

Proposed Changes to the Massachusetts Contingency Plan – 310 CMR 40.0000

1. Proposed MCP Numerical Standards

Note to Reviewers: The equations used to develop the MCP Numerical Standards are described at <http://www.mass.gov/dep/bwsc/files/standard/standard.htm>. The spreadsheets used to calculate the proposed values are available at <http://www.mass.gov/dep/bwsc/regs.htm>.

Aliphatic Petroleum Hydrocarbons – The MCP Method 1 Standards were updated to reflect Spring 2004 changes in the drinking water guidelines (ORSGs) published after the preparation of the Fall 2004 public hearing draft of proposed changes to the MCP. The ORSGs were updated to reflect previously published revisions to the petroleum fraction toxicity values, as described in the November 2003 document Updated Petroleum Hydrocarbon Fraction Toxicity Values for the VPH/EPH/APH Methodology (<http://www.mass.gov/dep/ors/orspubs.htm#vphpeph>). The MCP GW-1 standards are intended to be consistent with the published Massachusetts Drinking Water Standards and Guidelines (<http://www.mass.gov/dep/ors/orspubs.htm#water>) where standards or guidelines exist in order to maintain a consistent regulatory approach.

In addition to changes to petroleum hydrocarbon GW-1 standards, the Department is also proposing amendments that would provide additional flexibility in the application of the GW-1 standards for petroleum constituents. This proposal, described later in this document, reflects the finding that petroleum constituents do not generally migrate substantial distances in groundwater due to biodegradation and attenuation that occurs within a short distance of a petroleum release.

MADEP did not propose changes to the GW-1 standards for petroleum standards in the Fall 2004.

Other ORSG Changes – The Drinking Water Standards and Guidelines for chloroform, acetone, methyl ethyl ketone, 1,3-dichloropropene and 1,4-dioxane were also changed in 2004 after the Public Hearing Draft of the MCP changes was completed. In the Fall 2004 proposal, DEP did not propose changes to the GW-1 standards for these chemicals. The Department proposes to modify the MCP GW-1 standards for these constituents to maintain regulatory consistency. (No change had been proposed to these standards or the associated leaching-based soil standards in the Fall 2004 MCP public hearing draft.)

Selected Chemicals, including Xylenes, RDX, HMX and PAHs – DEP received comments on the Fall 2004 MCP public hearing draft requesting that the Department review the toxicological values and physical constants used for all chemicals and standardize the source databases used, when possible. Such a review was conducted, resulting in adjustments to the numerical standards. In some cases (e.g., GW-2 standards for acenaphthylene, 1,1-biphenyl and 1,3-dichloropropene), DEP had not proposed changes in the Fall 2004 package, so public comment is now being sought. For HMX and RDX, the GW-2 standards proposed in Fall 2004 package were significantly revised, and in one case went from “Not Applicable” to a numerical value. These groundwater changes also effect some leaching-based soil standards. The Department has chosen to seek additional public comment on these revised values.

MCP Groundwater Standards

MCP Table 1 – 310 CMR 40.0974(2)

Proposed Changes to the MCP GW-1 Groundwater Standards:

Chemical	Current (April 2006) GW-1 ug/L	Proposed Summer 2006 GW-1 ug/L	Reason for Proposed Change
ACENAPHTHYLENE	300	30	Change in Chronic RfC and RfD
ACETONE	3000	6300	ORSG change
ANTHRACENE	2000	60	Change in Chronic RfC
BENZO(g,h,i)PERYLENE	300	50	Change in Chronic RfC and RfD
CHLOROFORM	5	70	ORSG change
DICHLORODIPHENYLDICHLORO ETHYLENE,P,P'- (DDE)	0.09	0.05	Change in Kow
DICHLOROPROPENE, 1,3-	0.5	0.4	ORSG change
DIOXANE, 1,4-		3	ORSG change
FLUORENE	300	30	Change in Chronic RfC
HMX		200	New Standard
METHYL ETHYL KETONE	350	4000	ORSG change
N-NITROSODIMETHYLAMINE (NDMA)		0.01	New Standard
Aliphatics, C5 to C8	400	300	ORSG change
Aliphatics, C9 to C12	4000	700	ORSG change
Aliphatics, C9 to C18	4000	700	ORSG change
Aliphatics, C19 to C36	5000	14000	ORSG change
PHENANTHRENE	300	40	Change in Chronic RfC and RfD
PHENOL	900	1000	Corrected value of Kp
RDX		0.8	New Standard

MCP Table 1 – 310 CMR 40.0974(2)

Proposed Changes to the MCP GW-2 Groundwater Standards:

