPA NCEA Provisional Values] **O = EPA Office of Pesticide Programs Human Health Benchmarks for Pesticides**
P = EPA Provisional Peer-Reviewed Toxicity Value
S = surrogate
[T = TEF]
TE = TERA ITER Peer-Reviewed Value
X = EPA Provisional Peer-Reviewed Toxicity Value Appendix

Appendix A
Table 5 – Physical and Toxicological Properties
A. Organic Regulated Substances

Regulated Substance	CAS	RfDo (mg/kg-d)		CSFo (mg/kg-d)$^{-1}$		RfCi (mg/m^3)		IUR (µg/m^3)$^{-1}$		Koc	VOC?	Aqueous Sol (mg/L)	Aqueous Sol Reference[1]	TF Vol from Surface Soil	TF Vol from SubSurface Soil	Organic Liquid	Boiling Point (degrees C)	Degradation Coefficient (K)(yr^{-1})
AZINPHOS-METHYL (GUTHION)	86-50-0	**[0.003] 0.0015**	**[D] O**			0.01	D			407.4		31.5	1, 2				421	
BAYGON (PROPOXUR)	114-26-1	0.004	I							31		2000	2,4,5				decomp.	4.50
BENOMYL	17804-35-2	0.05	I	**0.0024**	**O**					1,900		2	5				520	
BENTAZON	25057-89-0	0.03	I							13		500	2				415	
BENZENE	71-43-2	0.004	I	0.055	I	0.03	I	0.0000078	I	58	X	1780.5	1,2,3,4	**[13100] 13053**	15000	X	81	0.35
BENZIDINE	92-87-5	0.003	I	230	I			0.067	I	530,000		520	1,2,4				400	15.81
BENZO[A]ANTHRACENE	56-55-3			0.7	X			0.00011	C	350000		0.011	1,5,6				438	0.19
BENZO[A]PYRENE	50-32-8	**0.0003**	**I**	**[7.3] 1**	I	**0.000002**	**I**	**[0.0011] 0.0006**	**[C]I**	910000		0.0038	1,5,6				495	0.24
BENZO[B]FLUORANTHENE	205-99-2			1.2	C			0.00011	C	550000		0.0012	5,6,7				357	0.21
BENZO[GHI]PERYLENE	191-24-2	0.06	S							2800000		0.00026	1,5,6				500	0.19
BENZO[K]FLUORANTHENE	207-08-9			1.2	C			0.00011	C	4400000		0.00055	5,6,7				480	0.06
BENZOIC ACID	65-85-0	4	I							32	**X**	2700	2,3,4,5	**12985**	**14913**		249	
BENZOTRICHLORIDE	98-07-7			13	I					920	**X**	53	1,5,13	**13494**	**15606**	X	221	121413.60
BENZYL ALCOHOL	100-51-6	0.1	P							100		40000	1,2,3			X	205	
BENZYL CHLORIDE	100-44-7	0.002	P	0.17	I	0.001	P	0.000049	C	190	X	493	1	**[13000] 12940**	**[15000] 14846**	X	179	20.90
BETA PROPIOLACTONE	57-57-8			14	C			0.004	C	4	X	370000	2	**[13100] 13008**	**[15000] 14937**	X	162	0.01
BHC, ALPHA	319-84-6	0.008	D	6.3	I			0.0018	I	1800		1.7	4,5,6,7				288	0.94
BHC, BETA-	319-85-7			1.8	I			0.00053	I	2300		0.1	6				304	1.02
BHC, GAMMA (LINDANE)	58-89-9	0.0003	I	1.1	C			0.00031	C	1400		7.3	4,5,6				323	1.05
BIPHENYL, 1,1-	92-52-4	0.05	I	0.008	**[X] I**	0.0004	X			1,700	**X**	7.2	1	**14027**	**16325**		255	18.07
BIS(2-CHLORO ETHOXY)METHANE	111-91-1	0.003	P							61		100500	4,6,7,9,10,11			X	218	
BIS(2-CHLOROETHYL)ETHER	111-44-4			1.1	I			0.00033	I	76	X	10200	1,4,5	**[13000] 12942**	**[14900] 14849**	X	179	0.69
BIS(2-CHLORO-ISOPROPYL)ETHER	108-60-1	0.04	I	0.07	H			0.00001	H	62	X	1700	5	**[13000] 12947**	**[14900] 14856**	X	189	0.69
BIS(CHLOROMETHYL)ETHER	542-88-1			220	I			0.062	I	16	X	22000	6	**[13100] 12992**	**[15100] 14922**	X	105	57270.57
BIS[2-ETHYLHEXYL] PHTHALATE	117-81-7	0.02	I	0.014	I			0.0000024	C	87000		0.285	4,5,6			X	384	0.65
BISPHENOL A	80-05-7	0.05	I							1,500		120	4				220	0.69

[1]Aqueous solubility references are keyed to the numbered list found at §250.304(f). Where there are multiple sources cited. The table value is the median of the values in the individual references.

Toxicity Value Sources:
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P = EPA Provisional Peer-Reviewed Toxicity Value
S = surrogate
[T = TEF]
TE = TERA ITER Peer-Reviewed Value
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Appendix A
Table 5 – Physical and Toxicological Properties
A. Organic Regulated Substances

Regulated Substance	CAS	RfDo (mg/kg-d)		CSFo (mg/kg-d)$^{-1}$		RfCi (mg/m^3)		IUR (µg/m^3)$^{-1}$		Koc	VOC?	Aqueous Sol (mg/L)	Aqueous Sol Reference[1]	TF Vol from Surface Soil	TF Vol from SubSurface Soil	Organic Liquid	Boiling Point (degrees C)	Degradation Coefficient (K)(yr^{-1})
BROMACIL	314-40-9	0.1	M							58		815	2				421	
BROMOBENZENE	**108-86-1**	**0.008**	**I**			**0.06**	**I**			**268**	**X**	**445**	**1,2**	**12954**	**14866**	**X**	**156.1**	
BROMOCHLOROMETHANE	74-97-5	0.01	M			0.04	X			27	X	16700	4	**[13100] 13007**	**[15000] 14942**	X	68	
BROMODICHLOROMETHANE	75-27-4	0.02	I	0.062	I			0.000037	C	93	X	4500	6	**[13100] 12984**	**[15000] 14910**	X	87	
BROMOMETHANE	74-83-9	0.0014	I			0.005	I			170	X	17500	2	**[13100] 13039**	**[15000] 14981**	X	4	6.66
BROMOXYNIL	1689-84-5	**[0.02] 0.015**	**[I] O**	**0.103**	**O**					300		130	2				329	
BROMOXYNIL OCTANOATE	1689-99-2	**[0.02] 0.015**	**[I] O**	**0.103**	**O**					18,000		0.08	12				414	5.75
BUTADIENE, 1,3-	106-99-0			**[3.4] 0.6**	C	0.002	I	0.00003	I	120	X	735	1	**[13200] 13115**	**[15000] 15041**	X	-4.5	4.50
BUTYL ALCOHOL, N-	71-36-3	0.1	I							3.2	X	74000	1	**[13000] 12998**	**[14900] 14930**	X	118	4.68
BUTYLATE	2008-41-5	0.05	I							540	X	45	2	**[13200] 13430**	**[15200] 15519**	X	138	
BUTYLBENZENE, N-	104-51-8	0.05	P							2,500	X	15	1,6,7	**[13100] 12943**	**[15100] 14851**	X	183	
BUTYLBENZENE, SEC-	135-98-8	0.1	X							890	X	17	1,6,7	**[13100] 12983**	**[15000] 14910**	X	174	
BUTYLBENZENE, TERT-	98-06-6	0.1	X							680	X	30	1,6,7	**[13100] 12979**	**[15000] 14904**	X	169	
BUTYLBENZYL PHTHALATE	85-68-7	0.2	I	0.0019	P					34000		2.69	4,5,6			X	370	1.39
CAPTAN	133-06-2	0.13	I	0.0023	C			0.00000066	C	200		0.5	4				259	589.39
CARBARYL	63-25-2	0.1	I							190		120	2,4,5				315	4.22
CARBAZOLE	86-74-8			0.02	H					2,500		1.2	1,5,6				355	
CARBOFURAN	1563-66-2	0.005	I							43		700	2				311	
CARBON DISULFIDE	75-15-0	0.1	I			0.7	I			300	X	2100	1,2,3	**[13100] 13022**	**[15100] 14961**	X	46	
CARBON TETRACHLORIDE	56-23-5	0.004	I	0.07	I	0.1	I	0.000006	I	160	X	795	1,2,3	**[13100] 13117**	**[15000] 15083**	X	77	0.07
CARBOXIN	5234-68-4	0.1	I							260		170	5,6,8				407	
CHLORAMBEN	133-90-4	0.015	I							20		700	2				210	
CHLORDANE	57-74-9	0.0005	I	0.35	I	0.0007	I	0.0001	I	98000		0.056	4,5,7				351	0.09

