

TABLE OF CONTENTS

GOVERNMENT CODE	19
Section	
51010.5. Definitions	19
51017.1. GIS for wells	20
51017.2. Wellhead protection.....	22
HEALTH & SAFETY CODE	27
DIVISION 1. ADMINISTRATION OF PUBLIC HEALTH	27
PART 1. STATE DEPARTMENT OF HEALTH SERVICES	27
ARTICLE 3. MATERNAL AND CHILD HEALTH	27
Section	
300 Maintenance of program	27
300.6. Lead solder or pipe.....	27
300.7. Lead standards in building code	27
DIVISION 104. ENVIRONMENTAL HEALTH.....	29
PART I. ENVIRONMENTAL HEALTH PERSONNEL	29
CHAPTER 4. PROFESSIONAL CERTIFICATION.....	29
ARTICLE 3. WATER TREATMENT PLANT OPERATOR	29
Section	
106875. Certification of supervisors and operators	29
106876. Suspension and revocation.....	29
106880. Examination	30
<u>106885.</u> <u>Certification required</u>	30
106890. Fees.....	31
106895. "Grandfather" clause.....	31
<u>106896.</u> <u>Evaluation of AWWA Distribution Operator Program</u>	32
<u>106897.</u> <u>Reciprocity with other States</u>	32
106900. Education and training standards.....	32
106905. Anti-discrimination	32
106910. Regulation authority	32
CHAPTER 5. SAFE RECREATIONAL WATER USE	33
ARTICLE 1. RECREATIONAL USE OF RESERVOIRS.....	33
Section	
115825. Body contact restriction.....	33
115830. Recreation subject to regulation.....	34
115835. Definitions	34
115840. San Diego County exception.....	34
<u>115840.5.</u> <u>Modesto Reservoir Exception</u>	35
115841. Nacimiento Reservoir	36
115845. Fees.....	36
115850. Terminal reservoir exemption.....	37
PART 12. DRINKING WATER	37
CHAPTER 1. DEFINITIONS (Reserved)	37
CHAPTER 2. POWERS AND DUTIES (Reserved).....	37
CHAPTER 3. ENFORCEMENT AND PENALTIES (Reserved).....	37
CHAPTER 4. CALIFORNIA SAFE DRINKING WATER ACT.....	37

116270.	Legislative findings	37
116275.	Definitions	38
116280.	Conditions for exclusion	41
116282.	Handwashing exemption	42
116283.	CURFFL Exemption.....	43
116285.	Irrigation canal exception.....	43
116286.	Water district exclusion	43
116287.	Authority over water districts and constructed conveyances.....	44
116290.	Agricultural exclusion.....	44
ARTICLE 2. DEPARTMENT AND LOCAL RESPONSIBILITIES		45
Section		
116325.	Department responsible for all public water systems.....	45
116330.	Local primacy delegation	45
116340.	State small water systems	46
116345.	County monthly report and Department 3-year review	47
ARTICLE 3. OPERATIONS.....		47
Section		
116350.	Department responsibilities	47
116355.	Safe Drinking Water Plan	48
116360.	Cryptosporidium and Giardia	49
116365.	Criteria for primary standards	50
<u>116366.</u>	<u>MTBE Costs</u>	53
<u>116367.</u>	<u>Drinking Water Treatment and Research Fund</u>	53
<u>116367.5</u>	<u>Research Advisory Committee</u>	56
116370.	Best available technology.....	57
116375.	Department authority to adopt regulations	57
116377.	Emergency regulations.....	58
116379.	Exclusion.....	59
116380.	Point-of-entry in lieu of centralized treatment.....	59
116385.	Monitoring authority.....	59
116390.	Laboratory accreditation requirement.....	59
116395.	County evaluation of small public water systems	59
116400.	Periodic water analysis.....	61
116405.	Backflow exception	62
ARTICLE 4. EXEMPTIONS AND VARIANCES		62
Section		
116410.	Fluoridation requirement.....	62
116415.	Fluoridation exemption	63
116425.	Exemptions.....	64
116430.	Variances.....	66
ARTICLE 5. PUBLIC NOTIFICATION		67
Section		
116450.	Notification to department and to users.....	68
116455.	Notification to local agency-well contamination	69
116460.	Emergency notification plan requirement	70

116465.	PUC orders for additional facilities	70
116470.	Consumer confidence report	70
116475.	Emergency Grant Fund	72
116480.	Emergency grant limitations.....	73
116485.	Exemption for emergency grants.....	73
ARTICLE 6.	ENFORCEMENT RESPONSIBILITY.....	74
Section		
116500.	Contract county authority	74
ARTICLE 7.	REQUIREMENTS AND COMPLIANCE.....	74
Section		
116525.	Permits	74
116530.	Technical report.....	74
116535.	Permits application review	75
116540.	Issue or deny; conditional permits	75
116545.	Hearing permissible	75
116550.	Changes requiring amended permit	75
<u>116551.</u>	<u>Augmentation of Source with Recycled Water</u>	76
116555.	Operational requirements	76
<u>116556.</u>	<u>Redwood Valley County Water District Exception</u>	77
116565.	Operating fee.....	78
116570.	Permit application fee	79
116577.	Enforcement fee	80
116580.	Exemption, plan review, variance and waiver fees	80
116585.	Litigation fee	81
116590.	Safe Drinking Water Account, fees and caps.....	81
116595.	LPA fees	83
116600.	Fees sunset January 2002.....	84
ARTICLE 7.5.	MTBE DETECTION	84
Section		
116610.	Department due dates	84
116612.	Advisory panel due date.....	84
ARTICLE 8.	VIOLATIONS	85
Section		
116625.	Revocation and suspension of permits.....	85
ARTICLE 9.	REMEDIES	85
Section		
116650.	Citations	85
116655.	Orders	86
116660.	Injunctions.....	87
116665.	Receivership	87
116670.	Nuisance and summary abatement.....	88
116675.	Authorized action against public water systems.....	88
ARTICLE 10.	JUDICIAL REVIEW.....	88
Section		
116700.	Writ of mandate.....	88

ARTICLE 11. CRIMES AND PENALTIES.....	89
Section	
116725. Civil penalties	89
116730. Misdemeanors and felonies	89
116735. Inspection authority	90
116740. Civil penalty collection.....	91
116745. Remedies are cumulative.....	91
116750. Tampering with public water systems.....	91
116751. Department determination for Fish and Game poisoning	92
CHAPTER 4.5. SAFE DRINKING WATER STATE REVOLVING FUND LAW OF 1997 ...	92
ARTICLE 1. TITLE.....	92
Section	
116760. State revolving fund.....	92
ARTICLE 2. LEGISLATIVE FINDINGS	92
Section	
116760.10. Legislative findings	92
ARTICLE 3. SAFE DRINKING WATER STATE REVOLVING FUND	94
Section	
116760.20. Definitions	94
116760.30. Creation of fund in state treasury	95
116760.40. Department authorities	96
116760.41. Other expenses	97
116760.42. Department may accept federal funds.....	97
116760.43. Emergency regulation authority	98
116760.44. Administrative fees	98
ARTICLE 4. PRIORITY LIST FOR FUNDING	98
Section	
116760.44. Criteria for funding	98
116760.60. Department must notify suppliers.....	99
116760.70. Criteria for priority list.....	99
116760.79. Applications	101
116760.80. Planning and preliminary engineering funding.....	101
116760.90. Project requirements and limitations.....	101
ARTICLE 5. PROJECT ELIGIBILITY, FUNDING, AND CONTRACTS	102
Section	
116761. Allowable costs	102
116761.20. Evaluating ability to repay.....	102
116761.21. Grants	102
116761.22. Repay periods.....	103
116761.23. Maximum funding.....	103
116761.24. Water system under 10,000 people	103
116761.40. Safe Drinking Water Act compliance not excused	103
ARTICLE 6. CONTRACTS FOR PROJECT FUNDING	103
Section	
116761.50. Contracts.....	103

116761.60.	Three and five year limitations	105
ARTICLE 7. SAFE DRINKING WATER STATE REVOLVING FUND		
	MANAGEMENT	105
Section		
116761.62.	Fund management.....	105
116761.65.	Interest rate	105
116761.70.	Capitalization funds for managing program	106
116761.80.	Repayment funds for managing program.....	106
116761.85.	Moneys repaid return to fund.....	106
116761.86.	Investment of unused moneys repaid.....	107
ARTICLE 8. SOURCE WATER PROTECTION PROGRAM		
Section		
116762.60.	Source water protection program.....	107
CHAPTER 5. WATER EQUIPMENT AND CONTROL.....		
ARTICLE 2. CROSS-CONNECTION CONTROL BY WATER USERS		
Section		
116800.	Control of Users	108
116805	Fees.....	108
116810.	Certification of device testers.....	109
116815.	Purple pipe for reclaimed water	109
116820.	Violations.....	110
ARTICLE 3. WATER TREATMENT DEVICES		
Section		
116825.	Definitions	110
116830.	Regulation authority	110
116835.	Certification requirements and exemptions	111
116840.	Enforcement	112
116845.	List of devices	112
116850.	Fees.....	113
116855.	Consultation in developing regulations.....	113
116860.	Water Device Certification Special Account.....	113
116865.	Loan for implementation.....	113
ARTICLE 4. LEAD MATERIALS.....		
Section		
116875.	Lead pipes, plumbing, and solder	113
116880.	Regulation authority	114
CHAPTER 6. OPERATION OF WATER TREATMENT PLANTS.....		
ARTICLE 1. DEFINITIONS.....		
Section		
116900.	Definitions	114
116905.	Advisory committee.....	114
116910.	Certificate.....	114
116915.	Operator.....	115
116920.	Water treatment plant	115
ARTICLE 2. ADMINISTRATION		

Section		
116950.	Regulation authority	115
Water Code	.....	117
DIVISION 1. GENERAL STATE POWERS OVER WATER	.....	117
CHAPTER 3. WATER SHORTAGE EMERGENCIES	.....	117
Section		
350.	Declaration	117
351.	Hearing	117
352.	Notice	117
353.	Regulation authority	117
354.	Priorities authority	118
355.	Duration of regulations and restrictions.....	118
356.	Moratorium authority	118
357.	Supersedes other law except P.U.C.....	118
358.	Judicial review	118
359.	Drought relief loans	118
CHAPTER 3.5. WATER CONSERVATION PROGRAMS	.....	120
Section		
375.	Procedures	120
375.5.	Water conservation and public education programs.....	120
376.	Publication.....	121
377.	Violations.....	121
378.	Water conservation programs	121
DIVISION 7. WATER QUALITY	.....	121
CHAPTER 2. DEFINITIONS	121	
Section		
13050.	Terms used in this division	121
13051.	Injection well	124
13169.	Groundwater protection program.....	124
13272.	MTBE discharge list	125
13272.1.	MTBE discharge list	126
13274.	Public water system rights.....	126
CHAPTER 10. WELLS	126	
ARTICLE 3. REPORTS	.....	126
Section		
13750.	Notice of intention	126
13750.5.	Responsible person	127
13751.	Completion report	127
13752.	Inspection of reports.....	128
13753.	Conversion of wells	128
13754.	Misdemeanor.....	128
13755.	DHS powers undiluted.....	128
Title 17	.....	132
DIVISION 1. STATE DEPARTMENT OF HEALTH SERVICES	.....	132
CHAPTER 5. SANITATION (ENVIRONMENTAL)	.....	132

GROUP 2. OPERATOR CERTIFICATION PROGRAM	132
ARTICLE 1. GENERAL.....	132
ARTICLE 2. RESPONSIBILITY OF WATER SUPPLIER.....	132
Section	
7104. Operator-in-training.....	132
7105. Remote area	132
ARTICLE 3. RESPONSIBILITY OF OPERATORS.....	133
Section	
7107. Grade of operator	133
ARTICLE 4. ISSUANCE OF CERTIFICATES	135
Section	
7109. Requirements for certification	135
7110. Application.....	135
7110.1. Processing an application for certification	135
7110.2. Processing time.....	135
7112. Notification to applicants	136
7114. Minimum qualifications for examination.....	136
ARTICLE 5. TYPES OF CERTIFICATION	137
Section	
7116. Regular certification	137
7117. Temporary certification.....	137
7118. Limited certification.....	137
ARTICLE 6. CERTIFICATION ISSUANCE, RENEWAL, SUSPENSION AND REVOCATION.....	138
Section	
7120. Issuance and renewal	138
7121. Suspension for failure to renew certificate.....	138
7122. Revocation of certificate	138
7123. Posting of certificate	138
ARTICLE 7. EXAMINATION	138
Section	
7127. Examination procedure	138
ARTICLE 8. FEES.....	139
Section	
7130. Application fee	139
7131. Renewal fee	139
7132. Reexamination fee	140
7133. Penalty fee.....	140
7134. Duplicate certificate fee	140
GROUP 4. DRINKING WATER SUPPLIES.....	140
ARTICLE 1. GENERAL.....	140
Section	
7583. Definitions.....	140
7584. Responsibility and scope of program.....	141
7585. Evaluation of hazard.....	142

7586.	User supervisor.....	142
ARTICLE 2. PROTECTION OF WATER SYSTEM		143
Section		
7601.	Approval of backflow preventers	143
7602.	Construction of backflow preventers.....	143
7603.	Location of backflow preventers.....	143
7604.	Type of protection required	144
7605.	Testing and maintenance of backflow preventers.....	146
ARTICLE 5. DOMESTIC WATER SUPPLY RESERVOIRS.....		147
Section		
7625.	Definitions	147
7626.	Application for permit.....	147
7627.	Data to accompany application	148
7629.	Reservoirs for which permits may be granted	148
TITLE 22		152
DIVISION 4. ENVIRONMENTAL HEALTH.....		152
CHAPTER 1. INTRODUCTION.....		152
ARTICLE 1. DEFINITIONS.....		152
Section		
60001.	Department.....	152
60003.	Director.....	152
CHAPTER 4. WATER TREATMENT DEVICES.....		152
ARTICLE 1. DEFINITIONS.....		152
Section		
60400.	Certification.....	152
60401.	Health or safety claim	152
60402.	Independent laboratory	153
60403.	Manufacturer	153
60404.	Recognized testing organization.....	153
60405.	Testing requirements	154
60406.	Modification	154
ARTICLE 2. CERTIFICATION REQUIREMENTS.....		154
Section		
60407.	Certification period.....	154
ARTICLE 3. APPLICATION REQUIREMENTS.....		154
Section		
60410.	Certification application	154
60415.	Certification renewal.....	155
60425.	Modification of a certification	156
ARTICLE 4. TESTING AND TESTING PROTOCOLS.....		157
Section		
60435.	Testing and testing protocols	157
60440.	Manufacturer's testing protocols	160
60445.	Manufacturer's test data.....	160
60450.	Prior test data	161

60455.	Extrapolation of data	163
60460.	Retesting	163
ARTICLE 5. PRODUCT LABELING AND DATA SHEET REQUIREMENTS		164
Section		
60465.	Product labeling.....	164
60470.	Product data sheet	165
ARTICLE 6. FEES.....		165
Section		
60475.	Fees.....	166
CHAPTER 14. WATER PERMITS		177
ARTICLE 1. APPLICATIONS		177
Section		
64001.	Water permit application.....	177
64002.	Processing time.....	178
ARTICLE 3. STATE SMALL WATER SYSTEMS.....		178
Section		
64211.	Permit requirement	178
64212.	Bacteriological quality monitoring	179
64213.	Chemical quality monitoring	180
64214.	Service connection limitation	180
64215.	Water supply requirements.....	180
64216.	Mutual associations prohibited.....	181
64217.	Surface water treatment requirement.....	181
ARTICLE 4. LOCAL PRIMACY DELEGATION		181
Section		
64251.	Definitions	181
64252.	Primacy delegation application.....	182
64253.	Local primacy agency minimum program requirements	184
64254.	Permits	184
64255.	Surveillance	184
64256.	Sampling and monitoring	185
64257.	Reporting	186
64258.	Enforcement	187
64259.	Program management	187
64260.	Workplans	188
CHAPTER 15. DOMESTIC WATER QUALITY AND MONITORING.....		188
ARTICLE 1. DEFINITIONS.....		188
Section		
64400.	Acute risk.....	188
64400.10.	Community water system.....	189
64400.20.	Compliance cycle.....	189
64400.30.	Compliance period.....	189
64400.40.	Confluent growth.....	189
64400.45.	Detection limit for purposes of reporting (DLR)	189
64400.47	Fluoridation.....	189

64400.50.	Initial compliance period.....	190
64400.60.	Initial finding	190
64400.65.	IOC	190
64400.70.	MCL	190
64400.80.	Nontransient-noncommunity water system.....	190
64401.	Repeat compliance period.....	190
64401.10.	Repeat sample	190
64401.20.	Replacement sample	190
64401.30.	Routine sample	191
64401.40.	Sanitary survey	191
64401.50.	Significant rise in bacterial count.....	191
64401.55.	SOC	191
64401.60.	Standby source	191
64401.70.	System with a single service connection	191
64401.75.	Too numerous to count	191
64401.80.	Total coliform-positive	192
64401.85.	Transient-noncommunity water system	192
64401.90.	Treatment.....	192
64401.95.	VOC.....	192
64402.	Vulnerable system.....	192
64402.10.	Water source	192
64402.20.	Water supplier	192
64403.	Repealed.....	193
ARTICLE 2. DEFINITIONS AND GENERAL REQUIREMENTS.....		193
Section		
64411.	Repealed.....	193
64412.	Determination of persons served.....	193
64414.	Standby sources.....	194
64415.	Laboratory and personnel	194
64416.	Sampling plan except bacteriological.....	194
64417.	Siting requirements.....	195
ARTICLE 3. PRIMARY STANDARDS-BACTERIOLOGICAL QUALITY		195
Section		
64421.	General requirements.....	195
64422.	Routine sample siting plan	196
64423.	Routine sampling.....	197
64423-A	Table	199
64423.1.	Sample analysis and reporting of results	200
64424.	Repeat sampling	200
64425.	Sample invalidation.....	201
64426.	Significant rise in bacterial count.....	202
64426.1.	Total coliform MCL	203
64426.5.	Variance from total coliform MCL.....	204
64427.	Sanitary survey	206
ARTICLE 4. PRIMARY STANDARDS -- INORGANIC CHEMICALS		206

64431.	Maximum Contaminant Levels - Inorganic chemicals	206
64431-A	Table	206
64432.	Monitoring and compliance - inorganic chemicals	207
64432-A	Table	207
64432.1.	Monitoring and compliance - nitrate and nitrite	210
64432.2.	Monitoring and compliance - asbestos.....	211
ARTICLE 4.1. FLUORIDATION		212
64433.	System requirements and exemptions.....	212
64433.2.	Optimal fluoride levels	213
64433.2-A	Table	213
64433.3.	Monitoring and compliance fluoride levels	214
64433.5.	Fluoridation system.....	214
64433.7.	Recordkeeping, reporting, and notification for water systems fluoridating	215
64433.8.	Fluoridation system operations contingency plan.....	216
64434.	Water system priority funding schedule.....	216
64434-A	Table	216
ARTICLE 4.5. TRIHALOMETHANES		222
Section		
64439.	Requirements.....	222
ARTICLE 5. RADIOACTIVITY		222
Section		
64441.	Natural radioactivity	222
64443.	Man-made radioactivity	222
ARTICLE 5.5. PRIMARY STANDARDS--ORGANIC CHEMICALS		223
Section		
64444.	General requirements.....	223
64444.5.	Repealed.....	227
64445.	Initial sampling - organic chemicals.....	227
64445.1.	Repeat sampling	229
64445.2.	Sampling of treated water sources	232
ARTICLE 12. BEST AVAILABLE TECHNOLOGIES (BAT).....		233
Section		
64447.	Best Available Technology (BAT) – microbiological contaminants.....	233
64447.2.	Best Available Technologies (BAT) - inorganic chemicals.....	233
64447.2-A	Best Available Technologies (BAT) - inorganic Chemicals.....	234
64447.4.	Best Available Technologies (BATs) - organic chemicals	236
64447.4-A	Best Available Technologies (BATs) - organic chemicals	236
ARTICLE 14. TREATMENT TECHNIQUES		239
Section		
64448.	Treatment technique requirements	239
ARTICLE 16. SECONDARY DRINKING WATER STANDARDS		239
Section		
64449.	Secondary maximum contaminant levels and compliance.....	239
64449-A	- Secondary maximum contaminant levels - consumer acceptance limits	239
64449-B	Secondary maximum contaminant levels - ranges	240

64449.5.	Distribution system water quality	242
ARTICLE 17. SPECIAL MONITORING REQUIREMENTS FOR UNREGULATED ORGANIC CHEMICALS		243
Section		
64450.	Unregulated chemicals	243
64450-A	Unregulated organic chemicals - List A.....	244
64450-B	Unregulated organic chemicals - List B.....	245
64450-C	Unregulated organic chemicals - List C.....	245
64450.1.	Monitoring - unregulated chemicals	246
ARTICLE 6. RECORDS AND REPORTING		247
Section		
64451.	Reporting requirements.....	247
64453.	Record maintenance.....	247
ARTICLE 7. NOTIFICATION OF THE DEPARTMENT AND WATER CONSUMERS		248
Section		
64463.1.	Public information	249
64463.2.	Reporting and notification of unregulated organic chemicals monitoring	249
64464.1.	Notification methods	249
64464.3.	Public notification - water quality failure	251
64464.6.	Public notification - procedural failure.....	252
64465.	Notification of an acute health risk.....	253
64466.	Notification of new users	254
64467.	Notice	254
64467.5.	Wholesaler.....	254
64468.1.	Health effects language - inorganic chemicals.....	254
64468.2.	Health effects language - volatile organic chemicals	259
64468.3.	Health effects language - synthetic organic chemicals.....	265
64468.4.	Health effects language - treatment technique chemicals.....	273
64469.	Notice pertaining to lead.....	274
64470.	Notification language for total coliform MCL violations.....	275
CHAPTER 16. CALIFORNIA WATERWORKS STANDARDS.....		276
ARTICLE 1. APPLICABILITY, RESPONSIBILITY AND DEFINITIONS		276
Section		
64555.	Definitions	276
ARTICLE 2. GENERAL REQUIREMENTS		276
Section		
64560.	Basic design.....	276
64562.	Quantity of supply	277
64563.	Procedures for determining source capacity	277
64564.	Procedures for determining needed source capacity and needed storage volume	278
64566.	System pressure.....	284
64568.	Conditions for adding service connections.....	284
64570.	Internal combustion engines.....	285

ARTICLE 3. DISTRIBUTION RESERVOIRS	285
Section	
64600. Basic design of distribution reservoirs	285
64602. Subsurface distribution reservoirs	286
64604. Corrosion protection.....	286
ARTICLE 4. PUMPING STATIONS.....	286
Section	
64612. Water sealed pumps.....	286
ARTICLE 5. WATER MAINS AND APPURTENANCES	286
Section	
64622. Water main materials	286
64624. Water main selection and installation.....	288
64626. Layout of water mains	289
64628. Minimum water main diameter and length of run.....	289
64630. Water main installation	289
64632. Water main valve locations	290
64634. Water main valve construction standards	291
64636. Air and vacuum relief and air release valves	291
64638. Water main joints.....	291
64640. Fire hydrants.....	292
64642. Flushing valves and blowoffs	292
64644. Service connection pipe	292
CHAPTER 17. SURFACE WATER TREATMENT.....	293
ARTICLE 1. GENERAL REQUIREMENTS AND DEFINITIONS.....	293
Section	
64650. General Requirements.....	293
64651.10. Approved surface water.....	294
64651.16. Coagulant chemical.....	294
64651.20. Coagulation	294
64651.23. Conventional filtration treatment.....	294
64651.26. Diatomaceous earth filtration	294
64651.30. Direct filtration treatment	294
64651.32. Disinfectant contact time	294
64651.33. Disinfection	295
64651.36. Engineering report.....	295
64651.40. Filter-to-waste	295
64651.43. Filtration.....	295
64651.46. Flocculation.....	295
64651.50. Groundwater under the direct influence of surface water.....	295
64651.53. Legionella.....	296
64651.56. Multibarrier treatment.....	296
64651.60. NTU (Nephelometric Turbidity Unit).....	296
64651.63. Pressure filter	296
64651.66. Qualified engineer.....	296
64651.70. Residual disinfectant concentration	296

64651.73.	Sedimentation.....	297
64651.76.	Slow sand filtration.....	297
64651.80.	Supplier.....	297
64651.83.	Surface water	297
64651.86.	Turbidity level	297
64651.90.	Virus	297
64651.91.	Waterborne microbial disease outbreak.....	297
64651.93.	Watershed	298
ARTICLE 2.	TREATMENT REQUIREMENT, WATER SHED PROTECTION REQUIREMENTS AND PERFORMANCE STANDARDS	298
64652.	Treatment objectives and compliance options.....	298
64652.5	Criteria for avoiding filtration	299
64653.	Filtration.....	303
64654.	Disinfection	305
ARTICLE 3.	MONITORING REQUIREMENTS	305
64655.	Filtration.....	305
64656.	Disinfection	306
ARTICLE 4.	DESIGN STANDARDS.....	307
Section		
64658.	New treatment plants.....	307
64659.	Reliability	308
ARTICLE 5.	OPERATION.....	309
64660.	Operating criteria.....	309
64661.	Operations plan	311
64662.	Records	311
ARTICLE 6.	REPORTING	311
64663.	Department notification \1 3	312
64664.	Monthly report	312
ARTICLE 7.	WATERSHED SANITARY SURVEYS	314
Section		
64665.	Watershed requirements.....	314
ARTICLE 8.	PUBLIC NOTIFICATION.....	314
Section		
64666.	Consumer notification.....	315
CHAPTER 17.5.	LEAD AND COPPER	316
ARTICLE 1.	GENERAL REQUIREMENTS AND DEFINITIONS.....	316
Section		
64670.	General requirements	316
64671.05.	Action level	316
64671.10.	Corrosion inhibitor	316
64671.15.	Detection limit for purposes of reporting (DLR)	316
64671.20.	Effective corrosion inhibitor residual.....	317
64671.25.	First draw sample	317
64671.30.	Large water system.....	317
64671.35.	Lead service line	317

64671.40.	Medium-size water system.....	317
64671.50.	Optimal corrosion control treatment	317
64671.60.	Service line sample	317
64671.65.	Single-family structure.....	318
64671.70.	Small water system	318
64672.	Analytical methods and detection limits.....	318
64672.3.	Determination of compliance with lead and copper action levels.....	318
64672.6.	Use of information developed prior to December 1, 1995	319
ARTICLE 2. CORROSION CONTROL TREATMENT REQUIREMENTS		320
Section		
64673.	Treatment requirements	320
64674.	Corrosion control treatment deadlines for large water systems	321
64675.	Corrosion control treatment deadlines for small and medium-size water systems.....	322
64676.	Corrosion control treatment requirements	323
ARTICLE 3. SOURCE WATER TREATMENT REQUIREMENTS.....		326
Section		
64677.	Source water treatment to control lead and copper	326
64678.	Source water treatment requirements.....	327
ARTICLE 4. LEAD SERVICE LINE REPLACEMENT REQUIREMENTS.....		327
Section		
64679.	Lead service line replacement.....	328
ARTICLE 5. PUBLIC EDUCATION AND SUPPLEMENTAL MONITORING REQUIREMENTS.....		329
Section		
64680.	Notification language for lead	329
64681.	Supplemental monitoring	335
ARTICLE 6. MONITORING REQUIREMENTS FOR LEAD AND COPPER IN TAP WATER.....		335
Section		
64682.	Sample site location.....	335
64683.	Sample collection methods.....	337
64684.	Sampling requirements for standard and reduced monitoring.....	338
64685.	Monitoring requirements after installation of corrosion control and source water treatment	339
ARTICLE 7. MONITORING REQUIREMENTS FOR WATER QUALITY PARAMETERS		341
Section		
64686.	Water quality parameters general requirements	341
64687.	Water quality parameters initial sampling	342
64688.	Monitoring requirements for water quality parameters	343
ARTICLE 8. MONITORING REQUIREMENTS FOR LEAD AND COPPER IN SOURCE WATER.....		345
Section		
64689.	Source water sample location, collection methods, and number of samples.....	345

64690.	Source water monitoring frequency requirements.....	345
ARTICLE 9. REPORTING AND RECORDKEEPING REQUIREMENTS		347
Section		
64691.	Reporting requirements.....	347
64692.	Recordkeeping requirements.....	350
CHAPTER 18. DRINKING WATER ADDITIVES		350
ARTICLE 1. REQUIREMENTS.....		350
Section		
64700.	Direct additives.....	351
64710.	Exception	351
ADDENDUM 1	.....	352
CFR on Trihalomethanes		
ADDENDUM 2	.....	358
PUC Rule 103		
ADDENDUM 3	.....	357
United States Code on Variances		

GOVERNMENT CODE

GOVERNMENT CODE

Section 51010.5. Definitions

As used in this chapter, the following definitions apply:

(a) "Pipeline" includes every intrastate pipeline used for the transportation of hazardous liquid substances or highly volatile liquid substances, including a common carrier pipeline, and all piping containing those substances located within a refined products bulk loading facility which is owned by a common carrier and is served by a pipeline of that common carrier, and the common carrier owns and serves by pipeline at least five such facilities in the state. "Pipeline" does not include the following:

(1) An interstate pipeline subject to Part 195 of Title 49 of the Code of Federal Regulations.

(2) A pipeline for the transportation of a hazardous liquid substance in a gaseous state.

(3) A pipeline for the transportation of crude oil that operates by gravity or at a stress level of 20 percent or less of the specified minimum yield strength of the pipe.

(4) Transportation of petroleum in onshore gathering lines located in rural areas.

(5) A pipeline for the transportation of a hazardous liquid substance offshore located upstream from the outlet flange of each facility on the Outer Continental Shelf where hydrocarbons are produced or where produced hydrocarbons are first separated, dehydrated, or otherwise processed, whichever facility is farther downstream.

(6) Transportation of a hazardous liquid by a flow line.

(7) A pipeline for the transportation of a hazardous liquid substance through an onshore production, refining, or manufacturing facility, including a storage or inplant piping system associated with that facility.

(8) Transportation of a hazardous liquid substance by vessel, aircraft, tank truck, tank car, or other vehicle or terminal facilities used exclusively to transfer hazardous liquids between those modes of transportation.

(b) "Flow line" means a pipeline which transports hazardous liquid substances from the well head to a treating facility or production storage facility.

(c) "Hydrostatic testing" means the application of internal pressure above the normal or maximum operating pressure to a segment of pipeline, under no-flow conditions for a fixed period of time, utilizing a liquid test medium.

(d) "Local agency" means a city, county, or fire protection district.

(e) "Rural area" means a location which lies outside the limits of any incorporated or unincorporated city or city and county, or other residential or commercial area, such as a subdivision, a business, a shopping center, or a community development.

(f) "Gathering line" means a pipeline eight inches or less in nominal diameter that transports petroleum from a production facility.

(g) "Production facility" means piping or equipment used in the production, extraction, recovery, lifting, stabilization, separation, or treatment of petroleum or associated storage or measurement. (To be a production facility under this definition, piping or equipment must be used in the process of extracting petroleum from the ground and transporting it by pipeline.)

(h) "Public drinking water well" means a wellhead that provides drinking water to a public water system as defined in Section 116275 of the Health and Safety Code, that is regulated by the State Department of Health Services and that is subject to Section 116455 of the Health and Safety Code.

(i) "GIS mapping system" means a geographical information system that will collect, store, retrieve, analyze, and display environmental geographical data in a database that is accessible to the public.

(j) "Motor vehicle fuel" includes gasoline, natural gasoline, blends of gasoline and alcohol, or gasoline and oxygenates, and any inflammable liquid, by whatever name the liquid may be known or sold, which is used or is usable for propelling motor vehicles operated by the explosion type engine. It does not include kerosene, liquefied petroleum gas, or natural gas in liquid or gaseous form.

(k) "Oxygenate" means an organic compound containing oxygen that has been approved by the United States Environmental Protection Agency as a gasoline additive to meet the requirements for an "oxygenated fuel" pursuant to Section 7545 of Title 42 of the United States Code.

Section 51017.1. GIS for wells

(a) Utilizing GIS-based location information furnished by the State Department of Health Services and the State Water Resources Control Board, at least once every two years the State Fire Marshal shall determine the identity of each pipeline or pipeline segment that is regulated by the State Fire Marshal pursuant to this chapter that transports petroleum product when that pipeline is located within 1,000 feet of a public drinking water well.

(b) With assistance from the State Department of Health Services and the State Water Resources Control Board, the State Fire Marshal shall notify the operator of the pipelines identified in subdivision (a) of the following information:

(1) That the specific pipeline or pipeline segment has been identified as being located within 1,000 feet of a public drinking water well.

(2) The name of the water purveyor and the location of the public drinking water well affected. With advice from the GIS mapping advisory committee, created pursuant to subdivision (b) of Section 25299.97 of the Health and Safety Code, the identification of the pipelines and notification of pipeline owners by the State Fire Marshal pursuant to subdivision (a) and this subdivision shall begin once the GIS mapping system created by Section 25299.97 of the Health and Safety Code is able to provide accurate and useful information on pipeline and wellhead locations.

(c) Each pipeline operator notified pursuant to subdivision (b) shall prepare a pipeline wellhead protection plan as required by Section 51017.2 and submit the plan to the State Fire Marshal within 180 days from the date of either receiving the notification specified in subdivision (b), or adoption of regulations by the State Fire Marshal pursuant to Section 51017.2, whichever is later.

(d) With the advice of the State Department of Health Services, the State Water Resources Control Board, appropriate California regional water quality controls boards, and local water purveyors, the State Fire Marshal shall review each wellhead protection plan submitted by a pipeline operator, and approve those plans that meet the criteria of the regulations adopted by the State Fire Marshal pursuant to Section 51017.2. The State Fire Marshal shall have discretion to allow a wellhead protection plan to address multiple wellheads where the conditions creating the risk to the wellheads are substantially similar. The pipeline operator shall implement the wellhead protection plan within 180 days from the date of receiving approval from the State Fire Marshal.

(e) Each pipeline operator having a wellhead protection plan approved by the State Fire Marshal pursuant to subdivision (d) shall evaluate that plan at least once every five years to ensure that the plan is in compliance with the current regulations established by the State Fire Marshal pursuant to Section 51017.2. The pipeline operator shall provide either written documentation to the State Fire Marshal that the previously approved wellhead protection plan has been evaluated and that no changes are warranted, or submit a new wellhead protection plan to remain in compliance with existing regulations or to meet the requirements of regulations adopted since the plan was approved.

(f) The pipeline operator subject to subdivision (c) may petition the State Fire Marshal in writing for an exemption from the requirements of subdivision (c). With advice from the State Water Resources Control Board, the State Department of Health Services, the California regional water quality control boards, and local water purveyors, the State Fire Marshal may approve the exemption if the petition demonstrates that the pipeline either does not transport motor vehicle fuel, or does not pose a significant threat to the public drinking water well based upon, but not

limited to, the following criteria:

- (1) Pipeline parameters, such as operation pressure, operating temperature, age, design, fabrication materials, construction, corrosive nature of the surrounding soil, cathodic protection, and feasibility of internal inspection or evaluation tools (smart pigs).
- (2) Hydrogeologic parameters, such as soil permeability, direction and velocity of groundwater flow, aquifer location or depth, and hydrogeologic barriers or conduits.
- (3) Water well parameters, such as depth of well and well construction.
- (4) The nature of the fuel and its ability to migrate to public drinking water wells.
- (5) The impact of human activity that may elevate or reduce the risk to the drinking water well.

Section 51017.2. Wellhead protection

(a) With advice from the Pipeline Safety Advisory Committee, the State Water Resources Control Board, the California regional water quality control boards, and local water purveyors, the State Fire Marshal shall adopt regulations for wellhead protection plans that provide guidelines to be used by the pipeline operator as specified in Section 51017.1 to protect the public drinking water well from contamination should a pipeline rupture or leak pose a significant threat to a public drinking water well, taking into account the nature of the fuel and its ability to migrate to a public drinking water well. The regulations adopted by the State Fire Marshal shall require each plan to contain adequate and effective measures that are technologically feasible, practical, and operationally sound that protect public drinking water wells. At a minimum, the wellhead protection plan shall contain the following:

- (1) Operational activities that provide the pipeline operator with sufficient information to adequately ensure the integrity of the pipeline. These may include internal inspection or evaluation tools (smart pigs), substructure excavation (potholing), well monitoring, additional or more frequent pressure tests, cathodic protection surveys or visual inspections, or other technologies as appropriate.
- (2) Response measures that will enhance the pipeline operator's response to an emergency, such as a pipeline rupture, fire, earthquake, or flood. These measures may include activities, such as additional training for operator staff or improved coordination with emergency response agencies.

(b) At least once every five years, the State Fire Marshal, with the advice of the Pipeline Safety Advisory Committee, the State Water Resources Control Board, the California regional water quality control boards, and local water purveyors, shall review the regulations adopted pursuant to subdivision (a) to determine if new measures that have been proven to be

technologically feasible, practical, and operationally sound should be included in the regulations. The State Fire Marshal shall adopt new regulations if such new measures are identified.

HEALTH & SAFETY CODE

HEALTH & SAFETY CODE

DIVISION 1. ADMINISTRATION OF PUBLIC HEALTH

PART 1. STATE DEPARTMENT OF HEALTH SERVICES

ARTICLE 3. MATERNAL AND CHILD HEALTH

Section 300. Maintenance of program

The State Department of Health Services shall maintain a program of maternal and child health.

Section 300.6. Lead solder or pipe

(a) Solders containing more than 0.20 percent lead shall not be used in making joints and fittings in any private or public potable water supply system or any water user's pipelines.

(b) No solder containing more than 0.20 percent lead shall be sold in California on and after July 1, 1986, unless it contains a warning label which states: "Contains lead. California law prohibits the use of this solder in making joints and fittings in any private or public potable water supply system or any water user's pipelines."

(c) On and after January 1, 1986, lead pipe shall not be used in the construction of private or public potable water supply systems.

(d) The requirement of subdivision (a) shall not be applicable to potable water supply pipelines in any building where the date of application for a building permit is prior to the effective date of the standards adopted pursuant to Section 300.7.

Section 300.7. Lead standards in building code

The department shall adopt building standards which will limit the use of lead materials in public and private water systems. The standards shall be adopted in accordance with Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code and shall be published in the State Building Standards Code located in Title 24 of the California Administrative Code. The standards shall be enforced by the appropriate state and local building and health officials.

DIVISION 104. ENVIRONMENTAL HEALTH

PART I. ENVIRONMENTAL HEALTH PERSONNEL

CHAPTER 4. PROFESSIONAL CERTIFICATION

ARTICLE 3. WATER TREATMENT PLANT OPERATOR²

Section 106875. Certification of supervisors and operators

The department shall, ~~upon recommendation of the advisory committee established by Section 116925,~~ examine and certify persons as to their qualifications to supervise or operate water treatment plants, ~~as defined by Section 116920.~~ The certification shall indicate the classification of water treatment plant that the person is qualified to supervise or operate.

Section 106876. Suspension and revocation

(a) The department may suspend, revoke, or refuse to grant or renew any water treatment operator certificate or water treatment operator-in-training certificate to operate or supervise the operation of a water treatment plant or may place on probation or reprimand the certificate holder upon any reasonable grounds, including, but not limited to, any of the following:

(1) The submission of false or misleading information on an application for a certificate or engaging in dishonest conduct during an examination.

(2) The use of fraud or deception in the course of operating or supervising the operation of a water treatment plant or a water recycling treatment plant.

(3) The failure to use reasonable care or judgment in the operation or supervision of the operation of a water treatment plant or a water recycling treatment plant.

(4) The inability to perform operating duties properly in a water treatment plant or a water recycling treatment plant.

(5) The failure to meet all requirements for certificate renewal.

(6) The conduct of willful or negligent acts that cause or allow the violation of the Safe Drinking Water Act (Subchapter XII (commencing with Section 300f) of Chapter 6A of Title 42 of the United States Code) or the regulations and standards adopted pursuant to that act.

(7) Willfully or negligently violating or causing or allowing the violation of waste discharge requirements or permits issued pursuant to the Federal Water Pollution Control Act (33 U.S.C. Sec. 1251 et seq.) while operating a water recycling treatment plant.

² Changes in this Article by 1999 statutes, Chapter 755 (SB1102).

(b) The department may suspend, revoke, or refuse to grant or renew any water distribution operator certificate to operate or supervise the operation of a water distribution system or may place on probation or reprimand the certificate holder upon any reasonable grounds, including, but not limited to, any of the following:

(1) The submission of false or misleading information on an application for a certificate or engaging in dishonest conduct during an examination.

(2) The use of fraud or deception in the course of operating or supervising the operation of a water distribution system.

(3) The failure to use reasonable care of judgment in the operation or supervision of the operation of a water distribution system.

(4) The inability to perform operating duties properly in a water distribution system.

(5) The failure to meet all requirements for certificate renewal.

(6) The conduct of willful or negligent acts that cause or allow the violation of the federal Safe Drinking Water Act (Subchapter XII (commencing with Section 300f) of Chapter 6A of Title 42 of the United States Code) or the regulations and standards adopted pursuant to that act.

~~(b)(c)~~ Prior to revocation of a valid operator certificate, the department shall provide the certificate holder with an opportunity for a hearing before the department.

~~(e)(d)~~ For purposes of this section, "water recycling treatment plant" means a treatment plant that receives and further treats secondary and/or tertiary effluent from a wastewater treatment plant.

Section 106880. Examination

~~After consulting with the advisory committee as to time and place, t~~The state department shall hold at least one examination each year for the purpose of examining candidates for certification.

Section 106885. Certification required

(a) All persons ~~responsible for~~ who operate or supervise the operation of water treatment plants shall possess a valid and current water treatment operator certificate or water treatment operator-in-training a certificate, as defined by Section ~~116910~~, of appropriate grade in accordance with the regulations referred to in Section ~~116950~~ 106910.

(b) All persons who are in responsible charge of the water distribution system of a community water system or a nontransient noncommunity water system shall possess a valid and

current water distribution operator certificate of the appropriate grade in accordance with the regulations referred to in Section 106910.

Section 106890. Fees

It is the intent of the Legislature that the program authorized pursuant to this article ~~and Chapter 6 (commencing with Section 116900) of Part 12~~ be entirely self-supporting, and for this purpose the department board is authorized to establish fee schedules for the issuance, replacement, reinstatement, continuing education, and renewal of certificates that shall provide revenues that shall not exceed the amount necessary, but shall be sufficient, to recover all costs incurred in the administration of this article ~~and Chapter 6 (commencing with Section 116900) of Part 12.~~

Section 106895. "Grandfather" clause

(a) A person employed as a water distribution operator, as defined by Section 116275, who does not hold a certificate pursuant to Section 106885, may be issued an appropriate certificate provided that the water system with which the operator is employed has applied for the certificate within one year after the adoption of the regulations implementing this section.

(b) A certificate issued pursuant to subdivision (a) shall be effective only at the site at which the operator was employed. The operator shall meet all certification requirements and hold a valid certificate pursuant to Section 106885 in order to operate another system.

(c) If the classification of the distribution system changes to a higher level, the certificate of the water distribution operator that was issued pursuant to subdivision (a) for that water distribution system is no longer valid.

(d) Any water distribution operator who is certified under subdivision (a) shall meet all of the requirements for renewal, including necessary training and the payment of fees.

~~A person employed as a water treatment plant operator, as defined by Section 116915, on the effective date of this article and Chapter 6 (commencing with Section 116900) of Part 12 shall be issued an appropriate certificate provided that he or she gives evidence of competence, training, education, experience, or a combination of the qualifications acceptable to the director as prescribed by the regulations referred to in Section 116950.~~

Section 106896. Evaluation of AWWA Distribution Operator Program

The department shall evaluate the water distribution operator certification program of the California-Nevada Section of the American Water Works Association (CNAWWA) and issue an appropriate water distribution system operator certificate for those certified operators that have satisfied the provisions of this article and any regulations promulgated under this chapter.

Section 106897. Reciprocity with other States

On or after the effective date of regulations implementing this article, certificates issued by certification programs of other states shall be recognized as valid and sufficient under this article if the department determines that the program of the other state is consistent with this article and the regulations promulgated under this article.

Section 106900. Education and training standards

The department may approve courses of instruction provided by educational institutions, professional associations, public agencies, or private agencies for purposes of qualifying persons for initial certification, certification renewal, and recertification as a water treatment operator, water treatment operator-in-training, or water distribution operator.

~~The director, with the approval of the advisory committee, shall establish the criteria and standards for education and training of existing and prospective water treatment plant operators and shall provide the criteria and standards for use in statewide technical education and training programs.~~

Section 106905. (Repealed)

~~All preentry and postentry educational programs shall be tailored to the needs of all segments of the population without respect to race, color, or creed.~~

Section 106910. Regulation authority

The department may adopt rules, regulations, and certification standards necessary to carry out the provisions of this article, pursuant to Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code. The rules, regulations, and standards shall include, but not be limited to, the following:

(a) The classification of treatment plants taking into consideration the plant size, character of the water being treated, type and degree of treatment, complexity of operation, and other physical conditions affecting the operation of the water treatment plant.

(b) The classification of distribution systems of community water systems and nontransient noncommunity water systems taking into consideration the complexity and size of the system.

(c) Criteria and standards establishing the level of skill, knowledge, education, and experience necessary to operate successfully or to supervise successfully the operation of specific classes of water treatment plants so as to protect public health.

(d) Criteria and standards establishing the level of skill, knowledge, and experience necessary to operate successfully or to supervise successfully the operation of specific classes of

water distribution systems so as to protect the public health.

(e) Criteria and standards for operator certification renewal including continuing education requirements.

(f) Criteria and standards for recertification of an operator when the operator's certificate has lapsed.

(g) Criteria and standards for the availability of designated water treatment operators for each operating shift.

~~The department, with the approval of the advisory committee, shall establish and publish criteria to classify the type of water treatment plants with regard to plant size, character of water and required degree of treatment, and other physical conditions affecting treatment plants. The department, with the approval of the advisory committee, shall establish the level of skill, knowledge, and experience necessary to supervise or operate successfully water treatment facilities to protect the public health.~~

CHAPTER 5. SAFE RECREATIONAL WATER USE

ARTICLE 1. RECREATIONAL USE OF RESERVOIRS

Section 115825. Body contact restriction

(a) It is hereby declared to be the policy of this state that multiple use should be made of all public water within the state, to the extent that multiple use is consistent with public health and public safety.

(b) Except as provided in Sections 115840, 115840.5³, and 115841, recreational uses shall not, with respect to a reservoir in which water is stored for domestic use, include recreation in which there is bodily contact with the water by any participant.

Section 115830. Recreation subject to regulation

All water supply reservoirs of a public agency, whether heretofore or hereafter constructed, shall be open for recreational use by the people of this state, subject to the regulations of the department.

Section 115835. Definitions

Unless the context otherwise requires, the following definitions shall control the construction of this article:

³ Amended by Chapter 70 of 1998 statutes (SB2201). The underlined portion is deleted by operation of law on January 1, 2004.

- (a) "Multiple use" includes domestic, industrial, agricultural, and recreational uses.
- (b) "Public agency" means the state or any city, other than a chartered city, county, public district, or other public institution.
- (c) "Reservoir" does not include ditches, canals, or any similar type of water distributing facility.

Section 115840. San Diego County exception

(a) In San Diego County, recreational uses shall not, with respect to a reservoir in which water is stored for domestic use, include recreation in which there is bodily contact with the water by any participant, unless both of the following conditions are satisfied:

(1) The water subsequently receives complete water treatment, including coagulation, flocculation, sedimentation, filtration, and disinfection, before being used for domestic purposes.

(2) The reservoir is operated in compliance with regulations of the department, as provided in Section 115830.

(b) The recreational use may be subject to additional conditions and restrictions adopted by the entity operating the water supply reservoir, if the conditions and restrictions do not conflict with regulations of the department and are designed to further protect or enhance the public health and safety.

Section 115840.5.⁴ Modesto Reservoir Exception

(a) In the Modesto Reservoir, recreational uses shall not include recreation in which any participant has bodily contact with the water, unless both of the following conditions are satisfied:

(1) The water subsequently receives complete water treatment, in compliance with all applicable department regulations, including coagulation, flocculation, sedimentation, filtration, and disinfection, before being used for domestic purposes. The disinfection shall include, but not be limited to, ozonation.

(2) The reservoir is operated in compliance with regulations of the department.

(b) The recreational use may be subject to additional conditions and restrictions adopted by the entity operating the water supply reservoir, if those conditions and restrictions do not conflict with regulations of the department, and are designed to further protect or enhance the public health and safety.

⁴ Added by Chapter 70 of the 1998 statutes (SB2201).

(c) The Modesto Irrigation District shall file, on or before January 1, 2002, with the Legislature, a report on the recreational uses at Modesto Reservoir and the water treatment program. The report shall include, but not be limited to, all of the following information:

(1) The estimated levels and types of recreational uses at the reservoir on a monthly basis.

(2) Levels of methyl tertiary butyl ether at various reservoir locations on a monthly basis.

(3) A summary of available monitoring in the Modesto Reservoir watershed for giardia and cryptosporidium.

(4) The sanitary survey of the watershed and water quality monitoring plan.

(5) An evaluation of recommendations relating to removal and inactivation of cryptosporidium and giardia as specified in the department water permit dated October 28, 1997.

(6) Annual reports provided to the department, as required pursuant to Sections I and IV of the department water permit dated October 28, 1997.

(7) An evaluation of the impact on source water quality due to recreational activities on the Modesto Reservoir, including any microbiological monitoring.

(8) A summary of any activities between the district and the county for operation of recreational uses and facilities in a manner that optimizes the water quality.

(9) The reservoir management plan and the operations plan.

(10) The annual water quality reports submitted to consumers each year.

(d) This section shall remain in effect only until January 1, 2004, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2004, deletes or extends that date.

Section 115841. Nacimiento Reservoir

Recreational activity in which there is bodily contact with the water by any participant shall continue to be allowed in Nacimiento Reservoir in accordance with all of the following requirements:

(a) Any agency that removes water from the reservoir for domestic use shall comply with any, or at a minimum, one of the following with regard to the water removed:

(1) The water subsequently receives complete water treatment in compliance

with all applicable department regulations, including coagulation, flocculation, sedimentation, filtration, and disinfection, before being used for domestic purposes.

(2) The water is discharged in a manner that allows percolation into a subsurface groundwater basin for subsequent extraction from only those groundwater wells that have been determined by the department not to be under the influence of surface water pursuant to Chapter 17 (commencing with Section 64650) of Division 4 of Title 22 of the California Code of Regulations and subsequently receives disinfection and complies with all applicable department regulations before being used for domestic purposes.

(3) The water is discharged in a manner that allows percolation into a subsurface groundwater basin for subsequent extraction from groundwater wells under the influence of surface water that receives treatment pursuant to Chapter 17 (commencing with section 64650) of Division 4 of Title 22 of the California Code of Regulations and complies with all applicable department regulations.

(b) The reservoir is operated in compliance with regulations of the department.

(c) The water stored for domestic purposes that may be excepted from the requirements of subdivision (b) of Section 115825 is removed from the reservoir by an agency for domestic purposes only in San Luis Obispo County and only in an amount for which that agency has a contractual right.

Section 115845. Fees

The public agency operating any water supply reservoir that is open for recreational use pursuant to this article may charge a use fee to cover the cost of policing the area around the reservoir, including the cost of providing the necessary sanitary facilities and other costs incidental to the recreational use of the reservoir.

Section 115850. Terminal reservoir exemption

This article does not apply to terminal reservoirs for the supply of domestic water.

PART 12.	DRINKING WATER
CHAPTER 1.	DEFINITIONS (Reserved)
CHAPTER 2.	POWERS AND DUTIES (Reserved)
CHAPTER 3.	ENFORCEMENT AND PENALTIES (Reserved)
CHAPTER 4.	CALIFORNIA SAFE DRINKING WATER ACT
ARTICLE 1.	PURE AND SAFE DRINKING WATER

Section 116270. Legislative findings

The Legislature finds and declares all of the following:

- (a) Every citizen of California has the right to pure and safe drinking water.
- (b) Feasible and affordable technologies are available and shall be used to remove toxic contaminants from public water supplies.
- (c) According to the State Department of Health Services, over 95 percent of all large public water systems in California are in compliance with health-based action levels established by the department for various contaminants.
- (d) It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that when present in drinking water may cause cancer, birth defects, and other chronic diseases.
- (e) This chapter is intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable. This chapter provides the means to accomplish this objective.
- (f) It is the intent of the Legislature to improve laws governing drinking water quality, to improve upon the minimum requirements of the federal Safe Drinking Water Act Amendments of 1996, to establish primary drinking water standards that are at least as stringent as those established under the federal Safe Drinking Water Act, and to establish a program under this chapter that is more protective of public health than the minimum federal requirements.
- (g) It is the further intent of the Legislature to establish a drinking water regulatory program within the State Department of Health Services in order to provide for the orderly and efficient delivery of safe drinking water within the state and to give the establishment of drinking water standards and public health goals greater emphasis and visibility within the state department.

Section 116275. Definitions

As used in this chapter:

- (a) "Contaminant" means any physical, chemical, biological, or radiological substance or matter in water.
- (b) "Department" means the State Department of Health Services.
- (c) "Primary drinking water standards" means:
 - (1) Maximum levels of contaminants that, in the judgment of the department,

may have an adverse effect on the health of persons.

(2) Specific treatment techniques adopted by the department in lieu of maximum contaminant levels pursuant to subdivision (j) of Section 116365.

(3) The monitoring and reporting requirements as specified in regulations adopted by the department that pertain to maximum contaminant levels.

(d) "Secondary drinking water standards" means standards that specify maximum contaminant levels that, in the judgment of the department, are necessary to protect the public welfare. Secondary drinking water standards may apply to any contaminant in drinking water that may adversely affect the odor or appearance of the water and may cause a substantial number of persons served by the public water system to discontinue its use, or that may otherwise adversely affect the public welfare. Regulations establishing secondary drinking water standards may vary according to geographic and other circumstances and may apply to any contaminant in drinking water that adversely affects the taste, odor, or appearance of the water when the standards are necessary to assure a supply of pure, wholesome, and potable water.

(e) "Human consumption" means the use of water for drinking, bathing or showering, hand washing, or oral hygiene.

(f) "Maximum contaminant level" means the maximum permissible level of a contaminant in water.

(g) "Person" means an individual, corporation, company, association, partnership, limited liability company, municipality, public utility, or other public body or institution.

(h) "Public water system" means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year. A public water system includes the following:

(1) Any collection, treatment, storage, and distribution facilities under control of the operator of the system which are used primarily in connection with the system.

(2) Any collection or pretreatment storage facilities not under the control of the operator that are used primarily in connection with the system.

(3) Any water system that treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption.

(i) "Community water system" means a public water system that serves at least 15 service connections used by yearlong residents or regularly serves at least 25 yearlong residents of the area served by the system.

(j) "Noncommunity water system" means a public water system that is not a community water system.

(k) "Nontransient noncommunity water system" means a public water system that is not a community water system and that regularly serves at least 25 of the same persons over 6 months per year.

(l) "Local health officer" means a local health officer appointed pursuant to Section 101000 or a local comprehensive health agency designated by the board of supervisors pursuant to Section 101275 to carry out the drinking water program.

(m) "Significant rise in the bacterial count of water" means a rise in the bacterial count of water that the department determines, by regulation, represents an immediate danger to the health of water users.

(n) "State small water system" means a system for the provision of piped water to the public for human consumption that serves at least five, but not more than 14, service connections and does not regularly serve drinking water to more than an average of 25 individuals daily for more than 60 days out of the year.

(o) "Transient noncommunity water system" means a noncommunity water system that does not regularly serve at least 25 of the same persons over six months per year.

(p) "User" means any person using water for domestic purposes. User does not include any person processing, selling, or serving water or operating a public water system.

(q) "Waterworks standards" means regulations adopted by the department that take cognizance of the latest available "Standards of Minimum Requirements for Safe Practice in the Production and Delivery of Water for Domestic Use" adopted by the California section of the American Water Works Association.

(r) "Local primacy agency" means any local health officer that has applied for and received primacy delegation from the department pursuant to Section 116330.

(s) "Service connection" means the point of connection between the customer's piping or constructed conveyance, and the water system's meter, service pipe, or constructed conveyance. A connection to a system that delivers water by a constructed conveyance other than a pipe shall not be considered a connection in determining if the system is a public water system if any of the following apply:

(1) The water is used exclusively for purposes other than residential uses, consisting of drinking, bathing, and cooking or other similar uses.

(2) The department determines that alternative water to achieve the equivalent level of public health protection provided by the applicable primary drinking water regulation is

provided for residential or similar uses for drinking and cooking.

(3) The department determines that the water provided for residential or similar uses for drinking, cooking, and bathing is centrally treated or treated at the point of entry by the provider, a passthrough entity, or the user to achieve the equivalent level of protection provided by the applicable primary drinking water regulations.

(t) "Resident" means a person who physically occupies, whether by ownership, rental, lease or other means, the same dwelling for at least 60 days of the year.

(u) "Water treatment operator" means a person who has met the requirements for a specific water treatment operator grade pursuant to Section 106875.

(v) "Water treatment operator-in-training" means a person who has applied for and passed the written examination given by the department but does not yet meet the experience requirements for a specific water treatment operator grade pursuant to Section 106875.

(w) "Water distribution operator" means a person who has met the requirements for a specific water distribution operator grade pursuant to Section 106875.

(x) "Water treatment plant" means a group or assemblage of structures, equipment, and processes that treat, blend, or condition the water supply of a public water system for the purpose of meeting primary drinking water standards.

(y) "Water distribution system" means any combination of pipes, tanks, pumps, and other physical features that deliver water from the source or water treatment plant to the consumer.⁵

Section 116280. Conditions for exclusion

This chapter does not apply to a public water system that meets all of the following conditions:

(a) Consists only of distribution and storage facilities and does not have any collection and treatment facilities.

(b) Obtains all of its water from, but is not owned or operated by, a public water system to which this chapter applies.

(c) Does not sell water to any person or user, except for the sale of water to users pursuant to Section 2705.5 of the Public Utilities Code through a submetered service system if the water supply is obtained from a public water system to which this chapter applies. By enacting this subdivision, it is not the intent of the Legislature to change existing law as to responsibility or

⁵ Definitions added by 1999 statutes, Chapter 755 (SB1107).

liability for distribution systems beyond the mastermeter.⁶

Section 116282. Handwashing exemption

Except as provided in this section, and except for the fee requirements of Section 116565, the department shall exempt from the water quality requirements of this chapter, any noncommunity water system serving a transient population that provides restrooms for employees or the public provided that the water system demonstrates to the department that it meets all of the following criteria:

- (a) The water system is in compliance with either of the following:
 - (1) No water is served by the water system for any public human consumption other than for handwashing.
 - (2) If water is served for public human consumption other than for

⁶ **Public Utilities Code**

Mobilehome parks and multiple unit complexes

Section 2705.5.

Any person or corporation, and their lessees, receivers, or trustees appointed by any court that maintains a mobilehome park or a multiple unit residential complex and provides, or will provide water service to users through a submeter service system is not a public utility and is not subject to the jurisdiction, control, or regulation of the commission if each user of the submeter service system is charged at the rate which would be applicable if the user were receiving the water directly from the water corporation.

Section 2705.6.

(a) A mobilehome park which provides water service only to its tenants from water supplies and facilities which it owns, not otherwise dedicated to public service, is not a water corporation. However, that mobilehome park is subject to the jurisdiction of the commission to the extent that, if a tenant complains about the water rates charged or service provided by the mobilehome park, the commission shall determine, based on all the facts and circumstances, whether the rates charged are just and reasonable and whether the service provided is adequate.

(b) Complaints filed pursuant to subdivision (a) are subject to the provisions of this code and to the Rules of Practice and Procedure of the commission governing complaints and commission investigations.

(c) The commission may afford rate relief or may order the mobilehome park to improve its water supply, facilities, and services on those terms that it finds just and reasonable, or both.

(d) The public adviser created pursuant to Section 321 and necessary staff of the commission shall assist the complainant.

handwashing, bottled water from a source approved by the department is provided for the consumption other than handwashing.

(b) The water for handwashing is bacteriologically safe. This shall be ensured by sampling the water for coliform bacteria at least once each calendar year. The samples shall be analyzed and the results reported to the department in accordance with Section 64423.1 of Title 22 of the California Code of Regulations.

(c) The noncommunity water system is not a business regulated as a food facility under Section 113785.

Section 116283. CURFFL Exemption

This chapter shall apply to a food facility that is regulated pursuant to the California Uniform Retail Food Facilities Law only if the human consumption includes drinking of water.

Section 116285. Irrigation canal exception

Before August 6, 1998, this chapter shall not apply to an irrigation canal system if the owner or operator of the system certifies to the department, and notifies each user, in writing, that the water is untreated and is being furnished or supplied solely for agricultural purposes to either of the following:

(a) A user where the user receives the water, by pipe or otherwise, directly from the irrigation canal system.

(b) A person who owns or operates an integrated pipe system where the person receives the water, by pipe or otherwise, directly from the irrigation canal system.

"Irrigation canal system," as used in this section, means a system of water conveyance facilities, including pipes, tunnels, canals, conduits, pumping plants and related facilities operated to furnish or supply water for agricultural purposes where a substantial portion of the facilities is open to the atmosphere.

Section 116286. Water district exclusion

(a) A water district, as defined in subdivision (b), in existence prior to May 18, 1994, that provides primarily agricultural services through a piped water system with only incidental residential or similar uses shall not be considered to be a public water system if the department determines that either of the following applies:

(1) The system or the residential or similar users of the system certify to the system that they are providing alternative water for residential or similar uses for drinking water and cooking to achieve the equivalent level of public health protection provided by the applicable primary drinking water regulations.

(2) The water provided for residential or similar uses for drinking, cooking, and bathing is centrally treated or treated at the point of entry by the provider, a passthrough entity, or the user to achieve the equivalent level of protection provided by the applicable primary drinking water regulations.

(b) For purposes of this section, "water district" means any district or other political subdivision, other than a city or county, a primary function of which is irrigation, reclamation, or drainage of land.

Section 116287. Authority over water districts and constructed conveyances

(a) The department, in implementing subdivision (s) of Section 116275 and Section 116286, shall place requirements on affected public water systems and water districts that are consistent with this chapter and the guidelines established by the United States Environmental Protection Agency for implementing comparable provisions of the federal Safe Drinking Water Act of 1996.

(b) The department, in making the determinations specified in paragraphs (2) and (3) of subdivision (s) of Section 116275 and subdivisions (a) and (b) of Section 116286, shall utilize criteria that are consistent with this chapter and those used by the United States Environmental Protection Agency in administering the comparable provisions of the federal Safe Drinking Water Act.

(c) The department shall periodically monitor and review the conditions under which a public water system, or a water district as defined in subdivision (b) of Section 116286, has met the requirements of this chapter pursuant to subdivision (s) of Section 116275 or Section 116286, or pursuant to the federal act, to ensure that the conditions continue to be met.