Chemical	Current (April 2006) GW-2 ug/L	Proposed Summer 2006 GW-2 ug/L	Reason for Proposed Change
ACENAPHTHYLENE	NA	10000	Change in Solubility
BIS(2- CHLOROISOPROPYL)ETHER	400	100	Change in Henry's Law Constant
BIS(2-ETHYLHEXYL)PHTHALATE	50000	NA	Change from ceiling to solubility driven
BROMOMETHANE	2	7	Change in HLC, alpha attenuation factor and source dilution factor
CHLOROFORM	400	50	Change in J&E alpha attenuation factor
CHLOROPHENOL; 2-	NA	20000	Change in Henry's Law Constant
DICHLOROPROPENE, 1,3-	5	10	Change in Henry's Law Constant
DIOXANE, 1,4-		6000	New Standard
ETHYLBENZENE	30000	20000	Change in HLC, alpha attenuation factor and source dilution factor
HMX		50000	New Standard

Chemical	Current (April 2006) GW-2 ug/L	Proposed Summer 2006 GW-2 ug/L	Reason for Proposed Change
METHYLNAPHTHALENE, 2-	10000	2000	Change in Henry's Law Constant
N-NITROSODIMETHYLAMINE (NDMA)		2	New Standard
PETROLEUM HYDROCARBONS	1000	5000	Change in other petroleum hydrocarbon standards
Aliphatics, C5 to C8	1000	3000	Change in basis from Ceiling Value to Professional Judgement
Aliphatics, C9 to C12	1000	5000	Change in basis from Ceiling Value to Professional Judgement
Aliphatics, C9 to C18	1000	5000	Change in basis from Ceiling Value to Professional Judgement
Aromatics, C9 to C10	5000	7000	Change in basis from Ceiling Value to Professional Judgement
POLYCHLORINATED BIPHENYLS (PCBs)	NA	5	New vapor pressure
RDX		50000	New Standard
TCDD, 2,3,7,8- (equivalents)	NA	0.0005	Correction to IUR
TOLUENE	8000	50000	Change to IRIS RfC

MCP Table 1 – 310 CMR 40.0974(2)

Proposed Changes to the MCP GW-3 Groundwater Standards:

Chemical	Current (April 2006) GW-3 ug/L	Proposed Summer 2006 GW-3 ug/L	Reason for Proposed Change
ACENAPHTHENE	5000	6000	Rounding error
ACENAPHTHYLENE	3000	40	New ecologically based data
ANTHRACENE	3000	30	New ecologically based data
BENZO(g,h,i)PERYLENE	3000	20	New ecologically based data
BERYLLIUM	50	200	New ecologically based data
BIS(2-ETHYLHEXYL)PHTHALATE	30	50000	New ecologically based data
BROMOMETHANE	50000	800	New ecologically based data
CHLOROFORM	10000	20000	New ecologically based data
CHLOROPHENOL, 2-	40000	7000	New ecologically based data
CHRYSENE	3000	70	New ecologically based data
DICHLOROPROPENE, 1,3-	2000	200	New ecologically based data
DIOXANE, 1,4-		50000	New Standard
ETHYLBENZENE	4000	5000	New ecologically based data
FLUORENE	3000	40	New ecologically based data
HMX		50000	New Standard
METHYLNAPHTHALENE, 2-	3000	20000	New ecologically based data
N-NITROSODIMETHYLAMINE (NDMA)		50000	New Standard
PETROLEUM HYDROCARBONS	20000	5000	Change in other petroleum hydrocarbon standards
Aliphatics, C5 to C8	4000	50000	New ecologically based data

Chemical	Current (April 2006) GW-3 ug/L	Proposed Summer 2006 GW-3 ug/L	Reason for Proposed Change
Aliphatics, C9 to C12	20000	50000	New ecologically based data
Aliphatics, C9 to C18	20000	50000	New ecologically based data
Aliphatics, C19 to C36	20000	50000	New ecologically based data
Aromatics, C9 to C10	4000	50000	New ecologically based data
Aromatics, C11 to C22	30000	5000	New ecologically based data
PHENANTHRENE	50	10000	New ecologically based data
POLYCHLORINATED BIPHENYLS (PCBs)	0.3	10	New use of in-GW attenuation factor
RDX		50000	New Standard
XYLENES (Mixed Isomers)	500	5000	Result of dropping the Acute-to-Chronic factor

MCP Soil Standards

Method 1 – Direct Contact & Leaching-Based Standards

MCP Table 2 – 310 CMR 40.0975(6)(a)
Proposed Method 1 S-1 Soil Standards:

S-1/GW-1

Chemical	Current (April 2006) S-1/ GW-1 ug/g	Proposed Summer 2006 S-1/GW-1 ug/g	Reason for Proposed Change
ACENAPHTHENE	20	4	Leaching changes
ACENAPHTHYLENE	100	1	GW-1 and leaching changes
ACETONE	3	6	GW-1 and leaching changes
BERYLLIUM	0.7	100	Removal of oral CSF
BIS(2-ETHYLHEXYL)PHTHALATE	100	200	Change in Lifetime Average Daily Soil Dermal Contact Rate
BROMOMETHANE	10	0.1	Leaching changes
CHLOROFORM	0.1	0.4	GW-1 and leaching changes
CHRYSENE	7	70	Change in Cancer Slope Factor
DIOXANE, 1,4-		0.005	New standard
ETHYLBENZENE	80	40	Leaching changes
FLUORENE	400	1000	Leaching changes
HMX		2	New standard
METHYL ETHYL KETONE	0.3	4	GW-1 and leaching changes
METHYLNAPHTHALENE, 2-	4	0.7	Leaching changes
N-NITROSODIMETHYLAMINE (NDMA)		0.7	New standard
PETROLEUM HYDROCARBONS	200	1000	Change in EPH standards
Aliphatics, C19 to C36	2500	3000	Change in ceiling value
Aromatics, C11 to C22	200	1000	Leaching changes
PHENANTHRENE	700	10	GW-1 and leaching changes
RDX		1	New standard

S-1/GW-2

Chemical	Current (April 2006) S-1/ GW-2 ug/g	Proposed Summer 2006 S-1/GW-2 ug/g	Reason for Proposed Change
ACENAPHTHYLENE	100	600	GW-2 Change - Leaching
ACETONE	60	50	Leaching changes
BERYLLIUM	0.7	100	Removal of oral CSF
BIS(2- CHLOROISOPROPYL)ETHER	2	0.7	GW-2 Change - Leaching
BROMOMETHANE	3	0.1	GW-2 and Leaching changes
CHLOROFORM	10	0.3	GW-2 and Leaching changes
CHRYSENE	7	70	Change in Cancer Slope Factor
DICHLOROPROPENE, 1,3-	0.1	0.4	GW-2 and Leachng changes
DIOXANE, 1,4-		6	New Standard
HMX		100	New Standard
METHYL ETHYL KETONE	40	50	Leaching changes
METHYLNAPHTHALENE, 2-	500	80	GW-2 and Leaching changes
N-NITROSODIMETHYLAMINE (NDMA)		0.7	New Standard
PETROLEUM HYDROCARBONS	800	1000	Change in EPH standards
Aliphatics, C19 to C36	2500	3000	Change in ceiling value
Aromatics, C11 to C22	800	1000	Change in Relative Absorption Factors, Average Daily Soil Ingestion Rate and Average Daily Soil Dermal Contact Rate
PHENANTHRENE	1000	500	Change in odor index
RDX		8	New Standard

S-1/GW-3

Chemical	Current (April 2006) S-1/GW-3 ug/g	Proposed Summer 2006 S-1/GW-3 ug/g	Reason for Proposed Change
ACENAPHTHYLENE	100	10	GW-3 and leaching changes
ACETONE	60	400	Leaching changes
BERYLLIUM	0.7	100	Removal of oral CSF
BIS(2- CHLOROISOPROPYL)ETHER	2	3	Leaching changes
BROMOMETHANE	50	30	GW-3 change
CHLOROFORM	200	400	GW-3 and leaching changes
CHLOROPHENOL, 2-	20	100	Leaching changes
CHRYSENE	7	70	Change in Cancer Slope Factor
DICHLOROPROPENE, 1,3-	3	9	GW-3 and leaching changes
DIOXANE, 1,4-		70	New Standard
ETHYLENE DIBROMIDE	0.1	0.7	Change in Cancer Slope Factor
HMX		1000	New Standard
METHYL ETHYL KETONE	40	400	Leaching changes
METHYLNAPHTHALENE, 2-	500	300	Change in Reference Dose

Chemical	Current (April 2006) S-1/GW-3 ug/g	Proposed Summer 2006 S-1/GW-3 ug/g	Reason for Proposed Change
N-NITROSODIMETHYLAMINE (NDMA)		0.7	New Standard
PETROLEUM HYDROCARBONS	800	1000	Change in EPH standards
Aliphatics, C19 to C36	2500	3000	Change in ceiling value
Aromatics, C11 to C22	800	1000	Change in Relative Absorption Factors, Average Daily Soil Ingestion Rate and Average Daily Soil Dermal Contact Rate
PHENANTHRENE	100	500	GW-3 and leaching changes
RDX		8	New Standard
XYLENES (Mixed Isomers)	300	500	Change in GW-3 - Leaching