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CHLORO-1,1-DIFLUOROETHANE, 1-	75-68-3					50	I			22	X	1400	4	[13100] 13117	[15000] 15041	X	-9	
CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE)	107-05-1			0.021	C	0.001	I	0.000006	C	48	X	3300	1,3,5,7,10	[13100] 13142	[15000] 15116	X	45	18.07
CHLOROACETALDEHYDE	107-20-0			[0.3] 0.27	X					3.2	X	1000000	9	[13000] 13004	[14900] 14938	X	85	
CHLOROACETOPHENONE, 2-	532-27-4					0.00003	I			76		1100	3				247	4.50
CHLOROANILINE, P-	106-47-8	0.004	I	0.2	P					460	X	3900	1	13139	15127		232	
CHLOROBENZENE	108-90-7	0.02	I			0.05	P			200	X	490	3	[13100] 12992	[15000] 14922	X	132	0.84
CHLOROBENZILATE	510-15-6	0.02	I	0.11	C			0.000031	C	2600		13	4				415	3.60
CHLOROBUTANE, 1-	109-69-3	0.04	P							580	X	680	1,2,3,4	[13200] 13007	[15000] 14942	X	79	
CHLORODIBROMOMETHANE	124-48-1	0.02	I	0.084	I			[0.000027]	[C]	83	X	4200	4,6,7,9	[13100] 12973	[15100] 14895	X	116	1.39
CHLORODIFLUOROMETHANE	75-45-6					50	I			59	X	2899	4	[13200] 13141	[15000] 15113	X	-41	
CHLOROETHANE	75-00-3	[0.4]	[N]	[0.0029]	[N]	10	I			42	X	5700	1	[13100] 13101	[15000] 15038	X	12	4.50
CHLOROFORM	67-66-3	0.01	I	[0.019] 0.031	C	[0.098] 0.3	[D] C	0.000023	I	56	X	8000	1,2,3	[13100] 13044	[15000] 14988	X	61	0.01
CHLORONAPHTHALENE, 2-	91-58-7	0.08	I							8500	X	11.7	1	19021	23532		256	
CHLORONITROBENZENE, P-	100-00-5	[0.001] 0.0007	P	[0.0063] 0.06	P	[0.0006] 0.002	P			480	X	220	1	13190	15196		242	
CHLOROPHENOL, 2-	95-57-8	0.005	I							400	X	24000	1,3,4	[12900] 13053	[14900] 15009	X	175	
CHLOROPRENE	126-99-8	0.02	H			0.02	I	0.0003	I	50	X	1736	9	[13100] 13116	[15000] 15075	X	59	0.69
CHLOROPROPANE, 2-	75-29-6					[0.1] 0.1001	H			260	X	3100	1,3,5	[13200] 13055	[15000] 15002	X	47	
CHLOROTHALONIL	1897-45-6	0.015	I	[0.0031] 0.017	C			[0.00000089]	[C]	980		0.6	2				350	
CHLOROTOLUENE, O-	95-49-8	0.02	I							760	X	422	1,4,5	[13100] 12941	[15000] 14848	X	159	
CHLOROTOLUENE, P-	106-43-4	0.02	X							375	X	106	12	[13000] 12961	[14900] 14877	X	162	
CHLORPYRIFOS	2921-88-2	0.001	D							4600		1.12	2,4,6,7				377	

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CHLORSULFURON	64902-72-3	**[0.05]** **0.02**	**[I] O**							11		192	2,5,6,8,9				531	
CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)	1861-32-1	0.01	I							6,500		0.5	2,5,7				360	1.37
CHRYSENE	218-01-9			0.12	C			0.000011	C	490000		0.0019	1				448	0.13
CRESOL(S)	1319-77-3	0.1	D			0.06	C			25	X	20000	2	**[13000] 12976**	**[14900] 14899**	X	139	5.16
CRESOL, DINITRO-O-, 4,6-	534-52-1	**[0.0001] 0.00008**	**[P] X**							257	**X**	150	4	**13025**	**14970**		312	6.02
CRESOL, O- (METHYLPHENOL, 2-)	95-48-7	0.05	I							22	X	2500	3,5,6	**[13000] 12974**	**[14900] 14896**		191	18.07
CRESOL, M (METHYLPHENOL, 3-)	108-39-4	0.05	I							35		2500	2			X	202	5.16
CRESOL, P (METHYLPHENOL, 4-)	106-44-5	0.005	H							49		22000	6				202	9.03
CRESOL, P-CHLORO-M-	59-50-7	0.1	X							780		3846	2				235	
CROTONALDEHYDE	4170-30-3	**0.001**	**S**	1.9	S					5.6	X	180000	3	**[13000] 12998**	**[14900] 14931**	X	104	18.07
CROTONALDEHYDE, TRANS-	123-73-9	0.001	P	1.9	H					6.1	X	156000	1	**[13100] 13006**	**[15100] 14940**	X	104	18.07
CUMENE (ISOPROPYL BENZENE)	98-82-8	0.1	I			0.4	I			2800	X	50	1,5,6	**[13100] 12940**	**[15100] 14846**	X	152	15.81
CYANAZINE	21725-46-2	0.002	**[M] H**	0.84	H					199		171	2,5				369	
CYCLOHEXANE	110-82-7					6	I			479	X	55	1,2,4,5,6	**[13100] 13140**	**[15100] 15112**	X	81	
CYCLOHEXANONE	108-94-1	5	I			0.7	P			66	X	36500	1,2,4,5	**[13000] 12949**	**[14900] 14858**	X	157	
CYFLUTHRIN	68359-37-5	0.025	I							130,000		0.001	2				448	
CYROMAZINE	66215-27-8	**[0.0075]** **0.5**	**[I] O**							1,200		11000	12				222	
DDD, 4,4'-	72-54-8	**0.003**	**X**	0.24	I			0.000069	C	44000		0.16	5,6,7				350	0.02
DDE, 4,4'-	72-55-9	**0.0003**	**X**	0.34	I			0.000097	C	87000		0.04	5				348	0.02
DDT, 4,4'-	50-29-3	0.0005	I	0.34	I			0.000097	I	240000		0.0055	5,6,7				260	0.02
DI(2-ETHYLHEXYL)ADIPATE	103-23-1	0.6	I	0.0012	I					47,000,000		200	5			X	214	4.50
DIALLATE	2303-16-4			0.061	H					190		40	2,4,6,8			X	328	1.39
DIAMINOTOLUENE, 2,4-	95-80-7			4	C			0.0011	C	36		7470	4				292	0.69
DIAZINON	333-41-5	0.0007	D							500		50	2,4,6,8			X	306	
DIBENZO[A,H]ANTHRACENE	53-70-3			4.1	C			0.0012	C	1800000		0.0006	1,5,6				524	0.13