(d) The department may prescribe reasonable, feasible, and cost-effective actions to be taken by a public water system, water district, as defined in subdivision (b) of Section 116286, or users subject to subdivision (s) of Section 116275 or Section 116286 to ensure that alternative water or treated water provided by the water systems, water districts, or users pursuant to Section 116275 or 116286 will not be injurious to health.

Section 116290. Agricultural exclusion

Before August 6, 1998, in areas where the water service rendered by a person is primarily agricultural, and domestic service is only incidental thereto, this chapter shall not apply except in specific areas in which the department has found its application to be necessary for the protection of the public health and has given written notice thereof to the person furnishing or supplying water in the area.

The department may prescribe reasonable and feasible action to be taken by those persons or the users to insure that their domestic water will not be injurious to health.

ARTICLE 2. DEPARTMENT AND LOCAL RESPONSIBILITIES

Section 116325. Department responsible for all public water systems

The department shall be responsible for ensuring that all public water systems are operated in compliance with this chapter and any regulations adopted hereunder. The department shall directly enforce this chapter for all public water systems except as set forth in Section 116500.

Section 116330. Local primacy delegation

(a) The department may delegate primary responsibility for the administration and enforcement of this chapter within a county to a local health officer authorized by the board of supervisors to assume these duties, by means of a local primacy delegation agreement if the local health officer demonstrates that it has the capability to meet the local primacy program requirements established by the department pursuant to subdivision (h) of Section 116375. This delegation shall not include the regulation of community water systems serving 200 or more service connections. The local primacy agreement may contain terms and conditions that the department deems necessary to carry out this chapter. The local primacy agreement shall provide that, although the local primacy agency shall be primarily responsible for administration and enforcement of this chapter for the designated water systems, the department does not thereby relinquish its authority, but rather shall retain jurisdiction to administer and enforce this chapter for the designated water systems to the extent determined necessary by the department.

(b) Any local health officer seeking a local primacy delegation shall submit an application to the department. The application shall be submitted by March 1, 1993, for local health officers seeking local primacy agreements for the 1993-94 fiscal year. Thereafter, the application shall be submitted by January 1, of the fiscal year immediately preceding the commencement of the fiscal year for which the local primacy delegation is sought. The application shall be in the format, and shall contain information, required by the department. The department shall approve the application for primacy if the department determines that the local health officer is capable of meeting the primacy program requirements established by the department.

(c) A local primacy delegation approved by the department shall remain in effect until any of the following conditions occur:

- (1) The delegation is withdrawn by mutual agreement.
- (2) The local primacy agency provides 120 day advance written notice to the department that it no longer wishes to retain local primacy.
- (3) The department determines that the local primacy agency no longer complies with the department's local primacy program requirements. The department shall provide written notice to the local primacy agency and the board of supervisors and shall provide an opportunity for a public hearing prior to initiation of any local primacy revocation action by the department.

(d) The department shall evaluate the drinking water program of each local primacy agency at least annually. The department shall prepare a report of the evaluation and list any program improvements needed to conform to the department's local primacy program requirements. A copy of the evaluation report shall be provided to the local primacy agency and the board of supervisors. The local primacy agency shall be granted a reasonable amount of time to make any needed program improvements prior to the initiation of any local primacy revocation actions.

(e) To the extent funds are available in the Safe Drinking Water Account, the department shall provide the local primacy agency with an annual drinking water surveillance program grant to cover the cost of conducting the inspection, monitoring, surveillance, and water quality evaluation activities specified in the local primacy agreement. The annual program grant pursuant to this subdivision shall not exceed the amount that the department determines would be necessary for the department to conduct inspection, monitoring, surveillance, and water quality evaluation activities in the absence of a local primacy agreement for those systems in that county.

(f) The local primacy agency shall act for the department as the primary agency responsible for the administration and enforcement of this chapter for the specified public water systems and shall be empowered with all of the authority granted to the department by this chapter over those water systems.

Section 116340. State small water systems

This chapter shall not apply to state small water systems except as provided under this section:

(a) The department shall adopt regulations specifying minimum requirements for operation of a state small water system. The requirements may be less stringent than the requirements for public water systems as set forth in this chapter.

(b) The minimum requirements for state small water systems adopted by the department pursuant to subdivision (a) shall be enforced by the local health officer or a local health agency designated by the local health officer. In counties that do not have a local health officer, the requirements shall be enforced by the department. Local health agencies may adopt more stringent requirements for state small water systems than those specified in the state regulations.

(c) The reasonable costs of the local health officer in carrying out the requirements of this section may be recovered through the imposition of fees on state small water systems by the local governing body in accordance with Section 101325.

Section 116345. County monthly report and Department 3-year review

(a) The local health officer shall submit a report monthly to the department regarding the status of compliance with this chapter by the public water systems under the jurisdiction of the local health officer. The report shall be in a form and manner prescribed by the department.

(b) The department shall review the public water system program of the local health officer at least every three years to assure compliance with this chapter. A report of the findings of the review along with any recommendations of the department shall be provided to the local health officer and the board of supervisors.

ARTICLE 3. OPERATIONS

Section 116350. Department responsibilities

(a) The department shall administer the provisions of this chapter and all other provisions relating to the regulation of drinking water to protect public health.

(b) The department shall also have the following responsibilities:

(1) Conduct research, studies, and demonstration projects relating to the provision of a dependable, safe supply of drinking water, including, but not limited to, all of the following:

(A) Improved methods to identify and measure the existence of contaminants in drinking water and to identify the source of the contaminants.

(B) Improved methods to identify, measure, and assess the potential adverse health effects of contaminants in drinking water.

(C) New methods of treating raw water to prepare it for drinking, so as to improve the efficiency of water treatment and to remove or reduce contaminants.

(D) Improved methods for providing a dependable, safe supply of drinking water, including improvements in water purification and distribution, and methods of assessing health-related hazards.

(E) Improved methods of protecting the water sources of public water systems from contamination.

(F) Alternative disinfection technologies that minimize, reduce, or eliminate hazardous disinfection byproducts.

(2) Enforce provisions of the federal Safe Drinking Water Act and regulations adopted pursuant thereto.

(3) Adopt regulations to implement this chapter.

(c) The department may conduct studies and investigations as it deems necessary to assess the quality of private domestic water wells.

Section 116355. Safe drinking water plan

(a) Once every five years the department shall submit to the Legislature a comprehensive Safe Drinking Water Plan for California.

(b) The Safe Drinking Water Plan shall include, but not be limited to, the following information:

(1) An analysis of the overall quality of California's drinking water and the identification of specific water quality problems.

(2) Types and levels of contaminants found in public drinking water systems that have less than 10,000 service connections. The discussion of these water systems shall include the following:

(A) Estimated costs of requiring these systems to meet primary drinking water standards and public health goals.

(B) Recommendations for actions that could be taken by the Legislature, the department, and these systems to improve water quality.

(3) A discussion and analysis of the known and potential health risks that may be associated with drinking water contamination in California.

(4) An evaluation of how existing water quality information systems currently maintained by local or state agencies can be more effectively used to protect drinking water.

(5) An evaluation of the research needed to develop inexpensive methods and instruments to ensure better screening and detection of waterborne chemicals, and inexpensive detection methods that could be used by small utilities and consumers to detect harmful microbial agents in drinking water.

(6) An analysis of the technical and economic viability and the health benefits of various treatment techniques that can be used to reduce levels of trihalomethanes, lead, nitrates, synthetic organic chemicals, micro-organisms, and other contaminants in drinking water.

(7) A discussion of alternative methods of financing the construction, installation, and operation of new treatment technologies, including, but not limited to user charges, state or local taxes, state planning and construction grants, loans, and loan guarantees.

(8) A discussion of sources of revenue presently available, and projected to be available, to public water systems to meet current and future expenses.

(9) An analysis of the current cost of drinking water paid by residential, business, and industrial consumers based on a statewide survey of large, medium, and small public

water systems.

(10) Specific recommendations, including recommendations developed pursuant to paragraph (6), to improve the quality of drinking water in California and a detailed five-year implementation program.

Section 116360. Cryptosporidium and Giardia

(a) The department shall take all reasonable measures it determines necessary to reduce the risk to public health from waterborne illnesses in drinking water caused by cryptosporidium and giardia, to the extent those micro-organisms are not yet able to be adequately controlled through existing drinking water treatment and other management practices.

(b) The department shall directly conduct, or order the state's public water systems to conduct, comprehensive sanitary surveys, as present resources permit, to identify risks to public health from cryptosporidium and giardia.

(c) To thoroughly address the public health risks currently posed by cryptosporidium, in particular, the department shall ensure that its initial cryptosporidium action plan, that has been circulated to public water systems serving more than 1,000 service connections, is comprehensively implemented and shall devise and implement necessary strategies for protecting the health of individuals served by smaller public water systems from cryptosporidium exposure.

(d) On or before January 1, 1998⁷, the department shall submit a report to the Chairperson of the Assembly Environmental Safety and Toxic Materials Committee and of the Senate Toxics and Public Safety Management Committee. The report shall do all of the following:

(1) Describe the department's action to reduce human exposure to cryptosporidium and giardia from California drinking water and the extent to which implementation of the cryptosporidium action plan for larger water systems, and alternative actions for smaller water systems, have reduced the threat to public health from cryptosporidium contamination.

(2) Recommend additional actions necessary to adequately protect public health from waterborne diseases in California drinking water caused by micro-organisms, including any legislative changes necessary to ensure adequate protection of the public from exposure to cryptosporidium and other disease-causing micro-organisms in drinking water.

(3) Describe the progress of the California public water systems in the implementation of the cryptosporidium-related requirements of the federal Information Collection Rule, as set forth in the Federal Register on February 10, 1994, and the department's progress in implementing the cryptosporidium-related requirements of the federal Safe Drinking Water Act Amendments of 1996 (P.L. 104-182).

⁷ This report was due October 1, 1999 pursuant to Chapter 970 of the 1996 statutes.

Section 116365. Criteria for primary standards

(a) The department shall adopt primary drinking water standards for contaminants in drinking water that are based upon the criteria set forth in subdivision (b) and shall not be less stringent than the national primary drinking water standards adopted by the United States Environmental Protection Agency. Each primary drinking water standard adopted by the department shall be set at a level that is as close as feasible to the corresponding public health goal placing primary emphasis on the protection of public health, and that, to the extent technologically and economically feasible meets all of the following:

(1) With respect to acutely toxic substances, avoids any known or anticipated adverse effects on public health with an adequate margin of safety, and

(2) With respect to carcinogens, or any substances that may cause chronic disease, avoids any significant risk to public health.

(b) The department shall consider all of the following criteria when it adopts a primary drinking water standard:

(1) The public health goal for the contaminant adopted by the Office of Environmental Health Hazard Assessment pursuant to subdivision (c).

(2) The national primary drinking water standard for the contaminant, if any, adopted by the United States Environmental Protection Agency.

(3) The technological and economic feasibility of compliance with the proposed primary drinking water standard. For the purposes of determining economic feasibility pursuant to this paragraph, the department shall consider the costs of compliance to public water systems, customers, and other affected parties with the proposed primary drinking water standard, including the cost per customer and aggregate cost of compliance, using best available technology.

(c) The Office of Environmental Health Hazard Assessment shall perform a risk assessment and, based upon that risk assessment, shall adopt a public health goal based exclusively on public health considerations, for each drinking water contaminant regulated, or proposed to be regulated, by the department pursuant to a primary drinking water standard. The risk assessment shall be performed using the most current principles, practices, and methods used by public health professionals who are experienced practitioners in the field of epidemiology, risk assessment, and toxicology. The office and the department are prohibited from imposing any mandate that requires a public water system to comply with a public health goal. Each public health goal shall be set in accordance with all of the following criteria:

(1) Each public health goal shall be set for acutely toxic substances, at a level at which no known or anticipated adverse effects on health will occur, with an adequate margin of safety.

(2) Each public health goal shall be set for a carcinogen or other substance that may cause chronic disease at a level that, based upon currently available data, does not pose any significant risk to health.

(3) To the extent the information is available, the office shall consider possible synergistic effects resulting from exposure to, or interaction with, two or more contaminants.

(4) The office shall consider the effect of the contaminants upon subgroups that comprise a meaningful portion of the general population, including, but not limited to, infants, children, pregnant women, the elderly, individuals with a history of serious illness, or other subpopulations, that are identifiable as being at greater risk of adverse health effects due to exposure to contaminants in drinking water than the general population.

(5) The office shall consider the contaminant exposure and body burden levels that alter physiological function or structure in a manner that may significantly increase the risk of illness.

(6) If the office finds that the currently available scientific data is insufficient to determine the amount of a contaminant that creates no significant risk to public health, the public health goal shall be set at a level that is protective of public health with an adequate margin of safety, based exclusively on health considerations and factoring in the considerations set forth in paragraphs (1) to (5), inclusive, and paragraph (7), and using the most current principles, practices, and methods used by public health professionals who are experienced practitioners in the fields of epidemiology, risk assessment, and toxicology. However, if adequate scientific evidence demonstrates that a safe dose response threshold for a contaminant exists, then the public health goal should be set at that threshold. The department may set the public health goal at zero if necessary to satisfy the requirements of this paragraph.

(7) The office shall consider exposure to contaminants in media other than drinking water, including, but not limited to, exposures in food, in the ambient and indoor air, and the resulting body burden.

(d) Notwithstanding any other provision of this section, any maximum contaminant level in effect on August 22, 1995, may be amended by the department to make the level more stringent pursuant to this section. However, the department may only amend a maximum contaminant level to make it less stringent if the department shows clear and convincing evidence that the maximum contaminant level should be made less stringent and the amendment is made consistent with this section.

(e) (1) Public health goals established by the office shall be reviewed at least once every five years and revised, pursuant to the provisions of subdivision (c), as necessary based upon the availability of new scientific data.

(2) On or before January 1, 1998, the office shall adopt a public health goal for at least 25 drinking water contaminants for which a primary drinking water standard has been

adopted by the department. The office shall adopt a public health goal for 25 additional drinking water contaminants by January 1, 1999, and for all remaining drinking water contaminants for which a primary drinking water standard has been adopted by the department by no later than December 31, 1999. A public health goal shall be concurrently adopted by the office with the adoption of a primary drinking water standard by the department for any newly regulated contaminant.

(f) The department or office may review, and adopt by reference, any information prepared by, or on behalf of, the United States Environmental Protection Agency for the purpose of adopting a national primary drinking water standard or maximum contaminant level goal when it establishes a California maximum contaminant level or public health goal.

(g) At least once every five years after adoption of a primary drinking water standard, the department shall review the primary drinking water standard and shall, consistent with the criteria set forth in subdivisions (a) and (b), amend any standard if any of the following occur:

(1) Changes in technology or treatment techniques that permit a materially greater protection of public health or attainment of the public health goal.

(2) New scientific evidence that indicates that the substance may present a materially different risk to public health than was previously determined.

(h) Not later than March 1 of every year, the department shall provide public notice of each primary drinking water standard it proposes to review in that year pursuant to this section. Thereafter, the department shall solicit and consider public comment and hold one or more public hearings regarding its proposal to either amend or maintain an existing standard. With adequate public notice, the department may review additional contaminants not covered by the March 1 notice.

(i) This section shall operate prospectively to govern the adoption of new or revised primary drinking water standards and does not require the repeal or readoption of primary drinking water standards in effect immediately preceding January 1, 1997.

(j) The department may, by regulation, require the use of a specified treatment technique in lieu of establishing a maximum contaminant level for a contaminant if the department determines that it is not economically or technologically feasible to ascertain the level of the contaminant.

Section 116366.⁸ MTBE Costs

(a) No public water system, or its customers, shall be responsible for remediation or treatment costs associated with MTBE, or a product that contains MTBE, provided, however, that the public water system shall be permitted as necessary to incur MTBE remediation and

⁸ Chapter 816 of 1997 statutes (SB521).

treatment costs and to include those costs in its customer rates and charges, necessary to comply with drinking water standards or directives of the State Department of Health Services or other lawful authority. Any public water system that incurs MTBE remediation or treatment costs may seek recovery of those costs from parties responsible for the MTBE contamination, or from other available alternative sources of funds.

(b) If the public water system has included the costs of MTBE treatment and remediation in its customer rates and charges, and subsequently recovers all or a portion of its MTBE treatment and remediation costs from responsible parties or other available alternative sources of funds, it shall make an adjustment to its schedule of rates and charges to reflect the amount of funding received from responsible parties or other available alternative sources of funds for MTBE treatment or remediation.

(c) Subdivision (a) shall not prevent the imposition of liability on any person for the discharge of MTBE if that liability is due to the conduct or status of that person independently of whether the person happens to be a customer of the public water system.

Section 116367.⁹ Drinking Water Treatment and Research Fund

(a) The Legislature finds and declares that oxygenated gasoline has contaminated groundwater and surface water used for drinking water purposes. The Legislature further declares that it is in the public interest to provide funding to pay for corrective actions needed to protect public health and the environment as a result of oxygenate contamination of drinking water.

(b) For the purposes of this section, the following terms have the following meanings:

(1) "Drinking water fund" means the Drinking Water Treatment and Research Fund created pursuant to subdivision (c).

(2) "Financial hardship" means a public water system does not have sufficient resources not otherwise dedicated for a specified purpose, including, but not limited to, debt service requirements, to pay for necessary treatment works, conduct an investigation into the source of contamination, or acquire alternate drinking water supplies and leave sufficient reserves available to enable the system owner or operator to address economic uncertainties to pay for contingencies.

(3) "Oxygenate" has the same meaning as oxygenate as defined in Section 25299.97.

(4) "Public water system" means a public water system, as defined in Section 116275.

⁹ Chapter 997 of 1998 statutes (SB2198).

(c) The Drinking Water Treatment and Research Fund is hereby created in the State Treasury.

(d) The department may expend the money in the drinking water fund for all of the following purposes:

(1) To make payments to a public water system for the incremental costs of treating groundwater and surface water used for drinking water purposes that has been contaminated by an oxygenate if the level of contamination exceeds the lowest of any primary or secondary drinking water standard adopted pursuant to Section 116365 or 116610. Treatment for surface water shall be for surface water that supplies water to a treatment facility for a water supply system that serves domestic uses.

(2) To make payments to a public water system for the costs of investigating the possible source of contamination when an oxygenate is detected at any level in groundwater supplies utilized by a public water system for drinking water purposes. Costs eligible for payment under this paragraph may include the cost of acquiring alternate drinking water supplies if the well is required to be shut down or its use curtailed during the investigation. Costs eligible for payment under this paragraph shall not include any costs incurred by a public water system to pursue cost recovery from responsible persons pursuant to subdivision (f).

(3) To make payments to a public water system for the incremental costs of acquiring alternate drinking water supplies to replace supplies contaminated by an oxygenate at a level that exceeds the lowest of any primary or secondary drinking water standard adopted pursuant to Section 116365 or 116610. Costs eligible for payment under this paragraph include the costs of connecting a public water system to another public water system or constructing a new drinking water well.

(4) To conduct research and develop cost-effective treatment technologies to treat drinking water contaminated by an oxygenate to meet primary or secondary drinking water standards and effective strategies to protect drinking water sources from contamination by oxygenates. The department shall not expend more than one million dollars (\$1,000,000) annually for these purposes and may enter into cooperative agreements with federal and state agencies, local agencies, or other persons to conduct research and development activities.

(5) To pay the administrative costs, not to exceed 5 percent, for the department to administer this section.

(e) Notwithstanding Section 7550.5 of the Government Code, the department shall report annually to the Governor and to the Legislature on any money provided to a public water system pursuant to this section.

(f) The department shall be reimbursed by a public water system that has received funds pursuant to this section, to the extent that the public water system receives payment from any source to cover the costs for which it received funding under this section. The public water

system shall aggressively pursue cost recovery from responsible persons and, upon recovery, or within five years of the initial payment received, whichever occurs first, shall reimburse the department for funds received pursuant to this section, unless the public water system can demonstrate that, despite all reasonable efforts, recovery from a responsible party is not possible, or that a responsible party cannot be identified. The department shall transfer any reimbursements received from a public water system into the drinking water fund or the Underground Storage Tank Cleanup Fund, whichever provided the funds.

(g) The department may make payments pursuant to paragraphs (1), (2), and (3) of subdivision (d) without regard to when the contamination occurred or when costs for treating or investigating the source of contamination or acquiring replacement water were incurred, except that a public water system may not receive more than three million dollars (\$3,000,000) from the drinking water fund in any fiscal year unless the public water system makes a showing of financial hardship.

(h) (1) The department may make payments pursuant to paragraphs (1), (2), and (3) of subdivision (d), without requiring a public water system to first incur expenditures, if the department determines that a situation exists that requires prompt action by the public water system to protect human health or the environment, or the public water system makes a showing of financial hardship.

(2) Upon a showing of financial hardship, pursuant to paragraph (1), the public water system shall present the department with a work plan that specifies the estimated costs of treatment, constructing a new drinking water well, or obtaining an alternate water supply. The estimated costs of treatment or constructing a new well to provide replacement water shall be prepared by a registered civil engineer or other registered professional. The estimated costs for acquiring an alternate water supply, other than a new well, shall be substantiated by an identification of necessary capital facilities to convey the water to the public water system and a written offer by another entity to provide the alternate water supply.

(3) The department shall prescribe forms and procedures for claims filed pursuant to this section as necessary to ascertain eligibility for payment and validity of incremental costs based on generally accepted accounting principles. The department shall not require an applicant to prepare an economic feasibility study regarding the acquisition of an alternate water supply. The department may require a description of site-specific information, including the origin of contamination, the petroleum products released, and the status of cleanup and abatement activities at potential leaking underground storage tank sites if that information is available to the applicant.

(4) The department shall provide payment within 60 days of receiving a claim filed pursuant to this section.

(5) A claim shall be deemed true and correct if not audited by the department within three years of payment.

(i) The department, in evaluating claims submitted for payment from the drinking water fund, shall consider the findings of the University of California report regarding the assessment undertaken pursuant to Section 3 of Chapter 816 of the Statutes of 1997, as those findings relate to the assessment of the human health and environmental risks and benefits, if any, associated with the use of MTBE in gasoline. In particular, the department shall consider findings in the report regarding the evaluation of the costs and effectiveness of treatment technologies available to remove MTBE from drinking water.

(j) Any funds transferred to the drinking water fund pursuant to Section 25299.99 may be used for the purposes of this section only if a public drinking water well has been contaminated by an oxygenate and there is substantial evidence that the contamination was caused by a release from an underground storage tank.

(k) (1) This section shall remain in effect only until January 1, 2002, and as of that date is repealed, unless a later enacted statute, which is enacted before January 1, 2002, deletes or extends that date.

(2) The repeal of this section does not terminate any of the following rights, obligations or authorities, or any provision necessary to carry out these rights or obligations:

(A) The filing and payment of claims in the fund, until the moneys in the fund are exhausted. Upon exhaustion of the fund, any remaining claims shall be invalid.

(B) The resolution of any cost recovery action.

Section 116367.5.¹⁰ Research Advisory Committee

The department shall establish a Research Advisory Committee, which shall consist of 11 members. The department shall provide for the support staff and meeting facility needs of the committee. The committee shall meet as necessary to review requests for research projects pursuant to paragraph (4) of subdivision (d) of Section 116367. The committee members shall be appointed by the director and shall consist of the following members:

(a) Four members representing public water systems.

(b) Four members representing entities paying into the Underground Storage Tank Cleanup Trust Fund created pursuant to Section 25299.50.

(c) One member representing environmental interest groups.

(d) One member representing consumer interest groups.

(e) One member representing the department.

¹⁰ Chapter 814 of 1997 statutes (AB592).

Section 116370. Best available technology

On or before January 1, 1998, the department shall propose, hold a public hearing, and adopt a finding of the best available technology for each contaminant for which a primary drinking water standard has been adopted. Thereafter, the department shall adopt a finding of the best available technology for each contaminant for which a primary drinking water standard has been adopted at the time the standard is adopted. The finding of the department shall take into consideration the costs and benefits of best available treatment technology that has been proven effective under full-scale field applications.

Section 116375. Department authority to adopt regulations

The department shall adopt regulations it determines to be necessary to carry out the purposes of this chapter. The regulations shall include, but not be limited to, the following:

(a) The monitoring of contaminants, including the type of contaminant, frequency and method of sampling and testing, and the reporting of results.

(b) The monitoring of unregulated contaminants for which drinking water standards have not been established by the department. The requirements shall be not less stringent than those adopted pursuant to paragraph (2) of subsection (a) of Section 1445 of the federal Safe Drinking Water Act, as amended (42 U.S.C. Sec. 300j-4 (a)(2)). Until the time that the department adopts regulations regarding the monitoring of unregulated contaminants, the department may, by order, require any public water system that has been shown to contain detectable levels of any unregulated contaminants to conduct periodic water analyses in accordance with conditions specified by the department. The water analyses shall be reported on a quarterly basis unless the department finds that more or less frequent analysis is necessary.

(c) Requirements for the design, operation, and maintenance of public water systems, including, but not limited to, waterworks standards and the control of cross-connections, that the department determines are necessary to obtain, treat, and distribute a reliable and adequate supply of pure, wholesome, potable, and healthy water.

(d) Requirements for treatment, including disinfection of water supplies.

(e) Requirements for the filtration of surface water supplies at least as stringent as regulations promulgated pursuant to subparagraph (C) of paragraph (7) of subsection (b) of Section 1412 of the federal Safe Drinking Water Act, as amended (42 U.S.C. Sec. 300g-1 (b)(7)(C)).

(f) Requirements for notifying the public of the quality of the water delivered to consumers.

(g) Minimum acceptable financial assurances that a public water system shall be required to submit as a demonstration of its capability to provide for the ongoing operation,

maintenance, and upgrading of the system, including compliance with monitoring and treatment requirements and contingencies. For privately owned systems not regulated by the Public Utilities Commission, the financial assurance may be in the form of a trust fund, surety bond, letter of credit, insurance, or other equivalent financial arrangement acceptable to the department.

(h) Program requirements for the conduct of the public water system program by a local health officer under a primacy delegation from the department as set forth in this chapter. The requirements shall include, but not be limited to, the issuance of permits, surveillance and inspections, reporting of monitoring and compliance data, and the taking of enforcement actions.

(i) Methods for determination of the number of persons served by a public water system for drinking water regulatory purposes.

(j) The adoption by the State Department of Health Services, in consultation with the State Water Resources Control Board and representatives from operators of public water systems, of emergency regulations for the uniform, scientific sampling, and analytical testing protocols for oxygenates as defined in subdivision (k) of Section 51010.5 of the Government Code.

Section 116377. Emergency regulations

The department may adopt emergency regulations in accordance with Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code, to implement amendments to this chapter. The initial adoption of emergency regulations and one readoption of the initial regulations shall be deemed to be an emergency and necessary for the immediate preservation of the public peace, health and safety, or general welfare. Initial emergency regulations and the first readoption of those regulations shall be exempt from review by the Office of Administrative Law. The emergency regulations authorized by this section shall be submitted to the Office of Administrative Law for filing with the Secretary of State and publication in the California Code of Regulations and shall remain in effect for not more than 180 days.

Section 116379. Exclusion

Notwithstanding Sections 116360, 116375, and 116450, public water systems are not required to observe the standards of subdivision (f) of Section 64435 of Title 22 of the California Code of Regulations.¹¹

Section 116380. Point-of-entry in lieu of centralized treatment

In addition to the requirements set forth in Section 116375, the regulations adopted by the department pursuant to Section 116375 shall include requirements governing the use of point-of-entry treatment by public water systems in lieu of centralized treatment where it can be

¹¹ This subdivision has been repealed.

demonstrated that centralized treatment is not economically feasible.

Section 116385. Monitoring authority

Any person operating a public water system shall obtain and provide at that person's expense an analysis of the water to the department, in the form, covering those matters, and at intervals as the department by regulation may prescribe. The analysis shall be performed by a laboratory duly certified by the department.

Section 116390. Laboratory accreditation requirement

(a) No laboratory, other than a laboratory operated by the department, shall perform tests required pursuant to this chapter for any public water system without first obtaining a certificate issued by the department pursuant to Article 3 (commencing with Section 100825) of Chapter 4 of Part 1 of Division 101.

(b) No person or public entity of the state shall contract with a laboratory for environmental analyses for which the state department requires certification pursuant to this section, unless the laboratory holds a valid certificate.

Section 116395. County evaluation of small public water systems

(a) The Legislature finds and declares all of the following:

(1) The large water system testing program has discovered chemical contamination of the state's drinking water with increasing frequency.

(2) A significant number of California residents rely on the state's small water systems to provide their water.

(3) The small systems, because they tend to be located in outlying rural areas where pesticide use is prevalent, and because they draw their water from shallow aquifers, face a serious threat of contamination.

(4) Unchecked water sources that may be contaminated pose a potentially serious threat to the health of the citizens of California, particularly those living in outlying rural areas.

(5) It is in the interest of all Californians that a testing program for small public water systems be implemented and carried out as expeditiously as possible.

(b) For purposes of this section, "small public water system" means a system with 200 connections or less, and is one of the following:

(1) A community water system that serves at least 15 service connections used

by yearlong residents or regularly serves at least 25 yearlong residents.

(2) A state small water system.

(3) A noncommunity water system such as a school, labor camp, institution, or place of employment, as designated by the department.

(c) The department shall conduct training workshops to assist health officers in evaluation of small public water systems for organic chemical contamination, and in sampling and testing procedures. The department shall, at a minimum, provide health officers with guidelines for evaluating systems and instructions for sampling.

(d) The department shall develop a schedule for conduct of the programs by the local health officers. The schedule shall establish a program to address first those systems with the most serious potential for contamination. The department shall enter into agreements with the local health agencies to conduct the necessary work to be performed pursuant to the schedule. The department shall begin the program no later than three months after September 19, 1985. All local health officers shall complete the evaluation, sampling, testing, review of sampling results, and notification to the public water systems within their jurisdiction in accordance with the agreements entered into with the department and within the schedule established by the department. All work required by this section shall be completed within three years after September 19, 1985.

(e) In consultation with the department, the local health officer shall conduct an evaluation of all small public water systems under their jurisdictions to determine the potential for contamination of groundwater sources by organic chemicals. The evaluation shall include, but not be limited to:

(1) A review of the historical water quality data of each system to determine possible evidence of degradation.

(2) A review, to be coordinated with the State Water Resources Control Board, and the California regional water quality control boards, of past and present waste disposal practices that may potentially affect the respective well water supply.

(3) A review of other organic chemicals used in the water supply area that have potential health risks and that may have the potential for contaminating drinking water supplies because of environmental persistence or resistance to natural degradation under conditions existing in California.

(f) Based upon the evaluation of each system, the local health officers shall develop a sampling plan for each system within their jurisdiction. The health officer shall collect samples in accordance with the plan and shall submit the samples for analysis to a certified laboratory designated by the department. When applicable, the laboratory shall test water samples using the Environmental Protection Agency's 13 approved analytical techniques established under

subdivision (h) of Section 304 of the Clean Water Act to qualitatively identify the complete range of contaminants in the same class as the specific contaminant or class of contaminants being analyzed.

(g) Within 10 days of the receipt from the laboratory of the testing results, the local health officer shall notify the small public water system, the department and the California regional water quality control board for that region of the results.

(h) Following a review of the testing results, the local health officer may order the public water system to conduct a periodic water sampling and analysis program in accordance with conditions specified by the local health officer. The department shall provide ongoing advice and assistance to local health officers in interpreting test results and determining appropriate notification and followup activities in those instances where contaminants are found.

(i) This section shall be operative during any fiscal year only if the Legislature appropriates sufficient funds to pay for all state mandated costs to be incurred by local agencies pursuant to this section during that year.

Section 116400. Periodic water analysis

If the department determines that a public water system is subject to potential contamination, the department may, by order, require the public water system to conduct a periodic water analysis in accordance with conditions specified by the department. The water analysis shall be reported on a quarterly basis, unless the department finds that reasonable action requires either more or less frequent analysis.

Section 116405. Backflow exception

(a) In counties with a population not exceeding 500,000 persons as shown by the 1970 federal decennial census, any publicwater system supplying both domestic and untreated irrigation water in separate pressurized systems that were in existence prior to January 1, 1990, and that is operated by an incorporated or unincorporated association of users, shall not require protection against backflow into the domestic water system from premises receiving both the water services and having available no other source of water, except where interconnection between the systems has taken place. It shall be a misdemeanor for any person to knowingly interconnect the water services on a user's premises without installing a backflow protection device approved by the state department.

(b) Regulations of the state department requiring the installation of backflow protection shall not be continued to require the installation of the protection in any public water system described in subdivision (a), except as provided in that subdivision.

ARTICLE 4. EXEMPTIONS AND VARIANCES

Section 116410. Fluoridation requirement

(a) In order to promote the public health through the protection and maintenance of dental health, the department shall adopt regulations pursuant to Chapter 3.5 (commencing with Section 11340) of Division 3 of Title 2 of the Government Code, requiring the fluoridation of public water systems. By July 1, 1996, each public water system with at least 10,000 service connections shall provide to the department an estimate of the total capital costs to install fluoridation treatment. The regulations adopted by the department shall take effect on January 1, 1997.

(b) The regulations shall include, but not be limited to, the following:

(1) Minimum and maximum permissible concentrations of fluoride to be maintained by fluoridation of public water systems.

(2) The requirements and procedures for maintaining proper concentrations of fluoride, including equipment, testing, recordkeeping, and reporting.

(3) Requirements for the addition of fluorides to public water systems in which the natural level of fluorides is less than the minimum level established in the regulations.

(4) A schedule for the fluoridation of public water systems with at least 10,000 service connections, based on the lowest capital cost per connection for each system.

Section 116415. Fluoridation exemption

(a) (1) A public water system is not required to comply with Section 116410, or the regulations adopted thereunder by the department, in either of the following situations:

(A) If the public water system is scheduled to implement a fluoridation program pursuant to paragraph (4) of subdivision (b) of Section 116410 and funds are not available to the public water system sufficient to pay the capital and associated costs from any source other than the system's ratepayers, shareholders, local taxpayers, bondholders, or any fees or charges levied by the water system.

(B) If the public water system has obtained the capital and associated funds necessary for fluoridation as set forth in subparagraph (A), however, in any given fiscal year (July 1-June 30) funding is not available to the public water system sufficient to pay the noncapital operation and maintenance costs described in subdivision (g) from any source other than the system's ratepayers, shareholders, local taxpayers, bondholders, or any fees or charges levied by the water system.

(2) Each year the department shall prepare and distribute a list of those water systems that do not qualify for exemption under this section from the fluoridation requirements of Section 116410. This list shall include water systems that have received, or are expected to

receive, sufficient funding for capital and associated costs so as to not qualify for exemption under subparagraph (A) of paragraph (1), and have received, or anticipate receiving, sufficient noncapital maintenance and operation funding pursuant to subdivision (g), so that they do not qualify for exemption under subparagraph (B) of paragraph (1).

(3) Any water system that has acquired the funds necessary for fluoridation as set forth in subparagraph (A) of paragraph (1), and is not included in the list pursuant to paragraph (2), may elect to exercise the option not to fluoridate during the following fiscal year pursuant to subparagraph (B) of paragraph (1) by so notifying the department by certified mail on or before June 1.

(4) The permit issued by the department for a public water system that is scheduled to implement fluoridation pursuant to paragraph (4) of subdivision (b) of Section 116410 shall specify whether it is required to fluoridate pursuant to Section 116410, or whether it has been granted an exemption pursuant to either subparagraph (A) or subparagraph (B) of paragraph (1).

(b) The department shall enforce Section 116410 and this section, and all regulations adopted pursuant to these sections, unless delegated pursuant to a local primary agreement.

(c) If the owner or operator of any public water system subject to Section 116410 fails, or refuses, to comply with any regulations adopted pursuant to Section 116410, or any order of the department implementing these regulations, the Attorney General shall, upon the request of the department, institute mandamus proceedings, or other appropriate proceedings, in order to compel compliance with the order, rule, or regulation. This remedy shall be in addition to all other authorized remedies or sanctions.

(d) Neither this section nor Section 116410 shall supersede subdivision (b) of Section 116410.

(e) The department shall seek all sources of funding for enforcement of the standards and capital cost requirements established pursuant to this section and Section 116410, including, but not limited to, all of the following:

(1) Federal block grants.

(2) Donations from private foundations expenditures from governmental sources shall be subject to specific appropriation by the Legislature for these purposes.

(f) A public water system with less than 10,000 service connections may elect to comply with the standards, compliance requirements, and regulations for fluoridation established pursuant to this section and Section 116410.

(g) Costs, other than capital costs, incurred in complying with this section and Section 116410, including regulations adopted pursuant to those sections, may be paid from federal

grants, or donations from private foundations, for these purposes. Each public water system that will incur costs, other than capitalization costs, as a result of compliance with this section and Section 116410, shall provide an estimate to the department of the anticipated total annual operations and maintenance costs related to fluoridation treatment by January 1 of each year.

(h) A public water system subject to the jurisdiction of the Public Utilities Commission shall be entitled to recover from its customers all of its capital and associated costs, and all of its operation and maintenance expenses associated with compliance with this section and Section 116410. The Public Utilities Commission shall approve rate increases for an owner or operator of a public water system that is subject to its jurisdiction within 45 days of the filing of an application or an advice letter, in accordance with the commission's requirements, showing in reasonable detail the amount of additional revenue required to recover the foregoing capital and associated costs, and operation and maintenance expenses.

Section 116425. Exemptions

(a) The department may exempt any public water system from any maximum contaminant level or treatment technique requirement if it finds all the following:

(1) The public water system was in operation, or had applied for a permit to operate, on the effective date of the maximum contaminant level or treatment technique requirement.

(2) Due to compelling factors, which may include either of the following factors, the public water system is unable to comply with the maximum contaminant level or treatment technique requirement or to implement measures to develop an alternative water supply:

(A) Economic factors.

(B) The entire service area of the public water system consists of a disadvantaged community, as defined under Section 1452(d) of the federal Safe Drinking Water Act (42 U.S.C. Sec. 300g-5), and meets the affordability criteria established by the department, after review and public hearing.

(3) The granting of the exemption will not result in an unreasonable risk to health.

(4) Management or restructuring changes, or both, cannot reasonably be made that will result in compliance with this chapter or, if compliance cannot be achieved, improve the quality of the drinking water.

(b) If the department grants a public water system an exemption for a primary drinking water standard under subdivision (a), the department shall prescribe, at the time an exemption is granted, a schedule for both of the following:

(1) Compliance by the public water system with each contaminant level or treatment technique requirement for which the exemption was granted.

(2) Implementation by the public water system of interim control measures the department may require for each contaminant or treatment technique requirement for which the exemption was granted.

(c) Any schedule prescribed by the department pursuant to this section shall require compliance by the public water system with each contaminant level or treatment technique requirement for which the exemption was granted within 12 months from the granting of the exemption.

(d) The final date for compliance with any schedule issued pursuant to this section may be extended by the department for a period not to exceed three years from the date of the granting of the exemption if the department finds all of the following:

(1) The system cannot meet the standard without capital improvements that cannot be completed prior to the date established pursuant to Section 1412(b)(1) of the federal Safe Drinking Water Act (42 U.S.C. 300g-(b)(1)).

(2) In the case of a system that needs financial assistance for the necessary improvements, the system has entered into an agreement to obtain the financial assistance or the system has entered into an enforceable agreement to become part of a regional public water system.

(3) The system is taking all practicable steps to meet the standard.

(e) In the case of a system that does not serve more than a population of 3,300 and that needs financial assistance for the necessary improvements, an exemption granted pursuant to paragraph (2) of subdivision (d) shall not exceed a total of six years.

(f) Prior to the granting of an exemption pursuant to this section, the department shall provide notice and an opportunity for a public hearing. Notice of any public hearing held pursuant to this section shall be given by the department in writing to the public water system seeking the exemption and to the public as provided in Section 6061 of the Government Code. A public hearing provided pursuant to this subdivision is not an adjudicative hearing and is not required to comply with Section 100171.

(g) A public water system may not receive an exemption under this section if the system is granted a variance pursuant to Section 116430.

(h) Unless the department has already granted an exemption pursuant to subdivision (a), the department may exempt a public water system from compliance with a maximum containment level or treatment technique requirement for up to two years if the department finds, and continues to find, that a plan submitted by the water system may reasonably be expected to

bring the water system into compliance by any of the following means:

- (1) The physical consolidation of the system with one or more other systems.
- (2) The consolidation of significant management and administrative functions of the system with one or more other systems.
- (3) The transfer of ownership of the system.

Section 116430. Variances

(a) The department may grant a variance or variances from primary drinking water standards to a public water system. Any variance granted pursuant to this subdivision shall conform to the requirements established under the federal Safe Drinking Water Act, as amended (42 U.S.C. Sec. 300g-4).¹²

(b) (1) In addition to the authority provided in subdivision (a), at the request of any public water system, the department shall grant a variance from the primary drinking water standard adopted by the department for fluoride. A variance granted by the department pursuant to this subdivision shall prohibit fluoride levels in excess of 75 percent of the maximum contaminant level established in the national primary drinking water regulation adopted by the United States Environmental Protection Agency for fluoride, or three milligrams per liter, whichever is higher, and shall be valid for a period of up to 30 years. The department shall review each variance granted pursuant to this section at least every five years. The variance may be withdrawn upon reasonable notice by the department if the department determines that the community served by the public water system no longer accepts the fluoride level authorized in the variance or the level of fluoride authorized by the variance poses an unreasonable risk to health. In no case may a variance be granted in excess of the United States Environmental Protection Agency maximum contaminant level.

(2) The department shall grant a variance pursuant to paragraph (1) only if it determines, after conducting a public hearing in the community served by the public water system, that there is no substantial community opposition to the variance and the variance does not pose an unreasonable risk to health. The public water system shall provide written notification, approved by the department, to all customers which shall contain at least the following information:

- (A) The fact that a variance has been requested.
- (B) The date, time and location of the public hearing that will be conducted by the department.
- (C) The level of fluoride that will be allowed by the requested variance

¹² See Addendum 3

and how this level compares to the maximum contaminant levels prescribed by the state primary drinking water standard, the federal national primary drinking water regulation, and the federal national secondary drinking water regulation.

(D) A discussion of the types of health and dental problems that may occur when the fluoride concentration exceeds the maximum contaminant levels prescribed by the state standard and the federal regulations.

(3) If, at any time after a variance has been granted pursuant to paragraph (1), substantial community concerns arise concerning the level of fluoride present in the water supplied by the public water system, the public water system shall notify the department, conduct a public hearing on the concerns expressed by the community, determine the fluoride level that is acceptable to the community, and apply to the department for an amendment to the variance which reflects that determination.

ARTICLE 5. PUBLIC NOTIFICATION

Section 116450. Notification to department and to users

(a) When any primary drinking water standard specified in the department's regulations is not complied with, when a monitoring requirement specified in the department's regulations is not performed, or when a water purveyor fails to comply with the conditions of any variance or exemption, the person operating the public water system shall notify the department and shall give notice to the users of that fact in the manner prescribed by the department. When a variance or an exemption is granted, the person operating the public water system shall give notice to the users of that fact.

(b) When a person operating a public water system determines that a significant rise in the bacterial count of water has occurred in water he or she supplies, the person shall provide, at his or her expense, a report on the rise in bacterial count of the water, together with the results of an analysis of the water, within 24 hours to the department and, where appropriate, to the local health officer.

(c) When the department receives the information described in subdivision (b) and determines that it constitutes an immediate danger to health, the department shall immediately notify the person operating the public water system to implement the emergency notification plan required by this chapter.

(d) In the case of a failure to comply with any primary drinking water standard that represents an imminent danger to the health of water users, the operator shall notify each of his or her customers as provided in the approved emergency notification plan.

(e) In addition, the same notification requirement shall be required in any instance in which the department or the local health department recommends to the operator that it notify its

customers to avoid internal consumption of the water supply and to use bottled water due to a chemical contamination problem that may pose a health risk.

(f) The content of the notices required by this section shall be approved by the department. Notice shall be repeated at intervals, as required by the department, until the department concludes that there is compliance with its standards or requirements. Notices may be given by the department.

In any case where public notification is required by this section because a contaminant is present in drinking water at a level in excess of a primary drinking water standard, the notification shall include identification of the contaminant, information on possible effects of the contaminant on human health, and information on specific measures that should be taken by persons or populations who might be more acutely affected than the general population.

(g) Whenever a school or school system, the owner or operator of residential rental property, or the owner or operator of a business property receives a notification from a person operating a public water system under any provision of this section, the school or school system shall notify school employees, students and parents if the students are minors, the owner or operator of a residential rental property shall notify tenants, and the owner or operator of business property shall notify employees of businesses located on the property.

(1) The operator shall provide the customer with a sample notification form that may be used by the customer in complying with this subdivision and that shall indicate the nature of the problem with the water supply and the most appropriate methods for notification that may include, but is not limited to, the sending of a letter to each water user and the posting of a notice at each site where drinking water is dispensed.

(2) The notice required by this subdivision shall be given within 10 days of receipt of notification from the person operating the public water system.

(3) Any person failing to give notice as required by this subdivision shall be civilly liable in an amount not to exceed one thousand dollars (\$1,000) for each day of failure to give notice.

(4) If the operator has evidence of noncompliance with this subdivision the operator shall report this information to the local health department and the department.

Section 116455. Notification to local agency - well contamination

(a) When a well, that is used as a source of drinking water for a public water system, is discovered to include, or is closed due to the presence of, a contaminant in excess of a maximum contaminant level or an action level established by the department, the person operating the public water system shall notify the governing body of the local agency in which users of the drinking water reside within 30 days of the discovery or closure.

(b) The notification required by subdivision (a) shall include the location of any affected well, its name, its type, the origin, if known, of the contaminant, the maximum contaminant level or action level for the contaminant detected and the operational status of the well immediately prior to its closure.

(c) For purposes of this section, the following terms have the following meanings:

(1) "Action level" means the concentration level of a contaminant in potable water that the department has determined, based on available scientific information, provides an adequate margin of safety to prevent potential risks to human health.

(2) "Local agency" means a city or county, or a city and county.

Section 116460. Emergency notification plan requirement

No person shall operate a public water system without an emergency notification plan that has been submitted to and approved by the department. The emergency notification plan shall provide for immediate notice to the customers of the public water system of any significant rise in the bacterial count of water or other failure to comply with any primary drinking water standard that represents an imminent danger to the health of the water users.

No permit, variance, or exemption may be issued or amended under this chapter until an emergency notification plan has been approved by the department.

The department shall adopt regulations to implement the provisions of this section. The regulations may provide for the exclusion of public water systems from the requirements of this section when, in the judgment of the department, the exclusion will best serve the public interest.

Section 116465. PUC orders for additional facilities

Upon formal complaint by the director alleging that additional facilities are necessary to provide the users of a public water system operated by a public utility under the jurisdiction of the Public Utilities Commission with a continuous and adequate supply of water or to bring the water system into conformity with secondary drinking water standards, the commission may, after hearing, direct the public utility to make the changes in its procedures or additions to its facilities as the commission shall determine are necessary to provide a continuous and adequate supply of water to the users thereof or to bring the system into conformity with secondary drinking water standards. Any proceeding of the commission pursuant to this article shall be conducted as provided in Chapter 9 (commencing with Section 1701) of Part 1 of Division 1 of the Public Utilities Code, and any order issued by the commission pursuant to this action shall be subject to judicial review as provided in Chapter 9.

Section 116470. Consumer confidence report

(a) As a condition of its operating permit, every public water system shall annually

prepare a consumer confidence report and mail or deliver a copy of that report to each customer, other than an occupant, as defined in Section 799.28 of the Civil Code, of a recreational vehicle park. A public water system in a recreational vehicle park with occupants as defined in Section 799.28 of the Civil Code shall prominently display on a bulletin board at the entrance to or in the office of the park, and make available upon request, a copy of the report. The report shall include all of the following information:

- (1) The source of the water purveyed by the public water system.
- (2) A brief and plainly worded definition of the terms "maximum contaminant level," "primary drinking water standard," and "public health goal."
- (3) If any regulated contaminant is detected in public drinking water supplied by the system during the past year, the report shall include all of the following information:
 - (A) The level of the contaminant found in the drinking water, and the corresponding public health goal and primary drinking water standard for that contaminant.
 - (B) Any violations of the primary drinking water standard that have occurred as a result of the presence of the contaminant in the drinking water and a brief and plainly worded statement of health concerns that resulted in the regulation of that contaminant.
 - (C) The public water system's address and phone number to enable customers to obtain further information concerning contaminants and potential health effects.
- (4) Information on the levels of unregulated contaminants, if any, for which monitoring is required pursuant to state or federal law or regulation.
- (5) Disclosure of any variances or exemptions from primary drinking water standards granted to the system and the basis therefor.

(b) On or before July 1, 1998, and every three years thereafter, public water systems serving more than 10,000 service connections that detect one or more contaminants in drinking water that exceed the applicable public health goal, shall prepare a brief written report in plain language that does all of the following:

- (1) Identifies each contaminant detected in drinking water that exceeds the applicable public health goal.
- (2) Discloses the numerical public health risk, determined by the office, associated with the maximum contaminant level for each contaminant identified in paragraph (1) and the numerical public health risk determined by the office associated with the public health goal for that contaminant.
- (3) Identifies the category of risk to public health, including, but not limited to,

carcinogenic, mutagenic, teratogenic, and acute toxicity, associated with exposure to the contaminant in drinking water, and includes a brief plainly worded description of these terms.

(4) Describes the best available technology, if any is then available on a commercial basis, to remove the contaminant or reduce the concentration of the contaminant. The public water system may, solely at its own discretion, briefly describe actions that have been taken on its own, or by other entities, to prevent the introduction of the contaminant into drinking water supplies.

(5) Estimates the aggregate cost and the cost per customer of utilizing the technology described in paragraph (4), if any, to reduce the concentration of that contaminant in drinking water to a level at or below the public health goal.

(6) Briefly describes what action, if any, the local water purveyor intends to take to reduce the concentration of the contaminant in public drinking water supplies and the basis for that decision.

(c) Public water systems required to prepare a report pursuant to subdivision (b) shall hold a public hearing for the purpose of accepting and responding to public comment on the report. Public water systems may hold the public hearing as part of any regularly scheduled meeting.

(d) The department shall not require a public water system to take any action to reduce or eliminate any exceedance of a public health goal.

(e) Enforcement of this section does not require the department to amend a public water system's operating permit.

(f) Pending adoption of a public health goal by the Office of Environmental Health Hazard Assessment pursuant to subdivision (c) of Section 116365, and in lieu thereof, public water systems shall use the national maximum contaminant level goal adopted by the United States Environmental Protection Agency for the corresponding contaminant for purposes of complying with the notice and hearing requirements of this section.

(g) This section is intended to provide an alternative form for the federally required consumer confidence report as authorized by 42 U.S.C. Section 300g-3(c).

Section 116475. Emergency Grant Fund¹³

(a) The Emergency Clean Water Grant Fund is hereby established in the General Fund and, notwithstanding Section 13340 of the Government Code, is continuously appropriated to the department, without regard to fiscal years, to provide financial assistance to public water systems and to fund emergency actions by the department to ensure that safe drinking water supplies are

¹³ The initial funding has been exhausted. The Legislature has not appropriated any additional monies to the Emergency Grant Fund.

available to all Californians who are served by public water systems.

(b) The department may expend funds in the Emergency Clean Water Grant Fund for the purposes specified in subdivision (a), including, but not limited to, payment for all of the following actions:

- (1) The provision of alternative water supplies and bottled water.
- (2) Improvements of the existing water supply system.
- (3) Hookups with adjacent water systems.
- (4) Design, purchase, installation, and operation and maintenance of water treatment technologies.

(c) The department shall develop and revise guidelines for the allocation and administration of moneys in the Emergency Clean Water Grant Fund. These guidelines shall include, but are not limited to, all of the following:

- (1) A definition of what constitutes an emergency requiring an alternative or improved water supply.
- (2) Priorities and procedures for allocating funds.
- (3) Repayment provisions, as appropriate.
- (4) Procedures for recovering funds from parties responsible for the contamination of public water supplies.

The guidelines are not subject to Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code.

Section 116480. Emergency grant limitations

(a) The department shall expend moneys available in the Emergency Clean Water Grant Fund only for the purpose of taking corrective action necessary to remedy or prevent an emergency or imminent threat to public health due to the contamination or potential contamination of the public water supply.

(b) Notwithstanding any other provision of law, the department may enter into written contracts for remedial action taken or to be taken pursuant to subdivision (a), and may enter into oral contracts, not to exceed five thousand dollars (\$5,000) in obligation, when, in the judgment of the department, immediate remedial action is necessary to remedy or prevent an emergency specified in subdivision (a). The contracts, written or oral, may include provisions for the rental or purchase of tools and equipment, either with or without operators, for the furnishing of labor and

materials and for engineering consulting necessary to accomplish the work.

Section 116485. Exemption for emergency grants

Any remedial action taken or contracted for by the department pursuant to Section 116480 shall be exempt from the following provisions:

(a) State Contract Act provided for pursuant to Chapter 1 (commencing with Section 10100) of Part 2 of Division 2 of the Public Contract Code.

(b) Chapter 10 (commencing with Section 4525) of Division 5 of Title 1 of the Government Code.

(c) Section 14780 of the Government Code and Article 5 (commencing with Section 10355) of Chapter 2 of Part 2 of Division 2 of the Public Contract Code.

(d) Article 4 (commencing with Section 10335) of Chapter 2 of Part 2 of Division 2 of the Public Contract Code.

ARTICLE 6. ENFORCEMENT RESPONSIBILITY

Section 116500. Contract county authority

This chapter shall be enforced directly by the department for all public water systems, including state small water systems, in any county that does not have a local health officer, or contracts with the department for environmental health services pursuant to Section 1157 and elects not to enforce this chapter.

ARTICLE 7. REQUIREMENTS AND COMPLIANCE

Section 116525. Permits

(a) No person shall operate a public water system unless he or she first submits an application to the department and receives a permit as provided in this chapter. A change in ownership of a public water system shall require the submission of a new application.

(b) The department may require a new application whenever a change in regulatory jurisdiction has occurred.

(c) The department may renew, reissue, revise, or amend any domestic water supply permit whenever the department deems it to be necessary for the protection of public health whether or not an application has been filed.

Section 116530. Technical report

A public water system shall submit a technical report to the department as part of the permit application or when otherwise required by the department. This report may include, but not be limited to, detailed plans and specifications, water quality information, and physical descriptions of the existing or proposed system, and financial assurance information.

Section 116535. Permit application review

Upon determination that an application submitted pursuant to this chapter is complete, the department shall make a thorough investigation of the proposed or existing plant, works, system, or water supply, and all other circumstances and conditions that it deems material, including any required financial assurance information.

Section 116540. Issue or deny; conditional permits

Following completion of the investigation and satisfaction of the requirements of subdivisions (a) and (b), the department shall issue or deny the permit. The department may impose permit conditions, requirements for system improvements, and time schedules as it deems necessary to assure a reliable and adequate supply of water at all times that is pure, wholesome, potable, and does not endanger the health of consumers.

(a) No public water system that was not in existence on January 1, 1998, shall be granted a permit unless the system demonstrates to the department that the water supplier possesses adequate financial, managerial, and technical capability to assure the delivery of pure, wholesome, and potable drinking water. This section shall also apply to any change of ownership of a public water system that occurs after January 1, 1998.

(b) No permit under this chapter shall be issued to an association organized under Title 3 (commencing with Section 20000) of Division 3 of the Corporations Code. This section shall not apply to unincorporated associations that as of December 31, 1990, are holders of a permit issued under this chapter.

Section 116545. Hearing permissible

Prior to the issuance of any new, revised, renewed, or amended permit, or the denial of a permit, the department may conduct a public hearing to obtain additional public comment. Notice of the hearing shall be provided to the applicant and interested persons at least 30 days prior to the hearing. The department may require the applicant to distribute the notice of the hearing to affected consumers.

Section 116550. Changes requiring amended permit

(a) No person operating a public water system shall modify, add to or change his or

her source of supply or method of treatment of, or change his or her distribution system as authorized by a valid existing permit issued to him or her by the department unless the person first submits an application to the department and receives an amended permit as provided in this chapter authorizing the modification, addition, or change in his or her source of supply or method of treatment.

(b) Unless otherwise directed by the department, changes in distribution systems may be made without the submission of a permit application if the changes comply in all particulars with the waterworks standards.

Section 116551.¹⁴ Augmentation of Source with Recycled Water

The department shall not issue a permit to a public water system or amend a valid existing permit for the use of a reservoir as a source of supply that is directly augmented with recycled water, as defined in subdivision (n) of Section 13050 of the Water Code, unless the department does all of the following:

(a) Performs an engineering evaluation that evaluates the proposed treatment technology and finds that the proposed technology will ensure that the recycled water meets or exceeds all applicable primary and secondary drinking water standards and poses no significant threat to public health.

(b) Holds at least three duly noticed public hearings in the area where the recycled water is proposed to be used or supplied for human consumption to receive public testimony on that proposed use. The department shall make available to the public, not less than 10 days prior to the date of the first hearing held pursuant to this subdivision, the evaluations and findings made pursuant to subdivision (a).

Section 116555. Operational requirements

(a) Any person who ~~operates~~ owns a public water system shall ~~do~~ ensure that the system does all of the following:

- (a) (1) ~~Comply~~ Complies with primary and secondary drinking water standards.
- (b) (2) ~~Ensure that the system w~~Will not be subject to backflow under normal operating conditions.
- (c) (3) Provides a reliable and adequate supply of pure, wholesome, healthful, and potable water.
- (d) (4) Employs or utilizes only water treatment plant operators or water treatment operators-in-training that have been certified by the department at the appropriate grade.

¹⁴ Chapter 295 of the 1997 statutes (AB921)

(5) Complies with the operator certification program established pursuant to Chapter 4 (commencing with Section 106875).

(b) Any person who owns a community water system or a nontransient noncommunity water system shall do all of the following:

(1) Employ or utilize only water distribution system operators who have been certified by the department at the appropriate grade for positions in responsible charge of the distribution system.

(2) Place the direct supervision of the water system, including water treatment plants, water distribution systems, or both under the responsible charge of an operator or operators holding a valid certification equal to or greater than the classification of the treatment plant and the distribution system.

Section 116556.¹⁵ Redwood Valley County Water District Exception

Notwithstanding subdivision (c) of Section 116555 and its implementing regulations, including Sections 64562 and 64568 of the California Code of Regulations, the Redwood Valley County Water District, in order to relieve hardship, may make not more than 135 new 3/4-inch equivalent domestic service connections to its water system if all of the following conditions are met:

(a) The district has a contract, agreement, or independent water right to divert water from Lake Mendocino or another adequate source of water supply.

(b) Redwood Valley is an allowed place of use under that contract, agreement, or water right.

(c) The department has determined that the water source provides an adequate physical supply of water under its duly adopted waterworks standards.

(d) The connection will relieve hardship, as determined by the district based on objective proof that the structure served by the connection was constructed prior to December 31, 1997, and absent a connection, only has access to a water supply that furnishes an inadequate quality or quantity of water as measured by drinking water standards adopted by the district.

(e) The connections authorized by this section are in addition to connections otherwise allowed by law, including connections authorized by Section 116555.

Section 116565. Operating fee

(a) Each public water system serving 1,000 or more service connections and any public water system that treats water on behalf of one or more public water systems for the

¹⁵ Chapter 259 of 1998 statutes (SB1436).

purpose of rendering it safe for human consumption, shall reimburse the department for actual cost incurred by the department for conducting those activities mandated by this chapter relating to the issuance of domestic water supply permits, inspections, monitoring, surveillance, and water quality evaluation that relate to that specific public water system. The amount of reimbursement shall be sufficient to pay, but in no event shall exceed, the department's actual cost in conducting these activities.

(b) Each public water system serving less than 1,000 service connections shall pay an annual drinking water operating fee to the department as set forth in this subdivision for costs incurred by the department for conducting those activities mandated by this chapter relating to inspections, monitoring, surveillance, and water quality evaluation relating to public water systems. The total amount of fees shall be sufficient to pay, but in no event shall exceed, the department's actual cost in conducting these activities. Notwithstanding adjustment of actual fees collected pursuant to Section 100425 as authorized pursuant to subdivision (d) of Section 106590, the maximum amount that shall be paid annually by a public water system pursuant to this section shall not exceed the following:

<u>Type of public water system</u>	<u>Fee</u>
15- 24 service connections	\$250
25- 99 service connections	\$400
100-499 service connections	\$500
500-999 service connections	\$700
Noncommunity water systems pursuant to paragraph (1) of subdivision (j) of Section 116275.	\$350
Noncommunity water systems exempted pursuant to Section 116282.	\$100

(c) For purposes of determining the fees provided for in subdivision (a), the department shall maintain a record of its actual costs for pursuing the activities specified in subdivision (a) relative to each system required to pay the fees. The fee charged each system shall reflect the department's actual cost, or in the case of a local primacy agency the local primacy agency's actual cost, of conducting the specified activities.

(d) The department shall submit an invoice for cost reimbursement for the activities specified in subdivision (a) to the public water systems no more than twice a year.

(1) The department shall submit one estimated cost invoice to public water systems serving 1,000 or more service connections and any public water system that treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption. This invoice shall include the actual hours expended during the first six months of the fiscal year. The hourly cost rate used to determine the amount of the estimated cost invoice shall be the rate for the previous fiscal year.

(2) The department shall submit a final invoice to the public water system prior to October 1 following the fiscal year that the costs were incurred. The invoice shall indicate the

total hours expended during the fiscal year, the reasons for the expenditure, the hourly cost rate of the department for the fiscal year, the estimated cost invoice, and payments received. The amount of the final invoice shall be determined using the total hours expended during the fiscal year and the actual hourly cost rate of the department for the fiscal year. The payment of the estimated invoice, exclusive of late penalty, if any, shall be credited toward the final invoice amount.

(3) Payment of the invoice issued pursuant to paragraphs (1) and (2) shall be made within 90 days of the date of the invoice. Failure to pay the amount of the invoice within 90 days shall result in a 10-percent late penalty that shall be paid in addition to the invoiced amount.

(e) Any public water system under the jurisdiction of a local primacy agency shall pay the fees specified in this section to the local primacy agency in lieu of the department. This section shall not preclude a local health officer from imposing additional fees pursuant to Section 101325.

Section 116570. Permit application fee

(a) Each public water system serving less than 1,000 service connections applying for a domestic water supply permit pursuant to Section 116525 or 116550 shall pay a permit application processing fee to the department. Payment of the fee shall accompany the application for the permit or permit amendment.

(b) The amount of the permit application fee required under subdivision (a) shall be as follows:

(1) A new community water system for which no domestic water supply permits have been previously issued by the department shall pay an application fee of five hundred dollars (\$500).

(2) A new noncommunity water system for which no domestic water supply permits have been previously issued by the department shall pay an application fee of three hundred dollars (\$300).

(3) An existing public water system applying for an amendment to a domestic water supply permit due to a change in ownership shall pay an application fee of one hundred fifty dollars (\$150).