**MCP Table 3 – 310 CMR 40.0975(6)(b)
Proposed Method 1 S-2 Soil Standards:**

S-2/GW-1

Chemical	Current (April 2006) S-2/GW-1 ug/g	Proposed Summer 2006 S-2/GW-1 ug/g	Reason for Proposed Change
ACENAPHTHENE	20	4	Leaching changes
ACENAPHTHYLENE	100	1	GW-1 and leaching changes
ACETONE	3	6	GW-1 Changes
ANTHRACENE	2500	3000	Change in ceiling value
BENZO(g,h,i)PERYLENE	2500	3000	Change in ceiling value
BERYLLIUM	0.8	200	Removal of oral CSF
BIS(2-ETHYLHEXYL)PHTHALATE	100	700	Change in Lifetime Average Daily Soil Dermal Contact Rate
BROMOMETHANE	10	0.1	Leaching changes
CHLOROFORM	0.1	0.4	GW-1 Change - Leaching
CHRYSENE	10	400	Change in Cancer Slope Factor
DIOXANE, 1,4-		0.005	New Standard
ETHYLBENZENE	80	40	Leaching changes
FLUORENE	400	3000	Leaching changes
HMX		2	New Standard
METHYL ETHYL KETONE	0.3	4	GW-1 and leaching changes
METHYLNAPHTHALENE, 2-	4	0.7	Leaching changes
N-NITROSODIMETHYLAMINE (NDMA)		0.7	New Standard
PETROLEUM HYDROCARBONS	200	3000	Change in EPH standards
Aliphatics, C9 to C12	2500	3000	Change in ceiling value
Aliphatics, C9 to C18	2500	3000	Change in ceiling value
Aromatics, C9 to C10	100	300	Leaching changes
Aromatics, C11 to C22	200	1000	Leaching Changes
PHENANTHRENE	700	10	GW-1 and leaching changes
POLYCHLORINATED BIPHENYLS (PCBs)	2	3	Change in subchronic RfDs, Cancer Slope Factors and RAFs
RDX		1	New Standard

S-2/GW-2

Chemical	Current (April 2006) S-2/GW-2 ug/g	Proposed Summer 2006 S-2/GW-2 ug/g	Reason for Proposed Change
ACENAPHTHENE	2500	3000	Change in ceiling value
ACENAPHTHYLENE	2500	600	GW-2 Change - Leaching
ACETONE	60	50	Leaching changes
ANTHRACENE	2500	3000	Change in ceiling value
BENZO(g,h,i)PERYLENE	2500	3000	Change in ceiling value
BERYLLIUM	0.8	200	Removal of oral CSF
BIS(2- CHLOROISOPROPYL)ETHER	3	0.7	GW-2 Change - Leaching
BIS(2-ETHYLHEXYL)PHTHALATE	300	700	Change in Average Daily Soil Ingestion Rate and Average Daily Soil Dermal Contact Rate
BROMOMETHANE	3	0.1	GW-2 and Leaching changes
CHLOROFORM	10	0.3	GW-2 and Leaching changes
CHLOROPHENOL, 2-	200	100	Change in Average Daily Soil Ingestion Rate and Average Daily Soil Dermal Contact Rate
CHRYSENE	10	400	Change in Cancer Slope Factor
DICHLOROPROPENE, 1,3-	0.1	0.4	GW-2 and leachng changes
DIOXANE, 1,4-		6	New Standard
FLUORENE	2000	3000	Change in Relative Absorption Factors, Average Daily Soil Ingestion Rate and Average Daily Soil Dermal Contact Rate
HMX		100	New Standard
METHYL ETHYL KETONE	40	50	Leaching changes
METHYLNAPHTHALENE, 2-	1000	80	GW-2 and leaching changes
N-NITROSODIMETHYLAMINE (NDMA)		0.7	New Standard
PETROLEUM HYDROCARBONS	2000	3000	Change in EPH standards
Aliphatics, C9 to C12	2500	3000	Change in ceiling value
Aliphatics, C9 to C18	2500	3000	Change in ceiling value
Aromatics, C11 to C22	2000	3000	Change in Relative Absorption Factors, Average Daily Soil Ingestion Rate and Average Daily Soil Dermal Contact Rate
PHENANTHRENE	2500	1000	Change in odor index
POLYCHLORINATED BIPHENYLS (PCBs)	2	3	Change in subchronic RfDs, Cancer Slope Factors and RAFs
RDX		60	New Standard