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DIBENZOFURAN	132-64-9	0.001	X							10233	X	4.48	1,6,7,9	23885	31445		287	7.23
DIBROMO-3-CHLOROPROPANE, 1,2-	96-12-8	0.0002	P	0.8	P	0.0002	I	0.006	P	140	X	1000	4	[13000] 12946	[15000] 14856	X	196	0.69
DIBROMOBENZENE, 1,4-	106-37-6	0.01	I							1,600		20	1				220	
DIBROMOETHANE, 1,2- (ETHYLENE DIBROMIDE)	106-93-4	0.009	I	2	I	0.009	I	0.0006	I	54	X	4150	1,2,3,5	[13100] 12972	[15100] 14893	X	131	2.11
DIBROMOMETHANE	74-95-3	0.01	H			0.004	X			110	X	11400	1	[13100] 12948	[15100] 14858	X	96	4.50
DIBUTYL PHTHALATE, N-	84-74-2	0.1	I							1600		400	1,2,3			X	340	11.00
DICAMBA	1918-00-9	0.03	I							0.27		5600	4,5,6,8,10				329	
DICHLOROACETIC ACID	76-43-6	0.004	I	0.05	I					8.1	X	1000000	1	[12900] 12994	[14900] 14924	X	194	
DICHLORO-2-BUTENE, 1,4-	764-41-0							0.0042	P	180	X	850	9	[13100] 12943	[15000] 14851	X	156	
DICHLORO-2-BUTENE, TRANS-1,4-	110-57-6							0.0042	[S]P	215	X	850	9	[12900] 12940	[14800] 14847	X	155	
DICHLOROBENZENE, 1,2-	95-50-1	0.09	I			0.2	H			350	X	147	1,4,5,6,7	[13100] 12946	[15100] 14855	X	180	0.69
DICHLOROBENZENE, 1,3-	541-73-1	0.09	M							360	X	106	1	[13100] 12942	[15100] 14849	X	173	0.69
DICHLOROBENZENE, P-	106-46-7	0.07	D	0.0054	C	0.8	I	0.000011	C	510	X	82.9	1	[12900] 12943	[14900] 14850		174	0.69
DICHLOROBENZIDINE, 3,3'-	91-94-1			0.45	I			0.00034	C	22000		3.11	4,5,6				368	0.69
DICHLORODIFLUOROMETHANE (FREON 12)	75-71-8	0.2	I			0.1	X			360	X	280	1	[13200] 13115	[15000] 15041	X	-30	0.69
DICHLOROETHANE, 1,1-	75-34-3	0.2	P	0.0057	C	0.5	H	0.0000016	C	52	X	5000	2	[13100] 13051	[15000] 14998	X	57	0.16
DICHLOROETHANE, 1,2-	107-06-2	0.006	X	0.091	I	0.007	P	0.000026	I	38	X	8412	1,2,3,4	[13100] 13010	[15000] 14945	X	83	0.07
DICHLOROETHYLENE, 1,1-	75-35-4	0.05	I			0.2	I			65	X	2500	1,4,5	[13100] 13145	[15000] 15119	X	32	0.19
DICHLOROETHYLENE, CIS-1,2-	156-59-2	0.002	I							49	X	3500	1	[13100] 13037	[15000] 14979	X	60	0.01
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	0.02	I			[0.06]	[P]			47	X	6300	1	[13100] 13053	15000	X	48	0.01
DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	0.006	I	0.002	I	0.6	I	0.00000001	I	16	X	20000	1,2,3	[13100] 13071	[15000] 15023	X	40	4.50
DICHLOROPHENOL, 2,4-	120-83-2	0.003	I							160		4500	1				210	5.88

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DICHLOROPHENOXYACETIC ACID, 2,4-(2,4-D)	94-75-7	0.01	I							59		677	4,5,6,7,10				215	1.39
DICHLOROPROPANE, 1,2-	78-87-5	**[0.09]** 0.04	**[D]** P	**[0.036]** 0.037	**[C]** P	0.004	I	**[0.00001]** 0.0037	**[C]**P	47	X	2700	1,3,4	**[13100]** 13016	**[15000]** 14954	X	96	0.10
DICHLOROPROPENE, 1,3-	542-75-6	0.03	I	0.1	I	0.02	I	0.000004	I	27	X	2700	6	**[13100]** 13038	**[15000]** 14981	X	108	22.38
DICHLOROPROPIONIC ACID, 2,2-(DALAPON)	75-99-0	0.03	I							62	X	500000	5	**[13000]** 12949	**[14900]** 14860	X	190	2.11
DICHLORVOS	62-73-7	0.0005	I	0.29	I	0.0005	I	0.000083	C	50		10000	2,4,5			X	234	
DICYCLOPENTADIENE	77-73-6	0.008	P			0.0003	X			810	X	40	5	**[13000]** 12957	**[14900]** 14870		167	
DIELDRIN	60-57-1	0.00005	I	16	I			0.0046	I	11000		0.17	4,5,6				385	0.12
DIETHANOLAMINE	111-42-2	0.002	P			0.0002	P			4		1000000	2,3,9			X	269	
DIETHYL PHTHALATE	84-66-2	0.8	I							81		1080	4,5,6			X	298	2.25
DIFLUBENZURON	35367-38-5	0.02	I							1,000		0.2	2				201	
DIISOPROPYL METHYLPHOSPHONATE	1445-75-6	0.08	I							10	X	160000	9	**[13000]** 12978	**[14900]** 14903	X	190	
DIMETHOATE	60-51-5	**[0.0002]** 0.0022	**[I]** O							110		25000	4				361	2.26
DIMETHOXYBENZIDINE, 3,3-	119-90-4			1.6	P					1,300		60	9				331	0.69
DIMETHRIN	70-38-2	0.3	M							27,000		0.036	13				353	
DIMETHYLAMINOAZOBENZENE, P-	60-11-7			4.6	C			0.0013	C	1000		13.6	7				335	4.50
DIMETHYLANILINE, N,N-	121-69-7	0.002	I	0.027	P					180	X	1200	5,6,7,9	**[13000]** 12944	**[14900]** 14852	X	192	0.69
DIMETHYLBENZIDINE, 3,3-	119-93-7			11	P					22,000		1300	10				300	18.07
DIMETHYL METHYLPHOSPHONATE	756-79-6	0.06	P	0.0017	P					5	X	1000000	14	**[13000]** 12998	**[14900]** 14930	X	181	
DIMETHYLPHENOL, 2,4-	105-67-9	0.02	I							130		7869	1,4,6,7			X	211	18.07
DINITROBENZENE, 1,3-	99-65-0	0.0001	I							150		523	3,5,6,7				291	0.69
DINITROPHENOL, 2,4-	51-28-5	0.002	I							0.79		5600	2,4,5,6,7				332	0.48
DINITROTOLUENE, 2,4-	121-14-2	0.002	I	0.31	C			0.000089	C	51		270	4,5,6				300	0.69
DINITROTOLUENE, 2,6- (2,6-DNT)	606-20-2	0.0003	X	1.5	P					74		200	6				300	0.69
DINOSEB	88-85-7	0.001	I							120		50	5				223	1.03
DIOXANE, 1,4-	123-91-1	0.03	I	0.1	I	**[0.11]** 0.03	**[D]** I	**[0.0000077]** 0.000005	**[C]**I	7.8	X	1000000	5	**[13000]** 12996	**[14900]** 14928	X	101	0.69
DIPHENAMID	957-51-7	0.03	I							200		260	5				210	

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Regulated Substance	CAS	RfDo (mg/kg-d)		CSFo (mg/kg-d)$^{-1}$		RfCi (mg/m^3)		IUR (µg/m^3)$^{-1}$		Koc	VOC?	Aqueous Sol (mg/L)	Aqueous Sol Reference[1]	TF Vol from Surface Soil	TF Vol from SubSurface Soil	Organic Liquid	Boiling Point (degrees C)	Degradation Coefficient (K)(yr^{-1})
DIPHENYLAMINE	122-39-4	**[0.025]** 0.1	**[I]** O							190		300	3				302	4.50
DIPHENYLHYDRAZINE, 1,2-	122-66-7			0.8	I			0.00022	I	660	X	0.252	6	13375	15446		309	0.69
DIQUAT	85-00-7	0.0022	I							2.6		700000	5				355	
DISULFOTON	298-04-4	0.00004	I							1000		25	4,5,6			X	332	6.02
DITHIANE, 1,4-	505-29-3	0.01	I							22.7	X	3000	15	**[13000]** 12976	**[14900]** 14899		199	
DIURON	330-54-1	0.002	I							300		42	2,4,5				354	
ENDOSULFAN	115-29-7	0.006	I							2,000		0.48	4				401	2.78
ENDOSULFAN I (ALPHA)	959-98-8	0.006	S							2000		0.5	6				401	
ENDOSULFAN II (BETA)	33213-65-9	0.006	S							2300		0.45	6				390	
ENDOSULFAN SULFATE	1031-07-8	0.006	S							2300		0.117	7,9				409	
ENDOTHALL	145-73-3	0.02	I							120		100000	2				350	
ENDRIN	72-20-8	0.0003	I							11000		0.23	4,6,7,9				245	
EPICHLOROHYDRIN	106-89-8	0.006	P	0.0099	I	0.001	I	0.0000012	I	35	X	65800	1,3,4	**[13000]** 12972	**[14900]** 14893	X	116	4.50
ETHEPHON	16672-87-0	0.005	I							2		1240000	12				201	
ETHION	563-12-2	0.0005	I							8700		0.85	4,6,9,10			X	415	
ETHOXYETHANOL, 2- (EGEE)	110-80-5	0.09	P			0.2	I			12	X	1000000	2	**[13200]** 13100	**[15000]** 15040	X	136	4.50
ETHYL ACETATE	141-78-6	0.9	I			0.07	P			59	X	80800	1,2,3,4,5,6	**[13100]** 12963	**[15000]** 14881	X	77	18.07
ETHYL ACRYLATE	140-88-5	0.005	P	0.048	H	0.008	P			110	X	15000	1,2,6	**[13100]** 12951	**[15100]** 14863	X	100	18.07
ETHYL BENZENE	100-41-4	0.1	I	0.011	C	1	I	0.0000025	C	220	X	161	1,3,4	**[13100]** 13004	15000	X	136	1.11
ETHYL DIPROPYLTHIOCARBAMATE, S-(EPTC)	759-94-4	**[0.025]** 0.05	**[I]O**							240	X	365	2	**[12900]** 13056	**[14900]** 15014	X	127	
ETHYL ETHER	60-29-7	0.2	I							68	X	60400	1	**[13100]** 12982	**[15100]** 14908	X	35	
ETHYL METHACRYLATE	97-63-2	0.09	H			0.3	P			22	X	4635.5	9,10	**[13100]** 12991	**[15000]** 14921	X	117	
ETHYLENE CHLORHYDRIN	107-07-3	0.02	P							1	X	1000000	9	**[13000]** 13006	**[14900]** 14941	X	128	
ETHYLENE GLYCOL	107-21-1	2	I			0.4	C			4.4	X	1000000	2	**[13100]** 13004	**[15100]** 14938	X	198	10.54
ETHYLENE THIOUREA (ETU)	96-45-7	0.00008	I	0.045	C			0.000013	C	0.23		20000	2				347	4.50