(4) An existing public water system applying for an amendment to a domestic water supply permit due to an addition or modification of the source of supply, or an addition or change in the method of treatment of the water supply shall pay an application fee of two hundred fifty dollars (\$250).

(c) Any public water system under the jurisdiction of a local primacy agency shall pay the permit application fees specified in this section to the local primacy agency in lieu of the department.

Section 116577. Enforcement fee

(a) Each public water system shall reimburse the department for actual costs incurred by the department for any of the following enforcement activities related to that water system:

- (1) Preparing, issuing, and monitoring compliance with, an order or a citation.
- (2) Preparing and issuing public notification.
- (3) Conducting a hearing pursuant to Section 116625.

(b) The department shall submit an invoice for these enforcement costs to the public water system that requires payment prior to September 1 of the fiscal year following the fiscal year in which the costs were incurred. The invoice shall indicate the total hours expended, the reasons for the expenditure, and the hourly cost rate of the department. The costs set forth in the invoice shall not exceed the total actual costs to the department of enforcement activities specified in this section.

(c) Notwithstanding the reimbursement of enforcement costs of the local primacy agency pursuant to subdivision (a) of Section 116595 by public water systems under the jurisdiction of the local primacy agency, public water systems shall also reimburse enforcement costs, if any, incurred by the department pursuant to this section.

(d) "Enforcement costs" as used in this section does not include "litigation costs" pursuant to Section 116585.

(e) The department shall not be entitled to enforcement costs pursuant to this section if either a court or the department determines that enforcement activities were in error.

(f) The maximum reimbursement, pursuant to this section, by a public water system serving less than 1,000 service connections during any fiscal year shall not exceed one thousand dollars (\$1,000) or twice the maximum for that public water system as set forth in subdivision (c) of Section 116565, whichever is greater.

Section 116580. Exemption, plan review, variance and waiver fees

(a) Each public water system that requests an exemption, plan review, variance, or waiver of any applicable requirement of this chapter or any regulation adopted pursuant to this chapter, shall reimburse the department for actual costs incurred by the department in processing the request.

(b) The department shall submit an invoice to the water system prior to October 1 of the fiscal year following the fiscal year in which the department's decision was rendered with respect to the request for a plan review, exemption, variance, or waiver. The invoice shall indicate the number of hours expended by the department and the department's hourly cost rate.

Payment of the fee shall be made within 120 days of the date of the invoice. The department may revoke any approval of a request for an exemption, variance, or waiver for failure to pay the required fees.

(c) Notwithstanding subdivisions (a) and (b), requests for, and reimbursement of actual costs for, an exemption, variance, or waiver for public water systems under the jurisdiction of the local primacy agency shall, instead, be submitted to the local primacy agency pursuant to subdivision (c) of Section 116595.

Section 116585. Litigation fee

In any civil court action brought to enforce this chapter, the prevailing party or parties shall be awarded litigation costs, including, but not limited to, salaries, benefits, travel expenses, operating equipment, administrative, overhead, other litigation costs, and attorney's fees, as determined by the court. Litigation costs awarded to the department by the court shall be deposited into the Safe Drinking Water Account. Litigation costs awarded to a local primacy agency by the court shall be used by that local primacy agency to offset the local primacy agency's litigation costs.

Section 116590. Safe Drinking Water Account, fees and caps

(a) All funds received by the department pursuant to this chapter, including, but not limited to, all civil penalties collected by the department pursuant to Article 9 (commencing with Section 116650) and Article 11 (commencing with Section 116725), shall be deposited into the Safe Drinking Water Account that is hereby established. Funds in the Safe Drinking Water Account may not be expended for any purpose other than as set forth in this chapter. All moneys collected by the department pursuant to Sections 116565 to 116600, inclusive, shall be deposited into the Safe Drinking Water Account for use by the department, upon appropriation by the Legislature, for the purpose of providing funds necessary to administer this chapter.

(b) The department's hourly cost rate used to determine the reimbursement for actual costs pursuant to Sections 116565, 116577, and 116580 shall be based upon the department's salaries, benefits, travel expense, operating, equipment, administrative support, and overhead costs.

(c) Notwithstanding Section 6103 of the Government Code, each public water system operating under a permit issued pursuant to this chapter shall pay the fees set forth in this chapter. A public water system shall be permitted to collect a fee from its customers to recover the fees paid pursuant to this chapter.

(d) The fees collected pursuant to subdivision (b) of Section 116565 and subdivision (b) of Section 116570 shall be adjusted annually pursuant to Section 100425, and the adjusted fee amounts shall be rounded off to the nearest whole dollar.

(e) Fees assessed pursuant to this chapter shall not exceed actual costs to either the department or the local primacy agency, as the case may be, related to the public water systems

assessed the fees.

(f) In no event shall the total amount of funds collected pursuant to subdivision (a) of Section 116565, and subdivision (a) of Section 116577 from public water systems serving 1,000 or more service connections exceed the following:

(1) For the 1992-93 fiscal year, four million nine hundred thousand dollars (\$4,900,000).

(2) For the 1993-94 fiscal year, four million seven hundred fifty thousand dollars (\$4,750,000).

(3) For the 1994-95 fiscal year, five million dollars (\$5,000,000).

(4) For the 1995-96 fiscal year, five million two hundred fifty thousand dollars (\$5,250,000).

(5) For the 1996-97 fiscal year, five million five hundred thousand dollars (\$5,500,000).

(6) For the 1997-98 fiscal year and subsequent fiscal years, the total amount of funds collected shall not increase by more than 5 percent of the amount collected for the previous fiscal year.

(g) The department shall develop a time accounting standard designed to do all of the following:

(1) Provide accurate time accounting.

(2) Provide accurate invoicing based upon hourly rates comparable to private sector professional classifications and comparable rates charged by other states for comparable services. These rates shall be applied against the time spent by the actual individuals who perform the work.

(3) Establish work standards that address work tasks, timing, completeness, limits on redirection of effort, and limits on the time spent in the aggregate for each activity.

(4) Establish overhead charge-back limitations, including, but not limited to, charge-back limitations on charges relating to reimbursement of services provided to the department by other departments and agencies of the state, that reasonably relate to the performance of the function.

(5) Provide appropriate invoice controls.

Section 116595. LPA fees

(a) Any public water system under the jurisdiction of a local primacy agency shall reimburse the local primacy agency for any enforcement cost incurred by the local primacy agency related to any of the following relating to that water system:

- (1) Preparing, issuing, and monitoring compliance with, an order or a citation.
- (2) Preparing and issuing public notification.
- (3) Conducting a hearing pursuant to Section 116625.

The local primacy agency shall submit an invoice to the public water system that requires payment, prior to September 1 of the fiscal year following the fiscal year in which the costs were incurred. The invoice shall indicate the total hours expended, the reasons for the expenditure, and the hourly cost rate of the local primacy agency. The invoice shall not exceed the total costs to the local primacy agency of enforcement activities specified in this subdivision. Notwithstanding the reimbursement to the department of enforcement costs, if any, pursuant to Section 116577, any public water system under the jurisdiction of the local primacy agency shall also reimburse the local primacy agency for enforcement costs incurred by the local primacy agency pursuant to this section. The local primacy agency shall not be entitled to enforcement costs pursuant to this subdivision if either a court or the local primacy agency determines that enforcement activities were in error. "Enforcement costs" as used in this subdivision does not include "litigation costs" as used in subdivision (d). The maximum reimbursement, pursuant to this subdivision, by a public water system serving less than 1,000 service connections during any fiscal year shall not exceed twice the maximum for that public water system as set forth in subdivision (c) of Section 116565.

(b) The local primacy agency may adopt a fee schedule for the processing of applications for a domestic water supply permit, submitted pursuant to subdivision (c) of Section 116570 by a public water system under the jurisdiction of the local primacy agency, in lieu of the fee schedule set forth in subdivision (b) of Section 116570, to recover its cost of processing the permit applications as specified in the primacy agreement. The fee shall not exceed the total costs to the local primacy agency of processing the permit application.

(c) Any public water system under the jurisdiction of a local primacy agency that requests an exemption, variance, or waiver of any applicable requirement of this chapter, or any regulation of the department adopted pursuant to this chapter, shall submit the request to the local primacy agency and shall reimburse the local primacy agency for any costs incurred by the local primacy agency in processing the request.

Section 116600. Fees sunset January 2002

Except as otherwise specified, Sections 116565 to 116600, inclusive, shall become operative July 1, 1993. Sections 116565 to 116600, inclusive, shall remain in effect until January 1, 2002,

and as of that date are repealed unless a later enacted statute that is enacted before January 1, 2002, deletes or extends that date.

ARTICLE 7.5. MTBE DETECTION

Section 116610. Department due dates

(a) This article shall be known, and may be cited, as the Local Drinking Water Protection Act.

(b) For purposes of this article, "MTBE" means methyl tertiary-butyl ether.

(c) Commencing January 1, 1998, the State Department of Health Services shall commence the process for adopting a primary drinking water standard for MTBE that complies with the criteria established under Section 116365. The State Department of Health Services shall establish a primary drinking water standard for MTBE on or before July 1, 1999. The State Department of Health Services may, at its discretion, set primary drinking water standards for other oxygenates.

(d) On or before July 1, 1998, the State Department of Health Services shall adopt a secondary drinking water standard that complies with the criteria established under subdivision (d) of Section 116275 and that does not exceed a consumer acceptance level for MTBE.

Section 116612. Advisory panel due date

On or before January 1, 1999, the California Drinking Water and Toxic Enforcement Act Scientific Advisory Panel shall make a recommendation to the Office of Environmental Health Hazard Assessment on whether MTBE should be listed as a carcinogenic or reproductive toxin as set forth in Section 12000 and following of Title 22 of the California Code of Regulations.

ARTICLE 8. VIOLATIONS

Section 116625. Revocation and suspension of permits

(a) The department, after a hearing noticed and conducted as provided in Section 11500 of the Government Code, may suspend or revoke any permit issued pursuant to this chapter if the department determines pursuant to the hearing that the permittee is not complying with the permit, this chapter, or any regulation, standard, or order issued or adopted thereunder, or that the permittee has made a false statement or representation on any application, record, or report maintained or submitted for purposes of compliance with this chapter.

(b) The permittee may file with the superior court a petition for a writ of mandate for review of any decision of the department made pursuant to subdivision (a). Failure to file a

petition shall not preclude a party from challenging the reasonableness or validity of a decision of the department in any judicial proceeding to enforce the decision or from pursuing any remedy authorized by this chapter.

(c) The department may temporarily suspend any permit issued pursuant to this chapter prior to any hearing when the action is necessary to prevent an imminent or substantial danger to health. The director shall notify the permittee of the temporary suspension and the effective date thereof and, at the same time, notify the permittee that a hearing has been scheduled. The hearing shall be held as soon as possible, but not later than 15 days after the effective date of the temporary suspension. The temporary suspension shall remain in effect until the hearing is completed and the director has made a final determination on the merits, that in any event shall be made within 15 days after the completion of the hearing. If the determination is not transmitted within 15 days after the hearing is completed, the temporary suspension shall be of no further effect.

ARTICLE 9. REMEDIES

Section 116650. Citations

(a) If the department determines that a public water system is in violation of this chapter or any regulation, permit, standard, or order issued or adopted thereunder, the department may issue a citation to the public water system. The citation shall be served upon the public water system personally or by registered mail.

(b) Each citation shall be in writing and shall describe with particularity the nature of the violation, including a reference to the statutory provision, standard, order, or regulation alleged to have been violated.

(c) For continuing violations, the citation shall fix the earliest feasible time for elimination or correction of the condition constituting the violation where appropriate. If the public water system fails to correct a violation within the time specified in the citation, the department may assess a civil penalty as specified in subdivision (e).

(d) For a noncontinuing violation of primary drinking standards, other than turbidity, the department may assess in the citation a civil penalty as specified in subdivision (e).

(e) Citations issued pursuant to this section shall be classified according to the nature of the violation or the failure to comply. The department shall specify the classification in the citation and may assess civil penalties for each classification as follows:

(1) For violation of a primary drinking standard, other than turbidity, an amount not to exceed one thousand dollars (\$1,000) for each day that the violation occurred for noncontinuing violations or for each day that the violation continues beyond the date specified for correction in the citation.

(2) For failure to comply with any citation or order issued for failure of the primary drinking water standard for turbidity or for violation of a secondary drinking water standard that the director determines may have a direct or immediate relationship to the welfare of the users, an amount not to exceed two hundred fifty dollars (\$250) for each day that the violation continues beyond the date specified for correction in the citation.

(3) For failure to comply with any citation or order issued for noncompliance with any department regulation or order, other than a primary or secondary drinking water standard, an amount not to exceed two hundred dollars (\$200) per day for each day the violation continues beyond the date specified for correction in the citation.

Section 116655. Orders

(a) Whenever the department determines that any person has violated or is violating this chapter, or any permit, regulation, or standard issued or adopted pursuant to this chapter, the director may issue an order doing any of the following:

- (1) Directing compliance forthwith.
- (2) Directing compliance in accordance with a time schedule set by the department.
- (3) Directing that appropriate preventive action be taken in the case of a threatened violation.

(b) An order issued pursuant to this section may include, but shall not be limited to, any or all of the following requirements:

- (1) That the existing plant, works, or system be repaired, altered, or added to.
- (2) That purification or treatment works be installed.
- (3) That the source of the water supply be changed.
- (4) That no additional service connection be made to the system.
- (5) That the water supply, the plant, or the system be monitored.
- (6) That a report on the condition and operation of the plant, works, system, or water supply be submitted to the department.

Section 116660. Injunctions

- (a) Any person who operates a public water system without having an unrevoked

permit to do so, may be enjoined from so doing by any court of competent jurisdiction at the suit of the department.

(b) When the department determines that any person has engaged in or is engaged in any act or practice that constitutes a violation of this chapter, or any regulation, permit, standard, or order issued or adopted thereunder, the department may bring an action in the superior court for an order enjoining the practices or for an order directing compliance.

(c) Upon a showing by the department of any violation set forth in subsection (b); the superior court shall enjoin the practices and may do any of the following:

(1) Enforce a reasonable plan of compliance, including the appointment of a competent person, to be approved by the department, and paid by the operator of the public water system, who shall take charge of and operate the system so as to secure compliance.

(2) Enjoin further service connections to the public water system.

(3) Afford any further relief that may be required to insure compliance with this chapter.

Section 116665. Receivership

Whenever the department determines that any public water system is unable or unwilling to adequately serve its users, has been actually or effectively abandoned by its owners, or is unresponsive to the rules or orders of the department, the department may petition the superior court for the county within which the system has its principal office or place of business for the appointment of a receiver to assume possession of its property and to operate its system upon such terms and conditions as the court shall prescribe. The court may require, as a condition to the appointment of the receiver, that a sufficient bond be given by the receiver and be conditioned upon compliance with the orders of the court and the department, and the protection of all property rights involved. The court may provide, as a condition of its order, that the receiver appointed pursuant to the order shall not be held personally liable for any good faith, reasonable effort to assume possession of, and to operate, the system in compliance with the order.

Section 116670. Nuisance and summary abatement

Anything done, maintained, or suffered as a result of failure to comply with any primary drinking water standard is a public nuisance dangerous to health, and may be enjoined or summarily abated in the manner provided by law. Every public officer or body lawfully empowered to do so shall abate the nuisance immediately.

Section 116675. Authorized action against public water systems

Notwithstanding Sections 116340 and 116500, the department shall, after adequate notification of the local health officer, take action authorized by this chapter against a public water

system under the jurisdiction of the local health officer if any of the following occur:

(a) The public water system has been in violation of any provision of this chapter or the regulations adopted hereunder, including any violation of compliance with drinking water standards or waterworks standards, for a period of at least 90 days within the previous year.

(b) A contaminant is present in, or likely to enter, a public water system and presents an imminent and substantial danger to the health of the users of the system.

ARTICLE 10. JUDICIAL REVIEW

Section 116700. Writ of mandate

(a) Within 30 days after service of a copy of an order issued by the department, any aggrieved party may file with the superior court a petition for a writ of mandate for review thereof. Failure to file an action shall not preclude a party from challenging the reasonableness and validity of a decision or order of the department in any judicial proceedings brought to enforce the decision or order or for any civil or criminal remedy authorized by this chapter.

(b) The evidence before the court shall consist of all relevant evidence that, in the judgment of the court, should be considered to effectuate and implement the provisions of this chapter. In every case, the court shall exercise its independent judgment on the evidence.

(c) Except as otherwise provided in this section, subdivisions (e) and (f) of Section 1094.5 of the Code of Civil Procedure shall govern proceedings pursuant to this section.

ARTICLE 11. CRIMES AND PENALTIES

Section 116725. Civil penalties

(a) Any person who knowingly makes any false statement or representation in any application, record, report, or other document submitted, maintained, or used for purposes of compliance with this chapter, may be liable, as determined by the court, for a civil penalty not to exceed five thousand dollars (\$5,000) for each separate violation or, for continuing violations, for each day that violation continues.

(b) Any person who violates a citation schedule of compliance for a primary drinking water standard, other than turbidity, or any order regarding a primary drinking water standard other than turbidity, or the requirement that a reliable and adequate supply of pure, wholesome, healthful, and potable water be provided may be liable, as determined by the court, for a civil penalty not to exceed twenty-five thousand dollars (\$25,000) for each separate violation or, for continuing violations, for each day that violation continues.

(c) Any person who violates any order, other than one specified in subdivision (b), issued pursuant to this chapter may be liable, as determined by the court, for a civil penalty not to exceed five thousand dollars (\$5,000) for each separate violation or, for continuing violations, for each day that violation continues.

(d) Any person who operates a public water system without a permit issued by the department pursuant to this chapter may be liable, as determined by the court, for a civil penalty not to exceed twenty-five thousand dollars (\$25,000) for each separate violation or, for continuing violations, for each day that violation continues.

(e) Each civil penalty imposed for any separate violation pursuant to this section shall be separate and in addition to any other civil penalty imposed pursuant to this section or any other provision of law.

Section 116730. Misdemeanors and felonies

(a) Any person who knowingly does any of the following acts may, upon conviction, be punished by a fine of not more than twenty-five thousand dollars (\$25,000) for each day of violation, or by imprisonment in the county jail not to exceed one year, or by both the fine and imprisonment:

(1) Makes any false statement or representation in any application, record, report, or other document submitted, maintained, or used for the purposes of compliance with this chapter.

(2) Has in his or her possession any record required to be maintained pursuant to this chapter that has been altered or concealed.

(3) Destroys, alters, or conceals any record required to be maintained pursuant to this chapter.

(4) Withholds information regarding an imminent and substantial danger to the public health or safety when the information has been requested by the department in writing and is required to carry out the department's responsibilities pursuant to this chapter in response to an imminent and substantial danger.

(5) Violates an order issued by the department pursuant to this chapter that has a substantial probability of presenting an imminent danger to the health of persons.

(6) Operates a public water system without a permit issued by the department pursuant to this chapter.

(b) If the conviction under subdivision (a) is for a violation committed after a first conviction of the person under this section, the person may be punished by imprisonment in the state prison for up to 24 months, or in the county jail for not to exceed one year, or by a fine of

not less than two thousand dollars (\$2,000) or more than fifty thousand dollars (\$50,000) per day of violation, or by both the fine and imprisonment.

Section 116735. Inspection authority

(a) In order to carry out the purposes of this chapter, any duly authorized representative of the department may, at any reasonable hour of the day, do any of the following:

(1) Enter and inspect any public water system or any place where the public water system records are stored, kept, or maintained.

(2) Inspect and copy any records, reports, test results, or other information required to carry out this chapter.

(3) Set up and maintain monitoring equipment for purposes of assessing compliance with this chapter.

(4) Obtain samples of the water supply.

(5) Photograph any portion of the system, any activity, or any sample taken.

(b) The department shall inspect each public water system at least annually, and shall provide an opportunity for a representative of the public water system to accompany the representative of the department during the inspection of the water system.

(c) It shall be a misdemeanor for any person to prevent, interfere with, or attempt to impede in any way any duly authorized representative of the department from undertaking the activities authorized by subdivision (a).

Section 116740. Civil penalty collection

If any person fails to pay an assessment of a civil penalty after it has become a final and unappealable order, the Attorney General or the district attorney shall recover the amount for which the person is liable in the superior court. In this action, the validity and appropriateness of the final order imposing the civil penalty shall not be subject to review.

Section 116745. Remedies are cumulative

The remedies provided by this chapter are cumulative and shall not be construed as restricting any remedy, provisional or otherwise, provided by law for the benefit of any party, and no judgment under this chapter shall preclude any party from obtaining additional relief based upon the same facts.

Section 116750. Tampering with public water systems

(a) Any person who tampers with a public water system is guilty of a felony and shall be punished by imprisonment in the state prison for three, four, or five years, subject to a fine not to exceed thirty thousand dollars (\$30,000), or both.

(b) Any person who tampers with or makes a threat to tamper with a public water system is guilty of a felony and shall be punished by imprisonment in the state prison for 16 months, two, or three years, subject to a fine not to exceed twenty thousand dollars (\$20,000), or both.

(c) For purposes of this section, the term "tamper" means either of the following:

(1) To introduce a contaminant into a public water system with the intention of harming persons.

(2) To otherwise interfere with the operation of a public water system with the intention of harming persons.

Section 116751. Department determination for Fish and Game poisoning

The Department of Fish and Game may not introduce a poison to a drinking water supply for purposes of fisheries management unless the State Department of Health Services determines that the activity will not have a permanent adverse impact on the quality of the drinking water supply or wells connected to the drinking water supply. In making this determination, the State Department of Health Services shall evaluate the short- and long-term health effects of the poison in drinking water, ensure that an alternative supply of drinking water is provided to the users of the drinking water supply while the activity takes place, and, in cooperation with the Department of Fish and Game, develop and implement a monitoring program to ensure that no detectable residuals of the poison, breakdown products, and other components of the poison formulation remain in the drinking water supply or adjoining wells after the activity is completed.

CHAPTER 4.5. SAFE DRINKING WATER STATE REVOLVING FUND LAW OF 1997

ARTICLE 1. TITLE

Section 116760. State revolving fund

This chapter shall be known and may be cited as the Safe Drinking Water State Revolving Fund Law of 1997.

ARTICLE 2. LEGISLATIVE FINDINGS

Section 116760.10. Legislative findings

The Legislature hereby finds and declares all of the following:

(a) The department has discovered toxic contaminants and new pathogenic organisms, including cryptosporidium, in many of California's public drinking water systems.

(b) Many of the contaminants in California's drinking water supplies are known to cause, or are suspected of causing, cancer, birth defects, and other serious illnesses.

(c) It is unlikely that the contamination problems of small public water systems can be solved without financial assistance from the state.

(d) The protection of the health, safety, and welfare of the people of California requires that the water supplied for domestic purposes be at all times pure, wholesome, and potable. It is in the interest of the people that the State of California provide technical and financial assistance to ensure a safe, dependable, and potable supply of water for domestic purposes and that water is available in adequate quantity at sufficient pressure for health, cleanliness, and other domestic purposes.

(e) It is the intent of the Legislature to provide for the upgrading of existing public water supply systems to ensure that all domestic water supplies meet safe drinking water standards and other requirements established under Chapter 4 (commencing with Section 116270).

(f) (1) The extent of the current risk to public health from contamination in drinking water creates a compelling need to upgrade existing public water systems. The demand for financial assistance to enable public water systems to meet drinking water standards and regulations exceeds funds available from the Safe Drinking Water State Revolving Fund.

(2) A project whose primary purpose is to supply or attract growth shall not be eligible to receive assistance from the Safe Drinking Water State Revolving Fund.

(3) A project whose primary purpose is to enable a public water system to improve public health protection by complying with drinking water standards and regulations and that also includes components to accommodate a reasonable amount of growth over its useful life shall be eligible for assistance from the Safe Drinking Water State Revolving Fund, but the project shall receive priority based on the component to meet drinking water standards pursuant to Section 116760.70. The department shall expressly consider the effort of the applicant to secure funds other than those available from the Safe Drinking Water State Revolving Fund in establishing the priority listing for funding pursuant to Article 4 (commencing with Section 116760.50).

(4) After projects have been prioritized for funding into priority list categories pursuant to the requirements of Section 116760.70, within each category, projects that do not include a component of growth, shall receive priority for funding over projects that have a component to accommodate a reasonable amount of growth.

(g) The Legislature further finds and declares that regional solutions to water contamination problems are often more effective, efficient, and economical than solutions designed to address solely the problems of a single small public water system, and it is in the interest of the people of the State of California to encourage the consolidation of the management and the facilities of small water systems to enable those systems to better address their water contamination problems.

(h) The protection of drinking water sources is essential to ensuring that the people of California are provided with pure, wholesome, and potable drinking water.

(i) That coordination among local, state, and federal public health and environmental management programs be undertaken to ensure that sources of drinking water are protected while avoiding duplication of effort and reducing program costs.

(j) It is necessary that a source water protection program be implemented for the purposes of delineating, assessing, and protecting drinking water sources throughout the state and that federal funds be utilized pursuant to the federal Safe Drinking Water Act (42 U.S.C. Sec. 300j et seq.) to carry out that program.

(k) It is in the interest of the people of the state to provide funds for a perpetual Safe Drinking Water State Revolving Fund that may be combined with similar federal funding to the extent the funding is authorized pursuant to the federal Safe Drinking Water Act (42 U.S.C. Sec. 300j et seq.).

(l) This chapter shall govern implementation of the Safe Drinking Water State Revolving Fund, and shall be implemented in a manner that is consistent with the federal Safe Drinking Water Act, and, to the extent authorized under the federal act, in a manner that is consistent with the California Safe Drinking Water Act, Chapter 4 (commencing with Section 116275).

ARTICLE 3. SAFE DRINKING WATER STATE REVOLVING FUND

Section 116760.20. Definitions

Unless the context otherwise requires, the following definitions govern the construction of this chapter:

(a) "Cost-effective project" means a project that achieves an acceptable result at the most reasonable cost.

- (b) "Department" means the State Department of Health Services.
- (c) "Federal Safe Drinking Water Act" or "federal act" means the federal Safe Drinking Water Act (42 U.S.C. Sec. 300f et seq.) and acts amendatory thereof or supplemental thereto.
- (d) "Fund" means the Safe Drinking Water State Revolving Fund created by Section 116760.30.
- (e) "Funding" means a loan or grant, or both, awarded under this chapter.
- (f) "Matching funds" means state money that equals that percentage of federal contributions required by the federal act to be matched with state funds.
- (g) "Project" means proposed facilities for the construction, improvement, or rehabilitation of a public water system, and may include all items set forth in Section 116761 as necessary to carry out the purposes of this chapter. It also may include refinancing loans, annexation or consolidation of water systems, source water assessments, source water protection, and other activities specified under the federal act.
- (h) "Public agency" means any city, county, city and county, district, or joint powers authority, that owns or operates a public water system.
- (i) "Public water system" or "public water supply system" means a system for the provision to the public of water for human consumption, as defined in Chapter 4 (commencing with Section 116270), as it may be amended from time to time.
- (j) "Reasonable amount of growth" means an increase in growth not to exceed 10 percent of the design capacity needed, based on peak flow, to serve the water demand in existence at the time plans and specifications for the project are approved by the department, over the 20-year useful life of a project. For projects other than the construction of treatment plants including, but not limited to, storage facilities, pipes, pumps, and similar equipment, where the 10-percent allowable growth cannot be adhered to due to the sizes of equipment or materials available, the project shall be limited to the next available larger size.
- (k) "Safe drinking water standards" means those standards established pursuant to Chapter 4 (commencing with Section 116270), as they may now or hereafter be amended.
- (l) "Supplier" means any persons, partnership, corporation, association, public agency, or other entity that owns or operates a public water system.

Section 116760.30. Creation of fund in state treasury

- (a) There is hereby created in the State Treasury the Safe Drinking Water State Revolving Fund for the purpose of implementing this chapter, and, notwithstanding Section

13340 of the Government Code, the fund is hereby continuously appropriated, without regard to fiscal years, to the department to provide, from moneys available for this purpose, grants or revolving fund loans for the design and construction of projects for public water systems that will enable suppliers to meet safe drinking water standards. The department shall be responsible for administering the fund.

(b) The department shall report at least once every two years to the policy and budget committees of the Legislature on the implementation of this chapter and expenditures from the fund. The report shall describe the numbers and types of projects funded, the reduction in risks to public health from contaminants in drinking water provided through the funding of the projects, and the criteria used by the department to determine funding priorities.

Section 116760.40. Department authorities

The department may undertake any of the following actions to implement the Safe Drinking Water State Revolving Fund:

(a) Enter into agreements with the federal government for federal contributions to the fund.

(b) Accept federal contributions to the fund.

(c) Use moneys in the fund for the purposes permitted by the federal act.

(d) Provide for the deposit of matching funds and any other available and necessary moneys into the fund.

(e) Make requests on behalf of the state for deposit into the fund of available federal moneys under the federal act.

(f) Determine on behalf of the state that public water systems that receive financial assistance from the fund will meet the requirements of, and otherwise be treated as required by, the federal act.

(g) Provide for appropriate audit, accounting, and fiscal management services, plans, and reports relative to the fund.

(h) Take such additional incidental action as may be appropriate for adequate administration and operation of the fund.

(i) Enter into an agreement with, and accept matching funds from, a public water system. A public water system that seeks to enter into an agreement with the department and provide matching funds pursuant to this subdivision shall provide to the department evidence of the availability of those funds in the form of a written resolution, or equivalent document, from the public water system before it requests a preliminary loan commitment.

(j) Charge public water systems that elect to provide matching funds a fee to cover the actual cost of obtaining the federal funds pursuant to Section 1452(e) of the federal act (42 U.S.C.A. Sec. 300j-12) and to process the loan application. The fee shall be waived by the department if sufficient funds to cover those costs are available from other sources.

(k) Use money returned to the fund under Section 116761.85 and any other source of matching funds, if not prohibited by statute, as matching funds for the federal administrative allowance under Section 1452(g) of the federal act (42 U.S.C.A. Sec. 300j-12).

(l) Establish separate accounts or subaccounts as required or allowed in the federal act and related guidance, for funds to be used for administration of the fund and other purposes. Within the fund the department shall establish the following accounts, including, but not limited to:

(1) A fund administration account for state expenses related to administration of the fund pursuant to Section 1452(g)(2) of the federal act.

(2) A water system reliability account for department expenses pursuant to Section 1452(g)(2)(A), (B), (C), or (D) of the federal act.

(3) A source protection account for state expenses pursuant to Section 1452(k) of the federal act.

(4) A small system technical assistance account for department expenses pursuant to Section 1452(g)(2) of the federal act.

(5) A state revolving loan account pursuant to Section 1452(a)(2) of the federal act.

(m) Deposit federal funds for administration and other purposes into separate accounts or subaccounts as allowed by the federal act.

(n) Determine on behalf of the state whether sufficient progress is being made toward compliance with the enforceable deadlines, goals, and requirements of the federal act and the California Safe Drinking Water Act, Chapter 4 (commencing with Section 116275).

Section 116760.41. Other expenses

Moneys in the fund and the special accounts may be expended for additional purposes provided in the federal act.

Section 116760.42. Department may accept federal funds

(a) The department may enter into an agreement with the federal government for federal contributions to the fund only if both of the following apply:

(1) The state has obtained or appropriated any required state matching funds.

(2) The department is prepared to commit to expenditure of any minimum amount in the fund in the manner required by the federal act.

(b) Any agreement between the department and the federal government shall contain those provisions, terms, and conditions required by the federal act, and any implementing federal rules, regulations, guidelines, and policies, including, but not limited to, agreement to the following:

(1) Moneys in the fund shall be expended in an expeditious and timely manner.

(2) All moneys in the fund as a result of federal capitalization grants shall be expended to ensure sufficient progress is being made toward compliance with the enforceable deadlines, goals, and requirements of the federal act, including any applicable compliance deadlines.

(3) Federal funds deposited in the special accounts are continuously appropriated for use by the department as allowed by federal law. Any unexpended funds in the special accounts shall be carried over into subsequent years for use by the department.

Section 116760.43. Emergency regulation authority

(a) The department may adopt emergency regulations pursuant to Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code necessary or convenient to implement this chapter and to meet requirements pursuant to the federal act.

(b) The adoption of any emergency regulations that are filed with the Office of Administrative Law within 18 months of the effective date of this act shall be deemed to be an emergency and necessary for the immediate preservation of the public peace, health and safety, or general welfare.

Section 116760.44. Administrative fees

The department may deposit administrative fees and charges paid by public water systems and other available and necessary money into the administrative account of the fund.

ARTICLE 4. PRIORITY LIST FOR FUNDING

Section 116760.50. Criteria for funding

The department shall establish criteria that shall be met for projects to be eligible for consideration for funding under this chapter. The criteria shall include all of the following:

(a) All preliminary design work for a defined project that will enable the applicant to supply water that meets safe drinking water standards, including a cost estimate for the project, shall be completed.

(b) A legal entity shall exist that has the authority to enter into contracts and incur debt on behalf of the community to be served and owns the public water system or has the right to operate the public water system under a lease with a term of at least 20 years, unless otherwise authorized by the department. If the proposed project is funded by a loan under this chapter, the department may require the applicant to secure a lease for the full term of the loan if the loan exceeds 20 years.

(c) The applicant shall hold all necessary water rights.

(d) The applicant shall have completed any review required pursuant to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) and the guidelines adopted pursuant thereto, and have included plans for compliance with that act in its preliminary plans for the project.

(e) The applicant has assembled sufficient financial data to establish its ability to complete the proposed project and to establish the amount of debt financing it can undertake.

Section 116760.60. Department must notify suppliers

The department shall notify suppliers that may be eligible for funding pursuant to this chapter of the purposes of this chapter and the regulations established by the department.

Section 116760.70. Criteria for priority list

(a) The department, after public notice and hearing, shall, from time to time, establish a priority list of proposed projects to be considered for funding under this chapter. In doing so, the department shall determine if improvement or rehabilitation of the public water system is necessary to provide pure, wholesome, and potable water in adequate quantity at sufficient pressure for health, cleanliness, and other domestic purposes. The department shall establish criteria for placing public water systems on the priority list for funding which shall include criteria for priority list categories. Priority shall be given to projects that meet all of the following requirements:

(1) Address the most serious risk to human health.

(2) Are necessary to ensure compliance with requirements of Chapter 4

(commencing with Section 116270) including requirements for filtration.

(3) Assist systems most in need on a per household basis according to affordability criteria.

(b) The department may, in establishing a new priority list, merge those proposed projects from the existing priority list into the new priority list.

(c) In establishing the priority list, the department shall consider the system's implementation of an ongoing source water protection program or wellhead protection program.

(d) In establishing the priority list categories and the priority for funding projects, the department shall carry out the intent of the Legislature pursuant to subdivisions (e) and (f) of Section 116760.10 and do all of the following:

(1) Give priority to upgrade an existing system to meet drinking water standards.

(2) After giving priority pursuant to paragraph (1), consider whether the applicant has sought other funds when providing funding for a project to upgrade an existing system and to accommodate a reasonable amount of growth.

(e) Consideration of an applicant's eligibility for funding shall initially be based on the priority list in effect at the time the application is received and the project's ability to proceed. If a new priority list is established during the time the application is under consideration, but before the applicant receives a letter of commitment, the department may consider the applicant's eligibility for funding based on either the old or new priority list.

(f) The department may change the ranking of a specific project on the priority lists at any time following the publication of the list if information, that was not available at the time of the publication of the list, is provided that justifies the change in the ranking of the project.

(g) The department shall provide one or more public hearings on the Intended Use Plan, the priority list, and the criteria for placing public water systems on the priority list. The department shall provide notice of the Intended Use Plan, criteria, and priority list not less than 30 days before the public hearing. The Intended Use Plan, criteria, and priority list shall not be subject to the requirements of Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code. The department shall conduct duly noticed public hearings and workshops around the state to encourage the involvement and active input of public and affected parties, including, but not limited to, water utilities, local government, public interest, environmental, and consumer groups, public health groups, land conservation interests, health care providers, groups representing vulnerable populations, groups representing business and agricultural interests, and members of the general public, in the development and periodic updating of the Intended Use Plan and the priority list.

(h) The requirements of this section do not constitute an adjudicatory proceeding as defined in Section 11405.20 of the Government Code and Section 11410.10 of the Government Code is not applicable.

Section 116760.79. Applications

Applications for funding under this chapter shall be made in the form and with the supporting material prescribed by the department.

Section 116760.80. Planning and preliminary engineering funding

(a) The department shall determine, based on applications received, whether a particular applicant meets the criteria to be eligible for consideration.

(b) If the applicant does not meet the criteria, it may be considered for planning and preliminary engineering study funding. Applicants successfully completing a study are eligible for consideration for project design and construction funding after their study is completed and they have met the criteria to be eligible for consideration for project design and construction funding.

Section 116760.90. Project requirements and limitations

(a) The department shall not approve an application for funding unless the department determines that the proposed study or project is necessary to enable the applicant to meet safe drinking water standards, and is consistent with an adopted countywide plan, if any. The department may refuse to fund a study or project if it determines that the purposes of this chapter may more economically and efficiently be met by means other than the proposed study or project. The department shall not approve an application for funding a project with a primary purpose to supply or attract future growth. The department may limit funding to costs necessary to enable suppliers to meet primary drinking water standards, as defined in Chapter 4 (commencing with Section 116270).

(b) With respect to applications for funding of project design and construction, the department shall also determine all of the following:

(1) Upon completion of the project, the applicant will be able to supply water that meets safe drinking water standards.

(2) The project is cost-effective.

(3) If the entire project is not to be funded under this chapter, the department shall specify which costs are eligible for funding.

ARTICLE 5. PROJECT ELIGIBILITY, FUNDING, AND CONTRACTS

Section 116761. Allowable costs

Planning and preliminary engineering studies, project design, and construction costs eligible for funding under this chapter shall be established by the department and may include any of the following:

- (a) Reasonable costs for the construction, improvement, or rehabilitation of facilities of the public water system, which may include water supply, treatment works, and all or part of a water distribution system, if necessary to carry out the purposes of this chapter.
- (b) Reasonable costs associated with the consolidation of water systems, including, but not limited to, reasonable facility fees, connection fees, or similar charges.
- (c) Reasonable costs of purchasing water systems, water rights, or watershed lands.
- (d) Operation and maintenance costs only to the extent they are used in the startup and testing of the completed project. All other operation and maintenance costs shall be the responsibility of the supplier and shall not be considered as part of the project costs.
- (e) Reasonable costs of establishing eligibility for funding under this chapter that were incurred before the department entered into a commitment to fund the project under this chapter.
- (f) The acquisition of real property or interests therein only if the acquisition is integral to a project, and as otherwise limited in the federal act.

Section 116761.20. Evaluating ability to repay

- (a) Planning and preliminary engineering studies, project design, and construction costs may be funded under this chapter by loans, or, in the case of public agencies, by grants or a combination of grants and loans.
- (b) The department shall determine what portion of the full costs the public agency is capable of repaying and authorize funding in the form of a loan for that amount. The department shall authorize a grant only to the extent the department finds the public agency is unable to repay the full costs of a loan.
- (c) At the request of the department, the Public Utilities Commission shall submit comments concerning the ability of suppliers, subject to its jurisdiction, to finance the project from other sources and to repay the loan.

Section 116761.21. Grants

Not more than 30 percent and not less than 15 percent, provided that there are projects eligible for funding as prescribed in Section 116760.70, of the total amount deposited in the fund may be expended for grants. This amount shall be limited to disadvantaged communities specified

in Section 1452(d) of the federal act (42 U.S.C.A. Sec. 300j-12).

Section 116761.22. Repay periods

Loans for project design and construction shall be repaid over a term not longer than the useful life of the project constructed or 20 years, whichever is shorter, except as provided in the federal act.

Section 116761.23. Maximum funding

(a) The maximum amount of a grant permitted under this chapter for the planning and preliminary engineering studies, design, and construction of a single project is one million dollars (\$1,000,000).

(b) Total funding under this article for planning and preliminary engineering studies, project design, and construction costs of a single project, whether in the form of a loan or a grant, or both, shall be determined by an assessment of affordability using criteria established by the department.

Section 116761.24. Water system under 10,000 people

Not less than 15 percent of the total amount deposited in the fund shall be expended for providing loans and grants to public water systems that regularly serve fewer than 10,000 persons to the extent those funds can be obligated for eligible projects.

Section 116761.40. Safe Drinking Water Act compliance not excused

The failure or inability of any public water system to receive funds under this chapter or any other loan or grant program or any delay in obtaining the funds shall not alter the obligation of the system to comply in a timely manner with all applicable drinking water standards and requirements of the California Safe Drinking Water Act or the federal act.

ARTICLE 6. CONTRACTS FOR PROJECT FUNDING

Section 116761.50. Contracts

(a) The department may enter into contracts with applicants for grants or loans for the purposes set forth in this chapter. Any contract entered into pursuant to this section shall include only terms and conditions consistent with this chapter and the regulations established under this chapter.

(b) The contract shall include all of the following terms and conditions that are applicable:

- (1) An estimate of the reasonable cost of the project or study.
- (2) An agreement by the department to loan or grant, or loan and grant, the applicant an amount that equals the portion of the costs found by the department to be eligible for a state loan or grant. The agreement may provide for disbursement of funds during the progress of the study or construction, or following completion of the study or construction, as agreed by the parties.
- (3) An agreement by the applicant to proceed expeditiously with the project or study.
- (4) An agreement by the applicant to commence operations of the project upon completion of the project, and to properly operate and maintain the project in accordance with the applicable provisions of law.
- (5) In the case of a loan, an agreement by the applicant to repay the state, over a period not to exceed the useful life of the project or 20 years, whichever is shorter, except as provided in the federal act, or in the case of a study, over a period not to exceed five years, all of the following:
 - (A) The amount of the loan.
 - (B) The administrative fee specified in subdivision (a) of Section 116761.70.
 - (C) Interest on the principal, which is the amount of the loan plus the administrative fee.
- (6) In the case of a grant, an agreement by the public agency to operate and maintain the water system for a period of 20 years, unless otherwise authorized by the department.
 - (c) The contract may include any of the following terms and conditions:
 - (1) An agreement by the supplier to adopt a fee structure that provides for the proper maintenance and operations of the project and includes a sinking fund for repair and replacement of the facilities in cases where appropriate. The fee structure shall also provide an acceptable dedicated source of revenue for the repayment of the amount of the loan, and the payment of administrative fees and interest.
 - (2) If the entire project is not funded pursuant to this chapter, the department may include a provision requiring the applicant to share the cost of the project or obtain funding from other sources.

- (d) The department may require applicants to provide security for loan contracts.

Section 116761.60. Three and five year limitations

All funding received under this chapter shall be expended by the applicant within three years of the execution of the contract with the department or its designee. The three-year period may be extended, with the approval of the department, until five years after the date the original contract, not including amendments, was executed.

ARTICLE 7. SAFE DRINKING WATER STATE REVOLVING FUND
MANAGEMENT

Section 116761.62. Fund management

(a) To the extent permitted by federal and state law, moneys in the fund may be expended to rebate to the federal government all arbitrage profits required by the federal Tax Reform Act of 1986 (P.L. 99-514) or any amendment thereof or supplement thereto. To the extent that this expenditure of the moneys in the fund is prohibited by federal or state law, any rebates required by federal law shall be paid from the General Fund or other sources, upon appropriation by the Legislature.

(b) Notwithstanding any other provisions of law or regulation, the department may enter into contracts or may procure those services and equipment that may be necessary to ensure prompt and complete compliance with any provisions relating to the fund imposed by either the federal Tax Reform Act of 1986 (P.L. 99-514) or the federal Safe Drinking Water Act.

Section 116761.65. Interest rate

(a) The department shall annually establish the interest rate for loans made pursuant to this chapter at 50 percent of the average interest rate, computed by the true interest cost method, paid by the state on general obligation bonds issued in the prior calendar year. All loans made pursuant to this chapter shall carry the interest rate established for the calendar year in which the funds are committed to the loan, as of the date of the letter of commitment. The interest rate set for each loan shall be applied throughout the repayment period of the loan. Interest on the loan shall not be deferred.

(b) Notwithstanding subdivision (a), if the loan applicant is a public water system that is a disadvantaged community or provides matching funds, the interest rate on the loan shall be zero percent.

Section 116761.70. Capitalization funds for managing program

(a) Not more than 4 percent of the capitalization grant may be used by the department for administering this chapter. The department may establish a reasonable schedule of

administrative fees for loans, which shall be paid by the applicant to reimburse the state for the costs of the state administration of this chapter.

(b) Charges incurred by the Attorney General in protection of the state's interest in the use of repayment of grant and loan funds under this chapter shall be paid. These charges shall not be paid from funds allocated for administrative purposes, but shall be treated as a program expense not to exceed one-half of 1 percent of the total amount deposited in the fund.

Section 116761.80. Repayment funds for managing program

(a) The department may expend money repaid to the state pursuant to any contract executed under Section 116761.50 as necessary for the administration of contracts entered into by the department under this chapter, but those expenditures may not in any year exceed 1.5 percent of the amount of principal and interest projected to be paid to the state in that year pursuant to this chapter.

(b) Charges incurred by the Attorney General in protecting the state's interest in the use of funds and repayment of funds under this chapter may be paid by the department from these funds, but those charges may not exceed one-half of 1 percent of the amount of principal and interest projected to be paid to the state in that year pursuant to this chapter.

(c) Any of these sums unexpended by the department at the end of any year shall automatically revert to the fund.

Section 116761.85. Moneys repaid return to fund

Except as provided in Section 116761.80, all money repaid to the state pursuant to any contract executed under subdivision (a) of Section 116761.50, including interest payments and all interest earned on or accruing to any moneys in the fund, shall be deposited in the fund and shall be available in perpetuity, for expenditure for the purposes and uses permitted by this chapter and the federal act.

Section 116761.86. Investment of unused moneys repaid

To the extent amounts in the fund are not required for current obligation or expenditure, those amounts shall be invested in interest bearing obligations, and the interest earned shall become part of the fund.

ARTICLE 8. SOURCE WATER PROTECTION PROGRAM

Section 116762.60. Source water protection program

(a) The department shall, contingent upon receiving federal capitalization grant funds, develop and implement a program to protect sources of drinking water. In carrying out this

program, the department shall coordinate with local, state, and federal agencies that have public health and environmental management programs to ensure an effective implementation of the program while avoiding duplication of effort and reducing program costs. The program shall include the following:

(1) A source water assessment program to delineate and assess the drinking water supplies of public drinking water systems pursuant to Section 1453 of the federal act.

(2) A wellhead protection program to protect drinking water wells from contamination pursuant to Section 1428 of the federal act.

(3) Pursuant to Section 1452(k) of the federal act, the department shall set aside federal capitalization grant funds sufficient to carry out paragraphs (1) and (2) of subdivision (a).

(b) The department shall set aside federal capitalization grant funds to provide assistance to water systems pursuant to Section 1452 (k) of the federal act for the following source water protection activities, to the extent that those activities are proposed:

(1) To acquire land or a conservation easement if the purpose of the acquisition is to protect the source water of the system from contamination and to ensure compliance with primary drinking water regulations.

(2) To implement local, voluntary source water protection measures to protect source water in areas delineated pursuant to Section 1453 of the federal act, in order to facilitate compliance with primary drinking water regulations applicable to the water system under Section 1412 of the federal act or otherwise significantly further the health protection objectives of the federal and state acts.

(3) To carry out a voluntary, incentive-based source water quality protection partnership pursuant to Section 1454 of the federal act.

(c) The department shall conduct duly noticed public hearings, public workshops, focus groups, or meetings around the state to encourage the involvement and active input of public and affected parties in the development and periodic updating of the source water protection program adopted pursuant to this article. The notices shall contain basic information about the program in an understandable format and shall notify widely representative groups, including, but not limited to, federal, state, and local governmental agencies, water utilities, public interest, environmental, and consumer groups, public health groups, land conservation groups, health care providers, groups representing vulnerable populations, groups representing business and agricultural interests, and members of the general public. In addition, the department shall convene a technical advisory committee and a citizens' advisory committee made up of those representative groups to provide advice and direction on program development and implementation.

(d) The department shall submit a report to the Legislature every two years on its activities under this section. The report shall contain a description of each program for which funds have been set aside under this section, the effectiveness of each program in carrying out the intent of the federal and state acts, and an accounting of the amount of set aside funds used.

CHAPTER 5. WATER EQUIPMENT AND CONTROL

ARTICLE 2. CROSS-CONNECTION CONTROL BY WATER USERS

Section 116800. Control of Users

Local health officers may maintain programs for the control of cross-connections by water users, within the users' premises, where public exposure to drinking water contaminated by backflow may occur. The programs may include inspections within water users premises for the purpose of identifying cross-connection hazards and determining appropriate backflow protection. Water users shall comply with all orders, instructions, regulations, and notices from the local health officer with respect to the installation, testing, and maintenance of backflow prevention devices. The local health officer may collect fees from those water users subject to inspection to offset the costs of implementing cross-connection control programs.

Section 116805. Fees

(a) Local health officers may maintain programs, in cooperation with water suppliers, to protect against backflow through service connections into the public water supply, and, with the consent of the water supplier, may collect fees from the water supplier to offset the costs of implementing these programs.

(b) The fees authorized under this section and under Section 116800 shall be limited to the costs of administering these programs. At the discretion of the water supplier, the fees collected from the water supplier by the local health officer may be passed through to water users.

(c) Programs authorized under this section and Section 116800 shall be conducted in accordance with backflow protection regulations adopted by the department.

(d) Nothing in this article shall prevent a water supplier from directly charging those water users required to install backflow prevention devices for the costs of the programs authorized in this section and Section 116800.

Section 116810. Certification of device testers

To assure that testing and maintenance of backflow prevention devices are performed by persons qualified to do testing and maintenance, local health officers may maintain programs for certification of backflow prevention device testers. The local health officer may suspend, revoke, or refuse to renew the certificate of a tester, if, after a hearing before the local health officer or his

or her designee, the local health officer or his or her designee finds that the tester has practiced fraud or deception or has displayed gross negligence or misconduct in the performance of his or her duties as a certified backflow prevention device tester. The local health officer may collect fees from certified testers to offset the cost of the certification program provided pursuant to this section. The certification standards shall be consistent with the backflow protection regulations adopted by the department.

Section 116815. Purple pipe for reclaimed water

(a) All pipes installed above or below the ground, on and after June 1, 1993, that are designed to carry recycled water, shall be colored purple or distinctively wrapped with purple tape.

(b) Subdivision (a) shall apply only in areas served by a water supplier delivering water for municipal and industrial purposes, and in no event shall apply to any of the following:

(1) Municipal or industrial facilities that have established a labeling or marking system for recycled water on their premises, as otherwise required by a local agency, that clearly distinguishes recycled water from potable water.

(2) Water delivered for agricultural use.

(c) For purposes of this section, "recycled water" has the same meaning as defined in subdivision (n) of Section 13050 of the Water Code.

Section 116820. Violations

Any person who violates any provision of this article, violates any order of the local health officer pursuant to this article, or knowingly files a false statement or report required by the local health officer pursuant to this article is guilty of a misdemeanor punishable by a fine not exceeding five hundred dollars (\$500) or by imprisonment not exceeding 30 days in the county jail or by both such fine and imprisonment. Each day of a violation of any provision of this article or of any order of the local health officer beyond the time stated for compliance of the order shall be a separate offense.

ARTICLE 3. WATER TREATMENT DEVICES

Section 116825. Definitions

Unless the context otherwise requires, the following definitions shall govern construction of this article:

(a) "Water treatment device" means any point of use or point of entry instrument or contrivance sold or offered for rental or lease for residential use, and designed to be added to the

plumbing system, or used without being connected to the plumbing of a water supply intended for human consumption in order to improve the water supply by any means, including, but not limited to, filtration, distillation, adsorption, ion exchange, reverse osmosis, or other treatment. "Water treatment device" does not include any device that is regulated pursuant to Article 12 (commencing with Section 111070) of Chapter 5 of Part 5.

(b) "Department" means the Department of Health Services.

(c) "Person" means any individual, firm, corporation, or association, or any employee or agent thereof.

(d) "Contaminants" means any health-related physical, chemical, biological, or radiological substance or matter in water.

Section 116830. Regulation authority

(a) The department shall adopt regulations setting forth the criteria and procedures for certification of water treatment devices that are claimed to affect the health or safety of drinking water. The regulations shall include appropriate testing protocols and procedures to determine the performance of water treatment devices in reducing specific contaminants from public or private domestic water supplies. The regulations may adopt, by reference, the testing procedures and standards of one or more independent testing organizations if the department determines that the procedures and standards are adequate to meet the requirements of this section. The regulations may specify any testing organization that the department has designated to conduct the testing of water treatment devices.

(b) The regulations required by subdivision (a) shall include minimum standards for the following:

(1) Performance requirements.

(2) Types of tests to be performed.

(3) Types of allowable materials.

(4) Design and construction.

(5) Instruction and information requirements, including operational, maintenance, replacement, and estimated cost of these items.

(6) Any additional requirements, not inconsistent with this article, as may be necessary to carry out this article.

(c) The department or any testing organization designated by the department pursuant to this section may agree to evaluate test data on a water treatment device offered by the

manufacturer of the water treatment device, in lieu of the requirements of this section, if the department or the testing organization determines that the testing procedures and standards used to develop the data are adequate to meet the requirements of this section.

Section 116835. Certification requirements and exemptions

(a) No water treatment device that makes product performance claims or product benefit claims that the device affects health or the safety of drinking water, shall be sold or otherwise distributed that has not been certified by the department or by another entity in accordance with subdivision (b). Water treatment devices not offered for sale or distribution based on claims of improvement in the healthfulness of drinking water need not be certified pursuant to this section.

(b) The department may accept a water treatment device certification issued by an agency of another state, by an independent testing organization, or by the federal government in lieu of its own, if the department determines that certification program meets the requirements of this article.

(c) A water treatment device initially installed prior to the operative date of this section shall not require certification pursuant to Section 116830.

(d) Subdivisions (a), (b), and (c) shall become operative one year after the effective date of the regulations adopted pursuant to Section 116830. Regulations adopted pursuant to that section shall be transmitted to the Legislature upon adoption.

Section 116840. Enforcement

(a) The department, or any local health officer with the concurrence of the department, shall enforce this article.

(b) The department may suspend, revoke, or deny a certificate upon its determination of either of the following:

(1) That the water treatment device does not perform in accordance with the claims made under the standard.

(2) That the manufacturer, or any employee or agent thereof, has violated this article, any regulation adopted pursuant to this article, or Chapter 1 (commencing with Section 17500) of Part 3 of Division 7 of the Business and Professions Code.

(c) Any person, corporation, firm, partnership, joint stock company, or any other association or organization that violates any provision of this article shall be liable for a civil penalty not to exceed five thousand dollars (\$5,000) for each violation. Where the conduct constituting a violation is of a continuing nature, each day of the conduct is a separate and distinct violation. The civil penalty shall be assessed and recovered in a civil action brought in the name of

the people of the State of California by the Attorney General, or by any district attorney, county counsel, or city attorney in any court of competent jurisdiction.

(d) If the action is brought by the Attorney General, one-half of the penalty collected shall be paid to the treasurer of the county in which the judgment was entered, and one-half to the State Treasurer. If brought by a district attorney or county counsel, the entire amount of penalties collected shall be paid to the treasurer of the county in which the judgment was entered. If brought by a city attorney or city prosecutor, one-half of the penalty shall be paid to the treasurer of the county and one-half to the city.

(e) Unless otherwise provided, the remedies or penalties provided by this article are cumulative to each other and to remedies or penalties available under all other laws of this state.

Section 116845. List of devices

The department shall publish a list of water treatment devices certified under this article, including the specific standard under which the device is certified.

Section 116850. Fees

The department shall charge and collect a fee for each certificate applied for which shall be an amount reasonably necessary to produce sufficient revenue to effectively implement this article.

Section 116855. Consultation in developing regulations

In developing regulations pursuant to this article, the department shall seek the consultation of representatives from the industry regulated under the article, from drinking water purveyors, and from persons with expertise and experience in promoting public health.

Section 116860. Water Device Certification Special Account

There is in the State Treasury the Water Device Certification Special Account. Fees collected pursuant to Section 116850 shall be deposited in the account created by this section.

Section 116865. Loan for implementation

The Director of Finance may authorize the department to borrow up to two hundred thousand dollars (\$200,000) for the purpose of implementing this article from any fund or account deemed appropriate by the Director of Finance. The department shall repay the loan with interest to be determined in accordance with Section 16314 of the Government Code.

ARTICLE 4. LEAD MATERIALS

Section 116875. Lead pipes, plumbing, and solder

(a) No person shall use any pipe, pipe or plumbing fitting or fixture, solder, or flux that is not lead free in the installation or repair of any public water system or any plumbing in a facility providing water for human consumption, except when necessary for the repair of leaded joints of cast iron pipes.

(b) No person shall introduce into commerce any pipe, pipe or plumbing fitting, or fixture, that is not lead free, except for a pipe that is used in manufacturing or industrial processing.

(c) No person engaged in the business of selling plumbing supplies, except manufacturers, shall sell solder or flux that is not lead free.

(d) No person shall introduce into commerce any solder or flux that is not lead free unless the solder or flux bears a prominent label stating that it is illegal to use the solder or flux in the installation or repair of any plumbing providing water for human consumption.

(e) For the purposes of this section, "lead free" means not more than 0.2 percent lead when used with respect to solder and flux and not more than 8 percent when used with respect to pipes and pipe fittings. With respect to plumbing fittings and fixtures, "lead free" means not more than 4 percent by dry weight after August 6, 2002, unless the department has adopted a standard, based on health effects, for the leaching of lead.

Section 116880. Regulation authority

The department shall adopt building standards to implement Section 116875. The standards shall be adopted in accordance with Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code and shall be published in the State Building Standards Code located in Title 24 of the California Code of Regulations. The standards shall be enforced by the appropriate state and local building and health officials.

~~CHAPTER 6. OPERATION OF WATER TREATMENT PLANTS¹⁶~~

~~ARTICLE 1. DEFINITIONS~~

~~Section 116900. Definitions~~

~~Unless the context otherwise requires, the definitions in this article govern the interpretation of this chapter and Article 3 (commencing with Section 106875) of Chapter 4 of Part 1.~~

~~Section 116905. Advisory committee~~

¹⁶ Repealed by 1999 statutes, Chapter 755 (SB1107).

~~"Advisory committee" means the committee established by former Section 116925.~~

Section 116910. Certificate

~~"Certificate" means a certificate of competency issued by the director stating that the operator has met the requirements for a specific operator classification of the certification program.~~

Section 116915. Operator

~~"Operator" means any person who is responsible for the operation of a water treatment plant.~~

Section 116920. Water treatment plant

~~"Water treatment plant" means a group or assemblage of structures, equipment, and processes that treat or condition a water supply, affecting the physical, chemical, or bacteriological quality of water distributed or otherwise offered to the public for domestic use.~~

~~ARTICLE 2. — ADMINISTRATION~~

Section 116950. Regulation authority

~~The director shall adopt regulations and certification standards necessary to carry out this chapter and Article 3 (commencing with Section 106875) of Chapter 4 of Part 1, pursuant to Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code, and shall submit those regulations to the board for its review and approval.~~

WATER CODE

Water Code

DIVISION 1. GENERAL STATE POWERS OVER WATER

CHAPTER 3. WATER SHORTAGE EMERGENCIES

Section 350. Declaration

The governing body of a distributor of a public water supply, whether publicly or privately owned and including a mutual water company, may declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.

Section 351. Hearing

Excepting in event of a breakage or failure of a dam, pump, pipe line or conduit causing an immediate emergency, the declaration shall be made only after a public hearing at which consumers of such water supply shall have an opportunity to be heard to protest against the declaration and to present their respective needs to said governing board.

Section 352. Notice

Notice of the time and place of hearing shall be published pursuant to Section 6061 of the Government Code at least seven days prior to the date of hearing in a newspaper printed, published, and circulated within the area in which the water supply is distributed, or if there is no such newspaper, in any newspaper printed, published, and circulated in the county in which the area is located.

Section 353. Regulation authority

When the governing body has so determined and declared the existence of an emergency condition of water shortage within its service area, it shall thereupon adopt such regulations and restrictions on the delivery of water and the consumption within said area of water supplied for public use as will in the sound discretion of such governing body conserve the water supply for the greatest public benefit with particular regard to domestic use, sanitation, and fire protection.

Section 354. Priorities authority

After allocating and setting aside the amount of water which in the opinion of the governing body will be necessary to supply water needed for domestic use, sanitation, and fire protection,

the regulations may establish priorities in the use of water for other purposes and provide for the allocation, distribution, and delivery of water for such other purposes, without discrimination between consumers using water for the same purpose or purposes.

Section 355. Duration of regulations and restrictions

The regulations and restrictions shall thereafter be and remain in full force and effect during the period of the emergency and until the supply of water available for distribution within such area has been replenished or augmented.

Section 356. Moratorium authority

The regulations and restrictions may include the right to deny applications for new or additional service connections, and provision for their enforcement by discontinuing service to consumers wilfully violating the regulations and restrictions.

Section 357. Supersedes other law except P.U.C.

If the regulations and restrictions on delivery and consumption of water adopted pursuant to this chapter conflict with any law establishing the rights of individual consumers to receive either specific or proportionate amounts of the water supply available for distribution within such service area, the regulations and restrictions adopted pursuant to this chapter shall prevail over the provisions of such laws relating to water rights for the duration of the period of emergency; provided, however, that any distributor of water which is subject to regulation by the State Public Utilities Commission shall before making such regulations and restrictions effective secure the approval thereof by the Public Utilities Commission.

Section 358. Judicial review

Nothing in this chapter shall be construed to prohibit or prevent review by any court of competent jurisdiction of any finding or determination by a governing board of the existence of an emergency or of regulations or restrictions adopted by such board, pursuant to this chapter, on the ground that any such action is fraudulent, arbitrary, or capricious.

Section 359. Drought relief loans

Notwithstanding any other provision of law which requires an election for the purpose of authorizing a contract with the United States, or for incurring the obligation to repay loans from the United States, and except as otherwise limited or prohibited by the Constitution of the State of California, a public water agency may, as an alternative procedure to submitting the proposal to an election, upon affirmative vote of four-fifths of the members of the governing body thereof, apply for, accept, provide for the repayment together with interest thereon, and use funds made available by the federal government pursuant to Public Law 95-18, pursuant to any other federal act subsequently enacted during 1977 which specifically provides emergency drought relief financing, or pursuant to existing federal relief programs receiving budget augmentations in 1977

for drought assistance, and may enter into such contracts as are required to obtain such federal funds pursuant to the provisions of such federal acts; provided the following conditions exist:

- (a) The project is undertaken by state, regional, or local governmental agency.
- (b) As a result of the severe drought now existing in many parts of the state, the agency has insufficient water supply needed to meet necessary agricultural, domestic, industrial, recreational, and fish and wildlife needs within the service area or area of jurisdiction of the agency.
- (c) The project will develop or conserve water before October 31, 1978, and will assist in mitigating the impacts of the drought.
- (d) The agency affirms that it will comply, if applicable, to Sections 1601, 1602, and 1603 of the Fish and Game Code.
- (e) The project will be completed on or before the completion date, if any, required under the federal act providing the funding, but not later than March 1, 1978.