S-2/GW-3

Chemical	Current (April 2006) S-2/GW-3 ug/g	Proposed Summer 2006 S-2/GW-3 ug/g	Reason for Proposed Change
ACENAPHTHENE	2500	3000	Change in ceiling value
ACENAPHTHYLENE	1000	10	GW-3 and leaching changes
ACETONE	60	400	Leaching changes
ANTHRACENE	2500	3000	Change in ceiling value
BENZO(g,h,i)PERYLENE	2500	3000	Change in ceiling value
BERYLLIUM	0.8	200	Removal of oral CSF
BIS(2- CHLOROISOPROPYL)ETHER	3	50	Change in Average Daily Soil Ingestion Rate and Average Daily Soil Dermal Contact Rate
BIS(2-ETHYLHEXYL)PHTHALATE	300	700	Change in Average Daily Soil Ingestion Rate and Average Daily Soil Dermal Contact Rate
BROMOMETHANE	200	30	GW-3 changes
CHLOROFORM	200	800	GW-3 and leaching changes
CHLOROPHENOL, 2-	20	300	Leaching changes
CHRYSENE	10	400	Change in Cancer Slope Factor
DICHLOROPROPENE, 1,3-	5	70	GW-3 and leaching changes
DIOXANE, 1,4-		500	New Standard
ETHYLBENZENE	500	1000	GW-3 and leaching changes
ETHYLENE DIBROMIDE	0.1	4	Change in Cancer Slope Factor
FLUORENE	2000	3000	Change in Relative Absorption Factors, Average Daily Soil Ingestion Rate and Average Daily Soil Dermal Contact Rate
HMX		1000	New Standard
METHYL ETHYL KETONE	40	400	Leaching changes
N-NITROSODIMETHYLAMINE (NDMA)		0.7	New Standard
PETROLEUM HYDROCARBONS	2000	3000	Change in EPH standards
Aliphatics, C9 to C12	2500	3000	Change in ceiling value
Aliphatics, C9 to C18	2500	3000	Change in ceiling value
Aromatics, C11 to C22	2000	3000	Change in Relative Absorption Factors, Average Daily Soil Ingestion Rate and Average Daily Soil Dermal Contact Rate
PHENANTHRENE	100	1000	GW-3 and leaching changes
POLYCHLORINATED BIPHENYLS (PCBs)	2	3	Change in subchronic RfDs, Cancer Slope Factors and RAFs
RDX		60	New Standard
XYLENES (Mixed Isomers)	300	1000	Change in GW-3 - Leaching

MCP Table 4 -- 310 CMR 40.0975(6)(c)
Proposed Method 1 S-3 Soil Standards:

S-3/GW-1

Chemical	Current (April 2006) S-3/GW-1 ug/g	Proposed Summer 2006 S-3/GW-1 ug/g	Reason for Proposed Change
ACENAPHTHENE	20	4	Leaching changes
ACENAPHTHYLENE	100	1	GW-1 and Leaching changes
ACETONE	3	6	GW-1 Change - Leaching
BENZO(g,h,i)PERYLENE	2500	5000	Change in subchronic Reference Dose
BERYLLIUM	3	200	Removal of oral CSF
BIS(2-ETHYLHEXYL)PHTHALATE	100	3000	Change in Lifetime Average Daily Soil Dermal Contact Rate
BROMOMETHANE	10	0.1	Leaching changes
CHLOROFORM	0.1	0.4	GW-1 Change - Leaching
CHRYSENE	40	3000	Change in Cancer Slope Factor
DIOXANE, 1,4-		0.005	New Standard
ETHYLBENZENE	80	40	Leaching changes
FLUORENE	400	5000	Leaching changes
HMX		2	New Standard
METHYL ETHYL KETONE	0.3	4	GW-1 and leaching changes
METHYLNAPHTHALENE, 2-	4	0.7	Leaching changes
N-NITROSODIMETHYLAMINE (NDMA)		0.7	New Standard
PETROLEUM HYDROCARBONS	200	5000	Change in EPH standards
Aromatics, C9 to C10	100	300	Leaching changes
Aromatics, C11 to C22	200	1000	Leaching Changes
PHENANTHRENE	700	10	GW-1 and leaching changes
POLYCHLORINATED BIPHENYLS (PCBs)	2	3	Change in subchronic RfDs, Cancer Slope Factors and RAFs
RDX		1	New Standard

S-3/GW-2

Chemical	Current (April 2006) S-3/GW-2 ug/g	Proposed Summer 2006 S-3/GW-2 ug/g	Reason for Proposed Change
ACENAPHTHYLENE	2500	600	GW-2 and leaching changes
ACETONE	60	50	Leaching changes
BENZO(g,h,i)PERYLENE	2500	5000	Change in subchronic Reference Dose
BERYLLIUM	3	200	Removal of oral CSF
BIS(2- CHLOROISOPROPYL)ETHER	4	0.7	GW-2 Change - Leaching

Chemical	Current (April 2006) S-3/GW-2 ug/g	Proposed Summer 2006 S-3/GW-2 ug/g	Reason for Proposed Change
BIS(2-ETHYLHEXYL)PHTHALATE	1000	3000	Change in Relative Absorption Factors, Average Daily Soil Ingestion Rate and Average Daily Soil Dermal Contact Rate
BROMOMETHANE	3	0.1	GW-2 and Leaching changes
CHLOROFORM	10	0.3	GW-2 and Leaching changes
CHLOROPHENOL, 2-	1000	100	Change in Relative Absorption Factors, Average Daily Soil Ingestion Rate and Average Daily Soil Dermal Contact Rate
CHRYSENE	40	3000	Change in Cancer Slope Factor
DICHLOROPROPENE, 1,3-	0.1	0.4	GW-2 and Leaching changes
DIOXANE, 1,4-		6	New Standard
ETHYLBENZENE	2500	1000	Change in ceiling value
HMX		100	New Standard
METHYL ETHYL KETONE	40	50	Leaching changes
METHYLNAPHTHALENE, 2-	2000	80	GW-2 and Leaching changes
N-NITROSODIMETHYLAMINE (NDMA)		0.7	New Standard
PHENANTHRENE	2500	3000	Change in subchronic Reference Dose
POLYCHLORINATED BIPHENYLS (PCBs)	2	3	Change in subchronic RfDs, Cancer Slope Factors and RAFs
RDX		100	New Standard