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ETHYL P-NITROPHENYL PHENYLPHOSPHORO THIOATE	2104-64-5	0.00001	I							1,200		3.1	4				215	
FENAMIPHOS	22224-92-6	0.00025	I							300		329	2				390	
FENVALERATE (PYDRIN)	51630-58-1	0.025	I							4,400		0.085	5			X	300	
FLUOMETURON	2164-17-2	0.013	I							68		97.5	2,5,6,8				318	
FLUORANTHENE	206-44-0	0.04	I							49000		0.26	1,5,6				375	0.29
FLUORENE	86-73-7	0.04	I							7900	**X**	1.9	1	**20155**	**25294**		298	2.11
FLUOROTRICHLOROMETHANE (FREON 11)	75-69-4	0.3	I			0.7	H			130	X	1090	1,4,5,6	**[13100] 13107**	**[15000] 15060**	X	24	0.35
FONOFOS	944-22-9	0.002	I							1100		13	5,6,8			X	324	
FORMALDEHYDE	50-00-0	0.2	I	**0.021**	**C**	**[0.0098] 0.009**	**[D] C**	0.000013	I	3.6	X	55000	1	**[13100] 13046**	**[15100] 14990**	X	-21	18.07
FORMIC ACID	64-18-6	0.9	P			0.0003	X			0.54	X	1000000	2	**[13000] 12940**	**[14900] 14846**	X	101	18.07
FOSETYL-AL	39148-24-8	**[3] 2.5**	**[I] O**							310		120000	2				464	
FURAN	110-00-9	0.001	I							130	X	10000	1	**[13100] 13019**	**[15000] 14956**	X	31	2.25
FURFURAL	98-01-1	0.003	I	**0.0349**	**O**	0.05	H			6.3	X	91000	1,2,3	**[13000] 12998**	**[14900] 14930**	X	162	
GLYPHOSATE	1071-83-6	0.1	I							3500		12000	1,5,6				417	
HEPTACHLOR	76-44-8	0.0005	I	4.5	I			0.0013	I	6800		0.18	4,6,7				310	46.84
HEPTACHLOR EPOXIDE	1024-57-3	0.000013	I	9.1	I			0.0026	I	21000		0.311	4,6,7,9				341	0.23
HEXACHLOROBENZENE	118-74-1	0.0008	I	1.6	I			0.00046	I	3800		0.006	1,4,5				319	0.06
HEXACHLOROBUTADIENE	87-68-3	0.001	P	0.078	I			0.000022	I	4700		2.89	4,5,6,7			X	215	0.69
HEXACHLOROCYCLOPENTADIENE	77-47-4	0.006	I			0.0002	I			7200		1.8	5,6,7			X	239	4.50
HEXACHLOROETHANE	67-72-1	0.0007	I	0.04	I	0.03	I	**[0.00001] 0.000011**	C	2200	X	50	1	**[13000] 14825**	**[15000] 17421**		187	0.69
HEXANE	110-54-3	0.06	H			0.7	I			3600	X	9.5	1,5,6	**[13100] 13105**	**[15000] 15056**	X	69	
HEXAZINONE	51235-04-2	0.033	I							41		330000	1,2				408	
HEXYTHIAZOX (SAVEY)	78587-05-0	0.025	I							6,500		0.5	2				539	
HMX	2691-41-0	0.05	I							4		5	16				436	
HYDRAZINE/HYDRAZINE SULFATE	302-01-2			3	I	0.00003	P	0.0049	I	0.0053	X	1000000	2	**[13000] 13026**	**[15000] 14966**	X	114	18.07
HYDROQUINONE	123-31-9	0.04	P	0.06	P					10		70000	2,3,5				285	18.07

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INDENO[1,2,3-CD]PYRENE	193-39-5			1.2	C			0.00011	C	31000000		0.062	5				536	0.17
IPRODIONE	36734-19-7	0.04	I	**0.0439**	**O**					1,100		2					545	
ISOBUTYL ALCOHOL	78-83-1	0.3	I							60	X	81000	1,2,3,4,5	**[13000] 12954**	**[14900] 14866**	X	108	17.57
ISOPHORONE	78-59-1	0.2	I	0.00095	I	2	C			31		12000	2,4,5			X	215	4.5
ISOPROPYL METHYLPHOSPHONATE	1832-54-8	0.1	I							1.84		50000	13			X	230	
KEPONE	143-50-0	0.0003	I	10	I			0.0046	C	55000		7.6	4				350	0.17
MALATHION	121-75-5	0.02	I							1300		143	4			X	351	2.46
MALEIC HYDRAZIDE	123-33-1	0.5	I							2.8		6000	4				260	
MANEB	12427-38-2	0.005	I	**0.0601**	**O**					1		23	9,13				351	
MERPHOS OXIDE	78-48-8	**[0.00003] 0.001**	**[I] O**							53,000		2.3	8,10,12			X	392	
METHACRYLONITRILE	126-98-7	0.0001	I			0.03	P			21	X	25700	1	**[13100] 12994**	**[15100] 14925**	X	90	
METHAMIDOPHOS	10265-92-6	0.00005	I							5		2000000	5				223	
METHANOL	67-56-1	**[0.5] 2**	I			**[4] 20**	**[C] I**			2.8	X	1000000	2	**[13100] 13025**	**[15100] 14964**	X	65	36.14
METHOMYL	16752-77-5	0.025	I							20		58000	2				228	
METHOXYCHLOR	72-43-5	0.005	I							63000		0.045	4,5,6				346	0.69
METHOXYETHANOL, 2-	109-86-4	0.005	P			0.02	I			1	X	1000000	2	**[13100] 13141**	**[15000] 15115**	X	124	4.50
METHYL ACETATE	79-20-9	1	**[H] X**							30	X	243500	4,5,6	**[13100] 12982**	**[15100] 14908**	X	57	
METHYL ACRYLATE	96-33-3	0.03	H			0.02	P			55	X	52000	1,2,5	**[13100] 12971**	**[15100] 14892**	X	70	18.07
METHYL CHLORIDE	74-87-3			0.013	H	0.09	I	0.0000018	H	6	X	6180	1,2,3,4	**[13200] 13103**	**[15000] 15038**	X	-24	4.50
METHYL ETHYL KETONE	78-93-3	0.6	I			5	I			32	X	275000	1,2,3,4,5	**[13100] 12974**	**[15100] 14897**	X	80	2.57
METHYL HYDRAZINE	60-34-4	0.001	P			0.00002	X	0.001	X	1	X	1000000	2	**[1300] 13011**	**[14900] 14947**	X	88	5.27
METHYL ISOBUTYL KETONE	108-10-1	0.08	H			3	I			17	X	19550	1,2,4,5	**[13100] 12983**	**[15100] 14910**	X	117	18.07
METHYL ISOCYANATE	624-83-9					0.001	C			10	X	100000	7	**[13000] 13021**	**[15000] 14959**	X	40	
METHYL N-BUTYL KETONE (2-HEXANONE)	591-78-6	0.005	I			0.03	I			54	X	17500	1	**[13100] 12955**	**[15100] 14868**	X	128	