Any obligation to repay loans shall be expressly limited to revenues of the system improved by the proceeds of the contract.

No application for such federal funds pursuant to the authority of this section shall be made on or after March 1, 1978.

Notwithstanding the provisions of this section, a public agency shall not be exempt from any provision of law which requires the submission of such proposal to an election if a petition requesting such an election signed by 10 percent of the registered voters within the public agency is presented to the governing board within 30 days following the submission of an application for such federal funds.

Notwithstanding the provisions of this section, a public water agency which applied for federal funds for a project prior to January 1, 1978, may make application to the Director of the Drought Emergency Task Force for extension of the required completion date specified in subdivision (e). Following receipt of an application for extension, the Director of the Drought Emergency Task Force may extend the required completion date specified in subdivision (e) to a date not later than September 30, 1978, if the director finds that the project has been delayed by factors not controllable by the public water agency. If the Drought Emergency Task Force is dissolved, the Director of Water Resources shall exercise the authority vested in the Director of the Drought Emergency Task Force pursuant to this section.

For the purposes of this section, "public water agency" means a city, district, agency, authority, or any other political subdivision of the state, except the state, which distributes water to the inhabitants thereof, which is otherwise authorized by law to enter into contracts or agreements with the federal government for a water supply or for financing facilities for a water

supply, and which is otherwise required by law to submit such agreements or contracts or any other project involving long-term debt to an election within such public water agency.

CHAPTER 3.5. WATER CONSERVATION PROGRAMS

Section 375. Procedures

(a) Notwithstanding any other provision of the law, any public entity which supplies water at retail or wholesale for the benefit of persons within the service area or area of jurisdiction of the public entity may, by ordinance or resolution adopted by a majority of the members of the governing body after holding a public hearing upon notice and making appropriate findings of necessity for the adoption of a water conservation program, adopt and enforce a water conservation program to reduce the quantity of water used by those persons for the purpose of conserving the water supplies of the public entity.

(b) With regard to water delivered for other than agricultural uses, the ordinance or resolution may specifically require the installation of water-saving devices which are designed to reduce water consumption. The ordinance or resolution may also encourage water conservation through rate structure design.

(c) For the purposes of this section, "public entity" means a city, whether general law or chartered, county, city and county, special district, agency, authority, any other municipal public corporation or district, or any other political subdivision of the state.

Section 375.5. Water conservation and public education programs

(a) A public entity, as defined by Section 375, may undertake water conservation and public education programs in conjunction with school districts, public libraries, or any other public entity.

(b) A public entity may take into account any programs undertaken pursuant to this section in a rate structure design implemented pursuant to Section 375.

(c) The Legislature finds and declares that a program undertaken pursuant to this section is in the public interest, serves a public purpose, and will promote the health, welfare, and safety of the people of the State.

Section 376. Publication

Any ordinance or resolution adopted pursuant to Section 375 is effective upon adoption. Within 10 days after its adoption, the ordinance or resolution shall be published pursuant to Section 6061 of the Government Code in full in a newspaper of general circulation which is printed, published, and circulated in the district. If there is no such newspaper the ordinance or

resolution shall be posted within 10 days after its adoption in three public places within the district.

Section 377. Violations

From and after the publication or posting of any ordinance or resolution pursuant to Section 376, violation of a requirement of a water conservation program adopted pursuant to Section 376 is a misdemeanor. Upon conviction thereof such person shall be punished by imprisonment in the county jail for not more than 30 days, or by fine not exceeding one thousand dollars (\$ 1,000), or by both.

Section 378. Water conservation programs

A public entity may enter into agreements with other public entities, businesses, community associations, or private entities to provide water conservation services and measures and materials for implementing water conservation programs adopted pursuant to this chapter.

DIVISION 7. WATER QUALITY

CHAPTER 2. DEFINITIONS

Section 13050. Terms used in this division

As used in this division:

- (a) "State board" means the State Water Resources Control Board.
- (b) "Regional board" means any California regional water quality control board for a region as specified in Section 13200.
- (c) "Person" includes any city, county, district, the state, and the United States, to the extent authorized by federal law.
- (d) "Waste" includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.
- (e) "Waters of the state" means any surface water or groundwater, including saline waters, within the boundaries of the state.
- (f) "Beneficial uses" of the waters of the state that may be protected against quality degradation include, but are not limited to, domestic, municipal, agricultural and industrial

supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

(g) "Quality of the water" refers to chemical, physical, biological, bacteriological, radiological, and other properties and characteristics of water which affect its use.

(h) "Water quality objectives" means the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.

(i) "Water quality control" means the regulation of any activity or factor which may affect the quality of the waters of the state and includes the prevention and correction of water pollution and nuisance.

(j) "Water quality control plan" consists of a designation or establishment for the waters within a specified area of all of the following:

- (1) Beneficial uses to be protected.
- (2) Water quality objectives.
- (3) A program of implementation needed for achieving water quality objectives.

(k) "Contamination" means an impairment of the quality of the waters of the state by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease. "Contamination" includes any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected.

(l) (1) "Pollution" means an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following:

- (A) The waters for beneficial uses.
- (B) Facilities which serve these beneficial uses.

(2) "Pollution" may include "contamination."

(m) "Nuisance" means anything which meets all of the following requirements:

(1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.

(2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.

(3) Occurs during, or as a result of, the treatment or disposal of wastes.

(n) "Recycled water" means water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefor considered a valuable resource.

(o) "Citizen or domiciliary" of the state includes a foreign corporation having substantial business contacts in the state or which is subject to service of process in this state.

(p) (1) "Hazardous substance" means either of the following:

(A) For discharge to surface waters, any substance determined to be a hazardous substance pursuant to Section 311(b)(2) of the Federal Water Pollution Control Act (33 U.S.C. Sec. 1251 et seq.).

(B) For discharge to groundwater, any substance listed as a hazardous waste or hazardous material pursuant to Section 25140 of the Health and Safety Code, without regard to whether the substance is intended to be used, reused, or discarded, except that "hazardous substance" does not include any substance excluded from Section 311 (b)(2) of the Federal Water Pollution Control Act because it is within the scope of Section 311(a)(1) of that act.

(2) "Hazardous substance" does not include any of the following:

(A) Nontoxic, nonflammable, noncorrosive stormwater runoff drained from underground vaults, chambers, or manholes into gutters or storm sewers.

(B) Any pesticide which is applied for agricultural purposes or is applied in accordance with a cooperative agreement authorized by Section 2426 of the Health and Safety Code, and is not discharged accidentally or for purposes of disposal, the application of which is in compliance with all applicable state and federal laws and regulations.

(C) Any discharge to surface water of a quantity less than a reportable quantity as determined by regulations issued pursuant to Section 311(b)(4) of the Federal Water Pollution Control Act.

(D) Any discharge to land which results, or probably will result, in a discharge to groundwater if the amount of the discharge to land is less than a reportable quantity, as determined by regulations issued pursuant to Section 13271, for substances listed as hazardous pursuant to Section 25140 of the Health and Safety Code. No discharge shall be deemed a

discharge of a reportable quantity until regulations set a reportable quantity for the substance discharged.

(q) "Mining waste" means all solid, semisolid, and liquid waste materials from the extraction, beneficiation, and processing of ores and minerals. Mining waste includes, but is not limited to, soil, waste rock, and overburden, as defined in Section 2732 of the Public Resources Code, and tailings, slag, and other processed waste materials.

(r) "Master recycling permit" means a permit issued to a supplier or a distributor, or both, of recycled water, that includes waste discharge requirements prescribed pursuant to Section 13263 and water recycling requirements prescribed pursuant to Section 13523.1.

Section 13051. Injection well

As used in this division, "injection well" means any bored, drilled, or driven shaft, dug pit, or hole in the ground into which waste or fluid is discharged, and any associated subsurface appurtenances, and the depth of which is greater than the circumference of the shaft, pit, or hole.

Section 13169. Groundwater protection program

(a) The state board is authorized to develop and implement a groundwater protection program as provided under the Safe Drinking Water Act, Section 300 and following of Title 42 of the United States Code, and any federal act that amends or supplements the Safe Drinking Water Act. The authority of the state board under this section includes, but is not limited to, the following:

(1) To apply for and accept state groundwater protection grants from the federal government.

(2) To take any additional action as may be necessary or appropriate to assure that the state's groundwater protection program complies with any federal regulations issued pursuant to the Safe Drinking Water Act or any federal act that amends or supplements the Safe Drinking Water Act.

(b) Nothing in this section is intended to expand the authority of the state board as authorized under the Porter-Cologne Water Quality Control Act (Div. 7 (commencing with Sec. 13000) Wat. C.).

Section 13272. Petroleum discharge list

(a) Except as provided by subdivision (b), any person who, without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the state, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the state, shall as soon as (1) that person has knowledge of the discharge, (2) notification is possible, and (3) notification can be provided without substantially impeding cleanup of other

emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the state oil spill contingency plan adopted pursuant to Article 3.5 (commencing with Section 8574.1) of Chapter 7 of Division 1 of Title 2 of the Government Code. This section shall not apply to spills of oil into marine waters as defined in subdivision (f) of Section 8670.3 of the Government Code.

(b) The notification required by this section shall not apply to a discharge in compliance with waste discharge requirements or other provisions of this division.

(c) Any person who fails to provide the notice required by this section is guilty of a misdemeanor and shall be punished by a fine of not less than five hundred dollars (\$500) or more than five thousand dollars (\$5,000) per day for each day of failure to notify, or imprisonment of not more than one year, or both. Except where a discharge to the waters of this state would have occurred but for cleanup or emergency response by a public agency, this subdivision shall not apply to any discharge to land which does not result in a discharge to the waters of this state. This subdivision shall not apply to any person who is fined by the federal government for a failure to report a discharge of oil.

(d) Notification received pursuant to this section or information obtained by use of that notification shall not be used against any person providing the notification in any criminal case, except in a prosecution for perjury or giving a false statement.

(e) Immediate notification to the appropriate regional board of the discharge, in accordance with reporting requirements set under Section 13267 or 13383, shall constitute compliance with the requirements of subdivision (a).

(f) The reportable quantity for oil or petroleum products shall be one barrel (42 gallons) or more, by direct discharge to the receiving waters, unless a more restrictive reporting standard for a particular body of water is adopted.

Section 13272.1. MTBE discharge list

Each regional board shall publish and distribute on a quarterly basis to all public water system operators within the region of the regional board, a list of discharges of MTBE that occurred during the quarter and a list of locations where MTBE was detected in the groundwater within the region of the regional board.

Section 13274. Public water system rights

(a) Notwithstanding any other provision of law, any public water system regulated by the State Department of Health Services shall have the same legal rights and remedies against a responsible party, when the water supply used by that public water system is contaminated, as those of a private land owner whose groundwater has been contaminated.

(b) For purposes of this section, "responsible party" has the same meaning as defined

in Section 25323.5 of the Health and Safety Code.

CHAPTER 10. WELLS

ARTICLE 3. REPORTS

Section 13750. Notice of intention

Every person who hereafter intends to dig, bore, or drill a water well, cathodic protection well, or monitoring well, or who intends to deepen or reperform any such well, or to abandon or destroy any such well, shall file with the department a notice of intent to engage in such construction, alteration, destruction, or abandonment prior to commencing such construction, alteration, destruction, or abandonment; provided, that when such construction, alteration, destruction, or abandonment must be accomplished immediately in order to prevent damage to persons or property due to the loss of an existing water supply, such notice shall be filed with the department as soon as possible thereafter, but in any event not more than five days after commencement of such construction, alteration, destruction, or abandonment or repair.

The report shall be made on forms furnished by the department and shall contain such information as the department may require, including, but not limited to, all of the following:

- (a) A description of the well site sufficiently exact to permit location and identification of the well.
- (b) The proposed date of construction of the well.
- (c) The use for which the well is intended.
- (d) The work to be done and a description of type of construction.
- (e) In event of late filing, the reasons therefor.

Section 13750.5. Responsible person

No person shall undertake to dig, bore, or drill a water well, cathodic protection well, groundwater monitoring well, or geothermal heat exchange well, to deepen or reperform such a well, or to abandon or destroy such a well, unless the person responsible for that construction, alteration, destruction, or abandonment possesses a C-57 Water Well Contractor's License.

Section 13751. Completion report

(a) Every person who digs, bores, or drills a water well, cathodic protection well, groundwater monitoring well, or geothermal heat exchange well, abandons or destroys such a well, or deepens or reperfomates such a well, shall file with the department a report of completion

of that well within 60 days from the date its construction, alteration, abandonment, or destruction is completed.

(b) The report shall be made on forms furnished by the department and shall contain information as follows:

(1) In the case of a water well, cathodic protection well, or groundwater monitoring well, the report shall contain information as required by the department, including, but not limited to all of the following information:

(A) A description of the well site sufficiently exact to permit location and identification of the well.

(B) A detailed log of the well.

(C) A description of type of construction.

(D) The details of perforation.

(E) The methods used for sealing off surface or contaminated waters.

(F) The methods used for preventing contaminated waters of one aquifer from mixing with the waters of another aquifer.

(G) The signature of the well driller.

(2) In the case of a geothermal heat exchange well, the report shall contain all of the following information:

(A) A description of the site that is sufficiently exact to permit the location and identification of the site and the number of geothermal heat exchange wells drilled on the same lot.

(B) A description of borehole diameter and depth and the type of geothermal heat exchange system installed.

(C) The methods and materials used to seal off surface or contaminated waters.

(D) The methods used for preventing contaminated water in one aquifer from mixing with the water in another aquifer.

(E) The signature of the well driller.

Section 13752. Inspection of reports

Reports made in accordance with paragraph (1) of subdivision (b) of Section 13751 shall not be made available for inspection by the public, but shall be made available to governmental agencies for use in making studies. However, any report shall be made available to any person who obtains a written authorization from the owner of the well.

Section 13753. Conversion of wells

Every person who hereafter converts, for use as a water well, cathodic protection well, or monitoring well, any oil or gas well originally constructed under the jurisdiction of the Department of Conservation pursuant to Article 4 (commencing with Section 3200) of Chapter 1 of Division 3 of the Public Resources Code, shall comply with all provisions of this chapter.

Section 13754. Misdemeanor

Failure to comply with any provision of this article, or willful and deliberate falsification of any report required by this article, is a misdemeanor.

Before commencing prosecution against any person, other than for willful and deliberate falsification of any report required by this article, the person shall be given reasonable opportunity to comply with the provisions of this article.

Section 13755. DHS powers undiluted

Nothing in this chapter shall affect the powers and duties of the State Department of Health Services with respect to water and water systems pursuant to Chapter 4 (commencing with Section 116275) of Part 12 of Division 104 of the Health and Safety Code. Every person shall comply with this chapter and any regulation adopted pursuant thereto, in addition to standards adopted by any city or county.

TITLE 17

Title 17

Code of Regulations

DIVISION 1. STATE DEPARTMENT OF HEALTH SERVICES

CHAPTER 5. SANITATION (ENVIRONMENTAL)

GROUP 2. OPERATOR CERTIFICATION PROGRAM

ARTICLE 1. GENERAL

ARTICLE 2. RESPONSIBILITY OF WATER SUPPLIER

Section 7104. Operator-in-training

A water supplier may employ a person to work as an operator-in-training if that person works under the continuous and direct supervision of a certified operator. In such a case, the water supplier shall notify the Department of a) the name of the uncertified operator-in-training, and b) the name and certificate number of the supervising operator. While operator-in-training is not a grade of certification, experience as an operator-in-training will be considered as valid experience for qualification for certification.

Section 7105. Remote area

(a) A water supplier in a remote area who does not have or is unable to employ an operator holding an appropriate grade of certificate may apply to the Department for permission to employ a person who holds or obtains a Limited Certificate as provided in Section 7118. In such case, the water supplier shall submit the following information to the Department:

- (1) Prior efforts made to employ certified persons.
- (2) Plans for provision of appropriate training.
- (3) The compensation and working conditions offered for the position.

ARTICLE 3. RESPONSIBILITY OF OPERATORS

Section 7107. Grade of operator

The grade of operator shall be as shown in Tables 1 and 2, consistent with the extent of operator responsibility. Operator grades in Tables 1 and 2 shall have the same meaning with respect to qualifications and examinations for certification.

Table 1
Minimum Grade of Operator Required by
Operator Responsibility for Filtration Plant

Operator Responsibility	<i>Rated Capacity of Plant in MGD</i>			
	< 1	1 to 5	5 to 10	10
24 Hours/Day (Superintendent, Assistant Supt. Chief Operator)	II	III	IV	
8 Hours/Day (Shift Operator)		II	III ^{1.}	III or IV ^{2.}

1. Entry level operators working under supervision should obtain a Grade II certificate.
2. When there is more than one operator, the supervising operator shall be in Grade IV.

Table 2
Minimum Grade of Operator Required by
Operator Responsibility for Chemical Feeding Plant
(Chlorine, Fluoride, Polyphosphate, etc.)

<i>Operator Responsibility</i>	<i>System Serving Less than 200 Services</i>	<i>System Serving 200 Services or More and a Plant up to 10 MGD</i>	<i>Plant More than 10 MGD</i>
24 hours/Day (Superintendent, Assistant Supt. Chief Operator)	I	II	III
8 Hours /Day (Shift Operator)			II

ARTICLE 4. ISSUANCE OF CERTIFICATES**Section 7109. Requirements for certification**

(a) To obtain a certificate a person must file an application and, except as provided in Sections 7113, 7117, and 7118, pass an examination specified by the Department.

(b) Eligibility requirements for the examination are:

(1) Possession of appropriate education background and water treatment experience as required in Table 3, Section 7114, or

(2) Possession of such other combinations of appropriate training and experience as deemed adequate by the Department, or

(3) Employment as a water treatment plant operator prior to April 30, 1973.

Section 7110. Application

Applications for certification, changes in grade, and certification renewal shall be made on forms provided by the Department and shall be accompanied by the fee prescribed in Article 8.

Section 7110.1. Processing an application for certification

(a) Within 30 calendar days of receipt of an application, the Department shall inform the applicant in writing that it is either complete and accepted for filing or that it is deficient and what specific information or documentation is required to complete the application. An application is considered complete if it is in compliance with the requirements specified in Section 7110 of this chapter.

(b) Within 74 days after the fulfillment of the requirements specified in Sections 7109 and 7110 of this chapter (including the requirements of filing a complete application and taking an examination, where an examination is required), the Department shall inform the applicant of its decision regarding the application for certification.

Section 7110.2. Processing time

The Department's time periods for processing an application from the date of receipt of an application to the date a final decision is made regarding the issuance of a certificate are as follows. These time periods for processing applications are based upon the Department's actual performance during the two years preceding the proposal of this regulation.

(a) The median time for processing the completed application is 26 calendar days.

(b) The minimum time for processing the completed application is seven calendar days.

(c) The maximum time for processing the completed application is 74 calendar days.

Section 7112. Notification to applicants

After review of the application, the Department shall notify the applicant of its findings. If the applicant is required to participate in an examination, and he or she is eligible for the examination, the applicant shall be notified of the time and place for the next scheduled examination.

Section 7114. Minimum qualifications for examination

Table 3
Minimum Qualifications for Examination
for Various Operator Grades

<i>Grade</i>	<i>Education &/or Certification</i>	<i>Water Treatment** Experience--Years</i>
V	College or	1 (1)
	2 years as Grade IV	5 (2)
IV	College or	1 (1)
	High School and 1 year as Grade III	3 (1)
	or 2 years as Grade III	3 (1)
III	College or	None
	High School and Specialized Training	2
II	or 2 years as Grade II and Specialized Training	2
	High School and Specialized Training	None
I	or High School	1
	or Specialized Training	1
I	None	None

* High School shall mean graduation from high school or attainment of a General Education Development certificate. Specialized training shall mean completion of acceptable courses of instruction in water treatment. College shall mean completion of courses of instruction including water treatment and water works practice and attainment of a bachelor degree in sanitary, public health, chemical engineering, civil engineering, chemistry, or equivalent. A registered Professional Engineer practicing in the field of sanitary engineering shall not be required to have experience in operation of a water treatment plant.

** Number in parenthesis is years in a position of major responsibility.

ARTICLE 5. TYPES OF CERTIFICATION

Section 7116. Regular certification

Regular certificates shall be issued to qualified applicants, specifying the Grade in which the applicant has been determined to be competent.

Section 7117. Temporary certification

The Department for good cause may issue a temporary certificate pending examination if the applicant meets the qualifications specified in Table 3, Section 7114 for the Grade for which he or she has applied. Such temporary certificate shall be valid until 90 days after the date of the next examination.

Section 7118. Limited certification

(a) A limited certificate may be issued without written examination to an applicant in a remote area if the Department finds that:

- (1) Provisions of Section 7105 have been met by the water supplier,
- (2) The applicant has reasonable experience and knowledge to operate the facility without jeopardizing public health and safety, and
- (3) An operator, qualified for a regular certificate, is not available.

(b) Such limited certificate shall be valid only for a specific treatment facility and for the time period specified.

(c) Upon expiration of the Limited Certificate, and before an application for renewal is considered, the Department may require the applicant to supply information on what effort was made to obtain a regular certificate, and the water supplier to provide current information as specified in Section 7105.

ARTICLE 6. CERTIFICATION ISSUANCE, RENEWAL, SUSPENSION, AND REVOCATION

Section 7120. Issuance and renewal

An initial certificate for any Grade shall be valid for one year from the date of issuance, at which time it is subject to renewal. Upon payment of appropriate fees at least 15 days prior to the expiration date, certificates of operators remaining in good standing will be renewed, without examination, for a two-year period and each two-year period thereafter.

Section 7121. Suspension for failure to renew certificate

Failure to pay the required renewal fees shall result in the automatic suspension of the certificate. If the application and fees are not submitted within six months of the date originally due, along with any prescribed penalty fee, the certificate shall be revoked.

Section 7122. Revocation of certificate

The Department may suspend, revoke or refuse to renew the certificate of an operator, following a hearing before the Department or its designated representative, if it is found that the operator has practiced fraud or deception; that reasonable care, judgment, or the application of knowledge was not used in the performance of his duties; or that the operator is incompetent or unable to properly perform.

Section 7123. Posting of certificate

Certified operators shall prominently display their certificates at the water treatment facility, place of employment, or business office.

ARTICLE 7. EXAMINATION

Section 7127. Examination procedure

Applicants shall be notified of the time and place of the examination at least 15 days prior to the date of the examination. Applicants who fail to pass the examination may apply for permission to take a subsequent examination. No examination papers will be returned to the applicants, but the papers may be made available for review by the applicant.

ARTICLE 8. FEES

Section 7130. Application fee

The application fee for certification or changes in Grade shall be as shown in Table 4. If the

application is denied, there shall be no refund to the applicant. If the applicant fails to meet the minimum qualifications for examination at the level the applicant indicated on the application, but is found qualified for examination for lower grade, there shall be no refund of any difference in application fee.

Table 4
Application Fees for Examination
to Various Operator Grades

<u>Grade</u>	<u>Application Fee</u>
I	\$28.00
II	\$38.00
III	\$48.00
IV	\$58.00
V	\$58.00

Section 7131. Renewal fee

The renewal fee for each 24-month period shall be as shown in Table 5. No portion of the renewal fee is refundable.

Table 5
Application Fees for Examination
to Various Operator Grades

<u>Grade</u>	<u>Application Fee</u>
I	\$23.00
II	\$33.00
III	\$43.00
IV	\$53.00
V	\$53.00

Section 7132. Reexamination fee

An applicant who fails an examination may apply for a subsequent examination upon payment of the application fee specified in Section 7130.

Section 7133. Penalty fee

Any certificate which has been suspended for failure to pay a renewal fee may be reinstated upon payment of the required fee plus an additional penalty of \$15.00, provided an application and the fee are submitted within six months of the date originally due.

Section 7134. Duplicate certificate fee

A duplicate certificate may be obtained upon payment of a \$15.00 fee.

GROUP 4. DRINKING WATER SUPPLIES

ARTICLE 1. GENERAL

Section 7583. Definitions

In addition to the definitions in Section 4010.1 of the Health and Safety Code, the following terms are defined for the purpose of this Chapter:

(a) "Approved Water Supply" is a water supply whose potability is regulated by a State or local health agency.

(b) "Auxiliary Water Supply" is any water supply other than that received from a public water system.

(c) "Air-gap Separation (AG)" is a physical break between the supply line and a receiving vessel.

(d) "AWWA Standard" is an official standard developed and approved by the American Water Works Association (AWWA).

(e) "Cross-Connection" is an unprotected actual or potential connection between a potable water system used to supply water for drinking purposes and any source or system containing unapproved water or a substance that is not or cannot be approved as safe, wholesome, and potable. By-pass arrangements, jumper connections, removable sections, swivel or changeover devices, or other devices through which backflow could occur, shall be considered to be cross-connections.

(f) "Double Check Valve Assembly (DC)" is an assembly of at least two independently acting check valves including tightly closing shut-off valves on each side of the check valve assembly and test cocks available for testing the watertightness of each check valve.

(g) "Health Agency" means the California Department of Health Services, or the local health officer with respect to a small water system.

(h) "Local Health Agency" means the county or city health authority.

(i) "Reclaimed Water" is wastewater which as a result of treatment is suitable for uses other than potable use.

(j) "Reduced Pressure Principle Backflow Prevention Device (RP)" is a backflow preventer incorporating not less than two check valves, an automatically operated differential relief valve located between the two check valves, a tightly closing shut-off valve on each side of the check valve assembly, and equipped with necessary test cocks for testing.

(k) "User Connection" is the point of connection of a user's piping to the water supplier's facilities.

(l) "Water Supplier" is the person who owns or operates the public water system.

(m) "Water User" is any person obtaining water from a public water supply.

Section 7584. Responsibility and scope of program

The water supplier shall protect the public water supply from contamination by implementation of a cross-connection control program. The program, or any portion thereof, may be implemented directly by the water supplier or by means of a contract with the local health agency, or with another agency approved by the health agency. The water supplier's cross-connection control program shall for the purpose of addressing the requirements of Sections 7585 through 7605 include, but not be limited to, the following elements:

(a) The adoption of operating rules or ordinances to implement the cross-connection program.

(b) The conducting of surveys to identify water user premises where cross-connections are likely to occur,

(c) The provisions of backflow protection by the water user at the user's connection or within the user's premises or both,

(d) The provision of at least one person trained in cross-connection control to carry out the cross-connection program,

(e) The establishment of a procedure or system for testing backflow preventers, and

(f) The maintenance of records of locations, tests, and repairs of backflow preventers.

Section 7585. Evaluation of hazard

The water supplier shall evaluate the degree of potential health hazard to the public water supply which may be created as a result of conditions existing on a user's premises. The water supplier, however, shall not be responsible for abatement of cross-connections which may exist within a user's premises. As a minimum, the evaluation should consider: the existence of cross-connections, the nature of materials handled on the property, the probability of a backflow

occurring, the degree of piping system complexity and the potential for piping system modification. Special consideration shall be given to the premises of the following types of water users:

(a) Premises where substances harmful to health are handled under pressure in a manner which could permit their entry into the public water system. This includes chemical or biological process waters and water from public water supplies which have deteriorated in sanitary quality.

(b) Premises having an auxiliary water supply, unless the auxiliary supply is accepted as an additional source by the water supplier and is approved by the health agency.

(c) Premises that have internal cross-connections that are not abated to the satisfaction of the water supplier or the health agency.

(d) Premises where cross-connections are likely to occur and entry is restricted so that cross-connection inspections cannot be made with sufficient frequency or at sufficiently short notice to assure that cross-connections do not exist.

(e) Premises having a repeated history of cross-connections being established or re-established.

Section 7586. User supervisor

The health agency and water supplier may, at their discretion, require an industrial water user to designate a user supervisor when the water user's premises has a multipiping system that convey various types of fluids, some of which may be hazardous and where changes in the piping system are frequently made. The user supervisor shall be responsible for the avoidance of cross-connections during the installation, operation and maintenance of the water user's pipelines and equipment.

ARTICLE 2. PROTECTION OF WATER SYSTEM

Section 7601. Approval of backflow preventers

Backflow preventers required by this Chapter shall have passed laboratory and field evaluation tests performed by a recognized testing organization which has demonstrated their competency to perform such tests to the Department.

Section 7602. Construction of backflow preventers

(a) Air-gap Separation. An Air-gap separation (AG) shall be at least double the diameter of the supply pipe, measured vertically from the flood rim of the receiving vessel to the supply pipe; however, in no case shall this separation be less than one inch.

(b) Double Check Valve Assembly. A required double check valve assembly (DC) shall, as a minimum, conform to the AWWA Standard C506-78 (R83) adopted on January 28, 1978 for Double Check Valve Type Backflow Preventive Devices which is herein incorporated by reference.

(c) Reduced Pressure Principle Backflow Prevention Device. A required reduced pressure principle backflow prevention device (RP) shall, as a minimum, conform to the AWWA Standard C506-78 (R83) adopted on January 28, 1978 for Reduced Pressure Principle Type Backflow Prevention Devices which is herein incorporated by reference.

Section 7603. Location of backflow preventers

(a) Air-gap Separation. An air-gap separation shall be located as close as practical to the user's connection and all piping between the user's connection and the receiving tank shall be entirely visible unless otherwise approved in writing by the water supplier and the health agency.

(b) Double Check Valve Assembly. A double check valve assembly shall be located as close as practical to the user's connection and shall be installed above grade, if possible, and in a manner where it is readily accessible for testing and maintenance.

(c) Reduced Pressure Principle Backflow Prevention Device. A reduced pressure principle backflow prevention device shall be located as close as practical to the user's connection and shall be installed a minimum of twelve inches (12") above grade and not more than thirty-six inches (36") above grade measured from the bottom of the device and with a minimum of twelve inches (12") side clearance.

Section 7604. Type of protection required

The type of protection that shall be provided to prevent backflow into the public water supply shall be commensurate with the degree of hazard that exists on the consumer's premises. The type of protective device that may be required (listed in an increasing level of protection) includes: Double Check Valve Assembly - (DC), Reduced Pressure Principle Backflow Prevention Device - (RP), and an Air-gap Separation - (AG). The water user may choose a higher level of protection than required by the water supplier. The minimum types of backflow protection required to protect the public water supply, at the water user's connection to premises with various degrees of hazard are given in Table 1. Situations which are not covered in Table 1 shall be evaluated on a case-by-case basis and the appropriate backflow protection shall be determined by the water supplier or health agency.

Table 1
Type Of Backflow Protection Required

<i>Degree of Hazard</i>	<i>Minimum Type Of Backflow Prevention</i>
(a) Sewage and Hazardous Substances	
(1) Premises where the public water system is used to supplement the reclaimed water supply.	AG
(2) Premises where there are waste water pumping and/or treatment plants and there is no interconnection with the potable water system. This does not include a single-family residence that has a sewage lift pump. A RP be provided in lieu of an AG if approved by the health agency and water supplier.	AG
(3) Premises where reclaimed water is used and there is no interconnection with the potable water system. A RP may be provided in lieu of an AG if approved by the health agency and water supplier.	AG
(4) Premises where hazardous substances are handled in any manner in which the substances may enter the potable water system. This does not include a single-family residence that has a sewage lift pump. A RP may be provided in lieu of an AG if approved by the health agency and water supplier.	AG
(5) Premises where there are irrigation systems into which fertilizers, herbicides, or pesticides are, or can be, injected.	RP
(b) Auxiliary Water Supplies	
(1) Premises where there is an unapproved auxiliary water supply which is interconnected with the public water system. A RP or DC may be provided in lieu of an AG if approved by the health agency and water supplier.	AG
(2) Premises where there is an unapproved auxiliary RP water supply and there are no interconnections with	RP

<i>Degree of Hazard</i>	<i>Minimum Type Of Backflow Prevention</i>
the public water system. A DC may be provided in lieu of a RP if approved by the health agency and water supplier.	
(c) Fire Protection Systems	
(1) Premises where the fire system is directly supplied from the public water system and there is an unapproved auxiliary water supply on or to the premises (not interconnected).	DC
(2) Premises where the fire system is supplied from the public water system and interconnected with an unapproved auxiliary water supply. A RP may be provided in lieu of an AG if approved by the health agency and water supplier.	AG
(3) Premises where the fire system is supplied from the public water system and where either elevated storage tanks or fire pumps which take suction from private reservoirs or tanks are used.	DC
(d) Dockside Watering Points and Marine Facilities	
(1) Pier hydrants for supplying water to vessels for any purpose.	RP
(2) Premises where there are marine facilities.	RP
(e) Premises where entry is restricted so that inspections for cross-connections cannot be made with sufficient frequency or at sufficiently short notice to assure that do not exist.	RP
(f) Premises where there is a repeated history of cross-connections being established or re-established.	RP

Section 7605. Testing and maintenance of backflow preventers

(a) The water supplier shall assure that adequate maintenance and periodic testing are provided by the water user to ensure their proper operation.

(b) Backflow preventers shall be tested by persons who have demonstrated their competency in testing of these devices to the water supplier or health agency.

(c) Backflow preventers shall be tested at least annually or more frequently if determined to be necessary by the health agency or water supplier. When devices are found to be defective, they shall be repaired or replaced in accordance with the provisions of this Chapter.

(d) Backflow preventers shall be tested immediately after they are installed, relocated or repaired and not placed in service unless they are functioning as required.

(e) The water supplier shall notify the water user when testing of backflow preventers is needed. The notice shall contain the date when the test must be completed.

(f) Reports of testing and maintenance shall be maintained by the water supplier for a minimum of three years.

ARTICLE 5. DOMESTIC WATER SUPPLY RESERVOIRS

Section 7625. Definitions

(a) "Domestic water supply reservoir" as used herein means a reservoir used to impound or store water intended solely or primarily for domestic purposes.

(b) "Distribution reservoir" as used herein means a reservoir, directly connected with the distribution system of the domestic water supply project, used primarily to care for fluctuations in demand which occur over short periods of from several hours to several days, or as local storage in case of emergency such as a break in a main supply line or failure of pumping plant.

Section 7626. Application for permit

(a) Recreational use on and around a domestic water supply reservoir is prohibited unless specifically authorized in a water supply permit.

(b) Within 30 calendar days of receipt of an application for a permit or petition for permit modification pursuant to Section 4011 or 4019¹⁷, Health and Safety Code, the Department shall inform the applicant in writing that it is either complete and accepted for filing or that it is deficient and what specific information or documentation is required to complete the application. An application is considered complete if it is in compliance with the requirements of Section 4012⁶, Health and Safety Code. For proposed water system improvements, new water systems or

¹⁷ Section 4011 has been recodified to section 116525. Section 4012 has been recodified to section 116530. Section 4019 has been recodified to section 116550. OAL has been notified of these by a request for a "change without regulatory effect."

a "project" as defined in Section 15378, Title 14, California Administrative Code where environmental documentation is required, a copy of such documentation shall be included in the application.

(c) Within 90 calendar days from the date of filing of a completed application, the Department shall inform the applicant in writing of its decision regarding an application.

(d) The Department's time periods for processing an application from the receipt of the initial application to the final decision regarding issuance or denial of a water permit based on the Department's actual performance during the two years preceding the proposal of this section, were as follows:

- (1) The median time was -- 7.5 months
- (2) The minimum time was -- 1.5 months
- (3) The maximum time was -- 85.5 months

Section 7627. Data to accompany application

(a) The application for a permit to allow recreational use shall be accompanied by detailed information, including but not limited to, the following:

(1) Maps showing the reservoir area, including location of water works facilities, area to be open for recreational use and location of sanitary facilities to be provided for the public.

(2) Data on the size of the reservoir, length of time of water storage in the reservoir, topography of the reservoir site, prevalence of wind-induced currents and other factors that may affect the quality of the stored water and movement of possible contaminants to the water intake.

(3) Data on the size of the protective zone to be provided between the area of recreational use and point of water withdrawal for the water supply.

(4) A statement describing the type of recreational use proposed and the maximum number of persons, cars, vehicles and boats allowed in the area.

(5) A description of the water supplier's program, personnel and financing to control the recreational use, including maintenance and operations of recreational and sanitary facilities, and supervision of the people permitted in the area.

Section 7629. Reservoirs for which permits may be granted

When the department finds that the intended recreational use will not render the water supply

as delivered to the consumers impure, unwholesome or unpotable, permit for such use will be issued. Subject to the department findings the following types of domestic water supply reservoirs may be used for recreational purposes:

(1) Reservoirs from which water is continuously and reliably treated by filtration and chlorination; provided that for smaller water systems, under special circumstances satisfactory to the State Department of Public Health, approved dual chlorination may be acceptable;

(2) Reservoirs from which water is withdrawn by open channels or other conduits and subsequently stored again in reservoirs falling in the category of Section 7629(1) before reaching a distribution reservoir, or before entering the distribution system or a consumer's premises.

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TITLE 22

Title 22

Code of Regulations

DIVISION 4. ENVIRONMENTAL HEALTH

CHAPTER 1. INTRODUCTION

ARTICLE 1. DEFINITIONS

Section 60001. Department

Whenever the term "department" is used in this division, it means the State Department of Health Services, unless otherwise specified.

Section 60003. Director

Whenever the term "director" is used in this division, it means the Director, State Department of Health Services, unless otherwise specified.

CHAPTER 4. WATER TREATMENT DEVICES

ARTICLE 1. DEFINITIONS

Section 60400. Certification

"Certification" means that a water treatment device or a treatment component used in water treatment devices has met the testing requirements specified in Section 60435 or the testing requirements accepted by the Department pursuant to Section 4057.1(c)¹⁸ of the Health and Safety Code as defined in Section 60440.

Section 60401. Health or safety claim

(a) "Health or Safety Claim" means one or more of the following:

(1) Any claim that the water treatment device or treatment component will remove or reduce a contaminant for which a primary drinking water standard as defined in Health

¹⁸ Section 4057.1(c) has been recodified to section 116830(c). OAL has been notified of this by a request for a "change without regulatory effect."

and Safety Code Section 4010.1¹⁹ or a treatment requirement as authorized in Sections 4023.1(c) and 4023.3(d) of the Health and Safety Code has been established.

(2) Any claim that the water treatment device or treatment component will remove or reduce a contaminant for which a national primary drinking water standard or treatment requirement has been established under the U. S. Safe Drinking Water Act (PL 93-523 and as amended under PL 99-339) (42 U.S.C. Section 300g-1).

(3) Any claim that the water treatment device or treatment component will remove or reduce a contaminant which has been determined to present a health risk by the United States Environmental Protection Agency pursuant to Sections 1445(a)(2) and 1445(a)(3) of the U.S. Safe Drinking Water Act (PL 93-523 and as amended under PL 99-339) (42 U.S.C. Section 300j-4(a)(2) and (a)(3)).

Section 60402. Independent laboratory

"Independent Laboratory" means a laboratory that is neither owned or operated by the manufacturer or an entity which is a parent or subsidiary company to the manufacturer of a water treatment device or treatment component nor is in a partnership with the manufacturer or an entity which is a parent or subsidiary company to the manufacturer.

Section 60403. Manufacturer

(a) "Manufacturer" means any person, as defined by Section 4057(c) of the California Health and Safety Code, that makes, converts, constructs, or produces water treatment devices or treatment components for the purpose of sale, lease or rent to individuals, corporations, associations, or other entities. Manufacturer also includes:

(1) Persons that assemble water treatment devices or treatment components from components manufactured by another entity.

(2) Persons who add their own product name or product identification to water treatment devices or treatment components which have been manufactured or assembled by another entity.

Section 60404. Recognized testing organization

"Recognized Testing Organization" means an independent laboratory which has been accredited by the Department pursuant to Health and Safety Code, Division 1, Part 2, Chapter 7.5, Section 1010 et seq.

Section 60405. Testing requirements

¹⁹ Section 4010.1 has been recodified to section 116275. Section 4023.1(c) has been recodified to section 116365(c). Section 4023.3(d) has been recodified to section 116375(d). OAL has been notified of these by a request for a "change without regulatory effect."

"Testing Requirements" means the contaminant reduction and general performance requirements pursuant to Section 60435.

Section 60406. Modification

"Modification" means any change made to a certified water treatment device or certified treatment component which may affect its performance in meeting the testing requirements or any change in the health or safety claims made with respect to the certified water treatment device or certified treatment component.

ARTICLE 2. CERTIFICATION REQUIREMENTS

Section 60407. Certification period

The certification shall be valid for one year and shall be renewable for a period not to exceed five years.

ARTICLE 3. APPLICATION REQUIREMENTS

Section 60410. Certification application

(a) Application for certification shall be submitted by the manufacturer for each water treatment device or treatment component.

(b) A completed application shall include the following:

- (1) Applicant business name, address, and phone number.
- (2) A contact person, address, and phone number.
- (3) The identification of each and every specific contaminant for each and every health or safety claim which is made for the water treatment device or treatment component.
- (4) Product design specifications and engineering information, including blueprints or similar drawing which will provide detailed information about the construction of the water treatment device and treatment components.
- (5) Parts list for the water treatment device or treatment component.

(6) Test data and verification as prescribed by Sections 60435, 60445, 60450 or 60455.

(7) A list of all names, model numbers, or other product identifications which are used by the manufacturer to describe the water treatment device or treatment component.

(8) A statement containing the following declaration by the manufacturer: "This water treatment device or treatment component, which is identified as (insert name, model number, or other product identification) has been toxicologically reviewed and tested to verify that no substances are contributed by the unit to the treated water at levels that would adversely affect the health of the users." The toxicological review and testing was conducted pursuant to the requirements of the material review and qualifications procedures contained in the appropriate testing standard referenced in Table I of Section 60435 or Table II of Section 60450".

(9) The application shall be signed by a person in a principal management position.

Section 60415. Certification renewal

(a) A completed application for renewal of a certification shall be submitted by the manufacturer. A completed application shall include the following:

(1) Applicant business name, address, and phone number.

(2) A contact person, address, and phone number.

(3) A written statement that identifies any change to the information provided as prescribed in Section 60410(b)(7) and (8) or changes to Section 60410(b)(4) and (5) which do not constitute modifications.

(4) The application shall be signed by a person in a principal management position.

(b) The manufacturer shall be responsible for making application for renewal of a certification at least 30 days prior to the expiration date. If the application is submitted after that date, a late application penalty must be paid.

(c) In the event that the application for renewal of the certification is denied by the department, the manufacturer will be notified by registered mail of the denial and the reasons for the denial. The manufacturer may appeal the denial in accordance with Government Code, Title 2, Division 3, Chapter 5, Section 11500 et seq. The registered letter providing notice of the denial will be considered the accusation within the appeal process.

Section 60425. Modification of a certification

(a) Any modification made to a certified water treatment device or certified treatment component without the written approval of the Department shall void the certification.

(b) Application to modify an existing certification shall be submitted by the manufacturer. A completed application for the modification of a certified water treatment device or certified treatment component shall include the following:

(1) Applicant business name, address, and telephone number.

(2) Name of a contact person, address, and telephone number.

(3) A statement of the reasons for the modification(s).

(4) A description of the modification(s) to the certified water treatment device or certified treatment component such as changes in the health or safety claims; changes in treatment components; changes in parts which are in direct contact with the influent or product water; or changes to parts which affect the treatment process or product safety.

(5) Test data and verification in accordance with the testing requirements in Section 60435, Section 60455 or the manufacturer's testing protocol accepted by the Department pursuant to Section 4057.1(c) of the Health and Safety Code, as defined in Section 60440, for new health and safety claims or test data and verification which substantiates the effect of the modification(s) on the performance of the water treatment device or treatment component in meeting the testing requirements.

(6) Changes to the parts list provided pursuant to Section 60410(b)(5).

(7) Changes to the product design, specifications and engineering information including blueprints or similar drawings provided pursuant to Section 60410(b)(4).

(8) Changes to the list of names, model numbers, or other product identifications provided pursuant to Section 60410(b)(7).

(9) A statement containing the following declaration by the manufacturer: "This water treatment device or treatment component, which is identified as (insert name, model number, or other product identification) has been toxicologically reviewed and tested to verify that no substances are contributed by the unit to the treated water at levels that would adversely affect the health of the users." The toxicological review and testing was conducted pursuant to the requirements of the material review and qualifications procedures contained in the appropriate testing standard referenced in Table I of Section 60435 or Table II of Section 60450".

(10) The application shall be signed by a person in a principal management position.

Section 60430. Processing time

(a) Within 45 calendar days of receipt of an application for certification, or modification of a certified water treatment device or certified treatment component, the Department shall inform the applicant in writing that the application is complete and accepted for filing, or that it is incomplete and what specific information is needed.

(b) Within 90 calendar days from the date of filing a completed application for certification or modification of a certified water treatment device or certified treatment component, the Department shall inform the applicant in writing of its decision.

(c) Within 30 calendar days of receipt of an application for renewal of certification, the Department shall inform the applicant in writing that the application is complete and accepted for filing, or that it is incomplete and what specific information is needed.

(d) Within 30 calendar days of receipt of a completed application for the renewal of certification, the Department shall inform the applicant in writing that certification has or has not been extended.

ARTICLE 4. TESTING AND TESTING PROTOCOLS

Section 60435. Testing and testing protocols

(a) To be considered for certification, a water treatment device or treatment component shall be tested and found to meet the requirements set forth in Table I.

(b) The testing shall be conducted:

(1) By a recognized testing organization; or

(2) By a manufacturer pursuant to Section 60445.

(c) All contaminant reduction and general performance testing shall be conducted by a laboratory which has been accredited by the Department pursuant to Health and Safety Code, Division 1, Part 2, Chapter 7.5, Section 1010 et seq²⁰. Test data submitted pursuant to Section 60450 are exempt from this provision.

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²⁰ “Division 1, Part 2, Chapter 7.5, Section 1010 et seq” has been recodified to 116270. OAL has been notified of this by request for a “change without regulatory effect.”

Table I
Testing Requirements

TESTING PROTOCOLS			
<i>Treatment Process</i>	<i>Reference Standard</i>	<i>Contaminant Reduction Requirements (Sections)</i>	<i>General Performance Requirements (Sections)</i>
Mechanical Filtration	NSF Standard 53(1)	5.2, 5.2.1, 5.3, 5.3.1, 5.3.2	4.2, 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.4
Activated Carbon		5.3.3	5.5
Reverse Osmosis	NSF Standard 58(2)	5.3, 5.4, 5.4.1, 5.4.2, 5.4.3	4.1, 4.7.2, 4.7.3
Cation Exchange	NSF Standard 44(3)	5.2, 5.2.1	4.3
Distillation	NSF Standard 62(4)	5.1, 5.2, 5.3	4.2, 4.5, 4.5.1, 4.5.2, 4.5.2.1, 5.4

Footnotes:

- (1) National Sanitation Foundation Standard 53, Drinking Water Treatment Units Health Effects, June 1988.
- (2) National Sanitation Foundation Standard 58, Reverse Osmosis Drinking Water Treatment Systems, November 1986.
- (3) National Sanitation Foundation Standard 44, Cation Exchange Water Softeners, December 1987.
- (4) National Sanitation Foundation Standard 62, Drinking Water Distillation Systems, May 1989.

Section 60440. Manufacturer's testing protocols

(a) Whenever the testing requirements in Table I of Section 60435 are not applicable for the treatment process or the specific contaminant for which certification is requested, the applicant shall submit proposed testing protocols to the Department for approval prior to the testing of the water treatment device or treatment component.

(b) The proposed testing protocols shall include the following:

(1) Testing shall be conducted in duplicate.

(2) Testing shall be conducted under pressure and flow conditions typical of the end use of the water treatment device or treatment component.

(3) Testing shall provide an equivalent level of assurance that the performance of a water treatment device or treatment component is consistent with the performance of those water treatment devices or treatment components which are tested against the testing requirements prescribed in Table I of Section 60435.

Section 60445. Manufacturer's test data

(a) Test data developed by a manufacturer and submitted to the Department pursuant to the provisions of Section 60435(b)(2) shall meet all of the following requirements:

(1) The data was obtained using the testing requirements prescribed in Section 60435 or the testing requirements accepted by the Department pursuant to Section 4057.1(c)²¹ of the Health and Safety Code as defined in Section 60440.

(2) The data was produced by a laboratory which is wholly owned by the manufacturer of the water treatment device or treatment component.

(3) The manufacturer has complied with the Department's request for information regarding the qualifications of the laboratory staff, laboratory equipment used for testing and analysis, and records related to the testing under review.

(4) The manufacturer's laboratory has been inspected by the Department's staff under a cost reimbursement agreement to recover the cost incurred to make the inspection(s).

(5) The manufacturer has performed replicate testing, as specified by the Department, during the on-site inspection. Such replicate testing shall be required when test data submitted pursuant to this section is incomplete or there is reasonable doubt regarding the ability of the treatment process to remove or reduce one or more of the specific contaminants tested.

²¹ Section 4057.1(c) has been recodified to section 116830(c). OAL has been notified of this by a request for a "change without regulatory effect."

Section 60450. Prior test data

When a manufacturer submits prior test data to satisfy the requirements of Section 60410(b)(6), the manufacturer shall demonstrate that any test data developed before September 1, 1990 was developed by an independent laboratory or by a manufacturer's laboratory; and that the test data was developed using a testing protocol that was consistent with the applicable testing requirements set forth in Table II. All test data considered by the Department pursuant to this paragraph shall have been produced from testing that was conducted after January 1, 1983.

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Table II
Testing Requirements for Prior Data

<i>Treatment Process</i>	<i>Reference Standard</i>	TESTING PROTOCOLS	
		<i>Contaminant Reduction Requirements (Sections)</i>	<i>General Performance Requirements (Sections)</i>
Mechanical Filtration	NSF Standard 53(1)	5.2, 5.2.1,	4.2, 4.2.1,
		5.3, 5.3.1, 5.3.2	4.2.2, 4.2.3, 4.2.4, 4.4
Activated Carbon		5.3.3 5.5	
Reverse Osmosis	NSF Standard 58(2)	5.3, 5.4,	4.1, 4.7.2, 4.
		5.4.1, 5.4.2, 5.4.3	4.7.3
Cation Exchange	NSF Standard 44(3)	5.2, 5.2.1	4.3
Distillation	NSF Standard 62(4)	5.1, 5.2, 5.3	4.21, 4.5,
			4.5.1, 4.5.2, 4.5.2.1, 5.4

Footnotes:

- (1) National Sanitation Foundation Standard 53, Drinking Water Treatment Units Health Effects, June 1988.
- (2) National Sanitation Foundation Standard 58, Reverse Osmosis Drinking Water Treatment Systems, November 1986.
- (3) National Sanitation Foundation Standard 44, Cation Exchange Water Softeners, December 1987.
- (4) National Sanitation Foundation Standard 62, Drinking Water Distillation Systems, May 1989.

Section 60455. Extrapolation of data

(a) Where a manufacturer has several water treatment devices or treatment components each using the same treatment technology and they are of similar construction, the manufacturer may submit test data developed pursuant to Section 60435 or the manufacturer's testing protocol accepted by the Department pursuant to Section 4057.1(c)²² of the Health and Safety Code, as defined in Section 60440, on one water treatment device or treatment component as representative of the others under the following conditions:

(1) The manufacturer submits evidence that extrapolation will provide test data that is reasonably consistent with empirical data that would be obtained from the actual testing of the water treatment device or treatment component.

(2) Extrapolation is limited to the scaling up or down in size as measured by the volume of product water produced or volume of water to be treated.

(3) Scaling up shall be limited to three times greater than the size of the representative water treatment device or treatment component.

(4) Scaling down shall be limited to one third the size of the representative water treatment device or treatment component.

Section 60460. Retesting

(a) The manufacturer shall retest each certified water treatment device or certified treatment component every five years from the date of certification to insure continued compliance with this chapter and shall submit the results to the Department along with the application for recertification.

(b) The manufacturer shall retest a certified water treatment device or certified treatment component for the reduction of a contaminant or for a general performance requirement when the Department determines through testing pursuant to Section 60435 or the manufacturer's testing protocol accepted by the Department pursuant to Section 4057.1(c)²³ of the Health and Safety Code, as defined in Section 60440, that the water treatment device or treatment component is not meeting a requirement when the water treatment device or treatment component is used according to the manufacturer's instructions. The manufacturer shall comply with the following requirements when retesting pursuant to this paragraph:

(1) Retesting pursuant to subsection (b) shall be conducted by a recognized testing organization in accordance with Section 60435 or the manufacturer's testing protocol and shall be initiated within three months of notification by registered mail of the Department's

²² Section 4057.1(c) has been recodified to section 116830(c). OAL has been notified of this by a request for a "change without regulatory effect."

²³ Section 4057.1(c) has been recodified to section 116830(c). OAL has been notified of this by a request for a "change without regulatory effect."

determination.

(2) The results of retesting shall be submitted to the Department within 60 days of initiating the testing.

(3) The results of retesting shall be in conformance with Section 60435 or the manufacturer's testing protocol. Manufacturers of certified water treatment devices or certified treatment components determined to be out of compliance with Section 60435 or the manufacturer's testing protocol will be notified by registered mail of the decertification and reason for decertification. The manufacturer may appeal the decertification in accordance with Government Code, Title 2, Division 3, Chapter 5, Section 11500 et seq. The registered letter providing notice of the decertification will be considered the accusation within the appeal process.

(c) Retesting pursuant to subdivision (a) shall not be required for a certified water treatment device or certified treatment component if the water treatment device or treatment component is listed under a product listing program operated by a non-profit third party testing organization and subject to the following provisions:

(1) The listing program is operated by a recognized testing organization.

(2) The listing program includes retesting of the water treatment device or its treatment components at least every five years.

(3) The listing program requires that the manufacturer maintain a quality assurance and quality control program for the manufacturing of the water treatment device or treatment component.

(4) The listing program includes visits at least every two years to the manufacturing plants to inspect the manufacturing of the water treatment device or treatment component and the quality control records maintained by the manufacturer.

ARTICLE 5. PRODUCT LABELING AND DATA SHEET REQUIREMENTS

Section 60465. Product labeling

(a) A permanent, clear, and legible plate or label containing the following information shall be securely affixed to each certified water treatment device or certified treatment component so that such plate or label can only be removed with a purposeful effort and the plate or label shall be affixed in a readily accessible location:

(1) Equipment name.

(2) Model designation.

(3) Name of manufacturer.

(4) The statement "For conditions of use, health claims certified by the California Department of Health Services, and replacement parts, see product data sheet."

(5) The statement "California Department of Health Services Certification Number: XXXXXX."

Section 60470. Product data sheet

(a) Each certified water treatment device shall be accompanied by a Product Data Sheet which includes the following information:

(1) A copy of the certificate by which the Department has granted certification of the water treatment device. The copy may be incorporated in the product data sheet or attached to the sheet.

(2) Service flow rate in gallons per minute or gallons per day (Liters/day) or the production rate in gallons per day (Liters/day).

(3) Rated service life of the water treatment device (where applicable).

(4) General use conditions and needs, such as maximum turbidity and bacteriological quality of source water.

(5) Model or part number and estimated cost of components that must be periodically or routinely replaced to maintain the effectiveness of the certified water treatment device.

(6) Maximum and minimum operating temperature in degrees Fahrenheit and degrees Centigrade.

(7) Maximum and minimum operating pressure in pounds per square inch and kilograms per square centimeter.

(8) A reference to the owner's manual for general operation and maintenance requirements, and the manufacturer's warranty.

ARTICLE 6. FEES

Section 60475. Fees

(a) The fees specified shall be paid pursuant to the requirements of this chapter. The fees paid are non-refundable:

(1)	Certification or Recertification	\$1,400.00
(2)	Annual Renewal	\$ 400.00
(3)	Late Renewal Penalty	\$ 200.00
(4)	Modification of a Certification	\$ 300.00

CHAPTER 12. SAFE DRINKING WATER PROJECT FUNDING

ARTICLE 1. DEFINITIONS

Section 63000.10. Applicant

“Applicant” means a public water system that is applying for funding from the State Revolving Fund.

Section 63000.13. CEQA

“CEQA” means the California Environmental Quality Act and the regulations and guidelines adopted by the California Resources Agency to implement that Act.

Section 63000.16. Completion of Project

“Completion of Project” means, in the case of construction, that the Department has conducted a final inspection of the project and has notified the Department of Water Resources that project construction has been completed. In the case of planning loans, completion of project means that the Department has received and approved the planning report and has notified the Department of Water Resources of the approval.

Section 63000.19. Construction Funding

“Construction Funding” means a loan or grant to cover the cost of planning, preliminary engineering, design, acquisition of water systems, purchase of land or equipment, and construction or consolidation of a water system project.

Section 63000.25. Disadvantaged Community

“Disadvantaged Community” means a community whose median household income is 65 percent or less of the statewide median household income.

Section 63000.28. Drinking Water Standards

“Drinking Water Standards” means all drinking water requirements set forth in the California

Safe Drinking Water Act (Section 116275 et. seq. Health and Safety Code) and the regulations adopted by the Department pursuant thereto.

Section 63000.31. Eligible Project Cost

“Eligible Project Cost” means those costs of a proposed project that are deemed by the Department to comply with the eligibility criteria set forth in section 63010.

Section 63000.34. Federal Cross-Cutters

“Federal Cross-cutters” means those federal laws, regulations, policies and executive orders listed in Appendix VII of the USEPA program guidelines.

Section 63000.35. Federal Funding Allocation

“Federal Funding Allocation” means the capitalization grant awarded by the USEPA to the Department from a specific federal fiscal year allocation.

Section 63000.37. Notice of Acceptance of Application

"Notice of Acceptance of Application" means a notice sent to the applicant that: (1) identifies the portions and costs of the project that have been determined to be eligible for State Revolving Fund funding; (2) explains the terms and conditions that will govern the loan or grant for the project; and (3) sets forth the conditions and schedules that must be met by the applicant before a funding agreement will be executed.

Section 63000.40 Funding Application

“Funding Application” means the appropriate application form to be submitted by an applicant for State Revolving Fund funding. The applicant forms are: Applicant for Construction Funds [DHS 8585 (1/99)]; Application for Short Term Planning Loans [DHS 8586 (1/99)]; and Application for Refinancing [DHS 8587 (1/99)], which are all incorporated by reference.

Section 63000.43. Funding Agreement

“Funding Agreement” means the loan or grant document that is signed by the funding recipient and the Department of Water Resources, acting as the agent for the Department, that consummates the funding agreement.

Section 63000.46. Funding Agreement Execution

“Funding Agreement Execution” means that the funding agreement has been signed by both the funding recipient and the Department of Water Resources acting as the agent for the Department.

Section 63000.49. Local Match Project

“Local Match Project” means a project whereby the local public agency provides 20 percent of the total eligible cost of the project to the Department to cover the State’s matching share of the federal dollars.

Section 63000.62. Median Household Income

“Median Household Income” means the household income that represents the median value for a service area of a public water system.

Section 63000.65. NEPA

“NEPA” means the National Environmental Policy Act (42 U.S.C. 4331 et seq.) or a NEPA equivalent process approved by the USEPA for the drinking water revolving fund loan program.

Section 63000.68. Planning Loan

“Planning Loan” means a loan to cover the cost of studies, planning, and preliminary engineering for a project.

Section 63000.71. Project

“Project” means all planning, engineering, construction, and construction related activities undertaken to solve the specific water system problem for which the project was ranked on the project priority list.

Section 63000.74 Project Priority List.

“Project Priority List” means the list of projects for which public water systems have requested funding and that have been ranked in priority order in accordance with section 116760.70 of the Health and Safety Code.

Section 63000.77. Project Primarily to Serve Future Growth

“Project Primarily to Serve Future Growth” means a project, or project component, that has a design capacity that is more than double the design capacity needed to serve the existing water demand at peak daily flow.

Section 63000.80. Refinancing Loan

“Refinancing Loan” means a loan to refinance the remaining balance of an existing indebtedness incurred for construction of an otherwise eligible project where the construction of such project commenced after July 1, 1993.

Section 63000.83. Service Area

“Service Area” means all of the geographical area that is currently served drinking water by a public water system.

Section 63000.86. State Revolving Fund

“State Revolving Fund” means the Safe Drinking Water State Revolving Fund created pursuant to section 116760.30 of the Health and Safety Code.

Section 63000.89. Target Consumer Rate

“Target Consumer Rate” means an amount equal to 1½ percent of the median household income for water systems where the median household income is equal to or less than the statewide median household income or 2 percent of the median household income for water systems where the median household income is greater than the statewide median household income.

Section 63000.92. USEPA

“USEPA” means the United States Environmental Protection Agency.

Section 63000.95. USEPA Program Guidelines

“USEPA Program Guidelines” means the Drinking Water State Revolving Fund Program Guidelines (EPA 816-R-97-005, February 28, 1997) adopted by the USEPA.

ARTICLE 2. FINANCING CRITERIA.**Section 63010. Project Eligibility**

(a) In order to be eligible for funding, an applicant shall be either a community water system or a non-profit non-community water system, and have the authority to enter into a debt contract with the State.

(b) Only those project costs that are directly associated with the planning, design, and construction of a project shall be eligible for funding.

(c) The following project costs, that would otherwise be eligible pursuant to subsection (b), shall be ineligible for funding:

(1) Land acquisition except for land or land access that is integral to the construction of source, treatment or distribution facilities.

(2) Ongoing operation and maintenance costs.

(3) Any project facilities that are primarily to serve future growth.

(4) Dams or rehabilitation of dams and any raw water storage facilities.

(5) Water rights except water rights acquired through consolidation with another water system.

(6) Laboratories except those necessary for operation of a treatment facility.

(7) Costs arising from construction change orders that occur after funding agreement execution except for the following:

(A) A change in the executed funding agreement amount based on the final accepted construction bid as provided in section 63051 (b).

(B) Change orders that are a result of changes in drinking water standards.

(C) Change orders requested by the Department.

Section 63011. Planning Loans

(a) Planning funds shall be used only for loans to finance planning, studies, and preliminary engineering costs for an eligible project. Planning funds shall not be used for detailed design, equipment purchase, or construction.

(b) Planning loans shall be limited to a maximum amount of \$100,000 per project.

(c) Projects funded by planning loans shall be completed and a planning report submitted to the Department within 18 months from funding agreement execution.

Section 63012. Construction Funding

(a) Construction funding shall be limited to a maximum amount of \$20,000,000 per project.

(b) A public water system shall not be awarded more than an aggregate amount of \$30,000,000 in construction funding and refinancing loans from a federal funding allocation.

Section 63013. Refinancing Loans

(a) Refinancing loan funds shall only be used to refinance the remaining balance of an existing indebtedness incurred by the construction of an eligible project.

(b) An applicant for a refinancing loan shall be a public agency.

(c) Refinancing loans shall be limited to a maximum amount of \$20,000,000 per project and an aggregate total of \$30,000,000 per water system from a federal funding allocation.

Section 63014. Local Match Projects

(a) Local match projects shall be considered to be the same as construction projects and shall be subject to the same conditions and limitations.

(b) An applicant for a local match project shall be a community water system owned by a public agency.

(c) Only projects that exceed \$5,000,000 in eligible project costs shall be eligible for local matching.

ARTICLE 3. DISADVANTAGED COMMUNITIES

Section 63020. Grant Eligibility

Funding in the form of a grant shall be made only to a public water system owned by a public agency that is serving a disadvantaged community.