S-3/GW-3

Chemical	Current (April 2006) S-3/GW-3 ug/g	Proposed Summer 2006 S-3/GW-3 ug/g	Reason for Proposed Change
ACENAPHTHENE	4000	5000	GW-3 and leaching changes
ACENAPHTHYLENE	1000	10	GW-3 and leaching changes
ACETONE	60	400	Leaching changes
BENZO(g,h,i)PERYLENE	2500	5000	Change in subchronic Reference Dose
BERYLLIUM	3	200	Removal of oral CSF
BIS(2- CHLOROISOPROPYL)ETHER	9	100	Change in Average Daily Soil Ingestion Rate and Average Daily Soil Dermal Contact Rate
BIS(2-ETHYLHEXYL)PHTHALATE	500	3000	Change in Average Daily Soil Ingestion Rate and Average Daily Soil Dermal Contact Rate
BROMOMETHANE	700	30	GW-3 changes
CHLOROFORM	300	800	GW-3 and leaching changes

Chemical	Current (April 2006) S-3/GW-3 ug/g	Proposed Summer 2006 S-3/GW-3 ug/g	Reason for Proposed Change
CHLOROPHENOL, 2-	20	300	Change in Relative Absorption Factors, Average Daily Soil Ingestion Rate and Average Daily Soil Dermal Contact Rate
CHRYSENE	40	3000	Change in Cancer Slope Factor
DICHLOROPROPENE, 1,3-	20	100	GW-3 and leaching changes
DIOXANE, 1,4-		500	New Standard
ETHYLBENZENE	500	3000	GW-3 and leaching changes
ETHYLENE DIBROMIDE	0.7	30	Change in Cancer Slope Factor
FLUORENE	4000	5000	Change in Relative Absorption Factors, Average Daily Soil Ingestion Rate and Average Daily Soil Dermal Contact Rate
HMX		1000	New Standard
METHYL ETHYL KETONE	40	400	Leaching changes
METHYLNAPHTHALENE, 2-	1000	3000	GW-3 changes
N-NITROSODIMETHYLAMINE (NDMA)		4	New Standard
PHENANTHRENE	100	3000	GW-3 and leaching changes
POLYCHLORINATED BIPHENYLS (PCBs)	2	3	Change in subchronic RfDs, Cancer Slope Factors and RAFs
RDX		200	New Standard
XYLENES (Mixed Isomers)	300	3000	Change in GW-3 - Leaching

Upper Concentration Limits (UCLs)

MCP Table 6 – 310 CMR 40.0996(7)

Proposed Changes to the MCP Upper Concentration Limits in Groundwater

Chemical	Current (April 2006) UCL in Groundwater ug/L	Proposed Summer 2006 UCL in Groundwater ug/L	Reason for Proposed Change
ACENAPHTHENE	50000	60000	Proposed change in GW-3
ACENAPHTHYLENE	30000	100000	Proposed change in GW-2
ANTHRACENE	30000	600	Proposed change in GW-1
BENZO(g,h,i)PERYLENE	30000	500	Proposed change in GW-1
BERYLLIUM	500	2000	Proposed change in GW-2
BROMOMETHANE	100000	8000	Proposed change in GW-3
CHRYSENE	30000	700	Proposed change in GW-3
DICHLOROPROPENE, 1,3-	20000	2000	Proposed change in GW-3
DIOXANE, 1,4-		100000	Proposed change in GW-2
FLUORENE	30000	400	Proposed change in GW-3
HMX		100000	Proposed change in GW-2
N-NITROSODIMETHYLAMINE (NDMA)		100000	Proposed change in GW-3
PETROLEUM HYDROCARBONS	100000	50000	Proposed change in GW-2
PHENANTHRENE	400	100000	Proposed change in GW-3
POLYCHLORINATED BIPHENYLS (PCBs)	5	100	Proposed change in GW-3
RDX		100000	Proposed change in GW-2
TOLUENE	80000	100000	Proposed change in GW-2

MCP Table 6 – 310 CMR 40.0996(7)