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METHYL METHACRYLATE	80-62-6	1.4	I			0.7	I			10	X	15600	1	**[13100] 13001**	**[15100] 14934**	X	100	4.50
METHYL METHANESULFONATE	66-27-3			0.099	C			0.000028	C	5.2		200000	2			X	203	
METHYL PARATHION	298-00-0	0.00025	I							790		25	4,5,6				348	3.61
METHYL STYRENE (MIXED ISOMERS)	25013-15-4	0.006	H			0.04	H			2,200	X	89	9	**[13100] 12945**	**[15000] 14853**	X	163	
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4			0.0018	C	3	I	0.00000026	C	12	X	45000	1,2,4,6	**[13100] 13014**	**[15100] 14950**	X	55	0.69
METHYLCHLOROPHENOXYACETIC ACID (MCPA)	94-74-6	0.0005	I							112		1000	5,6,8,9				287	1.39
METHYLENE BIS(2-CHLOROANILINE), 4,4'-	101-14-4	0.002	P	0.1	P			0.00043	C	3,000		13.9	10				379	
METHYLNAPHTHALENE, 2-	91-57-6	0.004	I			0.003	S			16000	**X**	25	1	**12955**	**14870**		241	
METHYLSTYRENE, ALPHA	98-83-9	0.07	H							660	X	560	9	**[13100] 12942**	**[15100] 14850**	X	165	
METOLACHLOR	51218-45-2	0.15	I							182	X	530	1,5	**[13000] 13035**	**[15000] 14985**	X	100	
METRIBUZIN	21087-64-9	0.025	I							95		1200	1,5				367	
MEVINPHOS	**7786-34-7**	**0.000025**	**O**							**44**	**X**	**600000**	**6**	**12947**	**14856**			
MONOCHLOROACETIC ACID	79-11-8	0.002	H							0.24	X	858000	17	**[13000] 13008**	**[14900] 14943**		189	
NAPHTHALENE	91-20-3	0.02	I	0.12	C	0.003	I	0.000034	C	950	**X**	30	3	**13284**	**15323**		218	0.98
NAPHTHYLAMINE, 1-	134-32-7			1.8	**[S] C**			**[0.00051]**	**[S]**	3200	**X**	1690	2	**15517**	**18386**		301	0.69
NAPHTHYLAMINE, 2-	91-59-8			1.8	C			**[0.00051]**	**[C]**	87		6.4	6				306	0.69
NAPROPAMIDE	15299-99-7	**[0.1] 0.12**	**[I] O**							880		70	2				399	
NITROANILINE, O-	88-74-4	0.01	X			0.00005	X			27	**X**	1200	6	**12967**	**14886**		284	
NITROANILINE, P-	100-01-6	0.004	P	0.02	P	0.006	P			15		800	2				332	
NITROBENZENE	98-95-3	0.002	I			0.009	I	0.00004	I	130	**X**	2000	2	**12940**	**14847**	X	211	0.64
NITROGUANIDINE	556-88-7	0.1	I							0.13		4400	9				231	
NITROPHENOL, 2-	88-75-5	0.008	S							37	**X**	2100	1,2,3,4,5,6	**12966**	**14884**		215	9.01
NITROPHENOL, 4-	100-02-7	0.008	**[N] M**							230	**X**	16000	2	**12960**	**14878**		279	25.81
NITROPROPANE, 2-	79-46-9					0.02	I	0.0027	H	20	X	16700	1,3,4,5	**[13000] 12984**	**[14900] 14911**	X	120	0.69

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NITROSODIETHYLAMINE, N-	55-18-5			150	I			0.043	I	26	X	93000	10	[13000] 12974	[14900] 14896	X	176	0.69
NITROSODIMETHYLAMINE, N-	62-75-9	0.000008	P	51	I	0.00004	X	0.014	I	8.5	X	1000000	2	[13000] 13001	[14900] 14934	X	154	0.69
NITROSO-DI-N-BUTYLAMINE, N-	924-16-3			5.4	I			0.0016	I	450	X	1200	9, 10, 11	13008	14946	X	235	0.69
NITROSODI-N-PROPYLAMINE, N-	621-64-7			7	I			0.002	C	11	X	9900	6	12986	14914	X	206	0.69
NITROSODIPHENYLAMINE, N-	86-30-6			0.0049	I			0.0000026	C	580	X	35	1	13148	15140		269	3.72
NITROSO-N-ETHYLUREA, N-	759-73-9			27	C			0.0077	C	2		13000	9				223	1734.48
OCTYL PHTHALATE, DI-N-	117-84-0	0.01	P							980000000		3	5			X	234	0.69
OXAMYL (VYDATE)	23135-22-0	0.025	I							7.1		280000	2				334	
PARAQUAT	1910-42-5	0.0045	I							16200		660000	6,8				352	
PARATHION	56-38-2	[0.006] 0.00003	[H] O							2300		20	2,4,5,6,7			X	375	
PCBS, TOTAL (POLYCHLORINATED BIPHENYLS) (AROCLORS)	1336-36-3			2	I			0.0001	I	78100		0.0505	10,13				360	
PCB-1016 (AROCLOR)	12674-11-2	0.00007	I	[2]	[S]			[0.00057]	[S]	110000		0.25	5			X	325	
[PCB-1221 (AROCLOR)]	[11104-28-2]			[2]	[S]			[0.00057]	[S]	[1900]		[0.59]	[5]			[X]	[275]	
[PCB-1232 (AROCLOR)]	[11141-16-5]			[2]	[S]			[0.00057]	[S]	[1500]		[1.45]	[7]			[X]	[290]	
[PCB-1242 (AROCLOR)]	[53469-21-9]			[2]	[S]			[0.00057]	[S]	[48000]		[0.1]	[5]			[X]	[325]	
[PCB-1248 (AROCLOR)]	[12672-29-6]			[2]	[S]			[0.00057]	[S]	[190000]		[0.054]	[7,9,11]			[X]	[340]	
PCB-1254 (AROCLOR)	11097-69-1	0.00002	I	[2]	[S]			[0.00057]	[S]	810000		0.057	5			X	365	
[PCB-1260 (AROCLOR)]	[11096-82-5]			[2]	[S]			[0.00057]	[S]	[1800000]		[0.08]	[5]				[385]	
PEBULATE	1114-71-2	0.05	H							630		92	5			X	303	
PENTACHLOROBENZENE	608-93-5	0.0008	I							32000		0.74	1,5,6,7				277	0.37
PENTACHLOROETHANE	76-01-7			0.09	P					1905	X	480	1,3	[13100] 13120	[15100] 15102	X	160	
PENTACHLORONITROBENZENE	82-68-8	0.003	I	0.26	H					7900		0.44	4,6,8				328	0.36
PENTACHLOROPHENOL	87-86-5	0.005	I	0.4	I			[0.0000046] 0.0000051	C	20000		14	1,2,4,5				310	0.17
PERFLUOROBUTANE SULFONATE (PFBS)	375-73-5	0.02	P							61.7		56600	9			X	211	