Section 63021. Grant Limitations

(a) The maximum amount of grant funding to be awarded to a project shall be limited to the following percentages according to the classification of the project using the Project Priority List adopted September 15, 1998, pursuant to Health and Safety Code section 116760.70:

(1) 80% of the eligible project cost if the project is in Project Priority List categories A through G;

(2) 65% of the eligible project cost if the project is in Project Priority List categories H through L; or

(3) 50% of the eligible project cost if the project is in Project Priority List categories M through O.

(b) Grant funds awarded to a disadvantaged community project shall not exceed \$10,000 per service connection.

(c) The maximum amount of grant funding that one water system may receive from a federal funding allocation shall not exceed \$1,000,000.

(d) The total amount of grant funding awarded to a disadvantaged community for a

project shall be limited to the amount of funding needed so that the projected average residential water rate, which would result from a loan from the State Revolving Fund, will not exceed the target consumer rate.

ARTICLE 4. APPLICATION PROCESS

Section 63025. Funding Application

(a) All funding applications shall be submitted by public water systems only after a water system has received a written invitation from the Department to do so.

(b) Upon receipt of a written invitation from the Department to submit a funding application, an applicant shall indicate their intention to submit the application within the deadline set forth in the letter by signing a statement of intent. The statement of intent shall be received by the Department prior to close of business on the day indicated in the invitation.

(c) In order to be assured of receiving funding consideration from a specific federal funding allocation, a completed funding application shall be submitted to the Department by close of business on the date set forth in the letter of invitation.

(d) A funding application shall not be accepted for processing unless the funding application form is completed and the additional information specified in sections 63026, 63027, and 63028 is submitted.

Section 63026. Technical Information

(a) Each funding application for construction funding or a refinancing loan shall contain the following information:

(1) A map showing the current service area of the water system.

(2) A map or drawing showing the location of all existing water sources, pumping facilities, treatment facilities, storage tanks or reservoirs, water transmission mains, and water main pressure zones.

(3) A finding of exemption or categorical exclusion or an Initial Study that complies with the CEQA Guidelines and a schedule for full compliance with CEQA and NEPA.

(b) Each applicant for construction funding shall prepare and submit with the funding application, an engineering report addressing all of the following elements:

(1) An identification and evaluation of alternative solutions to the problem. The evaluation shall compare estimated project costs, relative effectiveness in solving the problem, and environmental impacts of each alternative.

(2) An evaluation, including costs and feasibility, of possible physical consolidation with other water systems.

(3) A description of the selected or proposed alternative.

(4) A conceptual or preliminary engineering design, including the design capacity of project components, and a schematic layout of the proposed project. All assumptions, criteria, and calculations used for the preliminary design shall be shown.

(5) An analysis and estimation of the anticipated useful life of components of the proposed project.

(6) A preliminary analysis of projected growth anticipated to occur within the service area within the next ten years, the resultant projected water demand, and the amount of growth or water demand to be included in the project.

(7) A proposed design and construction schedule.

(8) A cost estimate breakdown of the proposed project.

(c) Each funding application for a refinancing loan shall include all of the following:

(1) A description and estimated costs of all alternative solutions to the problem that were considered prior to construction of the selected project.

(2) A layout or schematic drawing showing the location and relationship of all project facilities including the newly constructed portions.

(3) A description of the facilities that were constructed and for which refinancing is being requested including an estimate of their useful life.

(4) The design capacities of project components and the design parameters and engineering calculations used in the sizing and design of the project components.

(5) An analysis and estimation of the water demand within the service area at the time of start of construction of the project and a projection of anticipated growth and water demand for a ten-year period commencing from the time of start of construction.

(6) A cost breakdown of the constructed project.

(7) As-built plans for all of the construction facilities that are to be covered by the refinancing loan.

(8) The final plans and specifications used to solicit and select the construction bid.

(9) Information that demonstrates that all applicable federal cross-cutters have been complied with.

Section 63027. Managerial Information

Each funding application shall contain the following:

(a) Copies of any leases, easements, or other documentation for land, water sources, treatment, pumping, storage, or distribution facilities used in the operation of the water system that are not owned by the water system.

(b) A written statement by an attorney certifying that the water system is a legal entity authorized to operate a public water system and has the authority to enter into a long-term indebtedness with the State of California.

(c) A description of the water rights held by the water system and any available documentation to substantiate those rights.

Section 63028. Financial Information

(a) Each funding application shall contain the following:

(1) A projected revenue/expenditure analysis that compares all anticipated water system revenues and planned expenditures for the next five years.

(2) An analysis and calculation of the average current water rate charged to residential users and the projected average water rate that will be charged to residential users following completion of the eligible project. This analysis is not required for non-community water systems.

(3) Financial statements (balance and income) of the water system covering the past three years.

(4) A description of the accounting and budget control procedures used and any proposed changes to the procedures.

(b) In addition to the requirements of subsection (a), applicants for a refinancing loan shall also include a certification that proceeds of the previous debt were used to pay for eligible project costs. If ineligible items were funded, a list of those items and their costs shall be included.

(c) In addition to the requirements of subsection (a), applicants that propose to use local matching funds pursuant to section 63014 shall include a resolution adopted by the governing body. The resolution shall identify the source of the local matching funds and pledge

those funds for deposit into the State Revolving Fund.

Section 63029. Notice of Acceptance of Application

Within 30 days of receipt of a Notice of Acceptance of Application from the Department of Water Resources, the applicant shall indicate their acceptance of the terms and conditions of the funding offer by countersigning the letter and returning it to the Department of Water Resources.

Section 63030. Project By-passing

(a) A project on the Project Priority List shall be by-passed for funding consideration for the current fiscal year if any of the following apply:

(1) The water system indicated that it did not desire to receive funding for a particular project in the current fiscal year.

(2) A water system fails to sign a statement of intent to submit an application and return it to the Department by the date identified in the letter as specified in section 63025(b).

(3) A water system, receiving an invitation from the Department to submit a funding application, informs the Department that it does not wish to submit an application at this time.

(4) A funding application is rejected by the Department for failure on the part of the applicant to comply with the requirements of this chapter.

(5) An applicant fails to sign and return the Notice of Acceptance of Application within 30 days of receipt of the Notice of Acceptance of Application.

(6) The Department withdraws a previously issued Notice of Acceptance of Application for failure on the part of the applicant to comply with the terms and conditions as stated in the Notice of Acceptance of Application.

(7) The applicant has reached the \$30,000,000 funding maximum set forth in section 63012 (b).

(b) Any project that is by-passed for any reason shall remain on the Project Priority List and be eligible for future funding consideration.

ARTICLE 5. INFORMATION TO BE SUBMITTED PRIOR TO EXECUTION OF THE FUNDING AGREEMENT

Section 63040. Technical and Financial Information

(a) All applicants for construction funding or refinancing loans shall comply with all environmental review and procedural requirements of CEQA and NEPA prior to execution of the funding agreement.

(b) Prior to execution of a funding agreement that includes a loan, each applicant for funding shall submit the following:

(1) A resolution or ordinance adopted by the governing body dedicating the source of repayment of the loan.

(2) A completed and signed Fiscal Services Agreement [DWR-4280 (New 2/99) which is incorporated by reference].

ARTICLE 6. DESIGN AND CONSTRUCTION

Section 63050. Plans and Specifications

(a) Applicants for construction funding shall submit final design plans and project specifications to the Department in accordance with the schedule set forth in the Notice of Acceptance of Application.

(b) Project specifications for projects proposed by water systems that serve more than 1,000 service connections shall comply with federal cross-cutters.

Section 63051. Construction

(a) Construction contracts awarded by the applicant for any project involving the use of grant funds from the State Revolving Fund shall be based on competitive construction bids.

(b) An applicant's request for a change in the amount of funding specified in the funding agreement shall be limited to one occasion and shall be based solely on the final accepted construction bid(s).

ARTICLE 7. CLAIMS AND LOAN REPAYMENTS

Section 63055. Submission of Claims for Reimbursement

(a) No claims for reimbursement shall be submitted prior to execution of the funding agreement. Claims shall be submitted only for reimbursement of costs already incurred.

(b) Claims submitted by loan recipients shall be made using a claim form [DWR – 4277 (New 2/99) which is incorporated by reference] provided by the Department of Water

Resources and shall be submitted no more frequently than monthly.

(c) No claims shall be submitted for costs incurred after completion of the project.

(d) No claims for local match projects shall be reimbursed until the applicant's local share has been received and deposited into the State Revolving Fund account.

Section 63056. Loan Repayments

(a) Loan repayments shall be made in accordance with the schedule set forth in the funding agreement.

(b) A penalty of one-tenth of one percent per day (not compounded) on the payment amount due shall be assessed for late payments.

Section 63057. Records

(a) All applicant records and documents relating to the loan shall be maintained by the loan recipient until such time that the loan has been fully repaid.

(b) All applicant records and documents pertaining to the loan shall be available for inspection and audit by the Department or the USEPA during normal business hours.

CHAPTER 14. WATER PERMITS

ARTICLE 1. APPLICATIONS

Section 64001. Water permit application

(a) Within 30 calendar days of receipt of an application for a permit or petition for permit modification pursuant to Section 4011²⁴ or 4019, Health and Safety Code, the Department shall inform the applicant in writing that it is either complete and accepted for filing or that it is deficient and what specific information or documentation is required to complete the application. An application is considered complete if it is in compliance with the requirements of Section 4012, Health and Safety Code. For proposed water system improvements, new water systems or a "project" as defined in Section 15378, Title 14, California Administrative Code where environmental documentation is required, a copy of such documentation shall be included in the application.

(b) Within 90 calendar days from the date of filing of a completed application, the Department shall inform the applicant in writing of its decision regarding an application.

²⁴Section 4011 has been recodified to section 116525. Section 4012 has been recodified to section 116530. Section 4019 has been recodified to section 116550. OAL has been notified of these by a request for a "change without regulatory effect"

Section 64002. Processing time

The Department's time periods for processing an application from the receipt of the initial application to the final decision regarding issuance or denial of a water permit based on the Department's actual performance during the two years preceding the proposal of this section, were as follows:

- (a) The median time was -- 7.5 months
- (b) The minimum time was -- 1.5 months
- (c) The maximum time was -- 85.5 months

ARTICLE 3. STATE SMALL WATER SYSTEMS

Section 64211. Permit requirement

(a) No person shall operate a state small water system unless a permit to operate the system has been issued by the local health officer. Within 30 calendar days of receipt of an application for a permit, the local health officer shall inform the applicant in writing that the application is either complete and accepted for filing or that it is deficient and what specific information or documentation is required to complete the application.

(b) The state small water system shall submit a technical report to the local health officer as Part of the permit application. The report shall describe the proposed or existing system as follows: service area, distribution system including storage and pumping facilities, the water source including source capacity, water quality, and any water treatment facilities. The report shall identify the owner of the system and the party responsible for day-to-day operation of the system. The report shall include a plan for notification of those served by the system under emergency conditions. The report shall describe the operating plan for the system and shall specify how the responsible party will respond to failure of major system components.

(c) Within 90 calendar days from the date of filing of a completed application, the local health officer shall inform the applicant in writing of its decision regarding an application.

(d) A change in ownership of a state small water system shall require the submission of a new application.

(e) By July 1, 1992, each state small water system in existence on January 1, 1992, shall submit to the local health officer a plan for notification of those served by the system under emergency conditions.

(f) Each state small water system shall provide the following notice to the consumers

served by the state small water system: "The domestic water supply for this area is provided by a state small water system. State regulatory requirements for operation of a state small water system are less extensive than requirements for larger public water systems. If you have questions concerning your water supply, you should contact [insert (1) name of water system, (2) name of responsible person, and (3) telephone number] or your local health department. This notice shall be by direct mail delivery on an annual basis or by continuous posting at a central location within the area served by the state small water system."

Section 64212. Bacteriological quality monitoring

(a) Each water supplier operating a state small water system shall collect a minimum of one routine sample from the distribution system at least once every three months. The sample shall be analyzed for the presence of total coliform bacteria by a laboratory certified by the Department for bacteriological analyses pursuant to Section 4025²⁵ of the Health and Safety Code. The results of the analyses shall be reported to the local health officer no later than the 10th day of the month following receipt of the results by the state small water system.

(b) If any routine sample is total coliform-positive, the water supplier shall collect a repeat sample from the same location within 48 hours of being notified of the positive result. If the repeat sample is also total coliform-positive, the sample shall also be analyzed for the presence of fecal coliform or *Escherichia coli* (E. Coli). If the repeat sample is total coliform-positive the water supplier shall notify the local health officer within 48 hours from the time the repeat sample results are received and shall take corrective actions to eliminate the cause of the positive samples.

(c) The local health officer may require a state small water system to sample the distribution system each month, in lieu of the requirements of subsection (a), if the system has bacteriological contamination problems indicated by more than one total-coliform positive sample during the most recent 24 months of operation. The monthly sample shall be analyzed for the presence of total coliform bacteria by a laboratory certified by the Department for bacteriological analyses pursuant to Section 4025²⁶ of the Health and Safety Code. The results of the analyses shall be reported to the local health officer no later than the 10th day of the month following receipt of the results by the state small water system."

Section 64213. Chemical quality monitoring

(a) Each water supplier operating a state small water system shall sample each source of supply prior to any treatment at least once. The sample shall be analyzed by a laboratory, certified by the Department pursuant to Section 4025²⁷ of the Health and Safety Code, for fluoride, iron, manganese, chlorides, total dissolved solids, and the inorganic chemicals listed in

²⁵Section 4025 has been recodified to section 116390. OAL has been notified of this by a request for a "change without regulatory effect."

²⁶Section 4025 has been recodified to section 116390. OAL has been notified of this by a request for a "change without regulatory effect."

²⁷Section 4025 has been recodified to section 116390. OAL has been notified of this by a request for a "change without regulatory effect."

Table 64431-A, Section 64431(a).

(b) Each groundwater source which has been designated as vulnerable by the local health officer pursuant to criteria set forth in Sections 64445(d)(1) and (2) shall be sampled by the water supplier operating the state small water system at least once prior to any treatment and analyzed for volatile organic compounds according to Environmental Protection Agency Method 502.2, "Methods for the Determination of Organic compounds in Finished Drinking Water and Raw Source Water," September 1986. The analysis shall be performed by a laboratory certified by the Department to perform Method 502.2 analyses for organic chemicals pursuant to Section 4025²⁸ of the Health and Safety Code.

(c) The results of the laboratory analyses shall be submitted to the local health officer by the state small water system no later than the 10th day of the month following receipt of the results by the state small water system. A copy of the results of the analyses and a comparison of the results with the maximum contaminant levels for those contaminants listed in Table 64431-A and B, Section 64431(a) and Table 64444-A, Section 64444 shall be distributed by the state small water system to each regular user of the water system within 90 days of receiving the results. A copy of the distribution notice shall be provided to the local health officer.

(d) The water supplier operating a state small water system shall comply with any corrective actions ordered by the local health officer for any chemical contaminant which exceeds the maximum contaminant level.

Section 64214. Service connection limitation

No state small water system shall add additional service connections to the system such that the total number of service connections served by the system exceeds 14 before the water system has applied for and received a permit to operate as a public water system from the Department.

Section 64215. Water supply requirements

Prior to receiving permit approval, a state small water system which was not in existence on November 12, 1991, shall demonstrate to the local health officer that sufficient water is available from the water system's sources and distribution storage facilities to supply a minimum of three gallons per minute for at least 24 hours for each service connection served by the system.

Section 64216. Mutual associations prohibited

No state small water system which was not in existence on November 12, 1991, shall be issued a permit to operate if the water supplier is an unincorporated association organized under Title 3 (commencing with Section 20000) of Division 3 of the Corporations Code.

Section 64217. Surface water treatment requirement

²⁸Section 4025 has been recodified to section 116390. OAL has been notified of this by a request for a "change without regulatory effect."

All state small water systems using surface water as a source of supply shall provide continuous disinfection treatment of the water prior to entry to the distribution system.

ARTICLE 4. LOCAL PRIMACY DELEGATION

Section 64251. Definitions

(a) For the purpose of this Article the following definitions shall apply:

(1) "Small Water System" means a community water system except those serving 200 or more service connections, or any noncommunity or nontransient noncommunity water system.

(2) "Primacy Delegation Agreement" means the document, issued by the department and signed by the local health officer, delegating primacy to a local health officer.

(3) "Routine Inspection" means an on-site review of a small water system which includes, but is not limited to, inspections of system operations, operation and maintenance records, system facilities and equipment.

(4) "Sanitary Survey" means an on-site review of a small water system which includes, in addition to the elements of a routine inspection, an evaluation of the watershed for surface water sources and vulnerability assessments for groundwater sources.

Section 64252. Primacy delegation application

(a) The primacy delegation application submitted by a local health officer pursuant to section 4010.7²⁹ of the Health and Safety Code shall describe how the primacy requirements of this article will be complied with and shall contain the following information relating to the small water system program to be delegated:

(1) The number of staff persons, percentage of time and personnel classification of each staff person, and a description of the program responsibilities of each person involved in the small water system program.

(2) A proposed program budget projecting both revenues and expenditures for the first year of the program. The expenditures categories shall include personnel, general expense (i.e. rent, supplies and communications), travel, equipment, data management, any other specific services to be provided (e.g. laboratory), administrative overhead and other indirect charges. The anticipated revenues shall specify all planned sources of revenues to be used for support of the small water system program.

²⁹ Section 4010.7 has been recodified to section 116330. OAL has been notified of this by a request for a "change without regulatory effect."

(3) A description of engineering and legal resources to be used in conducting the program.

(4) A description of the electronic data management system to be used to comply with the requirements of section 64256 (e) and the compatibility of the proposed system with the data management system used by the department.

(5) A description of the current status of compliance with Division 5, Part 1, Chapter 7 of the Health and Safety Code and California Code of Regulations, Title 22, Division 4, Chapters 15, 17, and 17.5 of the small water systems within the county. This description shall include the following:

(A) All violations of drinking water monitoring or reporting requirements by any of the systems during the 12 months preceding the submission of the application for primacy.

(B) All violations of standards of California Code of Regulations, Title 22, Division 4, Chapters 15, 17, and 17.5 during the 12 months preceding the submission of the application for primacy.

(C) All enforcement actions against small water systems taken by the county during the 12 months preceding the submission of the application for primacy.

(6) A current inventory list of the small water systems within the county. For each small water system the inventory list shall specify the system name, water system identification number, mailing address, type of system (community, nontransient noncommunity or noncommunity), name and address and phone number of the responsible party, type of ownership, type of water source, type of treatment if any, dates of operation for seasonally operated systems, and either:

(A) for a community water system, the number of service connections;
or

(B) for a noncommunity or nontransient noncommunity water system, the average monthly population served.

(b) For applications submitted by March 1, 1993, the primacy application shall demonstrate that the local primacy program requirements specified in Article 4.1, sections 64253 through 64258 will be complied with by June 30, 1994. If these requirements cannot be fully complied with by June 30, 1994, the application shall set forth a priority implementation schedule for activities to be conducted such that the program requirements will be fully complied with by June 30, 1995.

(c) For applications submitted for fiscal years subsequent to the fiscal year 1993-94, the application shall demonstrate that the local primacy agency will be able to immediately

undertake the activities specified as local primacy program requirements in section 64253 at the time of delegation.

(d) The application shall be signed by the local health officer or by a local official with the authority to submit the application on behalf of the county.

(e) Within 15 working days of receipt of an application for local primacy delegation the department shall inform the applicant in writing that the application is either complete and accepted for filing, or that it is deficient and what specific information or documentation is required to complete the application.

(f) Within 5 working days of being notified of deficiencies in its application the local health officer shall resubmit an application with the deficient items included or corrected.

(g) Within 15 working days of receipt of the resubmitted application the department shall determine that the application is complete or reject the application as incomplete and find that the local health officer is not capable of meeting the primacy program requirements.

(h) Within 20 working days of being notified that the application is complete the local health officer shall submit the annual workplan required pursuant to section 64260.

(i) Within 20 working days from the date the workplan is submitted the department shall inform the applicant in writing of its determination regarding the local health officer's capability of meeting the primacy program requirements.

Section 64253. Local primacy agency minimum program requirements

Each local primacy agency shall conduct a regulatory program for small water systems within its jurisdiction that complies with all of the requirements set forth in sections 64254, 64255, 64256, 64257, and 64258.

Section 64254. Permits

(a) Each local primacy agency shall issue and maintain a valid drinking water permit for all small water systems within its jurisdiction in accordance with sections 116525 through 116550 of the Health and Safety Code. The permit shall include terms and conditions, including compliance schedules, that are necessary to assure that water served will comply with Division 104, Part 1, Chapter 4 and Part 12, Chapters 4 and 5 of the Health and Safety Code³⁰, and Title 22, Division 4, Chapters 15, 16, 17 and 17.5, and Title 17, Division 1, Chapter 5, Groups 2 and 4 of the California Code of Regulations.

(b) All existing permits shall be reviewed and updated as necessary at least every ten years.

³⁰A change without regulatory effect has been submitted to OAL which would delete "Division 5, Part 1, Chapter 7" from Barclays.

(c) A copy of all permit applications for proposed new community water systems under the jurisdiction of the local primacy agency that are designed to serve 200 or more service connections shall be submitted to the department. The local primacy agency shall not issue a permit for these systems unless the department concurs that the systems are capable of complying with Division 104, Part 1, Chapter 4 and Part 12, Chapters 4 and 5 of the Health and Safety Code³¹, and Title 22, Division 4, Chapters 15, 16, 17 and 17.5, and Title 17, Division 1, Chapter 5, Groups 2 and 4 of the California Code of Regulations.

Section 64255. Surveillance

(a) The local primacy agency shall establish and maintain an inventory of all small water systems under its jurisdiction. The inventory shall be updated at least annually and shall include the following information for each system:

(1) All of the information specified in section 64252 (a) (6).

(2) The name and telephone number of the operator of any treatment facilities utilized by the system.

(3) A copy of the current emergency notification plan required pursuant to section 116460 of the Health and Safety Code.

(b) The local primacy agency shall conduct a routine inspection of each small water system within its jurisdiction as follows:

(1) At least once every two years on each small water system utilizing a surface water source as defined in section 4651.10.

(2) At least once every two years on each small water system utilizing groundwater that is treated in order to meet drinking water standards.

(3) At least once every five years on each small water system utilizing groundwater without treatment.

(c) Each local primacy agency shall conduct a sanitary survey of each small water system within its jurisdiction at least once every five years. A sanitary survey may be conducted in lieu of any routine inspection.

(d) The local primacy agency shall identify any deficiencies found during the routine inspection or sanitary survey and shall submit a follow-up notice to the small water system describing such deficiencies and prescribing a time schedule for corrective action. The notice shall be sent to the small water system within 60 days of the routine inspection or sanitary survey.

³¹A change without regulatory effect has been submitted to OAL which would delete "Division 5, Part 1, Chapter 7" from Barclays.

(e) The local primacy agency shall complete an routine inspection or sanitary survey report for each routine inspection or sanitary survey conducted within 90 days of completion of the sanitary survey or routine inspection.

(f) The local primacy agency shall determine which small water systems under its jurisdiction utilize surface water or groundwater under the direct influence of surface water and are subject to surface water treatment requirements as specified in section 64650.

Section 64256. Sampling and monitoring

(a) The local primacy agency shall notify each small water system under its jurisdiction in writing of the monitoring requirements for that system pursuant to Title 22, Division 4, Chapters 15, 17, and 17.5 of the California Code of Regulations. The notice shall identify the specific contaminants to be monitored, the type of laboratory analyses required for each contaminant, the frequency of sampling and any other sampling and reporting requirements applicable to that system.

(b) The local primacy agency shall ensure that each small water system under its jurisdiction complies with the sample siting plan requirements of section 64422.

(c) The local primacy agency shall establish a tracking system to assure that all required sampling and laboratory analyses are completed and reported by the small water systems pursuant to Title 22, Division 4, Chapters 15, 17, and 17.5 of the California Code of Regulations. The tracking system shall include the date the sample was collected, the type or purpose of the sample, and the laboratory result.

(d) An ongoing record of the status of compliance with monitoring and reporting requirements of California Code of Regulations, Title 22, Division 4, Chapters 15, 17, and 17.5 of each small water system shall be maintained by the local primacy agency.

(e) A system shall be established by the local primacy agency to assure that the water quality monitoring data submitted by the small water systems is routinely reviewed for compliance with the requirements of Title 22, Division 4, Chapters 15, 17, and 17.5 of the California Code of Regulations. The monitoring reports shall be reviewed each month for each small water system and the data entered into the data management system at least monthly.

Section 64257. Reporting

(a) The following reports shall be submitted monthly in an electronic data format to the department no later than the 20th day of the month following the period being reported:

(1) A report listing all small water systems that failed during the previous month to comply with drinking water monitoring and reporting regulations of Title 22, Division 4, Chapters 15, 17, and 17.5 of the California Code of Regulations.

(2) A compliance report containing the following information for each small water system under the jurisdiction of the local primacy agency that is in violation of Title 22, Division 4, Chapters 15, 17, and 17.5 of the California Code of Regulations:

- (A) The name and water system identification number of the system.
- (B) A description of the type of violation and the standard violated.
- (C) A description of any enforcement action taken by the local primacy agency with respect to the violation.

(b) The following reports shall be submitted quarterly in an electronic data format to the department no later than the last day of the quarter following the quarter being reported:

(1) A list of domestic water supply permits for small water systems that have been issued, amended or renewed during the reporting period. The list shall include the name and the identification number of the water system.

(2) A list of the small water systems for which a routine inspection or sanitary survey was conducted during the reporting period. The list shall indicate the name and identification number of the small water system and the type of routine inspection or sanitary survey performed.

(c) An updated inventory of small water systems under the jurisdiction of the local primacy agency shall be submitted annually in an electronic format to the department no later than August 15 of each year.

Section 64258. Enforcement

(a) The local primacy agency shall take enforcement actions as necessary to assure that all small water systems under the jurisdiction of the local primacy agency are in compliance with Division 104, Part 1, Chapter 4³² of the Health and Safety Code, and California Code of Regulations, Title 17, Division 1, Chapter 5, Groups 2 and 4, and Title 22, Division 4, Chapters 14, 15, 16, 17 and 17.5.

(b) Each local primacy agency shall notify each small water system under their jurisdiction of any new state or federal drinking water requirements applicable to those systems.

Section 64259. Program management

(a) Each local primacy agency shall establish and maintain a time accounting system for determining the amount of reimbursement to be billed to each small water system pursuant to section 116595 of the Health and Safety Code. The hourly cost rate of the local primacy agency shall be determined using the criteria set forth in section 116590(b) of the Health and Safety

³²A change without regulatory effect has been submitted to OAL which would delete "Division 5, Part 1, Chapter 7" from Barclays.

Code.

(b) Each local primacy agency shall establish and maintain an individual file for each small water system under its jurisdiction. The following information shall be maintained in the file:

- (1) The current operating permit and all technical reports supporting it.
- (2) Permit applications, permit technical reports, permits and amended permits for a minimum of 10 years.
- (3) The most recent plans, specifications and other information submitted by the water system pertaining to sources of supply, treatment works, storage facilities, and distribution system, including water quality monitoring plans and total coliform siting plans.
- (4) Inspection and sanitary survey reports for a minimum of 10 years.
- (5) Copies of water quality analyses for a minimum of 10 years.
- (6) Correspondence, memoranda and other written records pertaining to the system issued or written within the past three years.
- (7) Copies of all compliance orders, citations, court actions and other enforcement documentation.

Section 64260. Workplans

(a) Each local primacy agency shall develop and submit to the department a proposed annual program workplan for the upcoming fiscal year. The local primacy agency shall submit the proposed annual workplan to the department no later than May 1 of each year for the fiscal year commencing July 1 of that year; except for the initial proposed annual workplan submitted in accordance with section 64252.

(b) The workplan developed pursuant to subsection (a) shall describe the activities proposed to be performed by the local primacy agency during the forthcoming fiscal year and shall include:

- (1) The anticipated number of new small water system permits to be issued and the proposed number of existing community or noncommunity permits (designated by category) to be updated or amended.
- (2) A description of how the small water system inventory specified in section 64255 (a) will be maintained.
- (3) A description of how the surveillance activities specified in section 64255 (b) through (f) will be conducted and the priorities to be used in determining the activities to be

performed.

(4) The number of planned routine inspections and sanitary surveys to be performed for each category of small water systems (community, noncommunity and nontransient noncommunity).

(5) A listing of small water systems proposed for enforcement action and the priorities to be used in determining these systems.

CHAPTER 15. DOMESTIC WATER QUALITY AND MONITORING

ARTICLE 1. DEFINITIONS

Section 64400. Acute risk

"Acute risk" means the potential for a contaminant to cause acute health effects, i.e., death, damage or illness, as a result of a single period of exposure of a duration measured in seconds, minutes, hours, or days.

Section 64400.10. Community water system

"Community water system" means a public water system which serves at least 15 service connections used by yearlong residents or regularly serves at least 25 yearlong residents.

Section 64400.20. Compliance cycle

"Compliance cycle" means the nine-year calendar year cycle during which public water systems shall monitor. Each compliance cycle consists of three three-year compliance periods. The first calendar year cycle began January 1, 1993 and ends December 31, 2001; the second begins January 1, 2002 and ends December 31, 2010; the third begins January 1, 2011 and ends December 31, 2019.

Section 64400.30. Compliance period

"Compliance period" means a three-year calendar year period within a compliance cycle. Within the first compliance cycle, the first compliance period runs from January 1, 1993 to December 31, 1995; the second from January 1, 1996 to December 31, 1998; the third from January 1, 1999 to December 31, 2001.

Section 64400.40. Confluent growth

"Confluent growth" means a continuous bacterial growth covering the entire filtration area of a membrane filter, or a portion thereof, in which bacterial colonies are not discrete.

Section 64400.45. Detection limit for purposes of reporting (DLR)

"Detection limit for purposes of reporting (DLR)" means the designated minimum level at or above which any analytical finding of a contaminant in drinking water resulting from monitoring required under this chapter shall be reported to the Department.

Section 64400.47. Fluoridation.

"Fluoridation" means the addition of fluoride to drinking water to achieve an optimal level, pursuant to Section 64433.2, that protects and maintains dental health.

Section 64400.50. Initial compliance period

"Initial compliance period" means the first full three-year compliance period which began January 1, 1993, for existing systems. For new systems, the "initial compliance period" means the period in which the Department grants the permit.

Section 64400.60. Initial finding

"Initial finding" means the first laboratory result from a water source showing the presence of an organic chemical listed in Section 64444, Table 64444-A.

Section 64400.65. IOC

"IOC" means inorganic chemical.

Section 64400.70. MCL

"MCL" means maximum contaminant level.

Section 64400.80. Nontransient-noncommunity water system

"Nontransient-noncommunity water system" means a public water system that is not a community water system and that regularly serves at least the same 25 persons over 6 months per year.

Section 64401. Repeat compliance period

"Repeat compliance period" means any subsequent compliance period after the initial compliance period.

Section 64401.10. Repeat sample

"Repeat sample" means a required sample collected following a total coliform-positive sample.

Section 64401.20. Replacement sample

"Replacement sample" means a sample collected to replace an invalidated sample.

Section 64401.30. Routine sample

"Routine sample" means a bacteriological sample the water supplier is required to collect on a regular basis, or one which the supplier is required to collect for a system not in compliance with Sections 64650 through 64666 when treated water turbidity exceeds 1 nephelometric turbidity unit (NTU), pursuant to section 64423(b).

Section 64401.40. Sanitary survey

"Sanitary survey" means an on-site review of a public water system for the purpose of evaluating the adequacy of the water source, facilities, equipment, operation and maintenance for producing and distributing safe drinking water.

Section 64401.50. Significant rise in bacterial count

"Significant rise in bacterial count" means an increase in coliform bacteria, as determined in Section 64426, when associated with a suspected waterborne illness or disruption of physical works or operating procedures.

Section 64401.55. SOC

"SOC" means synthetic organic chemical.

Section 64401.60. Standby source

"Standby source" means a source which is used only for emergency purposes pursuant to Section 64414.

Section 64401.70. System with a single service connection

"System with a single service connection" means a system which supplies drinking water to consumers via a single service line.

Section 64401.75. Too numerous to count

"Too numerous to count" means that the total number of bacterial colonies exceeds 200 on a 47-mm diameter membrane filter used for coliform detection.

Section 64401.80. Total coliform-positive

"Total coliform-positive" means a sample result in which the presence of total coliform has been demonstrated.

Section 64401.85. Transient-noncommunity water system

"Transient-noncommunity water system" means a public water system that is not a community water system or a nontransient-noncommunity water system.

Section 64401.90. Treatment

"Treatment" means physical, biological, or chemical processes, including blending, designed to affect water quality parameters to render the water acceptable for domestic use.

Section 64401.95. VOC

"VOC" means volatile organic chemical.

Section 64402. Vulnerable system

"Vulnerable system" means a water system which has any water source which in the judgement of the Department, has a risk of containing an organic contaminant, based on an assessment as set forth in Section 64445(d)(1).

Section 64402.10. Water source

"Water source" means an individual groundwater source or an individual surface water intake. Sources which have not been designated as standby sources shall be deemed to be water sources.

Section 64402.20. Water supplier

"Water supplier", "person operating a public water system" or "supplier of water" means any person who owns or operates a public water system. These terms will be used interchangeably in this chapter.

(a) "Wholesale water supplier," or "wholesaler" means any person who treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption.

(b) "Retail water supplier," or "retailer" means:

(1) Any person who owns or operates any distribution facilities and any related collection, treatment, or storage facilities under the control of the operator of the public water system which are used primarily in connection with the public water system; or

(2) Any person who owns or operates any collection or pretreatment storage facilities not under the control of the operator of the public water system which are used primarily in connection with the public water system.

Section 64403. Repealed

ARTICLE 2. DEFINITIONS AND GENERAL REQUIREMENTS

Section 64411. Repealed

Section 64412. Determination of persons served

(a) The number of persons served by a community water system shall be determined by the water system using one of the following methods:

(1) Utilizing the most recent United States census data, or more recent special census data certified by the California Department of Finance, for the service area served by the water system;

(2) Multiplying the number of service connections served by the water system by 3.3 to determine the total population served;

(3) Determining the total number of dwelling units or efficiency dwelling units as defined in the Uniform Building Code (Title 24, California Code of Regulations), the number of mobile home park spaces and the number of individual business, commercial, industrial and institutional billing units served by the water system and multiplying this total by 2.8 to arrive at the total population served by the system.

(b) Each community water system shall report to the Department annually the number of persons and the number of service connections served by the system using the procedures set forth in subsection (a).

Section 64414. Standby sources

(a) A source which has been designated "standby" shall be monitored a minimum of once every compliance cycle for all inorganic, organic, and radiological MCLs, unless a waiver has been granted by the Department pursuant to Section 64432(k) or (1) for inorganics, or Section 64445(d) for organics.

(b) A standby source which has previously monitored results indicating nitrate or nitrite levels equal to or greater than 50 percent of the MCL shall collect and analyze a sample for nitrate and nitrite annually. In addition, upon activation of such a source, a sample shall be collected, analyzed for these chemicals and the analytical results reported to the Department within 24 hours of activation.

(c) A standby source shall be used only for short-term emergencies of five consecutive days or less, and for less than a total of fifteen calendar days a year.

(d) Within 3 days after the short-term emergency use of a standby source, the water supplier shall notify the Department. The notification shall include information on the reason for and duration of the use.

(e) The status of a designated standby source shall not be changed to that of a regular source of drinking water supply, unless the source meets all existing drinking water standards and approval is obtained from the Department in advance.

Section 64415. Laboratory and personnel

(a) Required analyses shall be performed by laboratories approved to perform those analyses by the Department, pursuant to Section 116390, Health and Safety Code. Analyses shall be made in accordance with EPA approved methods as prescribed at 40 Code of Federal Regulations Sections 141.21 through 141.40, 141.41, 141.42 and 141.89.

(b) Sample collection, and field tests including color, odor, turbidity, pH, temperature, and disinfectant residual shall be performed by a water treatment operator certified by the Department pursuant to Section 106875 of the Health and Safety Code or by personnel trained to collect samples and/or perform these tests by the Department, a certified laboratory, or a certified operator.

Section 64416. Sampling plan except bacteriological

(a) Each public water system serving contiguous areas totalling more than 10,000 service connections shall submit a plan to the Department for monitoring the quality of water.

(1) This plan shall be supported by analytical, hydrological and geological data, and may be developed in cooperation with other agencies or water suppliers.

(2) Constituents to be addressed in the plan shall include inorganic chemicals, organic chemicals, trihalomethanes, radioactivity, general minerals and general physical parameters.

(3) Sampling of certain wells on a rotating basis may be included in the plan if the water supplier is able to demonstrate with analytical, hydrological and geological data that those wells are producing similar quality water from the same aquifer.

(4) The water supplier shall submit an updated plan to the Department at least once every ten years or at any time the plan no longer ensures representative monitoring of the system.

Section 64417. Siting requirements

(a) A person operating a public water system shall notify the Department prior to making any financial commitment for or initiation of construction of a new public water system or increasing the capacity of an existing public water system. To the extent practicable, no part of a new or expanded facility shall be:

- (1) Subject to pollution or contamination from any point or nonpoint sources.
- (2) Subject to a significant risk from natural disasters which could cause a breakdown of the public water system or a portion thereof.
- (3) Within the flood plain of a 100-year flood or lower than any recorded high tide, except for intake structures.

ARTICLE 3. PRIMARY STANDARDS-BACTERIOLOGICAL QUALITY

Section 64421. General requirements

- (a) Each water supplier shall:
 - (1) Develop a routine sample siting plan as required in Section 64422;
 - (2) Collect routine, repeat and replacement samples as required in Sections 64423, 64424, and 64425;
 - (3) Have all samples analyzed by laboratories approved to perform those analyses by the Department and report results as required in Section 64423.1;
 - (4) Notify the Department when there is an increase in coliform bacteria in bacteriological samples as required in Section 64426; and
 - (5) Comply with the Maximum Contaminant Level as required in Section 64426.1.
- (b) Water suppliers shall perform additional bacteriological monitoring as follows:
 - (1) After construction or repair of wells;
 - (2) After main installation or repair;
 - (3) After construction, repair, or maintenance of storage facilities; and
 - (4) After any system pressure loss to less than five psi. Samples collected shall represent the water quality in the affected portions of the system.

Section 64422. Routine sample siting plan

(a) By September 1, 1992, each water supplier shall develop and submit to the Department a siting plan for the routine collection of samples for total coliform analysis, subject to the following:

(1) The sample sites chosen shall be representative of water throughout the distribution system including all pressure zones, and areas supplied by each water source and distribution reservoir.

(2) The water supplier may rotate sampling among the sample sites if the total number of sites needed to comply with (a)(1) above exceeds the number of samples required according to Table 64423-A. The rotation plan shall be described in the sample siting plan.

(b) If personnel other than certified operators will be performing field tests and/or collecting samples, the sample siting plan shall include a declaration that such personnel have been trained, pursuant to Section 64415 (b).

(c) The supplier shall submit an updated plan to the Department at least once every ten years and at any time the plan no longer ensures representative monitoring of the system.

Section 64423. Routine sampling

(a) Each water supplier shall collect routine bacteriological water samples as follows:

(1) The minimum number of samples for community water systems shall be based on the known population served or the total number of service connections, whichever results in the greater number of samples, as shown in Table 64423-A. A community water system using groundwater which serves 25-1000 persons may request from the Department a reduction in monitoring frequency. The minimum reduced frequency shall not be less than one sample per quarter.

(2) The minimum number of samples for nontransient-noncommunity water systems shall be based on the known population served as shown in Table 64423-A during those months when the system is operating. A nontransient-noncommunity water system using groundwater which serves 25-1000 persons may request from the Department a reduction in monitoring frequency if it has not violated the requirements in this article during the past twelve months. The minimum reduced frequency shall not be less than one sample per quarter.

(3) The minimum number of samples for transient-noncommunity water systems using groundwater and serving 1000 or fewer persons a month shall be one in each calendar quarter during which the system provides water to the public.

(4) The minimum number of samples for transient-noncommunity water systems using groundwater and serving more than 1000 persons during any month shall be based

on the known population served as shown in Table 64423-A, except that the water supplier may request from the Department a reduction in monitoring for any month the system serves 1000 persons or fewer. The minimum reduced frequency shall not be less than one sample in each calendar quarter during which the system provides water to the public.

(5) The minimum number of samples for transient-noncommunity water systems using approved surface water shall be based on the population served as shown in Table 64423-A. A system using groundwater under the direct influence of surface water shall begin monitoring at this frequency by the end of the sixth month after the Department has designated the source to be approved surface water.

(6) A public water system shall collect samples at regular time intervals throughout the month, except that a system using groundwater which serves 4,900 persons or fewer may collect all required samples on a single day if they are taken from different sites.

(b) In addition to the minimum sampling requirements, all water suppliers using approved surface water which do not practice treatment in compliance with Sections 64650 through 64666, shall collect a minimum of one sample before or at the first service connection each day during which the turbidity level of the water delivered to the system exceeds 1 NTU. The sample shall be collected within 24 hours of the exceedance and shall be analyzed for total coliform. If the water supplier is unable to collect and/or analyze the sample within the 24-hour time period because of extenuating circumstances beyond its control, the supplier shall notify the Department within the 24-hour time period and may request an extension. Sample results shall be included in determining compliance with the MCL for total coliform in Section 64426.1.

(c) If any routine, repeat, or replacement sample is total coliform-positive, then the water supplier shall collect repeat samples in accordance with Section 64424 and comply with the reporting requirements specified in Sections 64426 and 64426.1.

Table 64423-A
Minimum Number of Routine Total Coliform Samples

<i>Monthly Population Served</i>			<i>Service Connections</i>			<i>Minimum Number of Samples</i>
25	to	1,000	15	to	400	1 per month
1,001	to	2,500	401	to	890	2 "
2,501	to	3,300	891	to	1,180	3 "
3,301	to	4,100	1,181	to	1,460	4 "
4,101	to	4,900	1,461	to	1,750	5 "
4,901	to	5,800	1,751	to	2,100	6 "
5,801	to	6,700	2,101	to	2,400	7 "
6,701	to	7,600	2,401	to	2,700	2 per week
7,601	to	12,900	2,701	to	4,600	3 "
12,901	to	17,200	4,601	to	6,100	4 "
17,201	to	21,500	6,101	to	7,700	5 "
21,501	to	25,000	7,701	to	8,900	6 "
25,001	to	33,000	8,901	to	11,800	8 "
33,001	to	41,000	11,801	to	14,600	10 "
41,001	to	50,000	14,601	to	17,900	12 "
50,001	to	59,000	17,901	to	21,100	15 "
59,001	to	70,000	21,101	to	25,000	18 "
70,001	to	83,000	25,001	to	29,600	20 "
83,001	to	96,000	29,601	to	34,300	23 "
96,001	to	130,000	34,301	to	46,400	25 "
130,001	to	220,000	46,401	to	78,600	30 "
220,001	to	320,000	78,601	to	114,300	38 "
320,001	to	450,000	114,301	to	160,700	50 "
450,001	to	600,000	160,701	to	214,300	55 "
600,001	to	780,000	214,301	to	278,600	60 "
780,001	to	970,000	278,601	to	346,400	70 "
970,001	to	1,230,000	346,401	to	439,300	75 "
1,230,001	to	1,520,000	439,301	to	542,900	85 "
1,520,001	to	1,850,000	542,901	to	660,700	90 "
1,850,001	to	2,270,000	660,701	to	810,700	98 "
2,270,001	to	3,020,000	810,701	to	1,078,600	105 "
3,020,001	to	3,960,000	1,078,601	to	1,414,300	110 "
3,960,001	or more		1,414,301	or more		120 "

Section 64423.1. Sample analysis and reporting of results

(a) The water supplier shall designate (label) each sample as routine, repeat, replacement, or "other" pursuant to Section 64421(b), and have each sample analyzed for total coliform. The supplier also shall require the laboratory to analyze the same sample for fecal coliform or *Escherichia coli* (*E. coli*) whenever the presence of total coliform is indicated. As a minimum, the analytical results shall be reported in terms of the presence or absence of total or fecal coliform, or *E. coli* in the sample, whichever is appropriate.

(b) The water supplier shall require the laboratory to notify the supplier within 24 hours, whenever the presence of total coliform, fecal coliform or *E. coli* is demonstrated in a sample or a sample is invalidated due to interference problems, pursuant to Section 64425(b).

(c) Analytical results of all required samples collected for a system in a calendar month shall be reported to the Department not later than the tenth day of the following month, as follows:

(1) The water supplier shall submit a monthly summary of the bacteriological monitoring results to the Department.

(2) For systems serving fewer than 10,000 service connections or 33,000 persons, the water supplier shall require the laboratory to submit copies of all required bacteriological monitoring results directly to the Department.

(3) For systems serving more than 10,000 service connections, or 33,000 persons, the water supplier shall require the laboratory to submit copies of bacteriological monitoring results for all positive routine samples and all repeat samples directly to the Department.

(d) Laboratory reports shall be retained by the water supplier for a period of at least five years and shall be made available to the Department upon request.

Section 64424. Repeat sampling

(a) If a routine sample is total coliform-positive, the water supplier shall collect a repeat sample set as described in paragraph (a)(1) within 24 hours of being notified of the positive result. The repeat samples shall all be collected within the same 24 hour time period. A single service connection system may request that the Department allow the collection of the repeat sample set over a four-day period.

(1) For a water supplier that normally collects more than one routine sample a month, a repeat sample set shall be at least three samples for each total coliform-positive sample. For a water supplier that normally collects one or fewer samples per month, a repeat sample set shall be at least four samples for each total coliform-positive sample.

(2) If the water supplier is unable to collect the samples within the 24-hour time period specified in subsection (a) or deliver the samples to the laboratory within 24 hours after collection because of circumstances beyond its control, the water supplier shall notify the Department within 24 hours. The Department will then determine how much time the supplier will have to collect the repeat samples.

(b) When collecting the repeat sample set, the water supplier shall collect at least one repeat sample from the sampling tap where the original total coliform-positive sample was taken. Other repeat samples shall be collected within five service connections upstream or downstream of the original site. At least one sample shall be from upstream and one from downstream unless there is no upstream and/or downstream service connection.

(c) If one or more samples in the repeat sample set is total coliform-positive, the water supplier shall collect and have analyzed an additional set of repeat samples as specified in subsections (a) and (b). The supplier shall repeat this process until either no coliform are detected in one complete repeat sample set or the supplier determines that the MCL for total coliform specified in Section 64426.1 has been exceeded and notifies the Department.

(d) If a public water system for which fewer than five routine samples/month are collected has one or more total coliform-positive samples, the water supplier shall collect at least five routine samples the following month. If the supplier stops supplying water during the month after the total coliform-positive(s), at least five samples shall be collected during the first month the system resumes operation. A water supplier may request the Department waive the requirement to collect at least five routine samples the following month, but a waiver will not be granted solely on the basis that all repeat samples are total coliform-negative. To request a waiver, one of the following conditions shall be met:

(1) The Department conducts a site visit before the end of the next month the system provides water to the public to determine whether additional monitoring and/or corrective action is necessary to protect public health.

(2) The Department determines why the sample was total coliform-positive and establishes that the system has corrected the problem or will correct the problem before the end of the next month the system serves water to the public. If a waiver is granted, a system shall collect at least one routine sample before the end of the next month it serves water to the public and use it to determine compliance with Section 64426.1.

Section 64425. Sample invalidation

(a) A water supplier may request the Department to invalidate a sample for which a total coliform-positive result has been reported if the supplier demonstrates:

(1) All repeat sample(s) collected at the same tap as the original total coliform-positive sample also are total coliform-positive and all repeat samples collected within five service connections of the original tap are not total coliform-positive; or

(2) The laboratory did not follow the prescribed analytical methods pursuant to Section 64415(a), based on a review of laboratory documentation by the Department. The supplier shall submit to the Department a written request for invalidation along with the laboratory documentation, the supplier's sample collection records and any observations noted during sample collection and delivery. The water supplier shall require the laboratory to provide the supplier with documentation which shall include, but not be limited to:

(A) A letter from the director of the laboratory having generated the data, confirming the invalidation request by reason of laboratory accident or error;

(B) Complete sample identification, laboratory sample log number (if used), date and time of collection, date and time of receipt by the laboratory, date and time of analysis for the sample(s) in question;

(C) Complete description of the accident or error alleged to have invalidated the result(s);

(D) Copies of all analytical, operating, and quality assurance records pertaining to the incident in question; and

(E) Any observations noted by laboratory personnel when receiving and analyzing the sample(s) in question.

(b) Whenever any total coliform sample result indicative of the absence of total coliform has been declared invalid by the laboratory due to interference problems as specified at 40 Code Federal Regulations, Section 141.21(c)(2), the supplier shall collect a replacement sample from the same location as the original sample within 24 hours of being notified of the interference problem, and have it analyzed for the presence of total coliform. The supplier shall continue to re-sample at the original site within 24 hours and have the samples analyzed until a valid result is obtained.

Section 64426. Significant rise in bacterial count

(a) Any of the following criteria shall indicate a possible significant rise in bacterial count:

(1) A system collecting at least 40 samples per month has a total coliform-positive routine sample followed by two total coliform-positive repeat samples in the repeat sample set;

(2) A system has a sample which is positive for fecal coliform or E. coli; or

(3) A system fails the total coliform Maximum Contaminant Level (MCL) as defined in Section 64426.1.

(b) When the coliform levels specified in subsection (a) are reached or exceeded, the water supplier shall:

(1) Contact the Department by the end of the day on which the system is notified of the test result or the system determines that it has exceeded the MCL, unless the notification or determination occurs after the Department office is closed, in which case the supplier shall notify the Department within 24 hours; and

(2) Submit to the Department information on the current status of physical works and operating procedures which may have caused the elevated bacteriological findings, or any information on community illness suspected of being waterborne. This shall include, but not be limited to:

(A) Current operating procedures that are or could potentially be related to the increase in bacterial count;

(B) Any interruptions in the treatment process;

(C) System pressure loss to less than 5 psi;

(D) Vandalism and/or unauthorized access to facilities;

(E) Physical evidence indicating bacteriological contamination of facilities;

(F) Analytical results of any additional samples collected, including source samples;

(G) Community illness suspected of being waterborne; and

(H) Records of the investigation and any action taken.

(c) Upon receiving notification from the Department of a significant rise in bacterial count, the water supplier shall implement the emergency notification plan required by Section 4029³³, Health and Safety Code.

Section 64426.1. Total coliform MCL

(a) Results of all samples collected in a calendar month pursuant to Sections 64423, 64424, and 64425 that are not invalidated by the Department or the laboratory shall be included in determining compliance with the total coliform MCL. Special purpose samples such as those listed in Section 64421(b) and samples collected by the water supplier during special investigations shall not be used to determine compliance with the total coliform MCL.

³³Section 4029 has been recodified to section 116460. OAL has been notified of this by a request for a “change without regulatory effect.”.

(b) A public water system is in violation of the total coliform MCL when any of the following occurs:

(1) For a public water system which collects at least 40 samples per month, more than 5.0 percent of the samples collected during any month are total coliform-positive; or

(2) For a public water system which collects fewer than 40 samples per month, more than one sample collected during any month is total coliform-positive; or

(3) Any repeat sample is fecal coliform-positive or *E. coli*-positive; or

(4) Any repeat sample following a fecal coliform-positive or *E. coli*-positive routine sample is total coliform-positive.

(c) If a public water system is not in compliance with paragraphs (b)(1) through (4), during any month in which it supplies water to the public, the water supplier shall notify the Department by the end of the business day on which this is determined, unless the determination occurs after the Department office is closed, in which case the supplier shall notify the Department within 24 hours of the determination. The water supplier shall also notify the consumers served by the water system. Notification for violations of paragraphs (b)(1) or (2) shall be in accordance with Sections 64464.3 and 64467, including the language in Section 64470(a). Notification for violations of subsections (b)(3) or (4) shall be in accordance with Sections 64464.3, 64465 and 64467, including the language in Section 64470(b).

Section 64426.5. Variance from total coliform maximum contaminant level

A water system may apply to the Department for a variance from the total coliform MCL in Section 64426.1(b)(1) or (2). To be eligible for a variance, the water system shall demonstrate that it meets the following criteria:

(a) During the thirty days prior to application for a variance, water entering the distribution system has:

(1) Been free from fecal coliform or *E. coli* occurrence based on at least daily sampling;

(2) Contained less than one total coliform per hundred milliliters of water in at least ninety-five per cent of all samples based on at least daily sampling;

(3) Complied with the turbidity requirements of Section 64653, if approved surface water; and

(4) Maintained a continuous disinfection residual of at least 0.2 mg/L at the entry point(s) to the distribution system;

(b) The system has had no waterborne microbial disease outbreak, pursuant to section 64651.91, while operated in its present configuration;

(c) The system maintains contact at least twice a week with the Department and local health departments to assess illness possibly attributable to microbial occurrence in the public drinking water system;

(d) The system has analyzed, on a monthly basis, at least the number of samples required pursuant to the approved sample siting plan and has not had an E. coli-positive compliance sample within the last six months, unless the system demonstrates to the Department that the occurrence is not due to contamination entering the distribution system;

(e) The system has undergone a sanitary survey conducted by the Department within the past twelve months;

(f) The system maintains a cross-connection control program in accordance with Sections 7583 through 7605, title 17 of the California Code of Regulations;

(g) The system agrees to submit a biofilm control plan to the Department within twelve months of the granting of the first request for a variance;

(h) The system monitors general distribution system bacterial quality by conducting heterotrophic bacteria plate counts on at least a weekly basis at a minimum of ten percent of the number of total coliform sites specified in the approved sample siting plan (preferably using the methods in section 9215(a), 18th edition of Standard Methods for the Examination of Water and Wastewater, 1992, American Public Health Association, et. al); and

(i) The system conducts daily monitoring at distribution system total coliform monitoring sites approved by the Department and maintains a detectable disinfectant residual at a minimum of ninety-five percent of those points and a heterotrophic plate count of less than 500 colonies per ml at sites without a disinfectant residual.

(j) No water system shall be eligible for a variance or exemption from the MCL for total coliform unless it demonstrates that the violation of the total coliform MCL is due to a persistent growth of total coliform in the distribution system pursuant to section 64426.5, rather than to fecal or pathogenic contamination, a treatment lapse or deficiency, or a problem in the operation or maintenance of the distribution system.

Section 64427. Sanitary survey

Systems which collect less than five routine samples per month shall be subject to an initial sanitary survey by the Department by June 29, 1994 for community water systems and June 29, 1999 for nontransient-noncommunity and transient-noncommunity water systems. Sanitary surveys shall be repeated every five years.

ARTICLE 4. PRIMARY STANDARDS -- INORGANIC CHEMICALS

Section 64431. Maximum contaminant levels - inorganic chemicals

(a) The primary MCLs for the drinking water chemicals shown in Table 64431-A shall not be exceeded in the water supplied to the public.

Table 64431-A
Maximum Contaminant Levels
Inorganic Chemicals

<i>Chemical</i>	<i>Maximum Contaminant Level, mg/L</i>
Aluminum	1.
Antimony	0.006
Arsenic	0.05
Asbestos	7 MFL*
Barium	1.
Beryllium	0.004
Cadmium	0.005
Chromium	0.05
Cyanide	0.2
Fluoride	2.
Mercury	0.002
Nickel	0.1
Nitrate (as NO ₃)	45.
Nitrate + Nitrite (sum as nitrogen)	10.
Nitrite (as nitrogen)	1.
Selenium	0.05
Thallium	0.002

*MFL = million fibers per liter; MCL for fibers exceeding 10 um in length.

Section 64432. Monitoring and compliance - inorganic chemicals

(a) All public water systems shall monitor to determine compliance with the nitrate and nitrite MCLs in Table 64431-A, pursuant to subsections 64432(c) through (e) of this section and Section 64432.1. All community and nontransient-noncommunity water systems shall also monitor to determine compliance with the MCLs in Tables 64431-A, pursuant to subsections 64432(b) through (l) of this section, and Section 64432.2. Monitoring shall be conducted in the year designated by the Department of each compliance period beginning with the compliance

period starting January 1, 1993.

(b) The frequency of monitoring conducted to determine compliance with the MCLs for the inorganic chemicals listed in Tables 64431-A, except for asbestos and nitrate/nitrite, shall be as follows:

(1) Each compliance period, all community and nontransient-noncommunity systems using groundwater shall monitor once during the year designated by the Department. The Department will designate the year based on historical monitoring frequency and laboratory capacity. All community and nontransient-noncommunity systems using approved surface water shall monitor annually. All systems monitoring at distribution entry points which have combined surface and groundwater sources shall monitor annually.

(2) Quarterly samples shall be collected and analyzed for any chemical if analyses of such samples indicate a continuous or persistent trend toward higher levels of that chemical, based on an evaluation of previous data.

(c) For the purposes of Sections 64432, 64432.1 and 64432.2, detection shall be defined by the detection limits for purposes of reporting (DLRs) in Table 64432-A.

Table 64432-A
Detection Limits for Purposes of Reporting (DLRs)
for Regulated Inorganic Chemicals

<i>Chemical</i>	<i>Detection Limit for Purposes of Reporting (DLR) (mg/L)</i>
Aluminum	0.05
Antimony	0.006
Arsenic	0.002
Asbestos	0.2 MFL>10 um*
Barium	0.1
Beryllium	0.001
Cadmium	0.001
Chromium	0.01
Cyanide	0.1
Fluoride	0.1
Mercury	0.001
Nickel	0.01
Nitrate (as NO ₃)	2.
Nitrite (as nitrogen)	0.4
Selenium	0.005
Thallium	0.001

*MFL = million fibers per liter; DLR for fibers exceeding 10 um in length.

(d) Samples shall be collected from each water source or a supplier may collect a minimum of one sample at every entry point to the distribution system which is representative of each source after treatment. The system shall collect each sample at the same sampling site, unless a change is approved by the Department.

(e) A water system may request approval from the Department to composite samples from up to five sampling sites, provided that the number of sites to be composited is less than the ratio of the MCL to the DLR. Approval will be based on a review of three years of historical data, well construction and aquifer information for groundwater, and intake location, similarity of sources, and watershed characteristics for surface water. Compositing shall be done in the laboratory.

(1) Systems serving more than 3,300 persons shall composite only from sampling sites within a single system. Systems serving 3,300 persons or less may composite among different systems up to the 5-sample limit.

(2) If any inorganic chemical is detected in the composite sample at a level equal to or greater than one-fifth of the MCL, a follow-up sample shall be analyzed within 14 days from each sampling site included in the composite for the contaminants which exceeded the one-fifth-MCL level. If available, duplicates of the original sample taken from each sampling site used in the composite may be used instead of resampling; the analytical results shall be reported within 14 days. The water supplier may collect up to two additional samples each from one or more of the sources to confirm the result(s).

(3) Compliance for each site shall be determined on the basis of the individual follow-up samples, or on the average of the follow-up and confirmation sample(s) if the supplier collects confirmation sample(s) for each detection.

(f) If the level of any inorganic chemical, except for nitrate, nitrite, or nitrate plus nitrite, exceeds the MCL, the water supplier shall do one of the following:

(1) Inform the Department within 48 hours and monitor quarterly beginning in the next quarter after the violation occurred; or

(2) Inform the Department within seven days from the receipt of the analysis and collect one additional sample within 14 days to confirm the result. If the average of the two samples collected exceeds the MCL, this information shall be reported to the Department within 48 hours and the water supplier shall monitor quarterly beginning in the next quarter after the violation occurred.

(g) For systems monitoring quarterly, compliance shall be determined by a running annual average; if any one sample would cause the annual average to exceed the MCL, the system is out of compliance immediately. For systems monitoring annually or less frequently, compliance shall be determined based on the initial sample or the average of the initial and confirmation samples, if a confirmation sample is collected.

(h) If a system using groundwater has collected a minimum of two quarterly samples or a system using approved surface water has collected a minimum of four quarterly samples and the sample results have been below the MCL, the system may apply to the Department for a reduction in monitoring frequency.

(i) Water quality data collected prior to January 1, 1990, and/or data collected in a manner inconsistent with this section shall not be used in the determination of compliance with the monitoring requirements for inorganic chemicals.

(j) Water quality data collected in compliance with the monitoring requirements of this section by a wholesaler agency providing water to a public water system shall be acceptable for use by that system for compliance with the monitoring requirements of this section.

(k) A water system may apply to the Department for a waiver from the monitoring frequencies specified in paragraph (b)(1) of this section, if the system has conducted at least three rounds of monitoring (three periods for groundwater sources or three years for approved surface water sources) and all previous analytical results are less than the MCL. The water system shall specify the basis for its request. If granted a waiver, a system shall collect a minimum of one sample per source while the waiver is in effect and the term of the waiver shall not exceed one compliance cycle (i.e., nine years).

(l) A water system may be eligible for a waiver from the monitoring frequencies for cyanide specified in paragraph (b)(1) of this section without any prior monitoring if it is able to document that it is not vulnerable to cyanide contamination pursuant to the requirements in section 64445(d)(1) or (d)(2).

(m) Transient-noncommunity water systems shall monitor for inorganic chemicals as follows:

(1) All sources shall be monitored at least once for fluoride;

(2) Surface water sources for parks and other facilities with an average daily population use of more than 1000 people and/or which are determined to be subject to potential contamination based on a sanitary survey shall be monitored at the same frequency as community water systems.

Section 64432.1. Monitoring and compliance - nitrate and nitrite

(a) To determine compliance with the MCL for nitrate in Table 64431-A, all public water systems using groundwater and transient-noncommunity systems using approved surface water shall monitor annually, and all community and nontransient-noncommunity systems using approved surface water shall monitor quarterly.

(1) The water supplier shall require the laboratory to notify the supplier within 24 hours, whenever the level of nitrate in a single sample exceeds the MCL. Within 24 hours after

this notification, the water supplier shall:

(A) Collect another sample, and

(B) Analyze the new sample; if the average of the two nitrate sample results exceeds the MCL, report the result to the Department within 24 hours. If the average does not exceed the MCL, inform the Department of the results within seven days from the receipt of the original analysis.

(C) If a system is unable to resample within 24 hours, it shall notify the consumers in accordance with Section 64465 and shall collect and analyze a confirmation sample within two weeks of notification of the results of the first sample.

(2) For public water systems using groundwater, the repeat monitoring frequency shall be quarterly for at least one year following any one sample in which the concentration is greater than or equal to 50 percent of the MCL. After four consecutive quarterly samples are less than the MCL, a system may request that the Department reduce monitoring frequency to annual sampling.

(3) For public water systems using approved surface water, the repeat monitoring frequency shall be quarterly following any one sample in which the concentration is greater than or equal to 50 percent of the MCL. After four consecutive quarterly samples are less than 50 percent of the MCL, a system may request that the Department reduce monitoring frequency to annual sampling. A system using approved surface water shall return to quarterly monitoring if any one sample is greater than or equal to 50 percent of the MCL.