Proposed Changes to the MCP Upper Concentration Limits in Soil

Chemical	Current (April 2006) UCL in Soil ug/g	Proposed Summer 2006 UCL in Soil ug/g	Reason for Proposed Change
BERYLLIUM	30	2000	Proposed change in S-3
BIS(2- CHLOROISOPROPYL)ETHER	90	1000	Proposed change in S-3/GW-3
BROMOMETHANE	7000	10000	Change in risk based S-3
CHLOROFORM	5000	8000	Proposed change in S-3/GW-3
CHRYSENE	400	10000	Proposed change in S-3
DICHLOROPROPENE, 1,3-	200	4000	Proposed change in S-3
DIOXANE, 1,4-		5000	Proposed change in S-3/GW-3
ETHYLENE DIBROMIDE	7	300	Proposed change in S-3/GW-3
HMX		10000	Proposed change in S-3/GW-3
N-NITROSODIMETHYLAMINE (NDMA)		40	Proposed change in S-3/GW-3
Aliphatics, C9 to C12	20000	10000	Change in UCL ceiling value
Aliphatics, C9 to C18	20000	10000	Change in UCL ceiling value
Aliphatics, C19 to C36	20000	10000	Change in UCL ceiling value
POLYCHLORINATED BIPHENYLS (PCBs)	100	30	Proposed change in S-2
RDX		2000	Proposed change in S-3/GW-3

Reportable Concentrations (RCs)

MCP Massachusetts Oil and Hazardous Material List – 310 CMR 40.160000
Proposed Changes to the MCP Reportable Concentrations in Groundwater

RCGW-1

Chemical	Current (April 2006) RCGW-1 ug/L	Proposed Summer 2006 RCGW-1 ug/L	Reason for Proposed Change
ACENAPHTHYLENE	300	30	Proposed change in GW-1
ACETONE	3000	6300	Proposed change in GW-1
ANTHRACENE	2000	30	Proposed change in GW-3
BENZO(g,h,i)PERYLENE	300	20	Proposed change in GW-3
BROMOMETHANE	2	7	Proposed change in GW-2
CHLOROFORM	5	50	Proposed change in GW-1
DICHLORODIPHENYLDICHLOR OETHYLENE,P,P'- (DDE)	0.09	0.05	Proposed change in GW-1
DICHLOROPROPENE, 1,3-	0.5	0.4	Proposed change in GW-1
DIMETHYLPHENOL, 2,4-	100	60	Change was inadvertently left out of April 3 2006 changes
DIOXANE, 1,4-	1000	3	Proposed change in GW-1
FLUORENE	300	30	Proposed change in GW-1
HMX	0	200	Proposed change in GW-1
LEAD	20	10	Change was inadvertently left out of April 3 2006 changes
METHYL ETHYL KETONE	400	4000	Proposed change in GW-1
N-NITROSODIMETHYLAMINE (NDMA)	500	0.01	Proposed change in GW-1
Aliphatics, C5 to C8	400	300	Proposed change in GW-1
Aliphatics, C9 to C12	1000	700	Proposed change in GW-1
Aliphatics, C9 to C18	1000	700	Proposed change in GW-1
Aliphatics, C19 to C36	5000	14000	Proposed change in GW-1
PHENANTHRENE	50	40	Proposed change in GW-1
PHENOL	900	1000	Proposed change in GW-1
POLYCHLORINATED BIPHENYLS (PCBs)	0.3	0.5	Proposed change in GW-3
RDX	1000	0.8	Proposed change in GW-1
XYLENES (Mixed Isomers)	500	5000	Proposed change in GW-3

RCGW-2

Chemical	Current (April 2006) RCGW-2 ug/L	Proposed Summer 2006 RCGW-2 ug/L	Reason for Proposed Change
ACENAPHTHENE	5000	6000	Proposed change in GW-2
ACENAPHTHYLENE	3000	40	Proposed change in GW-3
ANTHRACENE	3000	30	Proposed change in GW-3
BENZO(g,h,i)PERYLENE	3000	20	Proposed change in GW-3
BERYLLIUM	50	200	Proposed change in GW-3
BIS(2- CHLOROISOPROPYL)ETHER	400	100	Proposed change in GW-2
BIS(2- ETHYLHEXYL)PHTHALATE	30	50000	Proposed change in GW-3
BROMOMETHANE	2	7	Proposed change in GW-2
CHLOROFORM	400	50	Proposed change in GW-2
CHLOROPHENOL, 2-	40000	7000	Proposed change in GW-3
CHRYSENE	3000	70	Proposed change in GW-3
DICHLOROPROPENE, 1,3-	5	10	Proposed change in GW-2
DIOXANE, 1,4-		6000	Proposed change in GW-2
ETHYLBENZENE	4000	5000	Proposed change in GW-3
FLUORENE	3000	40	Proposed change in GW-3
HMX		50000	Proposed change in GW-3
METHYLNAPHTHALENE, 2-	3000	2000	Proposed change in GW-2
N-NITROSODIMETHYLAMINE (NDMA)	5000	2	Proposed change in GW-2
PETROLEUM HYDROCARBONS	1000	5000	Proposed change in GW-2
Aliphatics, C5 to C8	1000	3000	Proposed change in GW-2
Aliphatics, C9 to C12	1000	5000	Proposed change in GW-2
Aliphatics, C9 to C18	1000	5000	Proposed change in GW-2
Aliphatics, C19 to C36	20000	50000	Proposed change in GW-3
Aromatics, C9 to C10	4000	7000	Proposed change in GW-2
Aromatics, C11 to C22	30000	5000	Proposed change in GW-3
PHENANTHRENE	50	10000	Proposed change in GW-3
POLYCHLORINATED BIPHENYLS (PCBs)	0.3	5	Proposed change in GW-2
RDX	10000	50000	Proposed change in GW-2
TCDD, 2,3,7,8- (equivalents)	0.04	0.0005	Proposed change in GW-2
XYLENES (Mixed Isomers)	500	5000	Proposed change in GW-3