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Appendix A
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Regulated Substance	CAS	RfDo (mg/kg-d)		CSFo (mg/kg-d)$^{-1}$		RfCi (mg/m^3)		IUR (µg/m^3)$^{-1}$		Koc	VOC?	Aqueous Sol (mg/L)	Aqueous Sol Reference[1]	TF Vol from Surface Soil	TF Vol from SubSurface Soil	Organic Liquid	Boiling Point (degrees C)	Degradation Coefficient (K)(yr^{-1})
PERFLUOROOCTANE SULFONATE (PFOS)	**1763-23-1**	**0.00002**	**M**	**0.07**	**M**					**2.57**		**680**	**19,20,21,22,23**				**258**	
PERFLUOROOCTANOIC ACID (PFOA)	**335-67-1**	**0.00002**	**M**							**2.06**		**9500**	**24**				**192**	
PHENACETIN	62-44-2			0.0022	C			0.00000063	C	110		763	2,3,9				341	4.50
PHENANTHRENE	85-01-8	0.3	S							38000	**X**	1.1	1,4,5	**41808**	**70721**		341	0.63
PHENOL	108-95-2	0.3	I			0.2	C			22	X	84300	1,2,3,4	**[13000] 12977**	**[14900] 14901**		182	36.14
PHENYL MERCAPTAN	108-98-5	0.001	P							562	X	653	5,9	**[13000] 13039**	**[15000] 14989**	X	170	
PHENYLENEDIAMINE, M-	108-45-2	0.006	I							12		351000	3				286	4.50
PHENYLPHENOL, 2-	90-43-7			**[0.0019] 0.00194**	H					5,700		700	5				280	18.07
PHORATE	298-02-2	0.0002	**[H] O**							810		50	2			X	319	
PHTHALIC ANHYDRIDE	85-44-9	2	I			0.02	C			79	**X**	6170	2	**13018**	**14956**		285	13490.40
PICLORAM	1918-02-1	0.07	I							15		430	2				373	
[POLYCHLORINATED BIPHENYLS (AROCLORS) (PCBS)]	**[1336-36-3]**			**[2]**	**[I]**			**[0.00057]**	**[I]**			**[0.0505]**	**[10,13]**				**[360]**	
PROMETON	1610-18-0	0.015	I							346		750	2,5				347	
PRONAMIDE	23950-58-5	0.075	I							200		15	2				321	
PROPACHLOR	**1918-16-7**	**0.013**	**I**							**139**	**X**			**12952**	**14865**		**110**	**1.73**
PROPANIL	709-98-8	0.005	I							160		225	2				355	
PROPANOL, 2- (ISOPROPYL ALCOHOL)	67-63-0	2	P			0.2	P			25	X	1000000	2	**[13000] 12981**	**[14900] 14906**	X	82	
PROPAZINE	139-40-2	0.02	I							155		8.6	1,5			X	318	
PROPHAM	122-42-9	0.02	I							51		250	5				257	
PROPYLBENZENE, N-	103-65-1	0.1	X			1	X			720	X	52	6	**[13100] 12971**	**[15100] 14891**	X	159	
PROPYLENE OXIDE	75-56-9	**0.001**	**O**	0.24	I	0.03	I	0.0000037	I	25	X	405000	1	**[13100] 13239**	**[15000] 15057**	X	34	
PYRENE	129-00-0	0.03	I							68000		0.132	1				393	0.07
PYRETHRUM	**8003-34-7**	**0.044**	**O**							**5.62**	**X**	**0.35**	**13**			**X**	**170**	
PYRIDINE	110-86-1	0.001	I							0.0066	X	1000000	2	**[13100] 13142**	**[15000] 15114**	X	115	18.07
QUINOLINE	91-22-5			3	I					1,300		60000	1,3,5			X	238	12.65
QUIZALOFOP (ASSURE)	76578-14-8	0.009	I							580		0.3	2				220	

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A. Organic Regulated Substances

Regulated Substance	CAS	RfDo (mg/kg-d)		CSFo (mg/kg-d)$^{-1}$		RfCi (mg/m^3)		IUR (µg/m^3)$^{-1}$		Koc	VOC?	Aqueous Sol (mg/L)	Aqueous Sol Reference[1]	TF Vol from Surface Soil	TF Vol from SubSurface Soil	Organic Liquid	Boiling Point (degrees C)	Degradation Coefficient (K)(yr^{-1})
RDX	121-82-4	**[0.003]** **0.004**	I	**[0.11]** **0.08**	I					70		59.9	1,9				353	
RESORCINOL	108-46-3	2	TE							2		717000					280	
RONNEL	299-84-3	0.05	H							580		40	2				349	
SIMAZINE	122-34-9	0.005	I	0.12	H					110		5	5				225	
STRYCHNINE	57-24-9	0.0003	I							280		143	5				270	4.50
STYRENE	100-42-5	0.2	I			1	I			910	X	300	5	**[13100]** **12942**	**[15100]** **14850**	X	145	1.20
TEBUTHIURON	34014-18-1	0.07	I							620		2500	2				394	
TERBACIL	5902-51-2	0.013	I							53		710	2				396	
TERBUFOS	13071-79-9	0.000025	H							510		5	6			X	332	
TETRACHLOROBENZENE, 1,2,4,5-	95-94-3	0.0003	I							1,800		0.583	1,5,6,7				245	0.69
TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8- (TCDD)	1746-01-6	0.0000000007	**[D]** **I**	130000	C	0.00000004	C	38	C	4300000		0.0000193	6				412	0.21
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	0.03	I	0.026	I			0.0000074	I	980	X	1100	1	**[13000]** **12990**	**[14600]** **14921**	X	131	3.79
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	0.02	I	0.2	I			0.000058	I	79	X	2860	2	**[13100]** **12957**	**[15100]** **14871**	X	147	0.56
TETRACHLOROETHYLENE (PCE)	127-18-4	0.006	I	0.0021	I	0.04	I	0.00000026	I	300	X	162	1,2,3,4,5	**[13100]** **13017**	**[15000]** **14955**	X	121	0.03
TETRACHLOROPHENOL, 2,3,4,6-	58-90-2	0.03	I							6200		183	6				288	0.69
TETRAETHYL LEAD	78-00-2	0.0000001	I							4900		0.8	5			X	202	4.50
TETRAETHYLDITHIOPYROPHOSPHATE	3689-24-5	0.0005	I							550		25	2			X	349	
TETRAHYDROFURAN	109-99-9	0.9	I	0.0076	**[N]** **I**	2	I	0.00000194	**[N]I**	43	X	300000	1,6,7	**[13100]** **12970**	**[15100]** **14891**	X	66	
THIOFANOX	39196-18-4	0.0003	H							0.022		5200	9				280	
THIRAM	137-26-8	**[0.005]** **0.015**	**[I]** **O**							1000		30	4				339	
TOLUENE	108-88-3	0.08	I			5	I			130	X	532.4	1,2,3,4	**[13100]** **13016**	**[15000]** **14953**	X	111	9.01
TOLUIDINE, M-	108-44-1			0.016	S			0.000051	S	140		15030	6			X	203	
TOLUIDINE, O-	95-53-4			0.016	P			0.000051	C	410		15000	1,3,5			X	200	18.07
TOLUIDINE, P-	106-49-0	0.004	X	0.03	P					320		7410	1,2,3				200	
TOXAPHENE	8001-35-2	**[0.0004]** **0.00009**	**[M]** **P**	1.1	I			0.00032	I	1500		3	2,4,5				432	
TRIALLATE	2303-17-5	**[0.013]** **0.025**	**[I]** **O**	**0.717**	**O**					2,000		4	5			X	343	