(4) After any round of quarterly sampling is completed, each community and nontransient-noncommunity system which initiates annual monitoring shall take subsequent samples during the quarter which previously resulted in the highest analytical results.

(b) All public water systems shall monitor to determine compliance with the MCL for nitrite in Table 64431-A, by taking one sample at each sampling site during the compliance period beginning January 1, 1993.

(1) If the level of nitrite in a single sample is greater than the MCL, the water supplier shall proceed as for nitrate in accordance with paragraph (a)(1) of this section.

(2) The repeat monitoring frequency for systems with an analytical result for nitrite that is greater than or equal to 50 percent of the MCL shall be quarterly monitoring for at least one year. After four consecutive quarterly samples are less than the MCL, a system may request that the Department reduce monitoring frequency to annual sampling, collecting subsequent samples during the quarter which previously resulted in the highest analytical results.

(3) The repeat monitoring frequency for systems with an analytical result for nitrite that is less than 50 percent of the MCL shall be one sample during each compliance period

(every three years).

(c) All public water systems shall determine compliance with the MCL for nitrate plus nitrite in Table 64431-A. If the level exceeds the MCL, the water supplier shall proceed as for nitrate in accordance with paragraphs (a)(1) through (a)(4) of this section.

Section 64432.2. Monitoring and compliance - asbestos

(a) All community and nontransient-noncommunity water systems are required to monitor to determine compliance with the MCL for asbestos in Table 64431-A during the year designated by the Department of the first compliance period of each nine-year compliance cycle, beginning in the compliance period starting January 1, 1993. The Department will designate the year based on historical monitoring frequency and laboratory capacity.

(1) If a groundwater system is vulnerable to asbestos contamination solely in its source water, it shall collect one sample at every entry point to the distribution system which is representative of each water source after treatment and proceed in accordance with Subsections 64432(b)(2) through (d) and Subsections 64432(f) through (j).

(2) All approved surface water systems shall be designated vulnerable to asbestos contamination in their source waters. If a surface water system is vulnerable solely in its source water, it shall proceed as in paragraph (1) above.

(3) If a system is vulnerable to asbestos contamination due to leaching of asbestos-cement pipe, with or without vulnerability to asbestos contamination in its source water, it shall take one sample at a tap served by asbestos-cement pipe under conditions where asbestos contamination is most likely to occur.

(b) If the level of asbestos exceeds the MCL in Table 64431-A, the supplier shall report to the Department within 48 hours and monitor quarterly beginning in the next quarter after the violation occurred. A system may request that the Department reduce monitoring frequency to one sample every compliance cycle, pursuant to Section 64432(h).

(c) If a system is not vulnerable to asbestos contamination in its source water or due to leaching of asbestos-cement pipe, it may apply to the Department for a waiver of the monitoring requirements in paragraphs (a)(1) through (3) of this section. The Department will determine the vulnerability of groundwater sources on the basis of historical monitoring data and possible influence of serpentine formations. Vulnerability due to leaching of asbestos-cement pipe will be determined by the Department on the basis of the presence of such pipe in the distribution system and evaluation of the corrosivity of the water. The period of the waiver shall be three years.

ARTICLE 4.1. FLUORIDATION

Section 64433. System requirements and exemptions

(a) Any public water system with 10,000 service connections or more that does not have a fluoridation system shall install such a system pursuant to the requirements in this article if the Department identifies a source of sufficient funds to cover capital and any associated costs necessary to install such a system. Installation shall be completed within two years of the date the funds are received by the water system; the water system may apply to the Department for an extension of the deadline. Following installation, if the Department identifies a source of sufficient funds to cover the noncapital operations and maintenance costs for the period of a year or more, the system shall fluoridate within three months of receiving the funds and shall continue fluoridating so long as such funds are received.

(b) Any public water system with 10,000 service connections or more that has a fluoridation system but ceased fluoridating prior to December 31, 1995 shall fluoridate the drinking water if its fluoridation system is determined to be capable of fluoridating the drinking water in compliance with Section 64433.2, based on a Departmental review, and the Department identifies a source of sufficient funds to cover the noncapital operations and maintenance costs for the period of a year or more. Such a system shall fluoridate within one month of receiving the funds and shall continue fluoridating so long as such funds are received.

(c) Any public water system required to install a fluoridation system pursuant to subsection (a) or required to fluoridate pursuant to subsection (b) shall annually submit an estimate of anticipated fluoridation operations and maintenance costs for the next fiscal year (July 1 through June 30) to the Department by the January 1 preceding that fiscal year.

(d) Any public water system with 10,000 service connections or more that has naturally-occurring fluoride and cannot demonstrate that it maintains an average annual fluoride level that is equal to or greater than the low level specified in the temperature-appropriate “control range” in Table 64433.2-A shall be subject to subsections (a) and (b).

(e) Any public water system which achieves 10,000 service connections or more subsequent to July 1, 1996, that does not have a fluoridation system, or that has naturally-occurring fluoride and meets the criteria in subsection (d) shall provide an estimate to the Department of capital and any associated costs necessary to install a fluoridation system within one year of achieving at least 10,000 service connections:

(f) Any public water system with 10,000 service connections or more shall be exempted from fluoridation in either of the following cases:

(1) The water system does not receive sufficient funds from a source identified by the Department to cover the capital and associated costs needed to install a fluoridation system; or

(2) The water system received sufficient capital funds from a source identified by the Department and subsequently installed a fluoridation system or the water system meets the

criteria in subsection (b), and the water system did not receive sufficient funds from a source identified by the Department to cover the noncapital operation and maintenance costs to fluoridate. The water system shall be exempted for any fiscal year (July 1 through June 30) for which it does not receive the funds for noncapital operation and maintenance costs.

Section 64433.2. Optimal fluoride levels

Any public water system that is fluoridating shall comply with the temperature-appropriate fluoride levels in Table 64433.2-A. The system shall determine, and submit to the Department, its annual average of maximum daily air temperatures based on the five calendar years immediately preceding the current calendar year.

Table 64433.2-A
Optimal Fluoride Levels

<i>Annual average of maximum daily air temperatures, degrees</i>		<i>Optimal fluoride level, mg/L</i>	<i>Control Range, mg/L</i>	
<i>Fahrenheit</i>	<i>Celsius</i>		<i>Low</i>	<i>High</i>
50.0 to 53.7	10.0 to 12.0	1.2	1.1	1.7
53.8 to 58.3	12.1 to 14.6	1.1	1.0	1.6
58.4 to 63.8	14.7 to 17.7	1.0	0.9	1.5
63.9 to 70.6	17.8 to 21.4	0.9	0.8	1.4
70.7 to 79.2	21.5 to 26.2	0.8	0.7	1.3
79.3 to 90.5	26.3 to 32.5	0.7	0.6	1.2

Section 64433.3. Monitoring and compliance - fluoride levels

(a) If a water system has a single fluoridation system which treats all the water distributed to consumers, the supplier shall collect a daily sample for fluoride analysis, pursuant to Section 64415(b), either in the distribution system or at the entry point. If a water system does not fluoridate all its water and/or has more than one fluoridation system, the supplier shall collect one sample daily in the distribution system and rotate the sample sites in order to be representative of the water throughout the distribution system according to a monitoring plan the Department has determined to be representative. For water systems fluoridating as of January 1, 1997, the plan shall be submitted by July 1, 1998. For all others, the plan shall be submitted prior to initiating fluoridation treatment. A water system shall monitor only when it is operating its fluoridation system.

(b) If more than 20 percent of the daily fluoride samples collected in a month by a water system pursuant to subsection (a) fall outside the control range of optimal levels as determined by temperature for that system pursuant to Section 64433.2, the system shall be out of compliance with Section 64433.2.

(c) At least once a month, any water supplier with an operating fluoridation system shall divide one sample and have one portion analyzed for fluoride by water system personnel and the other portion analyzed pursuant to Section 64415(a).

(d) Any water system with an operating fluoridation system shall sample the raw source waters annually and analyze for fluoride pursuant to Section 64415(a); samples collected pursuant to Section 64432(b)(1) may be used toward satisfying this requirement. All raw source water samples collected under this subsection are subject to compliance with the fluoride MCL in Table 64431-A.

(e) If any sample result obtained pursuant to subsection (a) does not fall within the temperature-appropriate fluoride level control range in Table 64433.2-A, the water supplier shall take action as detailed in the water system's approved fluoridation system operations contingency plan as specified in section 64433.8.

Section 64433.5. Fluoridation system

Each fluoridation system installed or modified after January 1, 1997, shall meet the following criteria, as a minimum:

(a) Operate only when a flow of water is detected. If the water system serves less than 200 service connections, a secondary flow-based control device shall be provided as back-up protection;

(b) Provide flow measuring and recording equipment for the fluoride addition;

(c) Provide design and reliability features to maintain the level of fluoride within the temperature-appropriate control range 95 per cent of the time;

(d) Provide for containment of spills; and

(e) Provide alarm features for fluoride chemical feed and fluoride spills.

Section 64433.7. Recordkeeping, reporting, and notification for water systems fluoridating

(a) By the tenth day of each month following the month being reported, each water supplier fluoridating its water supply shall send operational reports to the Department which include the following:

(1) The fluoride compounds used and the calculated fluoride dose in mg/L;

(2) Information on any interruptions in the fluoridation treatment which may have occurred during the month including the duration of the interruptions, an explanation of causes, and what corrective actions were taken to insure that fluoridation treatment was resumed in a timely manner;

(3) The results of the daily monitoring for fluoride in the water distribution system, reported in terms of daily results, and ranges and the number of samples collected; and

(4) The results of monthly split sample(s) analyzed pursuant to Section 64433.3(c).

(b) For water systems that fluoridated the previous fiscal year (July 1 through June 30), the water supplier shall report the operations and maintenance costs for that year to the Department by August 1.

(c) Whenever a water system initiates fluoridation, suspends fluoridation for more than ninety days, or reinitiates fluoridation after a suspension of more than ninety days, the water supplier shall notify the consumers, local health departments, pharmacists, dentists, and physicians in the area served by the water system, regarding the status of the fluoridation treatment. If a water system with more than one fluoridation system suspends the use of one or more of its fluoridation systems, but the level of fluoride being served to the consumers is in conformance with Table 64433.2-A, no notification shall be required.

(d) If a fluoride overfeed exceeding 10.0 mg/L occurs, the water system shall notify the Department by the end of the business day of the occurrence or within 24 hours if the Department office is closed.

(e) If the level of fluoride in the distribution system is found to be less than the control range in Table 64433.2-A in two or more samples in a month, the water system shall notify the Department within three business days of the second occurrence. If the level of fluoride in the distribution system is found to be 0.1 mg/L or more above the control range up to 10.0 mg/L, the water supplier shall notify the Department within three business days of the occurrence.

Section 64433.8. Fluoridation system operations contingency plan

(a) Water systems fluoridating as of July 1, 1996 shall submit a fluoridation system operations contingency plan by July 1, 1998. All other water systems shall submit the plan at least three months before initiating fluoridation treatment. All fluoridating water systems shall operate in accordance with a fluoridation system operations contingency plan determined by the Department to include the elements in subsection (b).

(b) A fluoridation system operation contingency plan shall include, but not be limited to, the following elements:

(1) Actions to be implemented by the water supplier in the event that the fluoride level in a distribution system sample is found to be less than the control range in Table 64433.2-A, 0.1 mg/L above the control range up to a fluoride level of 2.0 mg/L, from 2.1 to a level of 4.0 mg/L, from 4.1 to a level of 10.0 mg/L, or above a level of 10.0 mg/L.

(2) The procedure for shutting down the fluoridation equipment if there is a

fluoride overfeed and the need to do so is identified by the Department and/or the water supplier;

(3) The procedure for investigating the cause of an underfeed or overfeed;

(4) A list of water system, county health department, and Department personnel with day and evening phone numbers to be notified by the end of the business day of the occurrence or within 24 hours if the Department office is closed in the event of an overfeed exceeding 10.0 mg/L; and

(5) The procedure for notifying the public if instructed to do so by the Department in the event of a fluoride underfeed extending for more than three months or a fluoride overfeed exceeding 10.0 mg/L.

Section 64434. Water system priority funding schedule

Public water systems with 10,000 service connections or more that are not fluoridating as of July 1, 1996, shall install fluoridation systems and initiate fluoridation according to the order established in Table 64434-A, as the water systems receive funds from sources identified by the Department, pursuant to Health and Safety Code section 4026.8.

Table 64434-A
Water System Priority Funding Schedule

<i>System No.</i>	<i>System Name</i>	<i>Priority</i>
3710010	Helix Water District	1
5610017	Ventura , City of	2
4110013	Daly City, City of	3
3710006	Escondido, City of	4
4210011	Santa Maria, City of	5
3410009	Fair Oaks Water District	6
1910083	Manhattan Beach, City of	7
3710025	Sweetwater Authority	8
4210010	Santa Barbara, City of	9
0910001	El Dorado Irrigation District	10
3410006	Citrus Heights Water District	11
4410010	Santa Cruz, City of	12
3610039	San Bernardino, City of	13
3310009	Eastern Municipal Water District	14
3710037	Padre Dam Municipal Water District	15
1910067	Los Angeles, City of	16
2810003	Napa, City of	17
3710020	San Diego, City of	18
3710034	Otay Water District	19

<i>System No.</i>	<i>System Name</i>	<i>Priority</i>
3310031	Riverside, City of	20
1910173	Whittier, City of	21
3410020	Sacramento, City of	22
1910139	California American Water Company - San Marino	23
3710021	San Dieguito Water District	24
3610024	Hesperia Water District	25
1910179	Burbank, City of	26
2710004	California American Water Company - Monterey	27
3310049	Western Municipal Water District	28
3010073	Moulton Niguel Water District	29
3010101	Santa Margarita Water District	30
1910239	Lakewood, City of	31
2110003	North Marin Water District	32
3010037	Yorba Linda Water District	33
3710015	Poway, City of	34
3110025	Placer County Water Agency	35
5010010	Modesto, City of	36
1910126	Pomona, City of	37
3410004	Carmichael Water District	38
1910043	Glendale, City of	39
3610018	Cucamonga Community Water District	40
3910011	Tracy, City of	41
1910234	Walnut Valley Water District	42
3910012	Stockton, City of	43
1910146	Santa Monica, City of	44
3710027	Vista Irrigation District	45
3010018	La Habra, City of	46
1910009	Valley County Water District	47
3310012	Elsinore Valley Municipal Water District	48
1910051	Inglewood, City of	49
3710005	Carlsbad Municipal Water District	50
4210004	Goleta Water District	51
1910213	Torrance, City of	52
1910152	South Gate, City of	53
1910155	Southern California Water Company - Southwest	54
1510017	Indian Wells Valley Water District	55
1910039	San Gabriel Valley Water Company - El Monte	56
1610003	Hanford, City of	57
3310037	Corona, City of	58

<i>System No.</i>	<i>System Name</i>	<i>Priority</i>
3010062	Garden Grove, City of	59
3610003	Apple Valley Ranchos Water Community	60
3610036	Chino Hills, City of	61
3010064	Westminster, City of	62
4310011	San Jose Water Company	63
3610012	Chino, City of	64
3910004	Lodi, City of	65
5610007	Oxnard , City of	66
1910019	Cerritos, City of	67
1910205	Suburban Water Systems - San Jose Hills	68
1910059	Suburban Water Systems - La Mirada	69
1910092	Monterey Park, City of	70
1910174	Suburban Water Systems - Whittier	71
1910026	Compton, City of	72
1910124	Pasadena, City of	73
3310022	Lake Hemet Municipal Water District	74
1910142	Southern California Water Company - San Dimas	75
4510005	Redding, City of	76
3610037	Redlands, City of	77
3910005	Manteca, City of	78
3710014	Oceanside, City of	79
3610038	Rialto, City of	80
4310022	Great Oaks Water Company	81
4310014	Sunnyvale, City of	82
3310021	Jurupa Community Services District	83
3410001	Arcade- Town & County	84
3610052	Victor Valley Water District	85
3010023	Newport Beach, City of	86
3610064	East Valley Water District	87
1910225	Las Virgenes Municipal Water District	88
3710001	California American Water Company - Coronado	89
3610034	Ontario, City of	90
3910001	California Water Service Company - Stockton	91
1910033	Dominguez Water Agency	92
5410015	Tulare, City of	93
5710006	Woodland, City of	94
3710029	Olivenhain Municipal Water District	95
1910003	Arcadia, City of	96
1910008	Azusa Valley Water Company	97

<i>System No.</i>	<i>System Name</i>	<i>Priority</i>
4410011	Watsonville, City of	98
3010003	Buena Park, City of	99
4310005	Milpitas, City of	100
1910017	Santa Clarita Water Company	101
1910240	Valencia Water Company	102
3610004	West San Bernardino Water District	103
0910002	South Tahoe Public Utilities District	104
5610059	Southern California Water Company - Simi Valley	105
3010027	Orange, City of	106
5410010	Porterville, City of	107
4410017	Soquel Creek Water District	108
4110023	San Bruno, City of	109
1910001	Alhambra, City of	110
3010022	Southern California Water Company-West Orange County	111
3010091	Los Alisos Water District	112
3610050	Upland, City of	113
3410024	Northridge Water District	114
1010003	Clovis, City of	115
3010004	Mesa Consolidated Water District	116
3610041	San Gabriel Valley Water Company - Fontana	117
3410010	Citizens Utilities Company of California - Suburban	118
3010038	Santa Ana, City of	119
3010092	Irvine Ranch Water District	120
1910211	Park Water Company - Bellflower	121
3010010	Fullerton, City of	122
4310007	Mountain View, City of	123
3010036	San Clemente, City of	124
3010079	El Toro Water District	125
5610020	Thousand Oaks, City of	126
3610029	Monte Vista Water District	127
1910004	Southern California Water Company - Artesia	128
4210016	Southern California Water Company - Orcutt	129
4110008	California Water Service Company - San Mateo	130
1310038	Rancho California Water District	131
3410017	Citizens Utilities Company of California - Parkway	132
1910024	Southern California Water Company - Claremont	133
1910044	Glendora, City of	134
3010001	Anaheim, City of	135
5710001	Davis, City of	136

<i>System No.</i>	<i>System Name</i>	<i>Priority</i>
1910134	California Water Service Company- Hermosa/Redondo	137
1010007	Fresno, City of	138
1910102	Palmdale Water District	139
4310012	Santa Clara, City of	140
2710010	California Water Service Company - Salinas	141
4910006	Petaluma, City of	142
1910036	California Water Service Company - East Los Angeles	143
3410013	Citizens Utilities Company of California - Lincoln Oaks	144
3310001	Coachella Valley Water District	145
5010019	Turlock, City of	146
5410016	California Water Service Company - Visalia	147
5610023	Waterworks District 8-Simi Valley	148
0410002	California Water Service Company - Chico	149
1910104	California Water Service Company - Palos Verdes	150
3410015	Southern California Water Company - Cordova	151
4910009	Santa Rosa, City of	152
1910194	Rowland Water District	153
1510003	California Water Service Company - Bakersfield	154
5610040	California American Water Company - Village District	155
3310005	Desert Water Agency	156
0110003	California Water Service Company - Livermore	157
3010046	Tustin, City of	158
4310001	California Water Service Company - Los Altos Suburban	159
4110007	California Water Service Company - San Carlos	160
1910070	Los Angeles, County Water Works District 4&34-Lancaster	161
1510031	Bakersfield, City of	162
4110009	California Water Service Company - South San Francisco	163
3010053	Huntington Beach, City of	164
4110006	California Water Service Company - Bear Gulch	165
1910034	Downey, City of	166
4110022	Redwood City	167

ARTICLE 4.5. TRIHALOMETHANES**Section 64439. Requirements**

Community water systems shall comply with the National Interim Primary Drinking Water Regulations for the control of Trihalomethanes in Drinking Water, Sections 141.2(p), (q), (r), (s) and (t), 141.6, 141.12 and 141.30 of Title 40, Code of Federal Regulations, as published in the November 29, 1979, Federal Register (Vol. 44, No. 231) and revised in the March 11, 1980, Federal Register (Vol. 45, No. 49).³⁴

ARTICLE 5. RADIOACTIVITY**Section 64441. Natural radioactivity**

(a) All community water systems shall monitor their water supplies for radium-226, radium-228 and uranium at least once every four years. Compliance with maximum radioactivity levels shall be based on the average of the analysis of four consecutive quarterly samples.

(b) Gross alpha particle measurement may be substituted for measurement of radium-226 and radium-228.

(1) The supply is considered to be in compliance with maximum radioactivity levels if the gross alpha particle activity does not exceed 5 picocuries per liter (pCi/l).

(2) If gross alpha activity exceeds 5 pCi/l, measurement of radium-226 shall be made.

(3) If radium-226 exceeds 3 pCi/l, measurement of radium-228 shall be made.

(4) The sum of the radium-226 and radium-228 shall not exceed 5 pCi/l.

(c) If the average maximum contaminant level for gross alpha particle activity, total radium or uranium exceeds the levels shown on Table 4, the water supplier shall report this information to the Department within 48 hours.

Section 64443. Man-made radioactivity

Water systems with greater than 30,000 service connections and using surface water sources shall monitor their water supplies for tritium, strontium-90 and gross beta particle activity at least once every four years.

³⁴ See Addendum 1

(a) The average concentration of beta particle activity and photon radioactivity from man-made radionuclides in drinking water shall not produce an annual dose equivalent to the total body or any internal organ greater than four millirem/year.

(b) Compliance with this requirement is assumed if the average concentration of gross beta particle activity is less than 50 pCi/l and if the average concentration of tritium and strontium-90 are less than those listed on Table 4.

(c) If the gross beta particle activity exceeds 50 pCi/l, an analysis of the sample shall be performed to identify the major radioactive constituent present and the appropriate organ and total body doses shall be calculated.

(d) The water supplier shall report information on sample results that exceed the maximum contaminant levels to the Department within 48 hours.

Table 4
MCL Radioactivity

<i>Constituent</i>	<i>Maximum Contaminant Level, pCi/l</i>
Combined Radium-226 and Radium-228	5
Gross Alpha particle activity (including Radium-226 but excluding Radon and Uranium)	15
Tritium	20,000
Strontium-90	8
Gross Beta particle activity	50
Uranium	20

ARTICLE 5.5. PRIMARY STANDARDS -- ORGANIC CHEMICALS

Section 64444. General requirements

The MCLs for the primary drinking water chemicals shown in Table 64444-A shall not be exceeded in the water supplied to the public.

Table 64444-A
Maximum Contaminant Levels
Organic Chemicals

<i>Chemical</i>	<i>Maximum Contaminant Level, mg/L</i>
(a) Volatile Organic Chemicals (VOCs)	
Benzene	0.001
Carbon Tetrachloride	0.0005
1,2-Dichlorobenzene	0.6
1,4-Dichlorobenzene	0.005
1,1-Dichloroethane	0.005
1,2-Dichloroethane	0.0005
1,1-Dichloroethylene	0.006
cis-1,2-Dichloroethylene	0.006
trans-1,2-Dichloroethylene	0.01
Dichloromethane	0.005
1,2-Dichloropropane	0.005
1,3-Dichloropropene	0.0005
Ethylbenzene	0.7
Monochlorobenzene	0.07
Styrene	0.1
1,1,2,2-Tetrachloroethane	0.001
Tetrachloroethylene	0.005
Toluene	0.15
1,2,4-Trichlorobenzene	0.07
1,1,1-Trichloroethane	0.200
1,1,2-Trichloroethane	0.005
Trichloroethylene	0.005
Trichlorofluoromethane	0.15
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.2
Vinyl Chloride	0.0005
Xylenes	1.750*

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Table 6444-A (continued)
Maximum Contaminant Levels
Organic Chemicals

<i>Chemical</i>	<i>Maximum Contaminant Level, mg/L</i>
(b) Non-Volatile Synthetic Organic Chemicals (SOCs)	
Alachlor	0.002
Atrazine	0.003
Bentazon	0.018
Benzo(a)pyrene	0.0002
Carbofuran	0.018
Chlordane	0.0001
2,4-D	0.07
Dalapon	0.2
Dibromochloropropane (DBCP)	0.0002
Di(2-ethylhexyl)adipate	0.4
Di(2-ethylhexyl)phthalate	0.004
Dinoseb	0.007
Diquat	0.02
Endothall	0.1
Endrin	0.002
Ethylene Dibromide (EDB)	0.00005
Glyphosate	0.7
Heptachlor	0.00001
Heptachlor Epoxide	0.00001
Hexachlorobenzene	0.001
Hexachlorocyclopentadiene	0.05
Lindane	0.0002
Methoxychlor	0.04
Molinate	0.02
Oxamyl	0.2
Pentachlorophenol	0.001
Picloram	0.5
Polychlorinated Biphenyls	0.0005
Simazine	0.004
Thiobencarb	0.07
Toxaphene	0.003
2,3,7,8-TCDD (Dioxin)	3×10^{-8}
2,4,5-TP (Silvex)	0.05

*MCL is for either a single isomer or the sum of the isomers.

Section 64444.5. Repealed

Section 64445. Initial sampling - organic chemicals

(a) Each community and nontransient-noncommunity water system shall collect four quarterly samples during the year designated by the Department, of each compliance period beginning with the compliance period starting January 1, 1993, from each water source at a site prior to any treatment and test for all applicable organic chemicals listed in Table 64444-A. The Department will designate the year based on historical monitoring frequency and laboratory capacity. For surface sources, the samples shall be taken at each water intake. For groundwater sources, the samples shall be taken at each well head. Where multiple intakes or wells draw from the same water supply, the Department will consider sampling of representative sources as a means of complying with this section. Selection of representative sources shall be based on evidence which includes a hydrogeological survey and sampling results. Wells shall be allowed to flow for a minimum of 15 minutes before sampling to insure that the samples reflect the water quality of the source. In place of water source samples, a supplier may collect samples at sites located at the entry points to the distribution system. The samples shall be representative of each source after treatment. The system shall collect each sample at the same sampling site, unless a change is approved by the Department.

(b) For any organic chemical added to Table 64444-A, the water system shall initiate the quarterly monitoring for that chemical in January of the calendar year after the effective date of the MCL.

(c) A water system may request approval from the Department to composite samples from up to five sampling sites, provided that the number of the sites to be composite is less than the ratio of the MCL to the DLR in Section 64445.1. Approval will be based on a review of three years of historical data, well construction and aquifer information for groundwater, and intake location, similarity of sources, and watershed characteristics for surface water. Compositing shall be done in the laboratory and analyses shall be conducted within 14 days of sample collection.

(1) Systems serving more than 3,300 persons shall composite only from sampling sites within a single system. Systems serving 3,300 persons or less may composite among different systems up to the 5-sample limit.

(2) If any organic chemical is detected in the composite sample, a follow-up sample shall be analyzed within 14 days from each sampling site included in the composite for the contaminants which were detected. The water supplier shall report the results to the Department within 14 days of the follow-up sample collection. If available, duplicates of the original sample taken from each sampling site used in the composite may be used instead of resampling.

(d) A water system may apply to the Department for a monitoring waiver for one or more of the organic chemicals on Table 64444-A in accordance with the following:

(1) A source may be eligible for a waiver if it can be documented that the chemical has not been previously used, manufactured, transported, stored, or disposed of within the watershed or zone of influence and therefore, that the source can be designated nonvulnerable.

(2) If previous use of the chemical locally is unknown or the chemical is known to have been used previously and the source cannot be designated nonvulnerable pursuant to Paragraph (d)(1), it may still be eligible for a waiver based on a review related to susceptibility to contamination. The application to the Department for a waiver based on susceptibility shall include the following:

- (A) Previous monitoring results;
- (B) user population characteristics;
- (C) proximity to sources of contamination;
- (D) surrounding land uses;
- (E) degree of protection of the water source;
- (F) environmental persistence and transport of the chemical in water, soil and air;
- (G) elevated nitrate levels at the water supply source; and
- (H) historical system operation and maintenance data including previous Departmental inspection results.

(3) To apply for a monitoring waiver for VOCs, the water system shall have completed the initial four quarters of monitoring pursuant to subsection (a) or (g) or three consecutive years of monitoring with no VOCs detected. If granted a waiver for VOC monitoring, a system using groundwater shall collect a minimum of one sample from every sampling site every six years and a system using surface water shall not be required to monitor for the term of the waiver. The term of a VOC waiver shall not exceed three years.

(4) To obtain a monitoring waiver for one or more of the SOC(s), the water system may apply before doing the initial round of monitoring or shall have completed three consecutive years of annual monitoring with no detection of the SOC(s) listed. If the system is granted a waiver for monitoring for one or more SOC(s), no monitoring for the waived SOC(s) shall be required for the term of the waiver, which shall not exceed three years.

(e) For water sources designated by a water supplier as standby sources, the water supplier shall sample each source for any organic chemical added to Table 64444-A once within one year of the effective date of the MCL.

(f) Water quality data collected prior to January 1, 1988, for VOCs, or January 1, 1990, for SOCs, and/or data collected in a manner inconsistent with this section shall not be used in the determination of compliance with the monitoring requirements for organic chemicals.

(g) Data (i.e., a single sample) collected in a manner consistent with this section after January 1, 1988, for VOCs, or January 1, 1990, for SOCs, and prior to January 1, 1993, may be used to satisfy the initial monitoring requirements in subsection (a). If the requirements are satisfied in this way by a water system, and no chemical is detected, the system shall begin annual monitoring pursuant to Section 64445.1(b)(1) for VOCs or Section 64445.1(b)(2) or (3) for SOCs.

(h) Water quality data collected in compliance with the monitoring requirements of this section by a wholesaler agency providing water to a public water system shall be acceptable for use by that system for compliance with the monitoring requirements of this section.

Section 64445.1. Repeat sampling

(a) For the purposes of this article, detection shall be defined by the detection limits for purposes of reporting (DLRs) in Table 64445.1-A:

Table 64445.1-A
Detection Limits for Purposes of Reporting (DLRs)
for Regulated Organic Chemicals

<i>Chemical</i>	<i>Detection Limit for Purposes of Reporting (DLR)(mg/L)</i>
(a) All VOCs, except as listed	0.0005
Trichlorofluoromethane	0.005
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.01
(b) SOCs	
Alachlor	0.001
Atrazine	0.001
Bentazon	0.002
Benzo(a)pyrene	0.0001
Carbofuran	0.005
Chlordane	0.0001
2,4-D	0.01
Dalapon	0.01
Dibromochloropropane (DBCP)	0.00001
Di(2-ethylhexyl)adipate	0.005
Di(2-ethylhexyl)phthalate	0.003
Dinoseb	0.002

<i>Chemical</i>	<i>Detection Limit for Purposes of Reporting (DLR)(mg/L)</i>
Diquat	0.004
Endothall	0.045
Endrin	0.0001
Ethylene dibromide (EDB)	0.00002
Glyphosate	0.025
Heptachlor	0.00001
Heptachlor epoxide	0.00001
Hexachlorobenzene	0.0005
Hexachlorocyclopentadiene	0.001
Lindane	0.0002
Methoxychlor	0.01
Molinate	0.002
Oxamyl	0.02
Pentachlorophenol	0.0002
Picloram	0.001
Polychlorinated biphenyls (PCBs)	
(as decachlorobiphenyl)	0.0005
Simazine	0.001
Thiobencarb	0.001
Toxaphene	0.001
2,3,7,8-TCDD (Dioxin)	5×10^{-9}
2,4,5-TP (Silvex)	0.001

(b) When organic chemicals are not detected pursuant to Table 64445.1-A.

(1) A water system which has not detected any of the VOCs on Table 64444-A during the initial four quarters of monitoring, shall collect and analyze one sample annually. After a minimum of three years of annual sampling with no detection of a VOC in Table 64444-A, a system using groundwater may reduce the monitoring frequency to one sample during each compliance period. A system using surface water shall continue monitoring annually.

(2) A system serving more than 3,300 persons which has not detected an SOC on Table 64444-A during the initial four quarters of monitoring shall collect a minimum of two quarterly samples for that SOC in one year during the year designated by the Department of each subsequent compliance period. The year will be designated on the basis of historical monitoring frequency and laboratory capacity.

(3) A system serving 3,300 persons or less which has not detected an SOC on Table 64444-A during the initial four quarters of monitoring shall collect a minimum of one

sample for that SOC during the year designated by the Department of each subsequent compliance period. The year will be designated on the basis of historical monitoring frequency and laboratory capacity.

(c) When organic chemicals are detected pursuant to Table 64445.1-A.

(1) Prior to proceeding with the requirements of paragraphs (c)(2) through (7), the water supplier may first confirm the analytical result, as follows: Within seven days from the notification of an initial finding from a laboratory reporting the presence of one or more organic chemical in a water sample, the water supplier shall collect one or two additional sample(s) to confirm the initial finding. Confirmation of the initial finding shall be shown by the presence of the organic chemical in either the first or second additional sample, and the detected level of the contaminant for compliance purposes shall be the average of the initial and confirmation sample(s). The initial finding shall be disregarded if two additional samples do not show the presence of the organic chemical.

(2) If one or both of the related organic chemicals heptachlor and heptachlor epoxide are detected, subsequent monitoring shall analyze for both chemicals until there has been no detection of either chemical for one compliance period.

(3) A groundwater sampling site at which one or more of the following chemicals has been detected shall be monitored quarterly for vinyl chloride: trichloroethylene, tetrachloroethylene, 1,2-dichloroethane, 1,1,1-trichloroethane, cis-1,2-dichloroethylene, trans-1,2-dichloroethylene, or 1,1-dichloroethylene. If vinyl chloride is not detected in the first quarterly sample, the sampling site shall be monitored once for vinyl chloride during each compliance period.

(4) If the detected level of organic chemicals for any sampling site does not exceed any shown in Table 64444-A, the water source shall be resampled every three months and the samples analyzed for the detected chemicals. After one year of sampling an approved surface water system or two quarters of sampling a groundwater system, the Department will consider allowing the water supplier to reduce the sampling to once per year upon request, based on a review of previous sampling data. Systems shall monitor during the quarter(s) which previously yielded the highest analytical results.

(5) If the detected level of an organic chemical for any sampling site exceeds that listed in Table 64444-A, the water supplier shall report this information to the Department within 48 hours. Unless use of the contaminated source is discontinued, the water supplier shall resample the contaminated source as follows:

(A) Water systems serving more than 3,300 persons shall sample monthly for six months and shall submit the results to the Department as specified in Section 64451(a). A water source shall be deemed to be in compliance with Section 64444 if the average concentration of the initial finding, confirmation sample(s), and six subsequent monthly samples does not exceed the MCL shown in Table 64444-A. In such cases, the water supplier may reduce

the sampling frequency to once every three months. If the average annual concentration of four quarterly samples exceeds the MCL, the water source shall be deemed to be in violation of Section 64444. If any sample would cause the annual average to exceed the MCL, then the system is out of compliance immediately.

(B) Water systems serving 3,300 persons or less shall sample quarterly for one year and shall submit the results to the Department as specified in Section 64451(a). Compliance with Section 64444 shall be based on the average concentration of the initial finding, confirmation sample(s) if collected, and three subsequent quarterly samples. If any sample would cause the annual average to exceed the MCL, then the system is out of compliance immediately. If the average concentration does not exceed the MCL in Table 64444-A, the water supplier may reduce the sampling frequency to once every year during the quarter that previously yielded the highest analytical result. If the average concentration exceeds the MCL in Table 64444-A, the water system shall be deemed to be in violation of Section 64444. Subsequently, compliance shall be determined on the basis of a running annual average of the most recent four quarters of sample results.

(6) If any resample, other than those taken in accordance with (c)(5) of this section, of a water sampling site shows that the concentration of any organic chemical exceeds a MCL shown in Table 64444-A, the water supplier shall proceed in accordance with (c)(1) and (c)(4), or (c)(5).

(7) If an organic chemical is detected and the concentration exceeds ten times the MCL, the water supplier shall notify the Department within 48 hours of the receipt of the results and the contaminated site shall be resampled within 48 hours to confirm the result. The water supplier shall notify the Department of the result of the confirmation sample(s) within 24 hours of the receipt of the confirmation result(s).

(A) If the average concentration of the original and confirmation sample(s) is less than ten times the MCL, the water supplier shall proceed in accordance with subsection (c)(5).

(B) If the average concentration of the original and confirmation samples exceeds ten times the MCL, use of the contaminated water source shall immediately be discontinued. Such a water source shall not be returned to service without written approval from the Department.

Section 64445.2. Sampling of treated water sources

(a) Each water supplier utilizing treatment to comply with any MCL for an organic chemical listed in Table 64444-A shall collect monthly samples of the treated water at a site prior to the distribution system. If the treated water exceeds the MCL, the water supplier shall resample the treated water to confirm the result and report the result to the Department within 48 hours of the confirmation.

(b) The Department will consider requiring more frequent monitoring based on an evaluation of (1) the treatment process used, (2) the treatment effectiveness and efficiency, and (3) the concentration of the organic chemical in the water source.

ARTICLE 12. BEST AVAILABLE TECHNOLOGIES (BAT)

Section 64447. Best available technologies (BAT) – microbiological contaminants

The technologies identified by the Department as the best available technology, treatment techniques, or other means available for achieving compliance with the total coliform MCL are as follows:

- (a) Protection of wells from coliform contamination by appropriate placement and construction;
- (b) Maintenance of a disinfectant residual throughout the distribution system;
- (c) Proper maintenance of the distribution system; and
- (d) Filtration and/or disinfection of approved surface water, in compliance with Section 64650, or disinfection of groundwater.

Section 64447.2. Best available technologies (BAT) - inorganic chemicals

The technologies listed in Table 64447.2-A are the best available technology, treatment techniques, or other means available for achieving compliance with the MCLs in Tables 64432-A and 64432-B for inorganic chemicals.

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Table 64447.2-A
Best Available Technologies (BAT)
Inorganic Chemicals

<i>Chemical</i>	<i>Best Available Technology (BAT)</i>
Aluminum	10
Antimony	2, 7
Arsenic	1, 2, 5, 6, 7
Asbestos	2, 3, 8
Barium	5, 6, 7, 9
Beryllium	1, 2, 5, 6, 7
Cadmium	2, 5, 6, 7
Chromium	2, 5, 6a, 7
Cyanide	5, 7, 11
Mercury	2 ^b , 4, 6 ^b , 7 ^b
Nickel	5, 6, 7
Nitrate	5, 7, 9
Nitrite	5, 7
Selenium	1, 2 ^c , 6, 7, 9
Thallium	1, 5

^aBAT for Chromium III only.

^bBAT only if influent mercury concentrations <10 ug/L.

^cBAT for Selenium IV only.

Key to BATs in Table 64447.2:

- 1 = Activated Alumina
- 2 = Coagulation/Filtration (not BAT for systems < 500 service connections)
- 3 = Direct and Diatomite Filtration
- 4 = Granular Activated Carbon
- 5 = Ion Exchange
- 6 = Lime Softening (not BAT for systems < 500 service connections)
- 7 = Reverse Osmosis
- 8 = Corrosion Control
- 9 = Electrodialysis
- 10 = Optimizing treatment and reducing aluminum added
- 11 = Chlorine oxidation

Section 64447.4. Best available technologies (BATs) - organic chemicals

The technologies listed in Table 64447.4-A are the best available technology, treatment technologies, or other means available for achieving compliance with the MCLs in Table 64444-A for organic chemicals.

Table 64447.4-A
Best Available Technologies (BATs)
Organic Chemicals

<i>Chemical</i>	<i>Best Available Technology</i>		
	Granular Activated Carbon	Packed Tower Aeration	Oxidation
(a) Volatile Organic Chemicals (VOCs)			
Benzene	X	X	
Carbon Tetrachloride	X	X	
1,2-Dichlorobenzene	X	X	
1,4-Dichlorobenzene	X	X	
1,1-Dichloroethane	X	X	
1,2-Dichloroethane	X	X	
1,1-Dichloroethylene	X	X	
cis-1,2-Dichloroethylene	X	X	
trans-1,2-Dichloroethylene	X	X	
Dichloromethane			X
1,2-Dichloropropane	X	X	
1,3-Dichloropropene	X	X	
Ethylbenzene	X	X	
Monochlorobenzene	X	X	
Styrene	X	X	
1,1,2,2-Tetrachloroethane	X	X	
Tetrachloroethylene	X	X	
Toluene	X	X	
1,2,4-Trichlorobenzene	X	X	
1,1,1-Trichloroethane	X	X	
1,1,2-Trichloroethane	X	X	
Trichlorofluoromethane	X	X	
Trichlorotrifluoroethane	X	X	
Trichloroethylene	X	X	
Vinyl Chloride			X

*Chemical**Best Available Technology*

	Granular Activated Carbon	Packed Tower Aeration	Oxidaton
Xylenes	X	X	
(b) Synthetic Organic Chemicals (SOCs)			
Alachlor	X	X	
Atrazine	X		
Bentazon		X	
Benzo(a)pyrene	X		
Carbofuran	X		
Chlordane	X		
2,4-D	X		
Dalapon	X		
Di(2-ethylhexyl)adipate	X	X	
Dinoseb	X		
Diquat	X	X	
1,2-Dibromo-3-chloropropane (DBCP)	X		
Di(2-ethylhexyl)phthalate	X		
Endothall	X		
Endrin	X		
Ethylene Dibromide (EDB)	X	X	
Glyphosate			X
Heptachlor	X		
Heptachlor epoxide	X		
Hexachlorobenzene	X		
Hexachlorocyclopentadiene	X	X	
Lindane	X		
Methoxychlor	X		
Molinate	X		
Oxamyl	X		
Picloram	X		
Pentachlorophenol	X		
Polychlorinated Biphenyls	X		
Simazine	X		
Thiobencarb	X		
Toxaphene	X	X	
2,3,7,8-TCDD (Dioxin)	X		
2,4,5-TP (Silvex)	X		

ARTICLE 14. TREATMENT TECHNIQUES

Section 64448. Treatment technique requirements

(a) A public water system which uses acrylamide and/or epichlorohydrin in drinking water treatment shall certify annually in writing to the Department that the combination of dose and monomer does not exceed the following levels:

- (1) Acrylamide: 0.05% monomer in polyacrylamide dosed at 1 mg/L, or equivalent.
- (2) Epichlorohydrin: 0.01% residual of epichlorohydrin dosed at 20 mg/L, or equivalent.

ARTICLE 16. SECONDARY DRINKING WATER STANDARDS

Section 64449. Secondary maximum contaminant levels and compliance

(a) The secondary MCLs shown in Tables 64449-A and 64449-B shall not be exceeded in the water supplied to the public, because these constituents may adversely affect the taste, odor or appearance of drinking water.

Table 64449-A
Secondary Maximum Contaminant Levels
Consumer Acceptance Limits

<i>Constituents</i>	<i>Maximum Contaminant Levels/Units</i>
Aluminum	0.2 mg/L
Color	15 Units
Copper	1.0 mg/L
Corrosivity	Non-corrosive
Foaming Agents (MBAS)	0.5 mg/L
Iron	0.3 mg/L
Manganese	0.05 mg/L
<u>Methyl-tert-butyl ether (MTBE)</u>	<u>0.005 mg/L</u>
Odor—Threshold	3 Units
Silver	0.1 mg/L
Thiobencarb	0.001 mg/L
Turbidity	5 Units
Zinc	5.0 mg/L

Table 64449-B
Secondary Maximum Contaminant Levels - Ranges

<i>Level Ranges</i> <i>Constituent, Units</i>	<i>Maximum</i>		<i>Contaminant</i>
	<i>Recommended</i>	<i>Upper</i>	<i>Short Term</i>
Total Dissolved Solids, mg/L or	500	1,000	1,500
Specific Conductance, micromhos	900	1,600	2,200
Chloride, mg/L	250	500	600
Sulfate, mg/L	250	500	600

(b) The secondary MCLs listed in Table 64449-A shall not be exceeded in:

- (1) New community water systems.
- (2) New sources developed for existing community water systems.
- (3) Existing community water systems.

(c) Community groundwater systems shall monitor every three years and approved surface water systems shall monitor annually for the following:

- (1) Secondary MCLs listed in Tables 64449-A and 64449-B; and
- (2) Bicarbonate, carbonate, and hydroxide alkalinity, calcium, magnesium, sodium, and total hardness.

(d) In existing community water systems, if any MCL in Table 64449-A is exceeded, the water supplier may be required, following an investigation by the Department, to conduct a study.

- (1) The investigation by the Department shall determine the extent of:
 - (A) Noncompliance with the MCLs.
 - (B) Consumer dissatisfaction which is based upon the secondary drinking water standards.
- (2) The study conducted by the water supplier shall:

(A) Be conducted in a manner and in accordance with a schedule acceptable to the Department and be completed in a period of time not to exceed one year.

(B) Be made by persons acceptable to the Department.

(C) Determine the degree of consumer acceptance of the water supply.

(D) Investigate the causes and methods of correction, and estimate the cost of one or more alternative solutions.

(3) The results of the study conducted by the water supplier shall be made available to the:

(A) Users at an appropriately noticed public meeting.

(B) Department.

(C) Public Utilities Commission, if appropriate.

(e) The requirements of (b)(2) and (3) may be waived by the Department following the completion of an investigation as required in (d) based upon, but not necessarily limited to:

(1) Consumer acceptance of water not meeting the MCLs shown in Table 64449-A.

(2) Economic considerations.

(f) For the constituents shown on Table 64449-B, no fixed consumer acceptance contaminant level has been established.

(1) Constituent concentrations lower than the Recommended contaminant level are desirable for a higher degree of consumer acceptance.

(2) Constituent concentrations ranging to the Upper contaminant level are acceptable if it is neither reasonable nor feasible to provide more suitable waters.

(3) Constituent concentrations ranging to the Short Term contaminant level are acceptable only for existing systems on a temporary basis pending construction of treatment facilities or development of acceptable new water sources.

(g) New services from systems serving water which carries constituent concentrations between the Upper and Short Term contaminant levels shall be approved only:

(1) If adequate progress is being demonstrated toward providing water of improved mineral quality.

(2) For other compelling reasons approved by the Department.

(h) A water system may apply to the Department for a waiver from the monitoring frequencies specified in ~~paragraph subsection~~ (c) of this section, if the system has conducted at least three rounds of monitoring (three periods for groundwater sources or three years for approved surface water sources) and these analytical results are less than the MCLs. The water system shall specify the basis for its request. A system with a waiver shall collect a minimum of one sample per source while the waiver is in effect and the term of the waiver shall not exceed one compliance cycle (i.e., nine years).

(i) Nontransient-noncommunity and transient-noncommunity water systems shall monitor for bicarbonate, carbonate, and hydroxide alkalinity, calcium, iron, magnesium, manganese, pH, sodium, and total hardness, as follows:

(1) All systems shall monitor all sources at least once.

(2) Surface water sources for parks and other facilities with an average daily population use of more than 1000 people and/or which are determined to be subject to potential contamination based on a sanitary survey shall be monitored at the same frequency as community water systems.

Section 64449.5. Distribution system water quality

(a) The water supplier shall determine the physical water quality in the distribution system. This determination shall be based on one or more of the following:

(1) Main flushing operations and flushing records.

(2) Consumer complaint records showing location, nature and duration of the physical water quality problem.

(3) Other pertinent data relative to physical water quality in the distribution system.

(b) If the Department determines that a water system does not have sufficient data on physical water quality in the distribution system to make the determination required in paragraph (a), the water supplier shall collect samples for the following general physical analyses: color, odor, and turbidity. Samples shall be collected from representative points in the distribution system:

(1) For community water systems with 200 to 1,000 service connections: one sample per month.

(2) For community water systems with greater than 1,000 service connections: one sample for every four bacteriological samples required per month.

(3) For community water systems with less than 200 service connections: as established by the local health officer or the Department.

(c) Odor samples required as a part of general physical analyses may be examined in the field as per Section 64415(b).

(d) The distribution system water of public water systems shall be free from significant amounts of particulate matter.

ARTICLE 17. SPECIAL MONITORING REQUIREMENTS FOR UNREGULATED ORGANIC CHEMICALS

Section 64450. Unregulated chemicals

Community water systems and nontransient-noncommunity water systems shall monitor for the chemicals in Tables 64450-A, 64450-B, ~~and 64450-C,~~ and 64450-D pursuant to Section 64450.1:

Table 64450-A
Unregulated Organic Chemicals -- List A

<i>CHEMICAL</i>	<i>SYNONYMS</i>
(1) Bromobenzene	Monobromobenzene
(2) Bromodichloromethane	Dichlorobromomethane
(3) Bromoform	Tribromomethane
(4) Bromomethane	Methyl Bromide
(5) Chlorodibromomethane	Dibromochloromethane
(6) Chloroethane	Ethyl Chloride
(7) Chloroform	Trichloromethane
(8) Chloromethane	Methyl Chloride
(9) 2-Chlorotoluene	o-Chlorotoluene
(10) 4-Chlorotoluene	p-Chlorotoluene
(11) Dibromomethane	Methylene Bromide
(12) 1,3-Dichlorobenzene	m-Dichlorobenzene
(13) Dichlorodifluoromethane	Difluorodichloromethane
(14) 1,3-Dichloropropane	
(15) 2,2-Dichloropropane	
(16) 1,1-Dichloropropene	
(17) 1,1,1,2-Tetrachloroethane	
(18) 1,2,3-Trichloropropane	Allyl Trichloride

Table 64450-B
Unregulated Organic Chemicals - List B

<i>CHEMICAL</i>	<i>SYNONYMS</i>
(1) Bromacil	HYVAR X, HYVAR XL
(2) Bromochloromethane	Chlorobromomethane
(3) n-Butylbenzene	1-Phenylbutane
(4) sec-Butylbenzene	2-Phenylbutane
(5) tert-Butylbenzene	2-Methyl-2-phenylpropane
(6) Chlorothalonil	BRAVO
(7) Dimethoate	CYGON
(8) Diuron	KARMEX, KROVAR
<u>(9) Ethyl-tert-butyl ether</u>	<u>ETBE</u>
<u>(10) (9) Hexachlorobutadiene</u>	Perchlorobutadiene
<u>(11) (10) Isopropylbenzene</u>	Cumene
<u>(12) (11) p-Isopropyltoluene</u>	p-Cymene
<u>(13) (12) Methyl-tert-butyl ether**</u>	MTBE
<u>(14) (13) Naphthalene</u>	Naphthalin
<u>(15) (14) 1-Phenylpropane</u>	n-Propylbenzene
<u>(16) (15) Prometryn</u>	CAPAROL
<u>(17) tert-Amyl-methyl ether</u>	<u>TAME</u>
<u>(18) (16) 1,2,3-Trichlorobenzene</u>	vis vie -Trichlorobenzene
<u>(19) (17) 1,2,4-Trimethylbenzene</u>	Pseudocumene
<u>(20) (18) 1,3,5-Trimethylbenzene</u>	Mesitylene

** Monitoring pursuant to Section 64450.1 for methyl-tert-butyl ether as an unregulated chemical is required only for nontransient-noncommunity water systems.

Table 64450-C
Unregulated Organic Chemicals - List C

<i>Chemical</i>	<i>Synonyms</i>
(1) Aldicarb	
(2) Aldicarb sulfone	
(3) Aldicarb sulfoxide	
(4) Aldrin	Aldrec, Aldron
(5) Butachlor	Butanex, Lambast, Machete
(6) Carbaryl	Sevin
(7) Dicamba	Banex, Banvel, Dianat
(8) Dieldrin	
(9) 3-Hydroxycarbofuran	
(10) Methomyl	Lannate

(11) Metolachlor	Metelilachlor
(12) Metribuzin	Lexone, Sencor, Sencoral
(13) Propachlor	Albrass, Ramrod

Table 64450-D
Unregulated Inorganic Chemical

<u>Chemical</u>	<u>Synonym</u>
<u>Perchlorate</u>	

Section 64450.1. Monitoring - unregulated chemicals

(a) Community and nontransient-noncommunity water systems shall monitor for the unregulated chemicals in Tables 64450-A and 64450-B this section ~~The water supplier shall collect at five-year intervals by collecting~~ source water samples, or samples from the distribution entry points which are representative of typical operating conditions.

(1) For the chemicals in Tables 64450-A and 64450-B, S surface water systems shall collect one year of quarterly samples at each sampling site, and ~~-(2)-G~~ ground water systems shall collect a minimum of one sample per sampling site.

(2) For the chemicals in Tables 64450-C and 64450-D, both surface and ground water systems shall collect four consecutive quarterly samples at each sampling site.

(3) For the chemicals ETBE, TAME and perchlorate, S systems may use monitoring data collected any time after January 1, ~~1993~~ 1984 for water sampling sites to meet the initial monitoring requirements in this subsection ~~(a) provided that the most recent monitoring conducted at the sampling sites did not detect any of the chemicals listed in Tables 64450-A and 64450-B.~~

(4) The system shall collect each sample at the same sampling site, unless a change is approved by the Department.

~~(b) Community and nontransient-noncommunity water systems shall complete four consecutive quarters of monitoring for the chemicals in Table 64450-C by December 31, 1995. The water supplier shall collect source water samples, or samples from the distribution entry points which are representative of typical operating conditions. The system shall collect each sample at the same sampling site, unless a change is approved by the Department. If a water system is determined by the Department to be nonvulnerable to one or more of the chemicals in Tables 64450-B, and 64450-C, or 64450-D, pursuant to Subsection 64445(d)(1) or (2), it may request that the Department grant a monitoring waiver for those chemicals. The period of the~~

waiver shall not exceed nine years.

(c) A water system may request approval from the Department to composite samples from up to five sampling sites. Approval will be based on a review of three years of historical data, well construction and aquifer information for groundwater, and intake location, similarity of sources, and watershed characteristics for surface water. Compositing shall be done in the laboratory and analyses shall be conducted within 14 days of sample collection.

(1) Systems serving more than 3,300 persons shall composite only from sampling sites within a single system. Systems serving 3,300 persons or less may composite among different systems up to the 5-sample limit.

(2) If any organic chemical is detected in the composite sample, a follow-up sample shall be analyzed within 14 days from each sampling site included in the composite for the contaminants which were detected. The water supplier shall report the results to the Department within 14 days of the follow-up sample collection. If available, duplicates of the original sample taken from each sampling site used in the composite may be used instead of resampling.

(d) A community water system or nontransient-noncommunity water system serving fewer than 150 service connections may be eligible for an exemption from the monitoring requirements of this section, based on a Departmental review of the previous five years of sampling data. To request an exemption, the system operator shall submit a written request to the Department which includes a statement that the system is available for sampling by the Department.

ARTICLE 18. RECORDS AND REPORTING

Section 64451. Reporting requirements

(a) Analytical results of all samples received by the water supplier in a calendar month shall be reported to the Department no later than the tenth day of the following month.

(b) Results from samples collected and analyzed by water wholesalers in a calendar month shall be reported to retail customers and the Department no later than the tenth day of the following month.

Section 64453. Record maintenance

(a) Each water supplier shall maintain records on all water quality and system water outage complaints, both verbal and written, received and corrective action taken. These records shall be retained for a period of five years for Department review.

(b) Each water supplier shall retain, on or at a convenient location near the water

utility premises, records as indicated below:

(1) Records of bacteriological analyses for at least the 5 most recent years and chemical analyses for at least the most recent 10 years. Actual laboratory reports may be kept, or data may be transferred to tabular summaries, provided that the following information is included:

(A) The date, place and time of sampling and identification of the person who collected the sample.

(B) Identification of the sample as a routine sample, check sample, raw or finished water or other special sample.

(C) Date of report.

(D) Name of the laboratory and either the person responsible for performing the analysis or the laboratory director.

(E) The analytical technique or method used.

(F) The results of the analysis.

(2) Records and resultant corrective actions shall be kept not less than three years following the final action taken to correct a particular violation.

(3) Copies of any written reports, summaries or communications relating to sanitary surveys of the system conducted by the water supplier, a private consultant or any local, state or federal agency, for not less than 10 years following completion of the sanitary survey involved.

(4) Variances or exemptions granted to the system, for not less than five years following the expiration of such variance or exemption.

ARTICLE 19. NOTIFICATION OF THE DEPARTMENT AND WATER CONSUMERS

Section 64463.1. Public information

(a) An annual report providing specific information on the water quality of all sources shall be distributed by each community water system and nontransient-noncommunity water system to each customer. The report shall provide as a minimum specific information on concentrations of microbiological contaminants, minerals, physical agents, inorganic chemicals, organic chemicals and radioactivity which are present in the water supply except that with regard to organic chemicals, nontransient-noncommunity water systems shall be subject to the public information requirements of this subsection only to the extent that such water systems are subject to the monitoring requirements prescribed in Section 64445. Upon request, the Department will

consider methods other than direct distribution to customers for meeting the requirements of this section.

(b) The community water system or nontransient-noncommunity water system shall have available for review or distribution, upon request, the most recent water quality information available on each water source. The information available shall provide specific information on concentrations of microbiological contaminants, minerals, physical agents, inorganic chemicals, organic chemicals and radioactivity which are present in the water supply except that with regard to organic chemicals, nontransient-noncommunity water systems shall be subject to the public information requirements of this subsection only to the extent that such water systems are subject to the monitoring requirements prescribed in Section 64445. The annual report prescribed in (a) shall inform each customer of the name and telephone number of a person to contact to obtain specific water quality information.

Section 64463.2. Reporting and notification of unregulated organic chemicals monitoring

(a) The owner or operator of a community water system or a non-transient, non-community water system shall notify persons served by the system of the availability of results of monitoring conducted pursuant to Article 5.7 by including a notice in the first set of water bills issued by the system after the receipt of the results or, in any case, by written notice within three months. The notice shall identify a person and supply the telephone number to contact for information on the monitoring results.

(b) The owner or operator of a community water system or a non-transient, non-community water system shall send a copy of results of monitoring conducted pursuant to Article 5.7 within 30 days of receipt and any public notice pursuant to subsection (a) to the Department.

Section 64464.1. Notification methods

(a) When a water supplier is required to provide notice pursuant to section 64464.3, or 64464.6, or 64465, then the notice shall be provided using one or more of the following methods as directed by the Department pursuant to sections 64464.3, 64464.6, or 64465:

(1) Method 1 (Electronic Media Notice) - Notice shall be given by furnishing a copy of the notice to the radio and television stations broadcasting in the area served by the system, as soon as possible but in no case later than 24 hours after being directed to do so by the Department.

(2) Method 2 (Daily Newspaper Notice of Water Quality Failure) - Notice shall be given once within 14 days after the violation or failure by publication in a daily newspaper of general circulation in the area served by the system.

(3) Method 3 (Weekly Newspaper Notice of Water Quality Failure) - Notice shall be given once within 14 days after the violation or failure by publication in a weekly

newspaper of general circulation serving the area.

(4) Method 4 (Mail Delivery of Notice of Water Quality Failure) - Notice by direct mail or with the water bill shall be given once within 45 days after the violation or failure. The Department may waive the requirement for mail delivery if it determines that the violation or failure has been corrected within the 45 day period. If such a waiver is given it shall be given in writing within the 45 day period. Repeat notice by mail shall be given at least once every 3 months for as long as the violation or failure continues.

(5) Method 5 (Hand Delivery of Notice of Water Quality Failure) - Notice by hand delivery shall be given once within 45 days after the violation or failure. The Department may waive the requirement for hand delivery if it determines that the violation has been corrected within the 45 day period. If such a waiver is given it shall be given in writing within the 45 day period. Repeat notice by hand delivery shall be given at least once every 3 months for as long as the violation or failure continues.

(6) Method 6 (Expedited Hand Delivery of Notice of Water Quality Failure) - Notice by hand delivery shall be given once within 14 days after the violation or failure. Repeat notice by hand delivery shall be given at least once every 3 months for as long as the violation or failure continues.

(7) Method 7 (Continuous Posting of Notice of Water Quality Failure) - Notice by posting in conspicuous places within the area served by the system shall be initiated within 14 days after the violation or failure. Posting shall continue for as long as the violation or failure exists.

(8) Method 8 (Daily Newspaper Notice of Procedural Failure) - Notice shall be given once within three months of the violation or failure by publication in a daily newspaper of general circulation in the area served by the system.

(9) Method 9 (Weekly Newspaper Notice of Procedural Failure) - Notice shall be given once within three months of the violation or failure by publication in a weekly newspaper of general circulation serving the area.

(10) Method 10 (Mail Delivery of Notice of Procedural Failure) - Notice by direct mail or with the water bill shall be given at least once every three months for as long as the violation or failure continues.

(11) Method 11 (Hand Delivery of Notice of Procedural Failure) - Notice by hand delivery shall be given once within three months of the violation or failure. Repeat notice by hand delivery shall be given at least once every three months for as long as the violation or failure continues.

(12) Method 12 (Continuous Posting of Notice of Procedural Failure) - Notice

by posting in conspicuous places within the area served by the system shall be initiated within 3 months of the violation or failure. Posting shall continue for as long as the violation or failure exists.

Section 64464.3. Public notification - water quality failure

(a) Unless otherwise directed by the Department, the water supplier shall notify the Department and the persons served by the water system whenever any of the following occurs:

(1) The water supplied to the consumers exceeds the bacteriological quality limits specified in Section 64426.1, or exceeds the MCLs for inorganic chemicals, nitrate, turbidity, trihalomethanes, radioactivity, or organic chemicals as specified in Sections 64431, 64439, 64441, 64443, and 64444.

(2) The water supplier fails to comply with a prescribed treatment technique established in lieu of an MCL.

(3) The water supplier violates any schedule prescribed pursuant to a variance or exemption.

(b) The notice to the public required pursuant to paragraph (a) shall be given in accordance with the following methods which are described in 64464.1:

(1) For community water systems:

(A) By Method 2, and by Method 4 or 5; or

(B) If the Department finds that there is no daily newspaper of general circulation serving the area served by the system, by Method 3 and by Method 4 or 5; or

(C) If the Department finds that there is no daily or weekly newspaper of general circulation serving the area served by the system, then by Method 6 or 7 as directed by the Department based on the degree of health risk and the nature of the population served by the system;

(D) If the Department finds that, based on the degree of health risk and the nature of the population served, additional notification is necessary, then it may direct the community water system to carry out such notification required to adequately alert the public to the risk.

(2) For nontransient-noncommunity and transient-noncommunity water systems:

(A) By Method 2 and by Method 4 or 5; or

(B) If the Department finds that there is no daily newspaper in general circulation serving the area served by the water system, then by Method 3 and by Method 4 or 5; or

(C) By Method 6 or 7;

(D) If the Department finds that, based on the degree of health risk and the nature of the population served, additional notification is necessary, then it may direct the nontransient-noncommunity or transient-noncommunity water system to carry out such notification required to adequately alert the public to the risk.

Section 64464.6. Public notification - procedural failure

(a) Unless otherwise directed by the Department, the water supplier shall notify the Department and the persons served by the water system whenever any of the following occurs:

(1) The water supplier fails to take and report the required number of bacteriological samples in accordance with an approved sample siting plan pursuant to Section 64422 and as specified in Sections 64423 and 64424 or fails to take and report the required number of inorganic chemical, organic chemical or radiological samples as specified in Sections 64432, 64432.1, 64432.2, 64439, 64441, 64443, 64445, 64445.1, 64445.2, and 64450.1; or

(2) The water supplier or its agent fails to comply with a testing procedure prescribed in 40 CFR part 141; or

(3) The water supplier is operating under a variance or exemption.