MCP Massachusetts Oil and Hazardous Material List – 310 CMR 40.160000
Proposed Changes to the MCP Reportable Concentrations in Soil

RCS-1

Chemical	Current (April 2006) RCS-1 ug/L	Proposed Summer 2006 RCS-1 ug/g	Reason for Proposed Change
ACENAPHTHENE	20	4	Proposed change in S-1/GW-1
ACENAPHTHYLENE	100	1	Proposed change in S-1/GW-1
ACETONE	3	6	Proposed change in S-1/GW-1
BERYLLIUM	0.7	100	Proposed change in S-1/GW-1
BIS(2-ETHYLHEXYL)PHTHALATE	100	200	Proposed change in S-1/GW-1
BROMOMETHANE	3	0.1	Proposed change in S-1/GW-1
CHLOROFORM	0.1	0.3	Proposed change in S-1/GW-1
CHRYSENE	7	70	Proposed change in S-1/GW-1
DIOXANE, 1,4-	100	0.005	Proposed change in S-1/GW-1
ETHYLBENZENE	80	40	Proposed change in S-1/GW-1
FLUORENE	400	1000	Proposed change in S-1/GW-1
HMX		2	Proposed change in S-1/GW-1
METHYL ETHYL KETONE	0.3	4	Proposed change in S-1/GW-1
METHYLNAPHTHALENE, 2-	4	0.7	Proposed change in S-1/GW-1
N-NITROSODIMETHYLAMINE (NDMA)	50	0.7	Proposed change in S-1/GW-1
PETROLEUM HYDROCARBONS	200	1000	Proposed change in S-1/GW-1
Aliphatics, C19 to C36	2500	3000	Proposed change in S-1/GW-1
Aromatics, C11 to C22	200	1000	Proposed change in S-1/GW-1
PHENANTHRENE	100	10	Proposed change in S-1/GW-1
RDX	100	1	Proposed change in S-1/GW-1

RCS-2

Chemical	Current (April 2006) RCS-2 ug/L	Proposed Summer 2006 RCS-2 ug/g	Reason for Proposed Change
ACENAPHTHENE	2500	3000	Proposed change in S-2/GW-2
ACENAPHTHYLENE	1000	10	Proposed change in S-2/GW-3
ACETONE	60	50	Proposed change in S-2/GW-2
ANTHRACENE	2500	3000	Proposed change in S-2/GW-2
BENZO(g,h,i)PERYLENE	2500	3000	Proposed change in S-2/GW-2
BERYLLIUM	0.8	200	Proposed change in S-2/GW-2
BIS(2- CHLOROISOPROPYL)ETHER	3	0.7	Proposed change in S-2/GW-2
BIS(2- ETHYLHEXYL)PHTHALATE	300	700	Proposed change in S-2/GW-2
BROMOMETHANE	3	0.1	Proposed change in S-2/GW-2
CHLOROFORM	10	0.3	Proposed change in S-2/GW-2
CHLOROPHENOL, 2-	20	100	Proposed change in S-2/GW-2
CHRYSENE	10	400	Proposed change in S-2/GW-2
DICHLOROPROPENE, 1,3-	0.1	0.4	Proposed change in S-2/GW-2
DIELDRIN	0.04	0.4	Change was inadvertently left out of April 3 2006 changes
DIOXANE, 1,4-	1000	6	Proposed change in S-2/GW-2
ETHYLBENZENE	500	1000	Proposed change in S-2/GW-2
FLUORENE	2000	3000	Proposed change in S-2/GW-2
HMX		100	Proposed change in S-2/GW-2
METHYL ETHYL KETONE	40	50	Proposed change in S-2/GW-2
METHYLNAPHTHALENE, 2-	1000	80	Proposed change in S-2/GW-2
N-NITROSODIMETHYLAMINE (NDMA)	500	0.7	Proposed change in S-2/GW-2
PETROLEUM HYDROCARBONS	2000	3000	Proposed change in S-2/GW-2
Aliphatics, C9 to C12	2500	3000	Proposed change in S-2/GW-2
Aliphatics, C9 to C18	2500	3000	Proposed change in S-2/GW-2
Aromatics, C11 to C22	2000	3000	Proposed change in S-2/GW-2
PHENANTHRENE	100	1000	Proposed change in S-2/GW-2
POLYCHLORINATED BIPHENYLS (PCBs)	2	3	Change in subchronic RfDs, Cancer Slope Factors and RAFs
RDX	1000	60	Proposed change in S-2/GW-2