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TRIBROMOMETHANE (BROMOFORM)	75-25-2	0.02	I	0.0079	I			0.0000011	I	130	X	3050	1,2,3,4	**[13100] 12942**	**[15100] 14849**	X	149	0.69
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2-	76-13-1	30	I			**[30] 5**	**[H] P**			1,200	X	170	1	**[13100] 13064**	**[15000] 15014**	X	48	0.35
TRICHLOROACETIC ACID	76-03-9	0.02	I	0.07	I					20	X	1200000	2,3,5,9	**13291**	**15077**		196	
TRICHLOROBENZENE, 1,2,4-	120-82-1	0.01	I	0.029	P	0.002	P			1500	**X**	44.4	1,4,6,7	**13217**	**15233**	X	213	0.69
TRICHLOROBENZENE, 1,3,5-	108-70-3	0.006	M			0.002	S			3100	**X**	5.8	5	**15677**	**18611**		208	
TRICHLOROETHANE, 1,1,1-	71-55-6	2	I			5	I			100	X	1495	1,4,5,6	**[13100] 13116**	**[15000] 15082**	X	74	0.05
TRICHLOROETHANE, 1,1,2-	79-00-5	0.004	I	0.057	I	0.0002	X	0.000016	I	76	X	4420	1	**[13100] 12982**	**[15100] 14909**	X	114	0.03
TRICHLOROETHYLENE (TCE)	79-01-6	0.0005	I	**[0.05] 0.046**	I	0.002	I	0.000004	I	93	X	1100	1	**[13100] 13070**	**[15000] 15022**	X	87	0.02
TRICHLOROPHENOL, 2,4,5-	95-95-4	0.1	I							2400		1000	1,2,4				246	0.14
TRICHLOROPHENOL, 2,4,6-	88-06-2	0.001	P	0.011	I			0.0000031	I	1100		850	1,2,4,5				246	0.14
TRICHLOROPHENOXYACETIC ACID, 2,4,5- (2,4,5-T)	93-76-5	0.01	I							43		278	2,4,5				279	1.39
TRICHLOROPHENOXYPROPIONIC ACID, 2,4,5- (2,4,5-TP)(SILVEX)	93-72-1	0.008	I							1700		140	2				353	
TRICHLOROPROPANE, 1,1,2-	598-77-6	0.005	I							24	X	2700	14	**[13100] 13145**	**[15000] 15119**	X	117	
TRICHLOROPROPANE, 1,2,3-	96-18-4	0.004	I	30	I	0.0003	I			280	X	1896	1,4,6	**[13100] 12974**	**[15100] 14896**	X	157	0.35
TRICHLOROPROPENE, 1,2,3-	96-19-5	0.003	X			0.0003	P			190	X	2700	14	**[13100] 13047**	**[15000] 14992**	X	142	
TRIETHYLAMINE	121-44-8					0.007	I			51	X	55000	1,4	**[13100] 12951**	**[15100] 14862**	X	90	
TRIETHYLENE GLYCOL	112-27-6	2	P							6		1000000	12			X	285	
TRIFLURALIN	1582-09-8	0.0075	I	0.0077	I					720		4	2,5,6,7				382	
TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6	**0.01**	**I**			**[0.007] 0.06**	**[P] I**			2,200	X	56	1	**[13100] 12978**	**[15000] 14904**	X	169	4.50
TRIMETHYLBENZENE, 1,3,5-	108-67-8	0.01	**[X] I**			**0.06**	**I**			660	X	48.9	1	**[13100] 12961**	**[15100] 14876**	X	165	
TRINITROGLYCEROL (NITROGLYCERIN)	55-63-0	0.0001	P	0.017	P					116	X	1800	2,3,5	**[13000] 12941**	**[15000] 14848**	X	190	18.07
TRINITROTOLUENE, 2,4,6-	118-96-7	0.0005	I	0.03	I					1		100	2				240	
VINYL ACETATE	108-05-4	1	H			0.2	I			2.8	X	20000	1	**[13200] 13017**	**[15000] 14955**	X	73	

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Regulated Substance	CAS	RfDo (mg/kg-d)		CSFo (mg/kg-d)$^{-1}$		RfCi (mg/m^3)		IUR (µg/m^3)$^{-1}$		Koc	VOC?	Aqueous Sol (mg/L)	Aqueous Sol Reference[1]	TF Vol from Surface Soil	TF Vol from SubSurface Soil	Organic Liquid	Boiling Point (degrees C)	Degradation Coefficient (K)(yr^{-1})
VINYL BROMIDE (BROMOETHENE)	593-60-2					0.003	I	0.000032	H	150	X	4180	12	**[13100] 13086**	**[15000] 15043**	X	16	0.09
VINYL CHLORIDE	75-01-4	0.003	I	1.5	I	0.1	I	**[0.000009] 0.0000088**	I	10	X	2700	1	**[13200] 13109**	**[15000] 15040**	X	-13	0.09
WARFARIN	81-81-2	0.0003	I							910		17	4				356	4.50
XYLENES (TOTAL)	1330-20-7	0.2	I			0.1	I			350	X	175	13	**[13100] 12982**	**[15000] 14909**	X	140	0.69
ZINEB	12122-67-7	0.05	I							19		10	4				474	

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Appendix A
Table 5 – Physical and Toxicological Properties
B. Inorganic Regulated Substances

Regulated Substance	CAS	RfDo (mg/kg-d)		CSFo $(mg/kg\text{-}d)^{-1}$		RfCi (mg/m^3)		IUR $(ug/m^3)^{-1}$		Kd
ALUMINUM	7429-90-5	1	P			0.005	P			9.9
ANTIMONY	7440-36-0	0.0004	I							45
ARSENIC	7440-38-2	0.0003	I	1.5	I	0.000015	C	0.0043	I	29
BARIUM AND COMPOUNDS	7440-39-3	0.2	I			0.0005	H			41
BERYLLIUM	7440-41-7	0.002	I			0.00002	I	0.0024	I	790
BORON AND COMPOUNDS	7440-42-8	0.2	I			0.02	H			3
CADMIUM	7440-43-9	0.0005	I			0.00001	D	0.0018	I	75
CHROMIUM III	16065-83-1	1.5	I							1,800,000
CHROMIUM VI	18540-29-9	0.003	I	**[0.42] 0.5**	C	0.000008	I	**[0.084] 0.012**	I	19
COBALT	7440-48-4	0.0003	P			0.000006	P	0.009	P	45
COPPER	7440-50-8	**[0.037] 0.0325**	H							430
CYANIDE, FREE	57-12-5	0.0006	I			0.0008	I			9.9
FLUORIDE	16984-48-8	0.04	C			0.013	C			
IRON	7439-89-6	0.7	P							25
LEAD	7439-92-1			0.0085	C			0.000012	C	900
LITHIUM	7439-93-2	0.002	P							300
MANGANESE	7439-96-5	**[0.047] 0.14**	I			0.00005	I			65
MERCURY	7439-97-6	0.00016	C			0.0003	I			52
MOLYBDENUM	7439-98-7	0.005	I							20
NICKEL	7440-02-0	0.02	I			0.00009	D	0.00024	Is	65
NITRATE NITROGEN	14797-55-8	1.6	I							
NITRITE NITROGEN	14797-65-0	0.1	I							
PERCHLORATE	7790-98-9	0.0007	I							0
SELENIUM	7782-49-2	0.005	I			0.02	C			5
SILVER	7440-22-4	0.005	I							8.3
STRONTIUM	7440-24-6	**[0.06] 0.6**	I							
THALLIUM	7440-28-0	0.00001	X							71
TIN	7440-31-5	0.6	H							250
VANADIUM	7440-62-2	0.00007	P			0.0001	D			1,000
ZINC	7440-66-6	0.3	I							62

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Appendix A

Table 6 – Threshold of Regulation Compounds

REGULATED SUBSTANCE	*CASRN*	*ALL AQUIFER GROUNDWATER MSC (µg/L)*	*Residential Soil MSC (mg/kg) 0-15 feet*	*Non-Residential Soil MSCs*		*Soil to Groundwater[1] (mg/kg)*
				Surface Soil (mg/kg) 0-2 feet	*Subsurface Soil (mg/kg) 2-15 feet*	
ACETIC ACID	64-19-7	5	100	100	100	0.5
ACETIC ANHYDRIDE	108-24-7	5	100	100	100	0.5
AMYL ACETATE, N-	628-63-7	5	100	100	100	0.5
AMYL ACETATE, SEC-	626-38-0	5	100	100	100	0.5
ANTU (ALPHA-NAPHTHYLTHIOUREA)	86-88-4	5	100	100	100	0.5
BHC, DELTA	319-86-8	5	100	100	100	0.5
BROMOPHENYL PHENYL ETHER, 4-	101-55-3	5	100	100	100	0.5
BUTYL ACETATE, N-	123-86-4	5	100	100	100	0.5
BUTYL ACETATE, SEC-	105-46-4	5	100	100	100	0.5
BUTYL ACETATE, TERT-	540-88-5	5	100	100	100	0.5
BUTYLAMINE, N-	109-73-9	5	100	100	100	0.5
CALCIUM CHROMATE	13765-19-0	5	100	100	100	0.5
CALCIUM CYANAMIDE	156-62-7	5	100	100	100	0.5
CARBONYL FLUORIDE	353-50-4	5	100	100	100	0.5
CATECHOL	120-80-9	5	100	100	100	0.5
CHLOROETHYL VINYL ETHER, 2-	110-75-8	5	100	100	100	0.5
CHLOROPHENYL PHENYL ETHER, 4-	7005-72-3	5	100	100	100	0.5
DECABORANE	17702-41-9	5	100	100	100	0.5
DIETHYLAMINE	109-89-7	5	100	100	100	0.5
DIGLYCIDYL ETHER (DGE)	7/5/2238	5	100	100	100	0.5
DIMETHYL PHTHALATE	131-11-3	5	100	100	100	0.5
DIMETHYL SULFATE	77-78-1	5	100	100	100	0.5
DIMETHYLPHENETHYLAMINE, ALPHA, ALPHA-	122-09-8	5	100	100	100	0.5
DIOXATHION	78-34-2	5	100	100	100	0.5
ETHYL METHANESULFONATE	62-50-0	5	100	100	100	0.5
ETHYLAMINE	75-04-7	5	100	100	100	0.5
[ETHYLENE CHLORHYDRIN]	**[107-07-3]**	**[5]**	**[100]**	**[100]**	**[100]**	**[0.5]**
FAMPHUR	52-85-7	5	100	100	100	0.5