(b) The notice to the public required pursuant to paragraph (a) shall be given in accordance with the following methods, which are described in 64464.1:

(1) For community water systems:

(A) By Method 8 and by either Method 10 or 11; or

(B) If the Department finds that there is no daily newspaper of general circulation serving the area served by the system, then by Method 9 and by either Method 10 or 11; or

(C) If the Department finds that there is no daily or weekly newspaper of general circulation serving the area served by the system, then by Method 11 or 12 as directed by the Department based on the degree of health risk and the nature of the population served by the system;

(D) If the Department finds that, based on the degree of health risk and

the nature of the population served, additional notification is necessary, then it may direct the community water system to carry out such notification required to adequately alert the public to the risk.

(2) For nontransient-noncommunity and transient-noncommunity water systems:

(A) By Method 8 and either Method 10 or 11; or

(B) If the Department finds that there is no daily newspaper in general circulation serving the area served by the water system, then by Method 9 and either Method 10 or 11; or

(C) By Method 11 or 12.

(D) If the Department finds that, based on the degree of health risk and the nature of the population served, additional notification is necessary, then it may direct the nontransient-noncommunity or transient-noncommunity water system to carry out such notification required to adequately alert the public to the risk.

Section 64465. Notification of an acute health risk

When the Department determines that the presence of any contaminant occurs at a level posing an acute risk to human health pursuant to Section 64400, the water supplier of a community water system shall give notice to persons served by the system by Section 64464.1(a) - Method 1.

Section 64466. Notification of new users

The water supplier shall give a copy of the most recent public notice required pursuant to section 64464.3 for any continuing violation or continuing failure of any primary drinking water standard, water treatment technique, or any variance or exemption schedule to all new billing units or new hookups prior to or at the time service begins.

Section 64467. Notice

Any notice provided by the water supplier pursuant to Section 64464.3 or Section 64464.6 shall provide a clear and readily understandable explanation of the violation, the potential adverse health effects of contaminants present, the population at risk, the steps that the water supplier is taking to correct the violation, the necessity for seeking alternative water supplies, and any preventive measures the consumers should take until the violation is corrected. The notice shall be conspicuous and not contain unduly technical language, unduly small print or similar problems that frustrate the purpose of the notice. Each notice shall include a telephone number of the water supplier or designee to be contacted for obtaining additional information concerning the notice. When appropriate or directed by the Department, the notice shall be multilingual.

Section 64467.5. Wholesaler

Public notification that involves a wholesaler and retailer water supply relationship shall be given by the retail water supplier unless the retailer makes arrangement for the wholesaler to provide the notification.

Section 64468.1. Health effects language - inorganic chemicals

Pursuant to Section 64467, the explanation of potential adverse health effects for inorganic chemicals shall include the following mandatory language for the designated contaminants:

(a) Antimony: "The California Department of Health Services (DHS) sets drinking water standards and has determined that antimony is a health concern at certain levels of exposure. This inorganic chemical occurs naturally in soils, ground water and surface waters and is often used in the flame retardant industry. It is also used in ceramics, glass, batteries, fireworks and explosives. It may get into drinking water through natural weathering of rock, industrial production, municipal waste disposal or manufacturing processes. This chemical has been shown to decrease longevity, and altered blood levels of cholesterol and glucose in laboratory animals such as rats exposed to high levels during their lifetimes. DHS has set the drinking water standard for antimony at 0.006 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to antimony."

(b) Asbestos: "The California Department of Health Services (DHS) sets drinking water standards and has determined that asbestos fibers greater than 10 micrometers in length are a health concern at certain levels of exposure. Asbestos is a naturally occurring mineral. Most asbestos fibers in drinking water are less than 10 micrometers in length and occur in drinking water from natural sources and from corroded asbestos-cement pipes in the distribution system. The major uses of asbestos were in the production of cements, floor tiles, paper products, paint, and caulking; in transportation-related applications; and in the production of textiles and plastics. Asbestos was once a popular insulating and fire retardant material. Inhalation studies have shown that various forms of asbestos have produced lung tumors in laboratory animals. The available information on the risk of developing gastrointestinal tract cancer associated with the ingestion of asbestos from drinking water is limited. Ingestion of intermediate-range chrysotile asbestos fibers greater than 10 micrometers in length is associated with causing benign tumors in male rats. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. DHS has set the drinking water standard for asbestos at 7 million long fibers per liter to reduce the potential risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to asbestos."

(c) Barium: "The California Department of Health Services (DHS) sets drinking water standards and has determined that barium is a health concern at certain levels of exposure. This inorganic chemical occurs naturally in some aquifers that serve as sources of ground water. It is

also used in oil and gas drilling muds, automotive paints, bricks, tiles and jet fuels. It generally gets into drinking water after dissolving from naturally occurring minerals in the ground. This chemical may damage the heart and cardiovascular system, and is associated with high blood pressure in laboratory animals such as rats exposed to high levels during their lifetimes. In humans, DHS believes that effects from barium on blood pressure should not occur below 2 parts per million (ppm) in drinking water. DHS has set the drinking water standard for barium at 1 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to barium."

(d) Beryllium: "The California Department of Health Services (DHS) sets drinking water standards and has determined that beryllium is a health concern at certain levels of exposure. This inorganic metal occurs naturally in soils, ground water and surface waters and is often used in electrical equipment and electrical components. It generally gets into water from runoff from mining operations, discharge from processing plants and improper water disposal. Beryllium compounds have been associated with damage to the bones and lungs and induction of cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. There is limited evidence to suggest that beryllium may pose a cancer risk via drinking water exposure. Therefore, DHS based the health assessment on noncancer effects with an extra uncertainty factor to account for possible carcinogenicity. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. DHS has set the drinking water standard for beryllium at 0.004 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to beryllium."

(e) Cadmium: "The California Department of Health Services (DHS) sets drinking water standards and has determined that cadmium is a health concern at certain levels of exposure. Food and the smoking of tobacco are common sources of general exposure. This inorganic metal is a contaminant in the metals used to galvanize pipe. It generally gets into water by corrosion of galvanized pipes or by improper waste disposal. This chemical has been shown to damage the kidney in animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during working careers also suffered damage to the kidney. DHS has set the drinking water standard for cadmium at 0.005 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to cadmium."

(f) Chromium: "The California Department of Health Services (DHS) sets drinking water standards and has determined that chromium is a health concern at certain levels of exposure. This inorganic metal occurs naturally in the ground and is often used in the electroplating of metals. It generally gets into water from runoff from old mining operations and improper waste disposal from plating operations. This chemical has been shown to damage the kidney, nervous system, and the circulatory system of laboratory animals such as rats and mice when the animals are exposed at high levels. Some humans who were exposed to high levels of

this chemical suffered liver and kidney damage, dermatitis and respiratory problems. DHS has set the drinking water standard for chromium at 0.05 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to chromium."

(g) Copper: "The California Department of Health Services (DHS) sets drinking water standards and has determined that copper is a health concern at certain exposure levels. Copper, a reddish-brown metal, is often used to plumb residential and commercial structures that are connected to water distribution systems. Copper contaminating drinking water as a corrosion by-product occurs as the result of the corrosion of copper pipes that remain in contact with water for a prolonged period of time. Copper is an essential nutrient, but at high doses it has been shown to cause stomach and intestinal distress, liver and kidney damage, and anemia. Persons with Wilson's disease may be at a higher risk of health effects due to copper than the general public. DHS' primary drinking water regulation requires all public water systems to install optimal corrosion control to minimize copper contamination resulting from the corrosion of plumbing materials. Public water systems serving 50,000 people or fewer that have copper concentrations below 1.3 parts per million (ppm) in more than 90 percent of tap water samples (the "action level") are not required to install or improve their treatment. Any water system that exceeds the action level shall also monitor their source water to determine whether treatment to remove copper in source water is needed."

(h) Cyanide: "The California Department of Health Services (DHS) sets drinking water standards and has determined that cyanide is a health concern at certain levels of exposure. This inorganic chemical is used in electroplating, steel processing plastics, synthetic fabrics and fertilizer products. It usually gets into water as a result of improper waste disposal. This chemical has been shown to damage the spleen, brain and liver of humans fatally poisoned with cyanide. DHS has set the drinking water standard for cyanide at 0.2 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to cyanide."

(i) Lead: "The California Department of Health Services (DHS) sets drinking water standards and has determined that lead is a health concern at certain exposure levels. Materials that contain lead have frequently been used in the construction of water supply distribution systems, and plumbing systems in private homes and other buildings. The most commonly found materials include service lines, pipes, brass and bronze fixtures, and solders and fluxes. Lead in these materials can contaminate drinking water as a result of the corrosion that takes place when water comes into contact with those materials. Lead can cause a variety of adverse health effects in humans. At relatively low levels of exposure, these effects may include interference with red blood cell chemistry, delays in normal physical and mental development in babies and young children, slight deficits in the attention span, hearing, and learning abilities of children, and slight increases in the blood pressure of some adults. DHS' primary drinking water regulation requires all public water systems to optimize corrosion control to minimize lead contamination resulting from the corrosion of plumbing materials. Public water systems serving 50,000 people or fewer that have lead concentrations below 15 parts per billion (ppb) in more than 90 percent of tap water samples (the "action level") have optimized their corrosion control treatment. Any water

system that exceeds the action level shall also monitor their source water to determine whether treatment to remove lead in source water is needed. Any water system that continues to exceed the action level after installation of corrosion control and/or source water treatment shall eventually replace all lead service lines contributing in excess of 15 ppb of lead to drinking water. Any water system that exceeds the action level shall also undertake a public education program to inform consumers of ways they can reduce their exposure to potentially high levels of lead in drinking water."

(j) Mercury: "The California Department of Health Services (DHS) sets drinking water standards and has determined that mercury is a health concern at certain levels of exposure. This inorganic metal is used in electrical equipment and some water pumps. It usually gets into water as a result of improper waste disposal. This chemical has been shown to damage the kidney of laboratory animals such as rats when the animals are exposed at high levels over their lifetimes. DHS has set the drinking water standard for mercury at 0.002 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to mercury."

(k) Nickel: "The California Department of Health Services (DHS) sets drinking water standards and has determined that nickel poses a health concern at certain levels of exposure. This inorganic metal occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products. It generally gets into water from mining and refining operations. This chemical has been shown to damage the heart and liver in laboratory animals when the animals are exposed to high levels over their lifetimes. DHS has set the drinking water standard to 0.1 part per million (ppm) for nickel to protect against the risk of these adverse effects. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to nickel."

(l) Nitrate: "The California Department of Health Services (DHS) sets drinking water standards and has determined that nitrate poses an acute health concern at certain levels of exposure. Nitrate is used in fertilizer and is found in sewage and wastes from human and/or farm animals and generally gets into drinking water from those activities. Excessive levels of nitrate in drinking water have caused serious illness and sometimes death in infants under six months of age. The serious illness in infants is caused because nitrate is converted to nitrite in the body. Nitrite interferes with the oxygen carrying capacity of the child's blood. This is an acute disease in that symptoms can develop rapidly in infants. In most cases, health deteriorates over a period of days. Symptoms include shortness of breath and blueness of the skin. Clearly, expert medical advice should be sought immediately if these symptoms occur. The purpose of this notice is to encourage parents and other responsible parties to provide infants with an alternate source of drinking water. Local and State health authorities are the best source for information concerning alternate sources of drinking water for infants. DHS has set the drinking water standard at 10 part per million (ppm) nitrate as nitrogen (equivalent to the 45 parts per million nitrate as nitrate drinking water standard) to protect against the risk of these adverse effects. DHS has also set a drinking water standard for nitrite at 1 ppm. To allow for the fact that the toxicity of nitrate and nitrite are additive, DHS has also established a standard for the sum of nitrate and nitrite at 10 ppm as nitrogen. Drinking water that meets the DHS standard is associated with little to none of this risk

and is considered safe with respect to nitrate."

(m) Nitrite: "The California Department of Health Services (DHS) sets drinking water standards and has determined that nitrite poses an acute health concern at certain levels of exposure. This inorganic chemical is used in fertilizers and is found in sewage and wastes from humans and/or farm animals and generally gets into drinking water as a result of those activities. While excessive levels of nitrite in drinking water have not been observed, other sources of nitrite have caused serious illness and sometimes death in infants under six months of age. The serious illness in infants is caused because nitrite interferes with the oxygen carrying capacity of the child's blood. This is an acute disease in that symptoms can develop rapidly. However, in most cases, health deteriorates over a period of days. Symptoms include shortness of breath and blueness of the skin. Clearly, expert medical advice should be sought immediately if these symptoms occur. The purpose of this notice is to encourage parents and other responsible parties to provide infants with an alternate source of drinking water. Local and State health authorities are the best sources for information concerning alternate sources of drinking water for infants. DHS has set the drinking water standard at 1 part per million (ppm) as nitrogen for nitrite to protect against the risk of these adverse effects. DHS has also set a drinking water standard for nitrate (converted to nitrite in humans) at 10 ppm and for the sum of nitrate and nitrite at 10 ppm. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to nitrite."

(n) Selenium: "The California Department of Health Services (DHS) sets drinking water standards and has determined that selenium is a health concern at certain high levels of exposure. Selenium is also an essential nutrient at low levels of exposure. This inorganic chemical is found naturally in food and soils and is used in electronics, photocopy operations, the manufacture of glass, chemicals, drugs, and as a fungicide and a feed additive. In humans, exposure to high levels of selenium over a long period of time has resulted in a number of adverse health effects, including a loss of feeling and control in the arms and legs. DHS has set the drinking water standard for selenium at 0.05 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to selenium."

(o) Thallium: "The California Department of Health Services (DHS) sets drinking water standards and has determined that thallium is a health concern at certain high levels of exposure. This inorganic metal is found naturally in soils and is used in electronics, pharmaceuticals, and the manufacture of glass and alloys. This chemical has been shown to damage the kidney, liver, brain and intestines of laboratory animals when the animals are exposed at high levels over their lifetimes. DHS has set the drinking water standard for thallium at 0.002 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to thallium."

Section 64468.2. Health effects language - volatile organic chemicals

Pursuant to Section 64467, the explanation of potential adverse health effects for volatile

organic chemicals shall include the following mandatory language for the designated contaminants:

(a) Benzene: "The California Department of Health Services (DHS) sets drinking water standards and has determined that benzene is a health concern at certain levels of exposure. This chemical is used as a solvent and degreaser of metals. It is also a major component of gasoline. Drinking water contamination generally results from leaking underground gasoline and petroleum tanks or improper waste disposal. This chemical has been associated with significantly increased risks of leukemia among certain industrial workers who were exposed to relatively large amounts of this chemical during their working careers. This chemical has also been shown to cause cancer in laboratory animals when the animals are exposed at high levels over their lifetimes. Chemicals that cause increased risk of cancer among exposed industrial workers and in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. DHS has set the enforceable drinking water standard for benzene at 0.001 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in humans and laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe."

(b) Carbon tetrachloride: "The California Department of Health Services (DHS) sets drinking water standards and has determined that carbon tetrachloride is a health concern at certain levels of exposure. This chemical was once a popular household cleaning fluid. It generally gets into drinking water by improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. DHS has set the enforceable drinking water standard for carbon tetrachloride at 0.0005 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe."

(c) 1,2-Dichlorobenzene: "The California Department of Health Services (DHS) sets drinking water standards and has determined that ortho-dichlorobenzene is a health concern at certain levels of exposure. This organic chemical is used as a solvent in the production of pesticides and dyes. It generally gets into water by improper waste disposal. This chemical has been shown to damage the liver, kidney and the blood cells of laboratory animals such as rats and mice exposed to high levels during their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during working careers also suffered damage to the liver, nervous system, and circulatory system. DHS has set the drinking water standard for ortho-dichlorobenzene at 0.6 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to ortho-dichlorobenzene."

(d) para-Dichlorobenzene: "The California Department of Health Services (DHS) sets drinking water standards and has determined that para-dichlorobenzene is a health concern at certain levels of exposure. This chemical is a component of deodorizers, moth balls, and

pesticides. It generally gets into drinking water by improper waste disposal. This chemical has been shown to cause liver and kidney damage in laboratory animals such as rats and mice when the animals are exposed to high levels of their lifetimes. Chemicals which cause adverse effects in laboratory animals also may cause adverse health effects in humans who are exposed at lower levels over long periods of time. DHS has set the enforceable drinking water standard for para-dichlorobenzene at 0.005 part per million (ppm) to reduce the risk of these adverse effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe."

(e) 1,2-Dichloroethane: "The California Department of Health Services (DHS) sets drinking water standards and has determined that 1,2-dichloroethane is a health concern at certain levels of exposure. This chemical is used as a cleaning fluid for fats, oils, waxes, and resins. It generally gets into drinking water from improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. DHS has set the enforceable drinking water standard for 1,2-dichloroethane at 0.0005 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe."

(f) 1,1-Dichloroethylene: "The California Department of Health Services (DHS) sets drinking water standards and has determined that 1,1-dichloroethylene is a health concern at certain levels of exposure. This chemical is used in industry and is found in drinking water as a result of the breakdown of related solvents. The solvents are used as cleaners and degreasers of metals and generally get into drinking water by improper waste disposal. This chemical has been shown to cause liver and kidney damage in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals which cause adverse effects in laboratory animals also may cause adverse health effects in humans who are exposed at lower levels over long periods of time. DHS has set the enforceable drinking water standard for 1,1-dichloroethylene at 0.006 part per million (ppm) to reduce the risk of these adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe."

(g) cis-1,2-Dichloroethylene: "The California Department of Health Services (DHS) sets drinking water standards and has determined that cis-1,2-dichloroethylene is a health concern at certain levels of exposure. This organic chemical is used as a solvent and intermediate in chemical production. It generally gets into water by improper waste disposal. This chemical has been shown to damage the liver, nervous system, and circulatory system of laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the nervous system. DHS has set the drinking water standard for cis-1,2-dichloroethylene at 0.006 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to cis-1,2-dichloroethylene."

(h) trans-1,2-Dichloroethylene: "The California Department of Health Services (DHS) sets drinking water standards and has determined that trans-1,2-dichloroethylene is a health concern at certain levels of exposure. This organic chemical is used as a solvent and intermediate in chemical production. It generally gets into water by improper waste disposal. This chemical has been shown to damage the liver, nervous system, and the circulatory system of laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the nervous system. DHS has set the drinking water standard for trans-1,2-dichloroethylene at 0.01 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to trans-1,2-dichloroethylene."

(i) Dichloromethane: "The California Department of Health Services (DHS) sets drinking water standards and has determined that dichloromethane (methylene chloride) is a health concern at certain levels of exposure. This organic chemical is a widely used solvent. It is used in the manufacture of paint remover, as a metal degreaser and as an aerosol propellant. It generally gets into drinking water after improper discharge of waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. DHS has set the drinking water standard for dichloromethane at 0.005 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe with respect to dichloromethane."

(j) 1,2-Dichloropropane: "The California Department of Health Services (DHS) sets drinking water standards and has determined that 1,2-dichloropropane is a health concern at certain levels of exposure. This organic chemical is used as a solvent and pesticide. When soil and climatic conditions are favorable, 1,2-dichloropropane may get into drinking water by runoff into surface water or by leaching into ground water. It may also get into drinking water through improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. DHS has set the drinking water standard for 1,2-dichloropropane at 0.005 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to 1,2-dichloropropane."

(k) Ethylbenzene: "The California Department of Health Services (DHS) sets drinking water standards and has determined that ethylbenzene is a health concern at certain levels of exposure. This organic chemical is a major component of gasoline. It generally gets into water by improper waste disposal or leaking gasoline tanks. This chemical has been shown to damage the kidney, liver, and nervous system of laboratory animals such as rats exposed to high levels during their lifetimes. DHS has set the drinking water standard for ethylbenzene at 0.7 part per million

(ppm) to protect against the risk of these adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to ethylbenzene."

(l) Monochlorobenzene: "The California Department of Health Services (DHS) sets drinking water standards and has determined that monochlorobenzene is a health concern at certain levels of exposure. This organic chemical is used as a solvent. It generally gets into water by improper waste disposal. This chemical has been shown to damage the liver, kidney and nervous system of laboratory animals such as rats and mice exposed to high levels during their lifetimes. DHS has set the drinking water standard for monochlorobenzene at 0.07 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to monochlorobenzene."

(m) Styrene: "The California Department of Health Services (DHS) sets drinking water standards and has determined that styrene is a health concern at certain levels of exposure. This organic chemical is commonly used to make plastics and is sometimes a component of resins used for drinking water treatment. Styrene may get into drinking water from improper waste disposal. This chemical has been shown to damage the liver and nervous system in laboratory animals when exposed at high levels during their lifetimes. DHS has set the drinking water standard for styrene at 0.1 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to styrene."

(n) Tetrachloroethylene: "The California Department of Health Services (DHS) sets drinking water standards and has determined that tetrachloroethylene is a health concern at certain levels of exposure. This organic chemical has been a popular solvent, particularly for dry cleaning. It generally gets into drinking water by improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. DHS has set the drinking water standard for tetrachloroethylene at 0.005 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to tetrachloroethylene."

(o) Toluene: "The California Department of Health Services (DHS) sets drinking water standards and has determined that toluene is a health concern at certain levels of exposure. This organic chemical is used as a solvent and in the manufacture of gasoline for airplanes. It generally gets into water by improper waste disposal or leaking underground storage tanks. This chemical has been shown to damage the kidney, nervous system, and circulatory system of laboratory animals such as rats and mice exposed to high levels during their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during working careers also suffered damage to the liver, kidney and nervous system. DHS has set the drinking water standard for toluene at 0.15 part per million (ppm) to protect against the risk of these

adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to toluene."

(p) 1,2,4-Trichlorobenzene: "The California Department of Health Services (DHS) sets drinking water standards and has determined that 1,2,4-trichlorobenzene is a health concern at certain levels of exposure. This organic chemical is used as a dye carrier and as a precursor in herbicide manufacture. It generally gets into drinking water by discharges from industrial activities. This chemical has been shown to cause damage to several organs, including the adrenal glands. DHS has set the drinking water standard for 1,2,4-trichlorobenzene 0.07 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to 1,2,4-trichlorobenzene."

(q) 1,1,1-Trichloroethane: "The California Department of Health Services (DHS) sets drinking water standards and has determined that 1,1,1-trichloroethane is a health concern at certain levels of exposure. This chemical is used as a cleaner and degreaser of metals. It generally gets into drinking water by improper waste disposal. This chemical has been shown to damage the liver, nervous system, and circulatory system of laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during their working careers also suffered damage to the liver, nervous system, and circulatory system. Chemicals which cause adverse effects among exposed industrial workers and in laboratory animals also may cause adverse health effects in humans who are exposed at lower levels over long periods of time. DHS has set the enforceable drinking water standard for 1,1,1-trichloroethane at 0.2 part per million (ppm) to protect against the risk of these adverse health effects which have been observed in humans and laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe with respect to 1,1,1-trichloroethane."

(r) 1,1,2-Trichloroethane: "The California Department of Health Services (DHS) sets drinking water standards and has determined that 1,1,2-trichloroethane is a health concern at certain levels of exposure. This organic chemical is an intermediate in the production of 1,1-dichloroethylene. It generally gets into water by industrial discharges of wastes. This chemical has been shown to damage the kidney and liver of laboratory animals such as rats exposed to high levels during their lifetimes. DHS has set the drinking water standard for 1,1,2-trichloroethane at 0.005 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to 1,1,2-trichloroethane."

(s) Trichloroethylene: "The California Department of Health Services (DHS) sets drinking water standards and has determined that trichloroethylene is a health concern at certain levels of exposure. This chemical is a common metal cleaning and dry cleaning fluid. It generally gets into drinking water by improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk

of cancer in humans who are exposed at lower levels over long periods of time. DHS has set forth the enforceable drinking water standard for trichloroethylene at 0.005 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe with respect to trichloroethane."

(t) Vinyl chloride: "The California Department of Health Services (DHS) sets drinking water standards and has determined that vinyl chloride is a health concern at certain levels of exposure. This chemical is used in industry and is found in drinking water as a result of the breakdown of related solvents. The solvents are used as cleaners and degreasers of metals and generally get into drinking water by improper waste disposal. This chemical has been associated with significantly increased risks of cancer among certain industrial workers who were exposed to relatively large amounts of this chemical during their working careers. This chemical has been shown to cause cancer in laboratory animals when the animals are exposed at high levels over their lifetimes. Chemicals that cause increased risk of cancer among exposed industrial workers and in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. DHS has set the enforceable drinking water standard for vinyl chloride at 0.0005 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in humans and laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe with respect to vinyl chloride."

(u) Xylene: "The California Department of Health Services (DHS) sets drinking water standards and has determined that xylene is a health concern at certain levels of exposure. This organic chemical is used in the manufacture of gasoline for airplanes and as a solvent for pesticides, and as a cleaner and degreaser of metals. It usually gets into water by improper waste disposal. This chemical has been shown to damage the liver, kidney and nervous system of laboratory animals such as rats and dogs exposed to high levels during their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the nervous system. DHS has set the drinking water standard for xylene at 1.750 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to xylene."

Section 64468.3. Health effects language - synthetic organic chemicals

Pursuant to Section 64467, the explanation of potential adverse health effects for synthetic organic chemicals shall include the following mandatory language for the designated contaminants:

(a) Alachlor: "The California Department of Health Services (DHS) sets drinking water standards and has determined that alachlor is a health concern at certain levels of exposure. This organic chemical is a widely used pesticide. When soil and climatic conditions are favorable, alachlor may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to cause cancer in laboratory animals such as rats and mice

when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. DHS has set the drinking water standard for alachlor at 0.002 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets this standard is associated with little to none of this risk and is considered safe with respect to alachlor."

(b) Atrazine: "The California Department of Health Services (DHS) sets drinking water standards and has determined that atrazine is a health concern at certain levels of exposure. This organic chemical is a herbicide. When soil and climatic conditions are favorable, atrazine may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to affect offspring of rats and the heart of dogs. DHS has set the drinking water standard for atrazine at 0.003 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to atrazine."

(c) Benzo[a]pyrene: "The California Department of Health Services (DHS) sets drinking water standards and has determined that benzo[a]pyrene is a health concern at certain levels of exposure. Cigarette smoke and charbroiled meats are common source of general exposure. The major source of benzo[a]pyrene in drinking water is the leaching from coal tar lining and sealants in water storage tanks. This chemical has been shown to cause cancer in animals such as rats and mice when the animals are exposed at high levels. DHS has set the drinking water standard for benzo[a]pyrene at 0.0002 part per million (ppm) to protect against the risk of cancer. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to benzo[a]pyrene."

(d) Carbofuran: "The California Department of Health Services (DHS) sets drinking water standards and has determined that carbofuran is a health concern at certain levels of exposure. This organic chemical is a pesticide. When soil and climatic conditions are favorable, carbofuran may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to damage the nervous and reproductive systems of laboratory animals such as rats and mice exposed at high levels over their lifetimes. Some humans who were exposed to relatively large amounts of this chemical during their working careers also suffered damage to the nervous system. Effects on the nervous system are generally rapidly reversible. DHS has set the drinking water standard for carbofuran at 0.018 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to carbofuran."

(e) Chlordane: "The California Department of Health Services (DHS) sets drinking water standards and has determined that chlordane is a health concern at certain levels of exposure. This organic chemical is a pesticide used to control termites. Chlordane is not very mobile in soils. It usually gets into drinking water after application near water supply intakes or wells. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in

laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. DHS has set the drinking water standard for chlordane at 0.0001 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to chlordane."

(f) 2,4-D: "The California Department of Health Services (DHS) sets drinking water standards and has determined that 2,4-D is a health concern at certain levels of exposure. This organic chemical is used as a herbicide and to control algae in reservoirs. When soil and climatic conditions are favorable, 2,4-D may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to damage the liver and kidney of laboratory animals such as rats exposed at high levels during their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the nervous system. DHS has set the drinking water standard for 2,4-D at 0.07 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to 2,4-D."

(g) Dalapon: "The California Department of Health Services (DHS) sets drinking water standards and has determined that dalapon is a health concern at certain levels of exposure. This organic chemical is a widely used herbicide. It may get into drinking water after application to control grasses in crops, drainage ditches and along railroads. This chemical has been shown to cause damage to the kidney and liver in laboratory animals when the animals are exposed to high levels over their lifetimes. DHS has set the drinking water standard for dalapon at 0.2 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to dalapon."

(h) Dibromochloropropane (DBCP): "The California Department of Health Services (DHS) sets drinking water standards and has determined that DBCP is a health concern at certain levels of exposure. This organic chemical was once a popular pesticide. When soil and climatic conditions are favorable, dibromochloropropane may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. DHS has set the drinking water standard for DBCP at 0.0002 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to DBCP."

(i) Di(2-ethylhexyl)adipate: "The California Department of Health Services (DHS) sets drinking water standards and has determined that di(2-ethylhexyl)adipate is a health concern at certain levels of exposure. Di(2-ethylhexyl)adipate is a widely used plasticizer in a variety of products, including synthetic rubber, food packaging materials and cosmetics. It may get into drinking water after improper waste disposal. This chemical has been shown to damage liver and testes in laboratory animals such as rats and mice exposed to high levels. DHS has set the drinking

water standard for di(2-ethylhexyl)adipate at 0.4 part per million (ppm) to protect against the risk of adverse health effects. Drinking water which meets the DHS standards is associated with little to none of this risk and should be considered safe with respect to di(2-ethylhexyl)adipate."

(j) Di(2-ethylhexyl)phthalate: "The California Department of Health Services (DHS) sets drinking water standards and has determined that di(2-ethylhexyl)phthalate is a health concern at certain levels of exposure. Di(2-ethylhexyl)phthalate is a widely used plasticizer, which is primarily used in the production of polyvinyl chloride (PVC) resins. It may get into drinking water after improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice exposed to high levels over their lifetimes. DHS has set the drinking water standard for di(2-ethylhexyl)phthalate at 0.004 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to di(2-ethylhexyl)phthalate."

(k) Dinoseb: "The California Department of Health Services (DHS) sets drinking water standards and has determined that dinoseb is a health concern at certain levels of exposure. Dinoseb is a widely used pesticide and generally gets into drinking water after application on orchards, vineyards and other crops. This chemical has been shown to damage the thyroid and reproductive organs in laboratory animals such as rats exposed to high levels. DHS has set the drinking water standard for dinoseb at 0.007 part per million (ppm) to protect against the risk of adverse health effects. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to dinoseb."

(l) Diquat: "The California Department of Health Services (DHS) sets drinking water standards and has determined that diquat is a health concern at certain levels of exposure. This organic chemical is a herbicide used to control terrestrial and aquatic weeds. It may get into drinking water by runoff into surface water. This chemical has been shown to damage the liver, kidney and gastrointestinal tract and causes cataract formation in laboratory animals such as dogs and rats exposed at high levels over their lifetimes. DHS has set the drinking water standard for diquat at 0.02 part per million (ppm) to protect against the risk of these adverse effects. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to diquat."

(m) Endothall: "The California Department of Health Services (DHS) sets drinking water standards and has determined that endothall is a health concern at certain levels of exposure. This organic chemical is a herbicide used to control terrestrial and aquatic weeds. It may get into water by runoff into surface water. This chemical has been shown to damage the liver, kidney, gastrointestinal tract and reproductive system of laboratory animals such as rats and mice exposed at high levels over their lifetimes. DHS has set the drinking water standard for endothall at 0.1 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to endothall."

(n) Endrin: "The California Department of Health Services (DHS) sets drinking water

standards and has determined that endrin is a health concern at certain levels of exposure. This organic chemical is a pesticide no longer registered for use in the United States. However, this chemical is persistent in treated soils and accumulates in sediments and aquatic and terrestrial biota. This chemical has been shown to cause damage to the liver, kidney and heart in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. DHS has set the drinking water standard for endrin at 0.002 part per million (ppm) to protect against the risk of these adverse health effects which have been observed in laboratory animals. Drinking water that meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to endrin."

(o) Ethylene dibromide (EDB): "The California Department of Health Services (DHS) sets drinking water standards and has determined that EDB is a health concern at certain levels of exposure. This organic chemical was once a popular pesticide. When soil and climatic conditions are favorable, EDB may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. DHS has set the drinking water standard for EDB at 0.00005 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets this standard is associated with little to none of this risk and is considered safe with respect to EDB."

(p) Glyphosate: "The California Department of Health Services (DHS) sets drinking water standards and has determined that glyphosate is a health concern at certain levels of exposure. This organic chemical is a herbicide used to control grasses and weeds. It may get into drinking water by runoff into surface water. This chemical has been shown to cause damage to the liver and kidneys in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. DHS has set the drinking water standard for glyphosate at 0.7 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to glyphosate."

(q) Heptachlor: "The California Department of Health Services (DHS) sets drinking water standards and has determined that heptachlor is a health concern at certain levels of exposure. This organic chemical was once a popular pesticide. When soil and climatic conditions are favorable, heptachlor may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. DHS has set the drinking water standard for heptachlor at 0.00001 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets this standard is associated with little to none of this risk and is considered safe with respect to heptachlor."

(r) Heptachlor epoxide: "The California Department of Health Services (DHS) sets

drinking water standards and has determined that heptachlor epoxide is a health concern at certain levels of exposure. This organic chemical was once a popular pesticide. When soil and climatic conditions are favorable, heptachlor epoxide may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. DHS has set the drinking water standard for heptachlor epoxide at 0.00001 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets this standard is associated with little to none of this risk and is considered safe with respect to heptachlor epoxide."

(s) Hexachlorobenzene: "The California Department of Health Services (DHS) sets drinking water standards and has determined that hexachlorobenzene is a health concern at certain levels of exposure. This organic chemical is produced as an impurity in the manufacture of certain solvents and pesticides. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed to high levels during their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. DHS has set the drinking water standard for hexachlorobenzene at 0.001 part per million (ppm) to protect against the risk of cancer and other adverse health effects. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to hexachlorobenzene."

(t) Hexachlorocyclopentadiene: "The California Department of Health Services (DHS) sets drinking water standards and has determined that hexachlorocyclopentadiene is a health concern at certain levels of exposure. This organic chemical is used as an intermediate in the manufacture of pesticides and flame retardants. It may get into water by discharge from production facilities. This chemical has been shown to damage the kidney and the stomach of laboratory animals when exposed to high levels over their lifetimes. DHS has set the drinking water standard for hexachlorocyclopentadiene at 0.05 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to hexachlorocyclopentadiene."

(u) Lindane: "The California Department of Health Services (DHS) sets drinking water standards and has determined that lindane is a health concern at certain levels of exposure. This organic chemical is used as a pesticide. When soil and climatic conditions are favorable, lindane may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to damage the liver, kidney, nervous system, and immune system of laboratory animals such as rats, mice and dogs exposed at high levels during their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the nervous system and circulatory system. DHS has established the drinking water standard for lindane at 0.0002 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to lindane."

(v) Methoxychlor: "The California Department of Health Services (DHS) sets drinking water standards and has determined that methoxychlor is a health concern at certain levels of exposure. This organic chemical is used as a pesticide. When soil and climatic conditions are favorable, methoxychlor may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to damage the liver, kidney, nervous system, and reproductive system of laboratory animals such as rats exposed at high levels during their lifetimes. It has also been shown to produce growth retardation in rats. DHS has set the drinking water standard for methoxychlor at 0.04 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to methoxychlor."

(w) Oxamyl: "The California Department of Health Services (DHS) sets drinking water standards and has determined that oxamyl is a health concern at certain levels of exposure. This organic chemical is used as a pesticide for the control of insects and other pests. It may get into drinking water by runoff into surface water or leaching into ground water. This chemical has been shown to damage the kidneys of laboratory animals such as rats when exposed at high levels over their lifetimes. DHS has set the drinking water standard for oxamyl at 0.2 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to oxamyl."

(x) Pentachlorophenol: "The California Department of Health Services (DHS) sets drinking water standards and has determined that pentachlorophenol is a health concern at certain levels of exposure. This organic chemical is used as a wood preservative, herbicide, disinfectant, and defoliant. It generally gets into drinking water by runoff into surface water or leaching into ground water. This chemical has been shown to produce adverse reproductive effects and to damage the liver and kidneys of laboratory animals such as rats exposed to high levels during their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the liver and kidneys. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. DHS has set the drinking water standard for pentachlorophenol at 0.001 part per million (ppm) to protect against the risk of cancer or other adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to pentachlorophenol."

(y) Picloram: "The California Department of Health Services (DHS) sets drinking water standards and has determined that picloram is a health concern at certain levels of exposure. This organic chemical is used as a pesticide for broadleaf weed control. It may get into drinking water by runoff into surface water or leaching into ground water as a result of pesticide application and improper waste disposal. This chemical has been shown to cause damage to the kidneys and liver in laboratory animals such as rats when the animals are exposed at high levels over their lifetimes. DHS has set the drinking water standard for picloram at 0.5 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the

DHS standard is associated with little to none of this risk and should be considered safe with respect to picloram."

(z) Polychlorinated biphenyls (PCBs): "The California Department of Health Services (DHS) sets drinking water standards and has determined that polychlorinated biphenyls (PCBs) are a health concern at certain levels of exposure. These organic chemicals were once widely used in electrical transformers and other industrial equipment. They generally get into drinking water by improper waste disposal or leaking electrical industrial equipment. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. DHS has set the drinking water standard for PCBs at 0.0005 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets this standard is associated with little to none of this risk and is considered safe with respect to PCBs."

(aa) Simazine: "The California Department of Health Services (DHS) sets drinking water standards and has determined that simazine is a health concern at certain levels of exposure. This organic chemical is a herbicide used to control annual grasses and broadleaf weeds. It may leach into ground water or run off into surface water after application. This chemical may cause cancer in laboratory animals such as rats and mice exposed at high levels during their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. DHS has set the drinking water standard for simazine at 0.004 part per million (ppm) to reduce the risk of cancer or other adverse health effects. Drinking water which meets the DHS standard is associated with little to none of this risk and should be considered safe with respect to simazine."

(bb) Toxaphene: "The California Department of Health Services (DHS) sets drinking water standards and has determined that toxaphene is a health concern at certain levels of exposure. This organic chemical was once a pesticide widely used on cotton, corn, soybeans, pineapples and other crops. When soil and climatic conditions are favorable, toxaphene may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. DHS has set the drinking water standard for toxaphene at 0.003 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets this standard is associated with little to none of this risk and is considered safe with respect to toxaphene."

(cc) 2,3,7,8-TCDD (Dioxin): "The California Department of Health Services (DHS) sets drinking water standards and has determined that dioxin is a health concern at certain levels of exposure. This organic chemical is an impurity in the production of some pesticides. It may get into drinking water by industrial discharge of wastes. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels

over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. DHS has set the drinking water standard for dioxin at 0.00000003 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe with respect to dioxin."

(dd) 2,4,5-TP: "The California Department of Health Services (DHS) sets drinking water standards and has determined that 2,4,5-TP is a health concern at certain levels of exposure. This organic chemical is used as a herbicide. When soil and climatic conditions are favorable, 2,4,5-TP may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to damage the liver and kidney of laboratory animals such as rats and dogs exposed to high levels during their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during working careers also suffered damage to the nervous system. DHS has set the drinking water standard for 2,4,5-TP at 0.05 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the DHS standard is associated with little to none of this risk and is considered safe with respect to 2,4,5-TP."

Section 64468.4. Health effects language - treatment technique chemicals

Pursuant to Section 64467, the explanation of potential adverse health effects for treatment technique chemicals shall include the following mandatory language for the designated contaminants:

(a) Acrylamide: "The California Department of Health Services (DHS) sets drinking water standards and has determined that acrylamide is a health concern at certain levels of exposure. Polymers made from acrylamide are sometimes used to treat water supplies to remove particulate contaminants. Acrylamide has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. Sufficiently large doses of acrylamide are known to cause neurological injury. DHS has set the drinking water standard for acrylamide using a treatment technique to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. This treatment technique limits the amount of acrylamide in the polymer and the amount of the polymer which may be added to drinking water to remove particulates. Drinking water systems which comply with this treatment technique have little to no risk and are considered safe with respect to acrylamide."

(b) Epichlorohydrin: "The California Department of Health Services (DHS) sets drinking water standards and has determined that epichlorohydrin is a health concern at certain levels of exposure. Polymers made from epichlorohydrin are sometimes used in the treatment of water supplies as a flocculent to remove particulates. Epichlorohydrin generally gets into drinking water by improper use of these polymers. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their

lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. DHS has set the drinking water standard for epichlorohydrin using a treatment technique to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. This treatment technique limits the amount of epichlorohydrin in the polymer and the amount of the polymer which may be added to drinking water as a flocculent to remove particulates. Drinking water systems which comply with this treatment technique have little to no risk and are considered safe with respect to epichlorohydrin."

Section 64469. Notice pertaining to lead

(a) The water supplier of each community water system or non-transient non-community water system shall give notice to persons served by the system that their drinking water may be affected by lead contamination even if the water source does not violate the established maximum contaminant level for lead. This notice shall be completed by June 30, 1990. If a notice meeting the requirements of this section was issued prior to the effective date of these regulations, the water supplier shall be considered to be in compliance with this requirement when a copy of the notice has been filed with the department.

(b) The notice shall be given to persons served by the system either by (1) three newspaper notices (one for each of three consecutive months); or (2) once by direct mail; or (3) once by hand delivery. An additional alternative method of notice for non-transient non-community water systems is by posting a notice continuously for a period of three months in a conspicuous place in the area served by the system.

(c) The notice shall provide an explanation of the potential sources of lead in the drinking water, potential adverse health effects, available methods of mitigating known or potential lead content in drinking water, any steps the water system is taking to mitigate lead content in drinking water, and the necessity for seeking alternative water supplies, if any. The notice shall be reviewed and approved by the department. The notice shall include the following language concerning potential health effects:

"The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that lead is a health concern at certain levels of exposure. There is currently a standard of 0.050 parts per million (ppm). Based on new health information, EPA is likely to lower this standard significantly. "Part of the purpose of this notice is to inform you of the potential adverse health effects of lead. This is being done even though your water may not be in violation of the current standard." EPA and others are concerned about lead in drinking water. Too much lead in the human body can cause serious damage to the brain, kidneys, nervous system, and red blood cells. The greatest risk, even with short-term exposure, is to young children and pregnant women."Lead levels in your drinking water are likely to be highest (1) if your home or water system has lead pipes, or (2) if your home has copper pipes with lead solder, and the home is less than five years old, or you have soft or acidic water, or the water sits in the pipes for several hours."

The notice shall also include advice on how to determine if materials containing lead have been used in the users' plumbing system or in the distribution system and how to minimize exposure to water likely to contain high levels of lead. The notice shall be conspicuous and shall not contain unduly technical language, unduly small print, or similar problems that frustrate the purpose of the notice. Each notice shall contain the telephone number of the owner, operator, or designee of the public water system as a source of additional information concerning the notice. Where appropriate, the notice shall be multilingual.

Section 64470. Notification language for total coliform MCL violations

(a) The following language shall be used when Section 64426.1(b)(1) or (2) has been violated but not Sections 64426.1(b)(3) and (4):

"The California Department of Health Services (Department) sets drinking water standards and has determined that the presence of total coliform is a possible health concern. Total coliform are common in the environment and are generally not harmful themselves. The presence of these bacteria in drinking water, however, generally is a result of a problem with water treatment or the pipes which distribute the water, and indicates that the water may be contaminated with organisms that can cause disease. Disease symptoms may include diarrhea, cramps, nausea, and possibly jaundice, and any associated headaches and fatigue. These symptoms, however, are not just associated with disease-causing organisms in drinking water, but also may be caused by a number of factors other than your drinking water. The Department has set an enforceable drinking water standard for total coliform to reduce the risk of these adverse health effects. Under this standard, no more than 5.0 percent of the samples collected during a month can contain these bacteria, except that systems collecting fewer than 40 samples/month that have one total coliform-positive sample per month are not violating the standard. Drinking water which meets this standard is usually not associated with a health risk from disease-causing bacteria and should be considered safe."

(b) The following language shall be used when there has been a violation of Section 64426.1(b)(3) or (4), with or without a violation of Section 64426.1(b)(1) or (2):

"The California Department of Health Services (Department) sets drinking water standards and has determined that the presence of fecal coliform or *E. coli* is a serious health concern. Fecal coliform and *E. coli* are generally not harmful themselves, but their presence in drinking water is serious because they usually are associated with sewage or animal wastes. The presence of these bacteria in drinking water is generally a result of a problem with water treatment or the pipes which distribute the water, and indicates that the water may be contaminated with organisms that can cause disease. Disease symptoms may include diarrhea, cramps, nausea, and possibly jaundice, and associated headaches and fatigue. These symptoms, however, are not just associated with disease-causing organisms in drinking water, but also may be caused by a number of factors other than your drinking water. The Department has set an enforceable drinking water standard for fecal coliform and *E. coli* to reduce the risk of these adverse health effects. Under this standard all drinking water samples must be free of these bacteria. Drinking water which meets this standard is associated with little or none of this risk and should be considered safe. The Department

recommends that consumers take the following precautions: (to be inserted by the water supplier according to instructions from the Department)."

CHAPTER 16. CALIFORNIA WATERWORKS STANDARDS

ARTICLE 1. APPLICABILITY, RESPONSIBILITY AND DEFINITIONS

Section 64555. Definitions

(a) "Asphalt Institute Standard" means a standard or specification issued by the Asphalt Institute.

(b) "ASTM Standard" means a standard issued by the American Society for Testing and Materials (ASTM).

(c) "AWWA Standard" means a standard adopted by the American Water Works Association (AWWA).

(d) "Federal Specification" means a standard approved by the United States General Services Agency for use by federal agencies.

(e) "Flat Rate Water System" means a public water system where water deliveries to at least 50 percent of the service connections are not metered.

(f) "Metered Water System" means a public water system that is not a flat rate water system.

ARTICLE 2. GENERAL REQUIREMENTS

Section 64560. Basic design

(a) Additions to or changes in distribution systems shall be designed and constructed to:

- (1) Be free of structural and sanitary hazards.
- (2) Protect the quality of the water delivered to users at all times.
- (3) Protect the distribution system against contamination by backflow.
- (4) Provide adequate size and capacity to meet the requirements of Sections 64562 and 64566.

- (5) Withstand, with ample safety factors, the physical stresses imposed during normal operation.
- (6) Minimize the effects of events such as power supply, equipment, and structural failures, earthquakes, fires, floods and sabotage that are reasonably foreseeable.
- (7) Protect against unauthorized entry and/or vandalism.
- (8) Protect against adverse effects in areas subject to freezing weather.

Section 64562. Quantity of supply

(a) Sufficient water shall be available from the water sources and distribution reservoirs to supply adequately, dependably and safely the total requirements of all users under maximum demand conditions before agreement is made to permit additional service connections to a system.

(b) To ascertain this, first determine the total capacity of the existing source by procedures prescribed in Section 64563 and determine the total storage volume of the existing distribution reservoirs. Then determine the needed source capacity and the needed storage volume by procedures prescribed in Section 64564. The total available source capacity shall not be less than the needed source capacity.

(c) The requirements of this section shall apply to an entire public water system and to each pressure zone within a public water system.

(1) Requirements for an entire public water system shall be determined from the total source capacity, total storage volume and the total number of service connections.

(2) Requirements for a particular pressure zone shall be determined from the total water supply available from the water sources and interzonal transfers directly supplying the zone, from the total storage volume within the zone and from the number of service connections within the zone.

Section 64563. Procedures for determining source capacity

(a) The source capacity of a well shall be based on the sustained yield of the well or pump output, whichever is less.

(1) Sustained yield of a well shall be determined from a pump test or from historical records.

(2) The conditions of a pump test used to determine sustained yield of a well shall be acceptable to the Department and shall include:

(A) Constant rate of water discharge from the well during the pump test.

(B) Continuation of the pump test until at least four consecutive measurements of water level drawdown in the well and the elapsed time since the beginning of the pump test yield a straight line when the drawdown is plotted against the logarithm of the elapsed time.

(b) The source capacity of a surface water supply or a spring shall be the lowest anticipated daily yield, based on adequately supported and documented data.

(c) The source capacity of a purchased water connection between two public water systems shall be included in the total source capacity of the purchaser if the purchaser has sufficient storage or standby source capacity to meet user requirements during reasonably foreseeable shutdowns by the supplier.

(d) Where the capacity of a source varies seasonally, the source capacity shall be the capacity at the time of maximum day demand.

Section 64564. Procedures for determining needed source capacity and needed storage volume

(a) Whenever possible, needed source capacity and needed storage volume shall be determined from existing water use records of the water system.

The records used shall clearly indicate total source capacity, total storage volume and maximum day demand of previous years.

The existing records of the water system may be supplemented as needed by the records of a similar water system acceptable to either the Department or a qualified registered engineer.

(b) When the existing records of the water system are inadequate to determine these values and no records of a similar water system can be found to supplement the existing records, the maximum day demand, the needed source capacity and the needed storage volume for typical residential and general commercial areas (without provisions for fire flow) shall be determined as follows:

(1) Determine the maximum day demand ($Q[o]$) from Chart 1 or Chart 2.

(2) When the total capacity of the existing sources equals the maximum day demand ($Q[o]$), the needed storage volume ($V[o]$) to meet peak demand during the day shall be determined from Chart 3 or Chart 4.

(3) When the total storage volume of the existing reservoirs (V) is less than the

needed storage volume ($V[o]$), the existing sources shall be supplemented so that the needed source capacity (Q) is met. For a metered water system, $Q = Q[o] (2.5 - 1.5V/V[o])$ or for a flat rate water system, $Q = Q[o] (2 - V/V[o])$.

Chart 1

Chart 2

Chart 3

Chart 4

(c) The needed source capacity and needed storage volume determined under (b) may be modified, with the approval of the Department, to reflect local conditions such as climate, community type and kinds of users. Unless the Department's written approval is obtained, the needed source capacity shall not be less than the maximum day demand.

(d) The data used and the calculation made by the water supplier to determine whether sufficient water is available to accommodate additions to the systems must be kept and are subject to the Department review and approval at its discretion.

Section 64566. System pressure

(a) Changes in distribution systems shall be designed to maintain an operating pressure at all service connections of not less than 20 pounds per square inch gauge (psig) (140 kiloPascals gauge (kPag)) under the following demand conditions:

- (1) User maximum hour demand.
- (2) User average day demand plus design fire flow.

(b) In a public water system supplying users at widely varying elevations, a water supplier may furnish a service to a user which does not comply with (a) if the user is fully advised of the conditions under which minimum service may be expected and the user's agreement is secured in writing. This waiver shall be applicable only to individual service connections.

(c) Water mains shall be designed to have at least five psig (35 kPag) pressure throughout any buried length of the main except when the main is removed from service for repairs or maintenance. This requirement shall not apply to short lengths of water main near reservoir inlets and outlets provided:

- (1) The water main is on premises owned, leased or controlled by the water supplier; or
- (2) The prior review and written approval of the Department is obtained.

Section 64568. Conditions for adding service connections

A new service connection may be added to a distribution system only if the water system will comply with Section 64562 after the new service connection is added and adding the new service connection will not cause pressure at an existing service connection to be reduced below the standards set in Section 64566.

Section 64570. Internal combustion engines

(a) Where water cooling jackets for internal combustion engines are connected to water mains, the jacket shall be designed so that the water pressure inside the water main at the

cooling jacket will at all times be greater than the engine coolant pressure.

(b) Backflow protection of the public water system shall be provided wherever makeup water is supplied to the cooling system of an internal combustion engine.

ARTICLE 3. DISTRIBUTION RESERVOIRS

Section 64600. Basic design of distribution reservoirs

(a) Distribution reservoirs shall be covered.

(b) Vents, overflows, drain outlets and other reservoir openings shall be located and constructed to protect the water stored in the reservoir from contamination. Vents and overflows shall be screened. Vents shall not open upward. Overflows shall be large enough to dispose of reservoir overflow rates equal to the maximum reservoir filling rate.

(c) Provisions shall be made to facilitate removal of floating material from the free water surface and for dewatering the reservoir.

(d) Outlets shall be designed and constructed to minimize movement of sediment from the reservoir floor to the distribution system water mains.

(e) Provisions shall be made for isolating reservoirs and appurtenant facilities from the distribution system without causing violation of Section 64566.

(f) Unless the Department's approval is obtained, distribution reservoir sites shall not be used for nonwater works purposes that would:

(1) Result in unrestricted public access.

(2) Create a contamination hazard.

(g) Reservoirs shall be disinfected and sampled for bacteriological quality in accordance with the procedures described in "Methods for Disinfecting Tanks and Reservoirs," American Water Works Association Journal, 71(1):49-50 (January 1979).

Section 64602. Subsurface distribution reservoirs

(a) Subsurface distribution reservoirs shall be lined and shall be located:

(1) Above maximum anticipated ground water level.

(2) At least 50 feet (15 meters) from the nearest sewer and at least 150 feet (45 meters) from all other sewerage facilities.

(b) The land adjacent to a subsurface distribution reservoir shall be graded to route surface water away from the reservoir.

Section 64604. Corrosion protection

Paints or other protective coatings shall comply with AWWA Standard D102-78.

ARTICLE 4. PUMPING STATIONS

Section 64612. Water sealed pumps

Seal water for water sealed pumps shall meet the water quality requirements of the Domestic Water Quality and Monitoring Regulations, Title 22, California Administrative Code, Chapter 15. Adequate drainage shall be provided for disposal of used seal water.

ARTICLE 5. WATER MAINS AND APPURTENANCES

Section 64622. Water main materials

- (a) Water main materials shall meet the applicable standards listed in Table I.
- (b) Cast iron and ductile iron pipe shall be cement mortar lined in accordance with AWWA Standard C104/A21.4-80.
- (c) Steel pipe shall be protected from internal and external corrosion. Table II lists various acceptable protective coatings and linings with appropriate standards.

Table I
Material Standards

<i>Pipe Material</i>	<i>Standard</i>
Asbestos—Cement	AWWA C400-80 or C402-77
Cast Iron	AWWA C106-75
Ductile Iron	AWWA C151/A21.51-81
Steel	AWWA C200-80
Copper	AWWA C800-66

Table I (Continued)
Material Standards

<i>Pipe Material</i>	<i>Standard</i>
Concrete	AWWA C300-82, C301-79, C302-74, or C303-78
Polybutylene	AWWA C902-78
Polyethylene	AWWA C901-78
Polyvinyl Chloride	AWWA C900-81
Glass Reinforced	
Thermosetting Resin	AWWA C950-81

Table II
Steel Pipe Coatings and Linings

<i>Type of Coating or Lining</i>	<i>Standard</i>
Cement Mortar Coating or Lining	AWWA C205-80 or Federal Specification SS-P-385a
Coat Tar Coating, Lining or	AWWA C203-78 Wrapping
Asphalt Mastic Coating	Asphalt Institute M-2 CS-96
Extruded Plastic Coating	Federal Specification L-C-530B (1972)
Rubber-Alkyd Paint Coating	AWWA C204-75
Cold Applied Tape Coating	AWWA C209-76
Coal Tar-Epoxy Coating	AWWA C210-78
Asphalt Coating and Wrapping	Standard Specifications for Public Works Construction (1973), Section 207-10.4.4

Section 64624. Water main selection and installation

(a) Steel pipe shall be selected and installed in accordance with American Water Works Association (AWWA) Manual M-11 (1964), "Steel Pipe--Design and Installation." The design shall comply with Sections 6.1 and 6.2 of the manual, except that the minimum design pressure shall be at least the maximum anticipated system pressure, but in no case less than 150 psig (1,030 kPag).

(b) Asbestos-cement, cast iron and ductile iron pipe shall be selected and installed in accordance with the standards listed in Table III.

(c) Polyvinyl chloride pipe shall be selected and installed in accordance with Appendix A of AWWA Standard C900-81.

(d) Polybutylene pipe shall be selected and installed in accordance with Appendix A of AWWA Standard C902-81.

(e) Polyethylene pipe shall be selected and installed in accordance with Appendix A of AWWA Standard C901-81.

(f) Plastic pipe shall not be used in areas subject to contamination by petroleum distillates.

Table III
Pipe Selection and Installation Standards

<i>Type of Pipe</i>	<i>Standards</i>
Asbestos-Cement	AWWA C401-83, C403-78 and C603-78
Cast Iron	AWWA C600-82
Ductile Iron	AWWA C150/A21.5-81 and C600-82

Section 64626. Layout of water mains

(a) Water mains should be laid out only in segmented grids and loops and should be located within streets. Dead-end water mains shall be installed only if:

(1) Looping or gridding is impractical due to topography, geology, pressure zone boundaries, unavailability of easements or locations of users; or

(2) The main is to be extended in the near future and the planned extension will

eliminate the dead-end conditions.

Section 64628. Minimum Water main diameter and length of run

- (a) Water mains shall have a nominal inside diameter of at least four inches (100 mm).
- (b) Dead-end water mains exceeding 1,000 feet (300 meters) in length shall be constructed of pipe with a nominal inside diameter of at least 6 inches (150 mm).
- (c) Dead-end water mains exceeding 2,000 feet (600 meters) in length shall be constructed of pipe with a nominal inside diameter of at least 8 inches (200 mm).
- (d) The requirements of (a), (b) and (c) shall not apply to water main installations meeting one of the following criteria:
 - (1) The installation is designed under the direction of a qualified registered engineer to meet the requirements of Section 64566.
 - (2) The installation is approved by the Department prior to construction.

Section 64630. Water main installation

- (a) Water mains shall be installed below the frost line or shall otherwise be protected to prevent freezing.
- (b) Water mains shall not have less than 30 inches (0.75 meters) of cover over the top of the pipe except where necessary to avoid underground obstructions or rocky conditions.
- (c) Water mains shall be installed at least:
 - (1) Ten feet (3 meters) horizontally from and 1 foot (0.3 meters) higher than sanitary sewers located parallel to the main.
 - (2) One foot (0.3 meters) higher than sanitary sewers crossing the main.
 - (3) Ten feet (3 meters), and preferably 25 feet (7.5 meters), horizontally from sewage leach fields, cesspools, seepage pits and septic tanks.
- (d) Separation distances specified in (c) shall be measured from the nearest edges of the facilities.
- (e) Where the requirements of (c) and (d) cannot be met due to topography, inadequate right-of-way or easements or conflicts with other provisions of these regulations, lesser separation is permissible if:
 - (1) The water main and the sewer are located as far apart as feasible within the

conditions listed above.

(2) The water main and the sewer are not installed within the same trench.

(3) The water main is appropriately constructed to prevent contamination of the water in the main by sewer leakage.

(f) Water mains shall be disinfected according to AWWA Standard C601-81 before being placed in service.

(g) Installation of water mains near the following sources of potential contamination shall be subject to written approval by the Department on a case-by-case basis:

(1) Storage ponds or land disposal sites for waste water or industrial process water containing toxic materials or pathogenic organisms.

(2) Solid waste disposal sites.

(3) Facilities such as storage tanks and pipelines where malfunction of the facility would subject the water in the main to toxic or pathogenic contamination.

Section 64632. Water main valve locations

Sufficient valves shall be provided on water mains to minimize inconvenience and sanitary hazards during repairs. In general, valves on water mains of 12 inches (300 mm) and smaller diameter should be located such that water main lengths of not more than 1,000 feet (300 meters) can be isolated by valve closures.

Section 64634. Water main valve construction standards

(a) Water main valves of the types listed in Table IV shall conform to the standards shown in Table IV.

(b) A valve box shall be installed over each valve stem to aid in locating and operating the valve.

Table IV
Water Main Valve Construction Standards

<i>Type of Valve</i>	<i>Construction Standard</i>
Gate Valve	AWWA C550-80
Butterfly Valve	AWWA C504-80
Ball Valve	AWWA C507-73
Swing Check Valve	AWWA C508-82

Section 64636. Air and vacuum relief and air release valves

- (a) Vent openings for air and vacuum relief and air release valves shall be:
 - (1) Extended at least one foot (0.3 meters) above grade and above maximum recorded high water.
 - (2) Provided with a screened, downward facing vent opening.
- (b) Where the requirements of (a) (1) cannot be practicably met, vent openings may be located in a subsurface chamber or pit under the following conditions:
 - (1) The pit is adequately drained.
 - (2) The pit drain is not connected by pipe or other closed conduit to a sewer or storm drain without an air gap separation.

Section 64638. Water main joints

Joints and appurtenances shall safely withstand the same working pressures for which the water main is designed. Jute shall not be used as a backup gasket material.

Section 64640. Fire hydrants

Fire hydrant laterals shall be provided with shutoff valves.

Section 64642. Flushing valves and blowoffs

- (a) A flushing valve or blowoff shall be installed at the end of each dead-end water main where stagnant conditions are likely to develop.
- (b) Flushing valves and blowoffs shall be capable of establishing the minimum continuous flushing flow in the main indicated by Table V.
- (c) Flushing valves and blowoffs shall not discharge to a sewer without an air gap separation.

Table V
Minimum Water Main Flushing Flow

<i>Normal Inside Diameter</i>		<i>Minimum Flushing Flow</i>	
<i>Inches</i>	<i>Millimeters</i>	<i>Gallons/Minute</i>	<i>Liters/Second</i>
2	50	25	1.5
3	75	50	3.4
4	100	100	6.3
6	150	225	14.0
8	200	400	25.0
10	250	600	38.0

Section 64644. Service connection pipe

Service connection pipe and fittings shall be designed for cold water working pressures of not less than 150 psig (1,030 kPag). Copper tubing shall be commercial designation type K or L. Plastic tubing and fittings shall be products tested and certified as suitable for use in potable water piping systems by the National Sanitation Foundation Testing Laboratory, the Canadian Standards Association Testing Laboratory or another testing agency acceptable to the Department.

CHAPTER 17. SURFACE WATER TREATMENT

ARTICLE 1. GENERAL REQUIREMENTS AND DEFINITIONS

Section 64650. General Requirements.

(a) For a supplier using an approved surface water, as defined in section 64651.10, this chapter establishes treatment techniques in lieu of maximum contaminant levels for turbidity and the following microbial contaminants: *Giardia lamblia* (cysts), viruses, heterotrophic plate count bacteria, and Legionella.

(b) Each supplier using an approved surface water shall provide multibarrier treatment necessary to reliably protect users from the adverse health effects of microbiological contaminants and to comply with the requirements and performance standards prescribed in this chapter. A supplier that meets the requirements of section 64652.5 and wishes to not be required to provide multibarrier treatment shall submit an application to the Department. That application shall consist of comprehensive documentation that either demonstrates current compliance with the requirements in section 64652.5 or demonstrates that the water system will be in compliance within fifteen months from application submittal. Within 30 days, the Department will review the application and inform the applicant in writing that the application is complete and accepted for filing, or that the application is deficient and what specific information is required. Within 90 days from the date the application is accepted for filing, the Department will complete its review of the

documentation, determine whether to approve the application, and notify the water supplier. If at any time the Department determines that a water supplier is not in compliance with the requirements of this chapter, the Department will notify the supplier of that determination within 30 days of its being made.

(c) Except as provided for existing treatment plants in section 64652(c), within 90 days from the date of notification by the Department pursuant to subsection (b), the supplier shall submit for Department approval a plan and schedule to modify its system to meet the requirements of this chapter.