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REGULATED SUBSTANCE	*CASRN*	*ALL AQUIFER GROUNDWATER MSC (µg/L)*	*Residential Soil MSC (mg/kg) 0-15 feet*	*Non-Residential Soil MSCs*		*Soil to Groundwater[1] (mg/kg)*
				Surface Soil (mg/kg) 0-2 feet	*Subsurface Soil (mg/kg) 2-15 feet*	
FENSULFOTHION	115-90-2	5	100	100	100	0.5
HEXACHLOROPROPENE	1888-71-7	5	100	100	100	0.5
IODOMETHANE	74-88-4	5	100	100	100	0.5
ISOAMYL ACETATE	123-92-2	5	100	100	100	0.5
ISOBUTYL ACETATE	110-19-0	5	100	100	100	0.5
ISODRIN	465-73-6	5	100	100	100	0.5
ISOPHORONE DIISOCYANATE	4098-71-9	5	100	100	100	0.5
ISOSAFROLE	120-58-1	5	100	100	100	0.5
LITHIUM HYDRIDE	7580-67-8	5	100	100	100	0.5
MANGANESE CYCLOPENTADIENYL TRICARBONYL	12079-65-1	5	100	100	100	0.5
METHYL ISOAMYL KETONE	110-12-3	5	100	100	100	0.5
METHYL MERCAPTAN	74-93-1	5	100	100	100	0.5
METHYLAMINE	74-89-5	5	100	100	100	0.5
[MEVINPHOS]	**[7786-34-7]**	**[5]**	**[100]**	**[100]**	**[100]**	**[0.5]**
MONOCROTOPHOS	6923-22-4	5	100	100	100	0.5
NAPHTHOQUINONE, 1,4-	130-15-4	5	100	100	100	0.5
NITRIC ACID	7697-37-2	5	100	100	100	0.5
NITROQUINOLINE-1-OXIDE, 4-	56-57-5	5	100	100	100	0.5
OSMIUM TETROXIDE	20816-12-0	5	100	100	100	0.5
PENTABORANE	19624-22-7	5	100	100	100	0.5
PERCHLOROMETHYL MERCAPTAN	594-42-3	5	100	100	100	0.5
PICOLINE, 2-	109-06-8	5	100	100	100	0.5
PROPANOL, 1-	71-23-8	5	100	100	100	0.5
PROPIONIC ACID	79-09-4	5	100	100	100	0.5
PROPIONITRILE (ETHYL CYANIDE)	107-12-0	5	100	100	100	0.5
PROPYLENE IMINE	75-55-8	5	100	100	100	0.5
[PYRETHRUM]	**[8003-34-7]**	**[5]**	**[100]**	**[100]**	**[100]**	**[0.5]**
QUINONE (p-BENZOQUINONE)	106-51-4	5	100	100	100	0.5

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Table 6 – Threshold of Regulation Compounds

REGULATED SUBSTANCE	*CASRN*	*ALL AQUIFER GROUNDWATER MSC (µg/L)*	*Residential Soil MSC (mg/kg) 0-15 feet*	*Non-Residential Soil MSCs*		*Soil to Groundwater[1] (mg/kg)*
				Surface Soil (mg/kg) 0-2 feet	*Subsurface Soil (mg/kg) 2-15 feet*	
SELENIUM HEXAFLUORIDE	7783-79-1	5	100	100	100	0.5
SODIUM BISULFITE	7631-90-5	5	100	100	100	0.5
SULFIDE	18496-25-8	5	100	100	100	0.5
SULFUR MONOCHLORIDE	10025-67-9	5	100	100	100	0.5
SULFURIC ACID	7664-93-9	5	100	100	100	0.5
TELLURIUM	13494-80-9	5	100	100	100	0.5
TELLURIUM HEXAFLUORIDE	7783-80-4	5	100	100	100	0.5
TEPP (TETRAETHYL PYROPHOSPHATE)	107-49-3	5	100	100	100	0.5
TETRANITROMETHANE	509-14-8	5	100	100	100	0.5
THIONAZIN	297-97-2	5	100	100	100	0.5
TRIETHYLPHOSPHOROTHIOATE, O,O,O-	126-68-1	5	100	100	100	0.5

[1] The value in the table is 100 time the groundwater MSC.
The option to use the SPLP is also available to calculate the soil to groundwater numeric value (See §250.310)

APPENDIX A
Table 7
DEFAULT VALUES FOR CALCULATING MEDIUM-SPECIFIC CONCENTRATIONS FOR LEAD

[Input Values Used in UBK Model for Lead
[(for residential exposure scenario)

Geometric Standard Deviation (GSD)	**1.42 (default)**	**Drinking water intake**	**Model default**
Outdoor air lead concentration	**0.2 μg/m^3 (default)**	**Soil lead level**	**495 μg/g**
Indoor air lead concentration (% of outdoor)	**30**	**Indoor dust lead level**	**495 μg/g**
Time spent outdoors	**Model default**	**Soil/dust ingestion weighting factor (%)**	**45**
Ventilation rate	**Model default**	**Paint lead intake**	**Model default**
Lung absorption	**Model default**	**Maternal contribution method**	**Infant model**
Dietary lead intake	**Model default**	**Mother's blood lead at birth**	**7.5 μg/dL blood (model default)**
GI method/bioavailability	**Non-linear**	**Target blood lead level**	**10 μg/dL blood**
Lead concentration in drinking water	**4.00 μg/L (default)]**		

[Input Values Used in SEGH Equation
(for nonresidential exposure scenario)

Concentration of lead in soil (S)	**987 μg/g**
Target blood lead level in adults (T)	**20 μg/dL blood**
Geometric standard deviation of blood lead distribution (G)	**1.4**
Baseline blood lead level in target population (B)	**4 μg/dL blood**
Number of standard deviations corresponding to degree of protection required for the target population (n)	**1.645 (for 95% of population)**
Slope of blood lead to soil lead relationship (δ)	**7.5 μg/dL blood per μg/g soil]**

[REFERENCE

WIXSON, B.G. (1991). The Society for Environmental Geochemistry and Health (SEGH) Task Force Approach to the Assessment of Lead in Soil. Trace Substances in Environmental Health . 11-20.]

Input Values Used in IEUBK Model for Lead (for residential exposure scenario)		
Parameter	Value	
Outdoor Air Pb Concentration (µg/m^3)	Constant Value: 0.1	
Dietary Lead Intake (µg/day)	Age (Years)	Input
	0-1	2.26
	1-2	1.96
	2-3	2.13
	3-4	2.04
	4-5	1.95
	5-6	2.05
	6-7	2.22
Water Consumption (L/day)	Age (Years)	Input
	0-1	0.2
	1-2	0.5
	2-3	0.52
	3-4	0.53
	4-5	0.55
	5-6	0.58
	6-7	0.59
Use Alternate Water Value?	NO	
Lead concentration in drinking water (µg/L)	4	
MEDIA	ABSORPTION FRACTION PERCENT	
Soil	30	
Dust	30	
Water	50	
Diet	50	
Alternate	0	
Calculate PRG		
Select Age Group for Graph	0 to 84 months	
Change Cutoff	TBD	
Change GSD	1.6	
Probability of Exceeding the Cutoff	5	

Input Values Used in the Adult Lead Model (ALM) (for non-residential exposure scenario)			
Variable	Description of Variable	Units	Value
$PbB_{fetal, 0.95}$	Target PbB in fetus	µg/dL	TBD
$R_{fetal/maternal}$	Fetal/maternal PbB ratio	--	0.9
BKSF	Biokinetic Slope Factor	µg/dL per µg/day	0.4
GSD_i	Geometric standard deviation PbB	--	1.8
PbB_0	Baseline PbB	µg/dL	0.6
IR_S	Soil ingestion rate	g/day	0.050
$AF_{S, D}$	Absorption fraction	--	0.12
$EF_{S, D}$	Exposure frequency	days/yr	219
$AT_{S, D}$	Averaging time	days/yr	365

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