(d) If the supplier disagrees with the Department's notification specified in subsection (b), then the supplier shall submit reasons for its disagreement within 30 days from the receipt of the notification. The Department shall notify the supplier of its final determination in writing within 30 days of receipt of the supplier's reasons for disagreement. If the Department's final determination is that the supplier does not meet the requirements of this chapter, then the supplier shall comply with provisions of subsection (c) within 90 days of receipt of the Department's final determination.

Section 64651.10. Approved surface water

"Approved surface water" means a surface water or groundwater under the direct influence of surface water that has received permit approval from the Department in accordance with sections 116525 through 116550 of the Health and Safety Code.

Section 64651.16. Coagulant chemical

"Coagulant chemical" means a floc-forming agent that has been demonstrated to provide coagulation.

Section 64651.20. Coagulation

"Coagulation" means a process using coagulant chemicals and rapid mixing, by which colloidal and suspended material are destabilized and agglomerated into settleable and/or filterable flocs.

Section 64651.23. Conventional filtration treatment

"Conventional filtration treatment" means a series of treatment processes which includes coagulation, flocculation, sedimentation, and filtration resulting in substantial particulate removal.

Section 64651.26. Diatomaceous earth filtration

"Diatomaceous earth filtration" means a process resulting in particulate removal in which a precoat cake of graded diatomaceous earth filter media is deposited on a support membrane (septum) and, while the water is being filtered by passing through the cake on the septum, additional filter media known as body feed is continuously added to the feed water to maintain the

permeability of the filter cake.

Section 64651.30. Direct filtration treatment

"Direct filtration treatment" means a series of processes including coagulation, flocculation, and filtration but excluding sedimentation.

Section 64651.32. Disinfectant contact time

"Disinfectant contact time" means the time in minutes that it takes for water to move from the point of disinfectant application or a previous point of disinfectant residual measurement to a point before or at the point where residual disinfectant concentration is measured. Disinfectant contact time in pipelines is calculated by dividing the internal volume of the pipe by the flow rate through the pipe. Disinfectant contact time within mixing basins and storage reservoirs is determined by tracer studies or an equivalent demonstration to the Department.

Section 64651.33. Disinfection

"Disinfection" means a process which inactivates pathogenic organisms in water by chemical oxidants or equivalent agents.

Section 64651.36. Engineering report

"Engineering report" means a water treatment technical report prepared by a qualified engineer.

Section 64651.40. Filter-to-waste

"Filter-to-waste" means a provision in a filtration process to allow the first filtered water, after backwashing a filter, to be wasted or reclaimed.

Section 64651.43. Filtration

"Filtration" means a process for removing particulate matter from water by passage through porous media.

Section 64651.46. Flocculation

"Flocculation" means a process to enhance agglomeration or collection of smaller floc particles into larger, more easily settleable or filterable particles through gentle stirring by hydraulic or mechanical means.

Section 64651.50. Groundwater under the direct influence of surface water

"Groundwater under the direct influence of surface water" means any water beneath the surface of the ground with significant occurrence of insects or other microorganisms, algae or large diameter pathogens such as *Giardia lamblia*, or significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity or Ph which closely correlate to climatological or surface water conditions.

Section 64651.53. Legionella

"Legionella" means a genus of bacteria, some species of which have caused a type of pneumonia called Legionnaires disease.

Section 64651.56. Multibarrier treatment

"Multibarrier treatment" means a series of water treatment processes that provide for both removal and inactivation of waterborne pathogens.

Section 64651.60. NTU (Nephelometric Turbidity Unit)

"Nephelometric Turbidity Unit (NTU)" means a measurement of the turbidity of water as determined by the ratio of the intensity of light scattered by the sample to the intensity of incident light, using instrumentation and methods as set forth in "Standard Methods for the

Examination of Water and Wastewater," 1985, American Public Health Association, et al., 16th edition, pages 134-136.

Section 64651.63. Pressure filter

"Pressure filter" means a pressurized vessel containing properly sized and graded granular media.

Section 64651.66. Qualified engineer

"Qualified engineer" means a Civil Engineer, registered in the State of California, with 3 years experience in water treatment design, construction, operation, and watershed evaluations.

Section 64651.70. Residual disinfectant concentration

"Residual disinfectant concentration" means the concentration of the disinfectant in milligrams per liter (mg/l) in a representative sample of water.

Section 64651.73. Sedimentation

"Sedimentation" means a process for removal of settleable solids before filtration by gravity or separation.

Section 64651.76. Slow sand filtration

"Slow sand filtration" means a process involving passage of raw water through a bed of sand at rates not to exceed 0.10 gallons per minute per square foot resulting in substantial particulate removal by physical and biological mechanisms.

Section 64651.80. Supplier

"Supplier," for the purpose of this chapter, means the owner or operator of a water system for the provision to the public of piped water for human consumption, provided such system has at least 15 service connections or regularly serves at least 25 individuals daily at least 60 days out of the year.

Section 64651.83. Surface water

"Surface water" means all water open to the atmosphere and subject to surface runoff. For purposes of this chapter, water runoff originating from the lined walls and other man-made appurtenant structures of treated water distribution reservoirs, is excluded from the definition of surface water.

Section 64651.86. Turbidity level

"Turbidity level" means the value in NTU obtained by measuring the turbidity of a representative grab sample of water at a specified regular interval of time. If continuous turbidity monitoring is utilized, the turbidity level is the discrete turbidity value at a given time.

Section 64651.90. Virus

"Virus" means a virus of fecal origin which is infectious to humans by waterborne transmissions.

Section 64651.91 Waterborne microbial disease outbreak

"Waterborne microbial disease outbreak" means the significant occurrence of acute infectious illness, epidemiologically associated with the ingestion of water from a public water system which is deficient in treatment, as determined by a County Health Officer or the Department.

Section 64651.93. Watershed

"Watershed" means the area contained in a drainage basin which is tributary to a water supply diversion point.

ARTICLE 2. TREATMENT REQUIREMENT, WATER SHED PROTECTION REQUIREMENTS, AND PERFORMANCE STANDARDS

Section 64652. Treatment requirements and compliance options

(a) Each supplier using an approved surface water shall provide multibarrier treatment that meets the requirements of this chapter and reliably ensures at least:

(1) A total of 99.9 percent reduction of *Giardia* cysts through filtration and disinfection; and

(2) A total of 99.99 percent reduction of viruses through filtration and disinfection.

(b) Suppliers meeting the requirements of section 64654 in combination with either section 64652.5 or 64653 shall be deemed to be in compliance with the minimum reduction requirements specified in section 64652(a).

(c) For treatment plants existing as of June 13, 1990, which do not consist of the approved technologies specified in section 64653(a), or are not in compliance with the design criteria specified in section 64658, the supplier shall submit a report demonstrating that the plant can be operated to reliably produce water meeting the performance requirements of sections 64653 and 64654. This demonstration shall be a presentation and analysis of the latest 12 months of operating data, and special studies conducted to test the performance of the plant under adverse water quality conditions or other means. The supplier shall submit the required report within 15 months of being notified by the Department pursuant to section 64650(b) that their plant does not consist of the approved technologies.

(d) No variances from the requirements in this section are permitted.

Section 64652.5. Criteria for avoiding filtration

(a) A public water system that uses an approved surface water shall meet all of the requirements of this section to avoid the necessity of providing filtration. Within 18 months of the failure of a system using an approved surface water to meet any one of the requirements of Subsections (b) through (l), the system shall have installed filtration and meet the requirements for filtered systems specified in sections 64653, 64658, 64659, 64660, and 64661.

(b) The approved surface water quality shall be monitored downstream of all surface water and groundwater under the influence of surface water contributions and upstream of the first or only point of disinfectant application, as follows:

(1) For fecal or total coliform density at the following minimum frequency each week:

System size (persons served)	Samples/week
< 500	1
501-3,300	2*
3,301-10,000	3*
10,001-25,000	4*
25,000 >	5*

*Shall be taken on separate days.

(2) For fecal or total coliform density, once every day the turbidity of the source water exceeds 1 NTU unless the Department determines that the system, for logistical reasons outside the system's control, is unable to have the sample analyzed within 30 hours of collection. If collected, these samples count toward the weekly coliform sampling requirement.

(3) For turbidity at a minimum frequency of once every four hours. A supplier may substitute continuous turbidity monitoring for grab sample monitoring if, at regular intervals, it validates the accuracy of the continuous measurement using a protocol approved by the Department.

(c) The approved surface water quality monitored pursuant to Subsection (b) shall meet the following criteria:

(1) The fecal coliform concentration shall be equal to or less than 20/100 ml, or the total coliform concentration shall be equal to or less than 100/100 ml, in representative samples of the approved surface water in at least 90 percent of the measurements made for the six previous months that the system served unfiltered approved surface water to the public on an ongoing basis. If a system measures both fecal and total coliforms, the fecal coliform criterion, not the total coliform criterion, in this paragraph shall be met.

(2) The turbidity level shall not exceed 5 NTU in representative samples of the approved surface water unless:

(A) The Department determines that any such event was caused by circumstances that were unusual and unpredictable; and

(B) As a result of any such event, there have not been more than two events in the past 12 months the system served unfiltered approved surface water to the public, or more than five events in the past 120 months the system served unfiltered approved surface water to the public, in which the turbidity level exceeded 5 NTU. An "event" is one day or a series of consecutive days during which at least one turbidity measurement each day exceeds 5 NTU.

(d) Water quality information collected pursuant to subsection(a) shall be reported to the Department in conformance with the requirements of CFR section 141.75(a)(1) (54 Fed. Reg.

27535, June 29, 1989).³⁵

(e) The supplier shall maintain a watershed control program which minimizes the potential for contamination by *Giardia* cysts and viruses in the source water. The adequacy of a program to limit potential contamination by *Giardia* cysts and viruses shall be determined by: the comprehensiveness of the watershed review; the effectiveness of the supplier's program to monitor and control detrimental activities occurring in the watershed; and the extent to which the water system has maximized land ownership and/or controlled land use within the watershed. At a minimum, the watershed control program shall:

(1) Characterize the watershed hydrology and land ownership;

(2) Identify watershed characteristics and activities which may have an adverse effect on water quality;

(3) Monitor the occurrence of activities which may have an adverse effect on water quality. The supplier shall demonstrate through ownership and/or written agreements with landowners within the watershed that it can control all human activities which may have an adverse impact on the microbiological quality of the water. The supplier shall submit an annual report to the Department that identifies any special concerns about the watershed and how they are being handled; describes activities in the watershed that affect water quality; and projects what adverse activities are expected to occur in the future and how the public water system expects to address them; and

(4) Monitor the presence of *Giardia* cysts in the approved surface water whenever agricultural grazing, water oriented recreation, or point source domestic wastewater discharges occur on the watershed. At a minimum the monitoring shall measure the *Giardia* cyst concentration monthly at a point immediately prior to the first or only point of disinfectant application. The monitoring results shall be included in an annual report to the Department. This monitoring requirement may be waived after one year for suppliers serving fewer than 500 persons when the monitoring results indicate a mean *Giardia* cyst concentration of 1 cyst per 100 litres or less.

(f) The water system shall be subject to an annual on-site inspection to assess the watershed control program and disinfection treatment process. Either the Department or a party approved by the Department shall conduct the on-site inspection. The inspection shall be conducted by competent individuals who have a sound understanding of public health principles and waterborne diseases, such as sanitary engineers, civil engineers, environmental health specialists, or technicians who have experience and knowledge about the operation and maintenance of a public water system. A report of the on-site inspection summarizing all findings shall be prepared every calendar year and submitted to the Department, if not conducted by the Department, by December 31 of that year. The on-site inspection shall be comprehensive to enable the Department to determine whether the watershed control program and disinfection

³⁵ See Addendum 3.

treatment process are adequately designed and maintained. The on-site inspection shall include:

- (1) A review of the effectiveness of the watershed control program;
- (2) A review of the physical condition of the source intake and how well it is protected;
- (3) A review of the supplier's equipment maintenance program to ensure there is low probability for failure of the disinfection process;
- (4) An inspection of the disinfection equipment for physical deterioration;
- (5) A review of operating procedures;
- (6) A review of data records to ensure that all required tests are being conducted and recorded and disinfection is effectively practiced; and
- (7) Identification of any improvements which are needed in the equipment, system maintenance and operation, or data collection.

(g) The water system shall not have been identified as a source of a waterborne microbial disease outbreak, or if it has been so identified, the system shall have been modified sufficiently to prevent another such occurrence, as determined by the Department.

(h) The water system shall comply with the total coliform maximum contaminant level (MCL) specified in 22 CCR section 64426.1 at least 11 of the 12 previous months that the system served water to the public on an ongoing basis, unless the Department determines that failure to meet this requirement was not caused by the unfiltered approved surface water.

(i) The water system shall comply with the requirements for trihalomethanes specified in 22 CCR section 64439 unless the Department determines that failure to meet this requirement was not caused by a deficiency in treatment of the unfiltered approved surface water.

(j) The supplier shall provide to the Department an annual report, by December 31st of each year, which summarizes its compliance with all the watershed control program requirements.

(k) The water system shall meet the following special disinfection requirements:

(1) The water system shall not fail to provide disinfection treatment sufficient to ensure at least a 99.9 percent inactivation of *Giardia* cysts and a 99.99 percent inactivation of viruses for more than one day in any month the water system serves unfiltered approved surface water. The means used to demonstrate the required percent inactivation with disinfection shall be as identified in 40 CFR sections 141.72(a)(1), and 141.74(b)(3) and (b)(4). Disinfection information collected pursuant to this subsection shall be reported to the Department in

conformance with the requirements of 40 CFR section 141.75(a)(2). The necessity to install filtration as a result of a failure to meet the requirements in subsection (c) will not apply if:

(A) Either the supplier meets the requirements of subsection (c) at least 11 of the 12 previous months that the system served unfiltered approved surface water to the public on an ongoing basis, or

(B) The system fails to meet the requirements of subsection (c) during 2 of the 12 previous months that the system served unfiltered approved surface water to the public, and

(C) The Department determines that failure to meet the requirements in subsection (c) for at least one of these months was caused by circumstances that were unusual and unpredictable.

(2) The disinfection system shall have either:

(A) Redundant components, including an auxiliary power supply with automatic start-up and alarm to ensure that disinfectant application is maintained continuously while water is being delivered to the distribution system; or

(B) Automatic shut-off of delivery of water to the distribution system whenever there is less than 0.2 mg/l of residual disinfectant concentration in the water.

(3) The water system shall meet the requirements of section 64654(b)(1) at all times the system serves unfiltered approved surface water to the public unless the Department determines that any such failure was caused by circumstances that were unusual and unpredictable.

(4) The water system shall meet the requirements of section 64654(b)(2) on an ongoing basis unless the Department determines that failure to meet these requirements was not caused by a deficiency in treatment of the unfiltered approved surface water.

(1) Whenever the monitoring of the quality of the approved surface water indicates the turbidity exceeds 5.0 NTU, or the fecal coliform level exceeds 20/100 mL or the total coliform concentration exceeds 100/100 mL in 10 percent or more of the samples collected in the previous six months during which the system served unfiltered approved surface water to the public on an ongoing basis, the source shall be removed from service. The source may be returned to service when monitoring subsequent to removing the source from service demonstrates that the turbidity is less than or equal to 5.0 NTU and the fecal coliform level is less than or equal to 20/100 mL or the total coliform level is less than or equal to 100/100 mL for two consecutive days, and *Giardia* monitoring results indicate 1 cyst per 100 litres or less. If a system measures both fecal and total coliforms, the fecal coliform criterion, not the total coliform criterion, in this subsection shall be met.

Section 64653. Filtration

(a) All approved surface water utilized by a supplier shall be treated using one of the following filtration technologies unless an alternative process has been approved by the Department pursuant to subsections (f), (g) and (h):

- (1) Conventional filtration treatment
- (2) Direct filtration treatment
- (3) Diatomaceous earth filtration
- (4) Slow sand filtration

(b) Conventional filtration treatment shall be deemed to be capable of achieving at least 99.7 percent removal of *Giardia* cysts and 99 percent removal of viruses when in compliance with operation criteria specified in section 64660 and performance standards specified in subsection (c). Direct filtration treatment, diatomaceous earth filtration and slow sand filtration shall be deemed to be capable of achieving at least a 99 percent removal of *Giardia* cysts and a 90 percent removal of viruses when in compliance with operation criteria specified in section 64660 and performance standards specified in subsections (c) and (d).

(c) Conventional filtration, direct filtration, or diatomaceous earth filtration shall comply with the following performance standards for each treatment plant:

(1) The turbidity level of the filtered water shall be equal to or less than 0.5 NTU in 95 percent of the measurements taken each month and shall not exceed 5.0 NTU at any time.

(2) For those suppliers using a grab sampling monitoring program the turbidity level of the filtered water shall not exceed 1.0 NTU in more than two samples taken consecutively while the plant is in operation. For those suppliers using a continuous monitoring program the turbidity level of the filtered water shall not exceed 1.0 NTU for more than eight consecutive hours while the plant is in operation.

(d) Slow sand filtration shall comply with the following performance standards for each treatment plant:

(1) The turbidity level of the filtered water shall be less than or equal to 1.0 NTU in 95 percent of the measurements taken each month. However, filtered water from the treatment plant may exceed 1.0 NTU, provided the filter effluent prior to disinfection meets the maximum contaminant level for total coliforms as specified in 22 CCR section 64426.1.

(2) The turbidity level of the filtered water shall not exceed 5.0 NTU at any

time.

(e) In order to obtain approval for a higher removal efficiency than that specified in subsection (b), a water supplier shall demonstrate to the Department that the higher removal efficiency can be reliably obtained.

(f) An alternative to the filtration technologies specified in subsection (a) may be used provided that the supplier demonstrates to the Department that the alternative technology, provides a minimum of 99 percent *Giardia* cyst removal and 90 percent virus removal for suppliers serving more than 500 persons, or 90 percent *Giardia* cyst removal for suppliers serving 500 or fewer persons and meets the turbidity performance standards established in subsection (d). The demonstration shall be based on the results from a prior equivalency demonstration or a testing of a full scale installation that is treating a water with similar characteristics and is exposed to similar hazards as the water proposed for treatment. A pilot plant test of the water to be treated may also be used for this demonstration if conducted with the approval of the Department. The demonstration shall be presented in an engineering report prepared by a qualified engineer.

(g) Suppliers proposing to use an alternative filtration technology may request from the Department a waiver to comply with the requirements of subsection (f) to demonstrate 90 percent virus removal. The request shall be based on a watershed sanitary survey conducted in accordance with section 64665, within 12 months of the date of the request, that demonstrates a lack of virus hazard in the watershed.

(h) The Department's approval of alternative filtration technologies, including establishment of performance standards and monitoring requirements, shall be done in accordance with the permit process specified in sections 116525 through 116550 of the Health and Safety Code.

(i) Within 60 days following the first full year of operation of a new alternative filtration treatment process approved by the Department, the supplier shall submit an engineering report prepared by a qualified engineer describing the effectiveness of the plant operation. The report shall include results of all water quality tests performed and shall evaluate compliance with established performance standards under actual operating conditions. It shall also include an assessment of problems experienced, corrective actions needed, and a schedule for providing needed improvements.

Section 64654. Disinfection

(a) All approved surface water utilized by a supplier shall be provided with continuous disinfection treatment sufficient to ensure that the total treatment process provides inactivation of *Giardia* cysts and viruses, in conjunction with the removals obtained through filtration, to meet the reduction requirements specified in section 64652(a).

(b) Disinfection treatment shall comply with the following performance standards:

(1) Water delivered to the distribution system shall not contain a disinfectant residual of less than 0.2 mg/l for more than four hours in any 24 hour period.

(2) The residual disinfectant concentrations of samples collected from the distribution system shall be detectable in at least 95 percent of the samples taken each month, during each and every two consecutive months that the system serves water to the public, except as provided in subsection (c). At any sample point in the distribution system, the presence of heterotrophic plate count (HPC) at concentrations less than or equal to 500 colony forming units per milliliter shall be considered equivalent to a detectable disinfectant residual.

(c) Paragraph (b)(2) shall not apply to suppliers serving fewer than 500 persons provided:

(1) The system is in compliance with 17 CCR sections 7583 through 7605, and with 22 CCR sections 64566 and 64630 ; and

(2) The supplier has no means for having a sample transported and analyzed for HPC by a certified laboratory under the appropriate time and temperature conditions and

(3) The supplier is providing adequate disinfection in the distribution system.

(d) No exemptions from the requirement in paragraph (b)(1) are permitted.

ARTICLE 3. MONITORING REQUIREMENTS

Section 64655. Filtration

(a) Each supplier using an approved surface water source shall monitor the turbidity level of each raw water supply by the taking and analyzing of daily grab samples.

(b) To determine compliance with the performance standards specified in section 64653, each supplier shall determine the turbidity level of representative samples of the combined filter effluent, prior to clearwell storage, at least once every four hours that the system is in operation, except as provided in subsection (d). Monitoring shall be conducted in accord with the operation plan required by section 64661.

(c) Continuous turbidity measurements may be substituted for grab sample monitoring provided the supplier validates the accuracy of the measurements on a weekly basis.

(d) Suppliers using slow sand filtration or serving 500 or fewer persons which are in compliance with performance standards specified in section 64653, may reduce turbidity monitoring to one grab sample per day.

Section 64656. Disinfection

(a) To determine compliance with disinfection inactivation requirements specified in section 64654(a), each supplier shall develop and conduct a monitoring program to measure those parameters that affect the performance of the disinfection process. This shall include but not be limited to the temperature of the disinfected water, the pH(s) of the disinfected water if chlorine is used as a disinfectant, the disinfectant contact time(s), and the residual disinfectant concentration(s) before or at the first customer. The monitoring program shall be described in the operations plan required by section 64661.

(b) To determine compliance with the performance standard specified in section 64654(b)(1), the disinfectant residual concentration of the water being delivered to the distribution system shall be measured and recorded continuously except as provided in subsection (f).

(c) To determine compliance with section 64654(b)(2), the residual disinfectant concentration must be measured at least at the same points in the distribution system and at the same time as total coliforms are sampled in accordance with 22 CCR section 64421, and described in the operations plan required by section 64661, except as provided in subsection (d).

(d) For suppliers that use both an approved surface water and a groundwater, the Department shall approve a request to take disinfectant residual samples at points other than those specified in subsection (c) provided the supplier demonstrates that such sampling points are representative of the disinfected approved surface water in the distribution system.

(e) If there is a failure of continuous disinfectant residual monitoring equipment, grab sampling every four hours may be conducted in lieu of continuous monitoring, but for no more than five working days following the failure of the equipment.

(f) Suppliers serving 3,300 or fewer persons may collect and analyze grab samples of disinfectant residual each day as shown below in lieu of the continuous monitoring specified in subsection (b), provided that any time the residual disinfectant falls below 0.2 mg/l, the supplier shall take a grab sample every four hours until the residual concentration is equal to or greater than 0.2 mg/l:

<i>System size by population</i>	<i>Samples/day</i>
< 500	1
501 - 1,000	2
1,001 - 2,500	3
2,501 - 3,300	4

(g) Suppliers shall describe the location and frequency of sampling to comply with subsection (f) in the operations plan required by section 64661.

ARTICLE 4. DESIGN STANDARDS

Section 64658. New treatment plants

(a) Suppliers which propose to construct new filtration and disinfection treatment facilities or to modify or make additions to existing treatment facilities which require permit approval from the Department pursuant to Health and Safety Code sections 4011 through 4016 shall submit an engineering report to the Department describing how the proposed new treatment facilities will be designed to comply with the treatment, design, performance and reliability provisions required pursuant to this chapter. Modifications requiring permit approval include those that have a significant effect on plant performance, change the plant design rating or capacity, or change a major treatment process.

(b) All new filtration and disinfection facilities shall be designed and constructed to comply with the following criteria:

- (1) Achieve an average daily effluent turbidity goal of 0.2 NTU when using conventional, direct, and diatomaceous earth filtration plants.
- (2) Be free of structural and sanitary hazards.
- (3) Protect against contamination by backflow.
- (4) Meet the capacity and pressure requirements prescribed in 22 CCR sections 64562 and 64566.
- (5) Provide flow measuring and recording equipment.
- (6) Take into consideration the effects of events such as earthquakes, fires, floods, freezing, and sabotage that are reasonably foreseeable.
- (7) Provide reasonable access for inspection, maintenance, and monitoring of all unit processes.
- (8) Provide for filter-to-waste for each filter unit or addition of coagulant chemicals to the water used for backwashing.
- (9) Provide backwash rates and surface or subsurface wash facilities using air, water or a combination thereof to clean the filter after use to its original condition.
- (10) Provide solids removal treatment for filter backwash water if it is recycled into the treatment process. Recycled backwash water shall be returned to the headworks of the treatment plant.
- (11) Provide for the future addition of pretreatment facilities in the design of direct filtration, slow sand, or diatomaceous earth filtration plants.

(12) Provide disinfection equipment sized for the full range of flow conditions expected and capable of feeding accurately at all flow rates.

(13) Provide for treatment plant operation without frequent shutdowns and startups or rapid changes in filtration rates.

(c) Whenever a coagulation process is used, the process selection shall be based on pilot plant or laboratory scale (jar test) or equivalent results that demonstrate effectiveness of the coagulant chemicals over the full range of water quality conditions expected.

Section 64659. Reliability

(a) The following reliability features shall be included in the design and construction of all new and existing surface water treatment plants:

(1) Alarm devices to provide warning of coagulation, filtration, and disinfection failures. All devices shall warn a person designated by the supplier as responsible for taking corrective action, or have provisions to shut the plant down until corrective action can be taken.

(2) Standby replacement equipment available to assure continuous operation and control of unit processes for coagulation, filtration and disinfection.

(3) A continuous turbidity monitoring and recording unit on the combined filter effluent prior to clearwell storage.

(4) Multiple filter units which provide redundant capacity when filters are out of service for backwash or maintenance.

(b) Alternatives to the requirements specified in section 64659(a) shall be accepted provided the water supplier demonstrates to the satisfaction of the Department that the proposed alternative will assure an equal degree of reliability.

ARTICLE 5. OPERATION

Section 64660. Operating criteria

(a) All treatment plants utilizing an approved surface water shall be operated by operators certified by the Department in accordance with Health and Safety Code section 106885.

(b) Filtration facilities shall be operated in accordance with the following requirements:

(1) Conventional and direct filtration plants shall be operated at flow rates not to exceed 3.0 gallons per minute per square foot (gpm/sq. ft.) for simple³⁶ media filters and 6.0 gpm/sq. ft. for deep bed, dual or mixed media filters under gravity flow conditions. For pressure filters, filtration rates shall not exceed 2.0 gpm/sq. ft. for single media filters and 3.0 gpm/sq. ft. for dual, mixed media, or deep bed filters.

(2) Slow sand filters shall be operated at filtration rates not to exceed 0.10 gallon per minute per square foot. The filter bed shall not be dewatered except for cleaning and maintenance purposes.

(3) Diatomaceous earth filters shall be operated at filtration rates not to exceed 1.0 gallon per minute per square foot.

(4) In order to obtain approval for filtration rates higher than, but not more than twice, those specified in paragraphs (b)(1), (b)(2), and (b)(3), a water supplier shall demonstrate to the Department that the filters can comply with the performance requirements of section 64653.

(5) In order to obtain approval for filtration rates greater than twice those specified in paragraphs (b)(1), (b)(2), and (b)(3), a water supplier shall demonstrate to the Department that the filters do the following:

(A) Provide a minimum of 99 percent *Giardia* cyst removal and 90 percent virus removal; and

(B) Meet the turbidity performance standards established in section 64653(c).

(6) Filtration rates shall be increased gradually when placing filters back into service following backwashing or any other interruption in the operation of the filter.

(7) When any individual filter in a conventional or direct filtration plant is placed back into service following backwashing or other interruption event, the filtered water turbidity of the effluent from that filter shall not exceed any of the following:

(A) 2.0 NTU at any time during the first four hours of filter operation following all interruption events.

(B) 1.0 NTU at any time during the first four hours of filter operation following at least 90 percent of the interruption events during any consecutive 12 month period.

(C) 0.5 NTU at the time that the filter has been in operation for 4 hours.

³⁶A request for a change without regulatory effect has been sent to OAL which would change “simple” to “single” in Barclays.

(8) Pressure filters shall be physically inspected and evaluated annually for such factors as media condition, mudball formation, and short circuiting. A written record of the inspection shall be maintained at the treatment plant.

(9) Coagulation and flocculation unit processes shall be in use at all times during which conventional and direct filtration treatment plants are in operation. The effectiveness of these processes shall be demonstrated by either at least an 80 percent reduction through the filters of the monthly average raw water turbidity or jar testing, pilot testing or other means to demonstrate that optimum coagulation is being achieved.

(10) The filtered water turbidity level from each filter unit shall be monitored with a continuous turbidity meter and recorder, or with a grab sampling program designed to identify compliance with the requirements of paragraph(b)(7) and approved by the Department. If this monitoring indicates that any filter unit in a conventional or direct filtration plant is not performing as required in paragraph (b)(7), the filter shall be taken out of service and inspected to determine the cause of its inadequate performance. The filter unit shall not be returned to service until any deficiencies have been corrected and operations tests demonstrate that the filter unit is meeting the requirements of paragraph (b)(7).

(c) Disinfection facilities shall be operated in accordance with the following requirements:

(1) A supply of chemicals necessary to provide continuous operation of disinfection facilities shall be maintained as a reserve or demonstrated to be available.

(2) An emergency plan shall be developed prior to initiating operation of the disinfection facilities. The plan shall be implemented in the event of disinfection failure to prevent delivery to the distribution system of any undisinfected or inadequately disinfected water. The plan shall be posted in the treatment plant or other place readily accessible to the plant operator.

Section 64661. Operations plan

(a) With a permit application for a new treatment plant, suppliers shall submit for Department review and approval an operations plan for each treatment plant that treats an approved surface water. The Department shall review the operations plan to determine if it includes those items required in subsection (b). The operations plan shall be designed to produce the optimal water quality from the treatment process. The supplier shall operate its treatment plant in accordance with the approved plan.

(b) The operations plan shall consist of a description of the utility's treatment plant performance monitoring program, unit process equipment maintenance program, operating personnel, including numbers of staff, certification levels and responsibilities; how and when each unit process is operated; laboratory procedures; procedures used to determine chemical dose rates; records; response to plant and watershed emergencies; and reliability features.

Section 64662. Records

(a) The supplier shall maintain accurate and complete operation records for each treatment plant that treats an approved surface water. The records shall include but not be limited to the following:

(1) The results of all monitoring conducted in accordance with sections 64655, 64656, and 64660.

(2) Dates on which filter maintenance and inspections were performed and the results of any inspections including pressure filter evaluations required by section 64660(b)(7).

(3) Quantity of water produced, plant flow rates, filtration rates, hours of operation, and backwash rates.

(4) Dates and description of major equipment and process failures and corrective actions taken.

(b) Treatment plant records shall be retained for not less than two years, except where the Department has determined that longer retention times are necessary to complete legal actions taken under the provisions of Health and Safety Code sections 4031 through 4038.

ARTICLE 6. REPORTING**Section 64663. Department notification**

The supplier shall notify the Department as soon as possible, but no later than by the end of the next business day, or within 24 hours, whichever is less, by telephone or other equally rapid means whenever:

(a) The turbidity of the combined filter effluent as monitored pursuant to section 64655 exceeds 5.0 NTU at any time.

(b) More than two consecutive turbidity samples of the combined filter effluent taken every four hours pursuant to section 64655 exceed 1.0 NTU.

(c) There is a failure to maintain a minimum₅ disinfectant residual of 0.2 mg/l in the water being delivered to the distribution system. The supplier shall report whether or not the disinfectant residual was restored to at least 0.2 mg/l within four hours.

(d) An event occurs which may affect the ability of the treatment plant to produce a safe, potable water including but not limited to spills of hazardous materials in the watershed and unit treatment process failures.

(e) The turbidity immediately prior to the first or only point of disinfectant application exceeds 5 NTU for suppliers avoiding filtration.

(f) The supplier discovers the occurrence of an acute infectious illness that may be potentially attributable to the water system.

Section 64664. Monthly report

(a) Each supplier with an approved surface water treatment facility shall submit a monthly report on the operation of each facility to the Department by the tenth day of the following month. The report shall be signed by the chief water treatment plant operator, plant superintendent or other person directly responsible for the operation of the water treatment plant.

(b) The report shall include the following results of turbidity monitoring of the combined filter effluent:

(1) All turbidity measurements taken during the month to determine compliance with section 64653.

(2) The number and percent of turbidity measurements taken during the month which are less than or equal to the performance standard specified for each filtration technology in section 64653, or as required for an alternative treatment process. The report shall also include the date and value of any turbidity measurements that exceed performance levels specified in section 64653.

(3) The average daily turbidity level.

(4) If the turbidity level of the filter effluent from a slow sand filter is greater than 1.0 NTU in five percent or more of the measurements taken that month, the supplier must also report the dates and results of total coliform sampling of the filter effluent prior to disinfection to demonstrate compliance with section 64653(d)(1).

(c) The report shall include the following disinfection monitoring results taken to comply with section 64654:

(1) The date and duration of each instance when the disinfectant residual in water supplied to the distribution system is less than 0.2 mg/l and when the Department was notified of the occurrence.

(2) The following information on samples taken from the distribution system to comply with section 64654(b)(2):

(A) The number of samples where the disinfectant residual is measured.

(B) The number of samples where only the heterotrophic plate count (HPC) is measured.

(C) The number of measurements with no detectable disinfectant residual and no HPC is measured.

(D) The number of measurements with no detectable disinfectant residual and HPC is greater than 500 colony forming units per milliliter.

(E) The number of measurements where only HPC is measured and is greater than 500 colony forming units per milliliter.

(F) For the current and previous month the supplier serves water to the public, the value of V in the following formula:

$$V = \left[1 - \frac{(C + D + E)}{(A + B)} \right] 100$$

Where V = the percent of distribution system samples with a detectable residual.

A = the value in paragraph (2)(A) of this subsection.

B = the value in paragraph (2)(B) of this subsection.

C = the value in paragraph (2)(C) of this subsection.

D = the value in paragraph (2)(D) of this subsection.

E = the value in paragraph (2)(E) of this subsection.

(3) For each day the lowest measurement of residual disinfectant concentration in mg/l in the water entering the distribution system.

(d) The report shall include a written explanation of the cause of any violation of performance standards specified in sections 64653 and 64654 and operating criteria specified in sections 64660(b)(6) and (8).

(e) The report shall include a summary of water quality complaints and reports of gastrointestinal illness received from consumers.

ARTICLE 7. WATERSHED SANITARY SURVEYS

Section 64665. Watershed requirements

(a) All suppliers shall have a sanitary survey of their watershed(s) completed at least every five years. The first survey shall be completed by January 1, 1996.

(b) A report of the survey shall be submitted to the Department not later than 60 days following completion of the survey.

(c) The survey and report shall include physical and hydrogeological description of the watershed, a summary of source water quality monitoring data, a description of activities and sources of contamination, a description of any significant changes that have occurred since the last survey which could affect the quality of the source water, a description of watershed control and management practices, an evaluation of the system's ability to meet requirements of this chapter, and recommendations for corrective actions.

ARTICLE 8. PUBLIC NOTIFICATION

Section 64666. Consumer notification

(a) For water systems that filter approved surface water, the supplier shall notify persons served by the system whenever there is a failure to comply with the treatment requirements specified in sections 64650(c), 64652, 64653, and 64654(a) or performance standards specified in section 64653(c)(1), (d), (h) and section 64654(b).

(b) For water systems that do not filter approved surface water, the supplier shall notify persons served by the system whenever:

(1) There is a failure to comply with sections 64652.5(b) through (k), sections 64652 and 64654(a), or section 64654(b);

(2) The turbidity level in a representative sample of the approved surface water immediately prior to the first or only point of disinfectant application exceeds 5 NTU; or

(3) The unfiltered approved surface water has been identified as a source of waterborne microbial disease outbreak.

(c) The notification required by either subsections (a) or (b) shall be given in accordance with section 64464.3(a)(2), and shall include the following mandatory language:

The State of California Department of Health Services (DHS) sets drinking water standards

and has determined the presence of microbiological contaminants are a health concern at certain levels of exposure. If water is inadequately treated, microbiological contaminants in that water may cause disease. Disease symptoms may include diarrhea, cramps, nausea, and possibly jaundice, and any associated headaches and fatigue. These symptoms, however are not just associated with disease-causing organisms in drinking water, but also may be caused by a number of factors other than your drinking water. DHS has set enforceable requirements for treating drinking water to reduce the risk of these adverse health effects. Treatment such as filtering and disinfecting the water removes or destroys microbiological contaminants. Drinking water which is treated to meet DHS requirements is associated with little to none of this risk and should be considered safe.

(d) For water systems that filter approved surface water, the supplier shall notify persons served by the system whenever there is a failure to comply with the monitoring requirements specified in sections 64655 or 64656. The notification shall be given in accordance with section 64464.6.

(e) For water systems that do not filter approved surface water, the supplier shall notify persons served by the system whenever there is a failure to comply with the monitoring requirements specified in sections 64652.5(b), (d), or (e), or 64656. The notification shall be given in accordance with section 64464.6.

(f) If a supplier is unable to remove a source from service pursuant to section 64652.5(l), the supplier shall notify the Department immediately, and notify persons served by the system pursuant to section 64465, using the language in subsection (c).

CHAPTER 17.5. LEAD AND COPPER

ARTICLE 1. GENERAL REQUIREMENTS AND DEFINITIONS

Section 64670. General requirements

(a) The requirements of this chapter constitute the primary drinking water standards for lead and copper. Unless otherwise indicated, each of the provisions of this chapter applies to community water systems and non-transient, non-community water systems (hereinafter referred to as "water systems" or "systems").

(b) Each water system shall install and operate optimal corrosion control treatment.

(c) Failure to comply with the applicable requirements of Articles 1 through 9, including requirements established by the Department pursuant to these provisions, shall constitute a violation of the primary drinking water standards for lead and/or copper.

Section 64671.05. Action level

"Action level," for the purpose of this chapter only, means the concentration of lead or copper in water which is used to determine the treatment requirements contained in this chapter that a water system is required to complete.

Section 64671.10. Corrosion inhibitor

"Corrosion inhibitor" means a substance capable of reducing the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials.

Section 64671.15. Detection limit for purposes of reporting (DLR)

Detection limit for purposes of reporting (DLR)" means the designated minimum level at or above which any analytical finding of a contaminant in drinking water resulting from monitoring required under this chapter shall be reported to the Department.

Section 64671.20. Effective corrosion inhibitor residual

"Effective corrosion inhibitor residual" means a concentration of corrosion inhibitor that is sufficient to form a passivating film on the interior walls of a pipe.

Section 64671.25. First draw sample

"First draw sample" means a one liter sample of tap water, collected in accordance with Section 64683(b), that has been standing in plumbing pipes at least six hours and is collected without flushing the tap.

Section 64671.30. Large water system

"Large water system." for the purpose of this chapter only, means a water system that serves more than 50,000 persons.

Section 64671.35. Lead service line

"Lead service line" means a service line made of lead which connects the water main to the building inlet and any lead pigtail, gooseneck or other fitting which is connected to such lead line.

Section 64671.40. Medium-size water system

"Medium-size water system." for the purpose of this chapter only, means a water system that serves greater than 3,300 and less than or equal to 50,000 persons.

Section 64671.50. Optimal corrosion control treatment

"Optimal corrosion control treatment", means the corrosion control treatment that minimizes the lead and copper concentrations at users' taps without causing the water system to violate any primary drinking water standards.

Section 64671.60. Service line sample

"Service line sample" means a one-liter sample of water, collected in accordance with Section 64683(c), that has been standing for at least six hours in a service line.

Section 64671.65. Single-family structure

"Single-family structure" means a building constructed as a single-family residence that is currently used as either a residence or a place of business.

Section 64671.70. Small water system

"Small water system," for the purpose of this chapter only, means a water system that serves 3,300 persons or fewer.

Section 64672. Analytical methods and detection limits

(a) Analyses for lead, copper, pH, conductivity, calcium, alkalinity, orthophosphate, silica, and temperature shall be conducted using the methods as prescribed at 40 Code of Federal Regulations, Section 141.89. Field tests shall be performed by water treatment operator certified by the Department pursuant to Section 4080 of the Health and Safety Code or by personnel trained to perform these tests by the Department, a certified laboratory, or certified operator.

(b) The detection limits for purposes of reporting (DLRs) for lead and copper are as follows:

DLRs for Lead and Copper

<u>Contaminant</u>	<i>DLR (mg/L)</i>
Lead	0.005
Copper	0.050

Section 64672.3. Determination of compliance with lead and copper action levels

(a) The lead action level is exceeded if the concentration of lead in more than 10 percent of tap water samples collected during any monitoring period conducted in accordance with Article 6 is greater than 0.015 mg/L (i.e., if the "90th percentile" lead level is greater than 0.015 mg/L).

(b) The copper action level is exceeded if the concentration of copper in more than 10

percent of tap water samples collected during any monitoring period conducted in accordance with Article 6 is greater than 1.3 mg/L (i.e., if the "90th percentile" copper level is greater than 1.3 mg/L).

(c) The 90th percentile lead and copper levels shall be computed as follows:

(1) The results of all lead or copper samples taken during a monitoring period shall be placed in ascending order from the sample with the lowest concentration to the sample with the highest concentration. Each sampling result shall be assigned a number, ascending by single integers beginning with the number 1 for the sample with the lowest contaminant level. The number assigned to the sample with the highest contaminant level shall be equal to the total number of samples taken.

(2) The number of samples taken during the monitoring period shall be multiplied by 0.9.

(3) The contaminant concentration in the numbered sample yielded by the calculation in paragraph (c)(2) is the 90th percentile contaminant level.

(4) For water systems serving less than or equal to 100 people that collect 5 samples per monitoring period, the 90th percentile is computed by taking the average of the highest and second highest concentrations.

Section 64672.6. Use of information developed prior to December 1, 1995

(a) A system may submit to the Department information developed after June 7, 1991 for compliance with 40 CFR Part 141, National Primary Drinking Water Regulations, Subpart I, Control of Lead and Copper, 141.80 through 141.91, to fulfill requirements of this chapter.

(b) A large water system which relies on a corrosion control study completed before December 1, 1995 shall:

(1) Install optimal corrosion control treatment by January 1, 1997;

(2) Complete follow-up sampling by January 1, 1998; and

(3) After July 1, 1998, the system shall operate in compliance with the optimal water quality control parameters as designated by the Department and shall continue to conduct tap sampling as directed in Sections 64685 and 64688.

(c) A medium-size or small water system which relies on tap monitoring or a corrosion control study completed before December 1, 1995 shall:

(1) Install optimal corrosion control treatment within 24 months after such treatment has been designated, but in no case later than January 1, 1998;

(2) Complete follow-up sampling within 12 months of treatment installation, but in no case later than January 1, 1999;

(3) After July 1, 1999, the small or medium-size water system shall operate in compliance with the optimal water quality control parameters designated by the Department and continue to conduct tap sampling as directed in Sections 64685 and 64688.

ARTICLE 2. CORROSION CONTROL TREATMENT REQUIREMENTS

Section 64673. Treatment requirements

(a) Each water system shall install and operate optimal corrosion control treatment as described in Section 64676.

(b) A system is deemed to have optimized corrosion control and is not required to complete the applicable corrosion control treatment steps identified in Sections 64674 and 64675 if the system satisfies one of the following criteria:

(1) A small or medium-size water system is deemed to have optimized corrosion control if the system does not exceed the lead and copper action levels during each of two consecutive six-month monitoring periods conducted in accordance with Article 6.

(2) The system demonstrates to the Department that it has conducted activities equivalent to the corrosion control steps applicable to the system under Sections 64674 or 64675. If the Department makes this determination, it shall provide the system with written notice explaining the basis for its decision and shall specify the water quality control parameters representing optimal corrosion control in accordance with Section 64676(f). The system shall provide the Department with the following information in order to support a determination under this paragraph:

(A) The results of all test samples collected for each of the water quality parameters in Section 64676(c)(3).

(B) A report explaining the test methods used by the water system to evaluate the corrosion control treatments listed in Section 64676(c)(1), the results of all tests conducted, and the basis for the system's selection of optimal corrosion control treatment;

(C) A report explaining how corrosion control has been installed and how it is being maintained to insure minimal lead and copper concentrations at consumers' taps; and

(D) The results of tap water samples collected in accordance with Article 6 at least once every six months for one year after corrosion control has been installed.

(3) A water system is deemed to have optimized corrosion control if it submits results of tap water monitoring conducted in accordance with Article 6 and source water monitoring conducted in accordance with Article 8 that demonstrate for two consecutive six-month monitoring periods that the difference between the 90th percentile tap water lead level computed under Section 64672.3(c), and the highest source water lead concentration, is less than the detection limit for purposes of reporting in Section 64672(b).

(c) A small or medium-size water system that is required to complete the corrosion control treatment due to its exceedance of the lead or copper action level may cease completing the treatment steps specified in Section 64675 whenever the system does not exceed either action level during each of two consecutive monitoring periods conducted pursuant to Article 6 and submits the results to the Department. If any such water system thereafter exceeds the lead or copper action level during any monitoring period, the system shall recommence completion of the applicable treatment steps specified in Section 64675, beginning with the first treatment step which was not previously completed in its entirety. The Department may require a system to repeat treatment steps previously completed by the system where the Department determines that this is necessary to implement properly the treatment requirements of this section. The Department shall notify the system in writing of such a determination and explain the basis for its decision.

Section 64674. Corrosion control treatment deadlines for large water systems

(a) Except as provided in Sections 64672.6. (b), and 64673(b)(2) and (3), large systems shall take the following corrosion control treatment steps by the indicated dates:

(1) Conduct initial monitoring during two consecutive six-month monitoring periods by January 1, 1997 to meet the requirements in Sections 64684(b) and 64687.

(2) Complete corrosion control studies by July 1, 1998 to meet the requirements Section 64676(c).

(3) Begin installation of optimal corrosion control treatment by January 1, 1999 according to Section 64676(d).

(4) Complete installation of optimal corrosion control treatment by January 1, 2001 to meet the requirements in Section 64676(e).

(5) Complete follow-up sampling by January 1, 2002 to meet the requirements in Sections 64685(a) and 64688(a).

(6) Operate in compliance with the optimal water quality control parameters designated by the Department by July 1, 2002 pursuant to Section 64676(f).

(7) Operate in compliance with the optimal water quality control parameters

specified by the Department and continue to conduct tap sampling pursuant to Sections 64676(g), 64685(b), and 64688(b).

Section 64675. Corrosion control treatment deadlines for small & medium-size water systems

(a) Except as provided in Section 64672.6(c) and Section 64673(b), small and medium-size water systems shall take the following corrosion control treatment steps by the indicated time periods:

(1) By January 1, 1996, each system shall begin initial monitoring. The system shall conduct monitoring during each six-month period until either the system becomes eligible for reduced monitoring under Section 64685, or the system exceeds the lead or copper action level. Each system which exceeds the lead or copper action level shall provide to the Department a recommendation of optimal corrosion control treatment pursuant to Section 64676(a) within six months after it exceeds the action level.

(2) If the lead or copper action level is exceeded pursuant to Section 64672.3 initiate corrosion control studies pursuant to Section 64676(b) if required to do so by the Department. If the system is not required to perform such studies, the system shall begin installation of optimal corrosion control treatment designated by the Department within the following time frames:

(A) for medium-size systems, within 12 months after such system exceeds the lead or copper action level.

(B) for small systems, within 18 months after such system exceeds the lead or copper action level.

(3) If the Department requires the system to perform corrosion control studies under paragraph (2), complete the studies within 18 months after receiving notice that the Department requires that such studies be conducted.

(4) If the system has performed corrosion control studies under paragraph (2), begin installation of optimal corrosion control treatment designated by the Department within six months after completion of the corrosion control studies.

(5) Complete installation of optimal corrosion control treatment within 24 months after the Department has designated such treatment.

(6) Complete follow-up sampling within 36 months after receiving notice that the Department has designated optimal corrosion control treatment.

(7) Within 42 months after receiving notice that the Department has designated optimal corrosion control treatment, operate in compliance with optimal water quality control

parameters designated pursuant to Section 64676(f).

(8) Operate in compliance with the optimal water quality control parameters specified by the Department and continue to conduct tap sampling pursuant to Sections 64676(g), 64685(b) and 64688(b).

Section 64676. Corrosion control treatment requirements

(a) Based upon the results of lead and copper tap monitoring and water quality parameter monitoring, small and medium-size water systems exceeding the lead or copper action level shall recommend to the Department installation of one or more of the corrosion control treatments listed in paragraph (c)(1) of this section which the system believes constitutes optimal corrosion control for that system. The Department may require the system to conduct additional water quality parameter monitoring in accordance with Section 64687 to assist the Department in reviewing the system's recommendation.

(b) The Department may require a small or medium-size system, that exceeds the lead or copper action level to perform corrosion control studies under subsection (c) of this section, to identify optimal corrosion control treatment for the system if the water quality, distribution system, water treatment, or other features of the system are unique.

(c) Each public water system performing corrosion control studies shall:

(1) Evaluate the effectiveness of each of the following treatments, and, if appropriate, combinations of the following treatments to identify the optimal corrosion control treatment for that system:

(A) Alkalinity and pH adjustment;

(B) Calcium hardness adjustment; and

(C) The addition of a phosphate or silicate based corrosion inhibitor at a concentration sufficient to maintain an effective residual concentration throughout the distribution system.

(2) Evaluate each of the corrosion control treatments using either pipe rig/loop tests, metal coupon tests, partial-system tests, or analyses based on documented analogous treatments with other systems of similar size, water chemistry and distribution system configuration.

(3) Measure the following water quality parameters in any tests conducted under this subsection before and after evaluating the corrosion control treatments listed above:

(A) Lead;

- (B) Copper;
- (C) pH;
- (D) Alkalinity;
- (E) Calcium;
- (F) Conductivity;
- (G) Orthophosphate (when an inhibitor containing a phosphate compound is used);
- (H) Silicate (when an inhibitor containing a silicate compound is used);
- (I) Water temperature.

(4) Identify all chemical or physical constraints that limit or prohibit the use of a particular corrosion control treatment and document such constraints with at least one of the following:

(A) Data and documentation showing that a particular corrosion control treatment has adversely affected other water treatment processes when used by another water system with comparable water quality characteristics; and/or

(B) Data and documentation demonstrating that the water system has previously attempted to evaluate a particular corrosion control treatment and has found that the treatment is ineffective or adversely affects other water quality treatment processes.

(5) Evaluate the effect of the chemicals used for corrosion control treatment on other water treatment processes.

(6) Recommend to the Department in writing the treatment option that the corrosion control studies indicate constitutes optimal corrosion control treatment for that system on the basis of an analysis of the data generated during each evaluation. The water system shall provide a rationale for its recommendation along with all supporting documentation specified in paragraphs (c)(1) through (5) of this section.

(d) Based upon consideration of available information including, where applicable, studies performed under paragraph (c) of this section, and a system's recommended treatment alternative, the Department shall either approve the corrosion control treatment option recommended by the system, or designate alternative corrosion control treatment(s) from among those listed in paragraph (c)(1) of this section. When designating optimal treatment the Department shall consider the effects that additional corrosion control treatment will have on water quality parameters and on other water treatment processes. The Department shall notify

the system of its decision on optimal corrosion control treatment in writing and explain the basis for this determination. If the Department requests additional information to aid its review, the water system shall provide the information.

(e) Each system shall properly install and operate throughout its distribution system the optimal corrosion control treatment designated by the Department under paragraph (d) of this section.

(f) After the system installs optimal corrosion control treatment, the Department shall review the treatment and specify optimal water quality control parameters as follows:

(1) a minimum value or a range of values for pH measured at each entry point to the distribution system;

(2) a minimum pH value, measured in all tap samples. Such value shall be equal to or greater than 7.0, unless the Department determines that meeting a pH level of 7.0 is not technologically feasible or is not necessary for the system to optimize corrosion control;

(3) if a corrosion inhibitor is used, a minimum concentration or a range of concentrations for the inhibitor, measured at each entry point to the distribution system and in all tap samples, that the Department determines is necessary to form a passivating film on the interior walls of the pipes of the distribution system;

(4) if alkalinity is adjusted as part of optimal corrosion control treatment, a minimum concentration or a range of concentrations for alkalinity, measured at each entry point to the distribution system and in all tap samples;

(5) if calcium carbonate stabilization is used as part of corrosion control, a minimum concentration or a range of concentrations for calcium, measured in all tap samples;

(6) values for additional water quality control parameters determined by the Department to reflect optimal corrosion control for the system.

(g) Each system shall maintain water quality parameter values at or above minimum values or within ranges designated by the Department under subsection (f) in each sample collected under Section 64688(b). If the water quality parameter value of any sample is below the minimum value or outside the range designated by the Department, then the system is out of compliance with this section. As specified in Section 64688(b), the system may take a confirmation sample for any water quality parameter value no later than 3 days after the first sample. If a confirmation sample is taken, the result shall be averaged with the first sampling result and the average shall be used for any compliance determinations under this subsection.

(h) Upon its own initiative or in response to a request by a water system or other interested party, the Department may modify its determination of the optimal corrosion control treatment under subsection (d) or optimal water quality control parameters under subsection (f).

A request for modification by a system or other interested party shall be in writing, explain the reason for the requested modification, and include supporting documentation. The Department may modify its determination where it concludes that such change is necessary to ensure that the system continues to optimize corrosion control treatment. A revised determination shall be made in writing, set forth the new treatment requirements, explain the basis for the Department's decision, and provide an implementation schedule for completing the treatment modifications.

ARTICLE 3. SOURCE WATER TREATMENT REQUIREMENTS

Section 64677. Source water treatment to control lead and copper

(a) A system exceeding the lead or copper action level shall complete lead and copper source water monitoring and make a treatment recommendation to the Department pursuant to Section 64678(a) within six months after exceeding the lead or copper action level.

(b) The Department shall make a determination regarding source water treatment pursuant to Section 64678(b) within six months after submission of monitoring results under subsection (a). If no determination is made by the Department within six months, and the Department has not requested additional information pursuant to Section 64678(b) to aid in its review, the source water treatment recommendation made by the system under subsection (a) shall be deemed approved.

(c) If the installation of source water treatment is required the system shall install treatment pursuant to Section 64678(c) within 24 months after completion of subsection (b).

(d) The system shall complete follow-up tap water monitoring pursuant to Section 64685(a) and source water monitoring pursuant to Section 64690(b) within 36 months after completion of subsection (b).

(e) The system shall operate in compliance with the Department-specified maximum permissible lead and copper source water levels pursuant to Section 64678(d) and continue source water monitoring pursuant to Section 64690(c).

Section 64678. Source water treatment requirements

(a) Each system which exceeds the lead or copper action level shall either recommend to the Department the installation and operation of one of the source water treatments listed in subsection (b) or demonstrate that source water treatment is not needed to minimize lead and copper levels at users' taps.

(b) The Department shall evaluate the results of all source water samples submitted by the water system to determine whether source water treatment is necessary to minimize lead or copper levels in water delivered to users' taps. If the Department determines that treatment is needed, the water system shall install and operate one of the following source water treatments as

directed by the Department: ion exchange, reverse osmosis, lime softening, or coagulation/filtration. The Department shall notify the system in writing of its determination and set forth the basis for its decision. The water system shall provide any additional information requested by the Department to aid in its review.

(c) Each system shall properly install and operate the source water treatment designated by the Department under subsection (b).

(d) The Department shall review the source water samples pursuant to Sections 64690(a) and (b) before and after the system installs source water treatment. Based upon its review, the Department shall designate the maximum permissible lead and copper concentrations for treated water entering the distribution system. Such levels shall reflect the contaminant removal capability of the treatment when properly operated and maintained. The Department shall notify the system in writing and explain the basis for its decision.

(e) Each water system shall maintain lead and copper levels below the maximum permissible concentrations designated by the Department at each sampling point monitored in accordance with Article 8.

(f) The Department may modify its determination of the source water treatment under subsection (b), or maximum permissible lead and copper concentrations for treated water entering the distribution system under subsection (d). A request for modification by the system shall be in writing, explain why the modification is appropriate, and provide supporting documentation. The Department may modify its determination where it concludes that such change is necessary to ensure that the system continues to minimize lead and copper concentrations in water entering the distribution system. A revised determination shall be made in writing, set forth the new treatment requirements, explain the basis for the Department's decision, and provide an implementation schedule for completing the treatment modification.

ARTICLE 4. LEAD SERVICE LINE REPLACEMENT REQUIREMENTS

Section 64679. Lead service line replacement

(a) Systems that exceed the lead action level in tap samples taken pursuant to Section 64685(a), after installing corrosion control and/or source water treatment (whichever sampling occurs later), shall replace lead service lines in accordance with the requirements of this section. If a system is in violation of Article 2 or 3 for failure to install source water or corrosion control treatment, the system shall commence lead service line replacement under this section after the date by which the system was required to conduct monitoring under Section 64685(a) has passed.

(b) A system which is required to conduct lead service line replacement shall replace annually at least 7 percent of the initial number of lead service lines in its distribution system. The initial number of lead service lines is the number of lead lines in place at the time the replacement program begins. The system shall identify the initial number of lead service lines in its distribution

system based upon a materials evaluation, including the evaluation required under Section 64682. The first year of lead service line replacement shall begin on the date the action level was exceeded in tap sampling referenced in subsection (a).

(c) A system is not required to replace an individual lead service line if the lead concentration in each and every service line sample from that line, taken pursuant to Section 64683(c), is less than or equal to 0.015 mg/L.

(d) A water system shall replace the entire service line (up to the building inlet) unless it demonstrates, that it controls less than the entire service line. In such cases, the system shall replace the portion of the line which is under the system's control. The system shall notify the user served by the line that the system will replace the portion of the service line under its control and shall offer to replace the building owner's portion of the line with the cost being borne by the building owner. For buildings where only a portion of the lead service line is replaced, the water system shall inform the resident(s) that the system will collect a first flush tap water sample after partial replacement of the service line is completed if the resident(s) so desire. In cases where the resident(s) accept the offer, the system shall collect the sample and report the results to the resident(s) within 14 days following partial lead service line replacement.

(e) For purposes of lead service line replacement, a water system controls the entire lead service line (up to the building inlet) unless the system demonstrates, under Section 64691(e)(4), that it does not have any of the following forms of control over the entire line:

- (1) Authority to set standards for construction, repair, or maintenance of the line,
- (2) Authority to replace, repair, or maintain the service line, or
- (3) Ownership of the service line.

(f) A system shall replace lead service lines on a shorter schedule than that required by subsection (b), taking into account the number of lead service lines in the system, where the Department determines that a shorter replacement schedule is either necessary based on elevated blood lead levels in the population served, or determines that it is feasible to complete the lead service line replacement program in a shorter time without increasing the water rates to the customers. The Department shall make this determination in writing and notify the system of its finding within 6 months after the system is triggered into lead service line replacement based on monitoring referenced in subsection (a).

(g) A system may cease replacing lead service lines whenever first draw samples collected pursuant to Section 64683(b) do not exceed the lead action level during each of two consecutive monitoring periods and the system submits the results to the Department. If the first draw samples collected in any such water system thereafter exceeds the lead action level, the system shall recommence replacing lead service lines, pursuant to subsection (b).

ARTICLE 5. PUBLIC EDUCATION AND SUPPLEMENTAL MONITORING REQUIREMENTS

Section 64680. Notification language for lead

(a) A water system that exceeds the lead action level based on tap water samples collected in accordance with Article 6 shall deliver the public education materials contained in paragraphs (1) and (2) of this subsection in accordance with the requirements in subsection (b).

(1) A water system shall include the following text in all of the printed materials it distributes through its lead public education program. Any additional information presented by a system shall be consistent with the information below and be in plain language that can be understood by laypersons.

(A) INTRODUCTION. The California Department of Health Services (DHS), the U.S. Environmental Protection Agency, and [insert name of water supplier] are concerned about lead in your drinking water. Although most homes have very low levels of lead in their drinking water, some homes in the community have lead levels above the state and federal action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under state and federal law we are required to have a program in place to minimize lead in your drinking water by [insert date when corrosion control will be completed for your system]. This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace each lead service line that we control if the line contributes lead concentrations of 15 ppb or more after we have completed the comprehensive treatment program. If you have any questions about how we are carrying out the requirements of the lead regulation please give us a call at [insert water system's phone number]. This brochure explains the simple steps you can take to protect you and your family by reducing your exposure to lead in drinking water.

(B) HEALTH EFFECTS OF LEAD. Lead is a common metal found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery porcelain and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination -- like dirt and dust -- that rarely affect an adult. It is important to wash children's hands and toys often, and to try to make sure they only put food in their mouths.

(C) LEAD IN DRINKING WATER

1. Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposure of infants who drink baby formulas and concentrated juices that are mixed with water. The U.S.

Environmental Protection Agency estimates that drinking water can make up 20 percent or more of a person's total exposure to lead.

2. Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome plated brass faucets, and in some cases, pipes made of lead that connect your house to the water main (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials to 8.0%. In California, a similar law prohibiting the use of both lead solder and lead pipe was enacted in 1985.

3. When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon after returning from work or school, can contain fairly high levels of lead.

(D) STEPS YOU CAN TAKE IN THE HOME TO REDUCE EXPOSURE TO LEAD IN DRINKING WATER

1. Despite our best efforts mentioned earlier to control water corrosivity and remove lead from the water supply, lead levels in some homes or buildings can be high. To find out whether you need to take action in your own home, have your drinking water tested to determine if it contains excessive concentrations of lead. Testing the water is essential because you cannot see, taste, or smell lead in drinking water. Some local laboratories that can provide this service are listed at the end of this booklet. For more information on having your water tested, please call [insert phone number of water system].

2. If a water test indicates that the drinking water drawn from a tap in your home contains lead above 15 ppb, then you should take the following precautions:

A. Let the water run from the tap before using it for drinking or cooking any time the water in a faucet has gone unused for more than six hours. The longer water resides in your home's plumbing the more lead it may contain. Flushing the tap means running the cold water faucet until the water gets noticeably colder, usually about 15 to 30 seconds. If your house has a lead service line to the water main, you may have to flush the water for a longer time, perhaps one minute, before drinking. Although toilet flushing or showering flushes water through a portion of your home's plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your family's health. It usually uses less than one or two gallons of water and costs less than [insert a cost estimate based on flushing two times a day for 30 days] per month. To conserve water, fill a couple of bottles for drinking water after flushing the tap, and whenever possible use the first flush water to wash the dishes or water the plants. If you live in a high-rise building, letting the water flow before using it may not work to

lessen your risk from lead. The plumbing systems have more, and sometimes larger pipes than smaller buildings. Ask your landlord for help in locating the source of the lead and for advice on reducing the lead level.

B. Try not to cook with, or drink water from the hot water tap. Hot water can dissolve more lead more quickly than cold water. If you need hot water, draw water from the cold tap and heat it on the stove.

C. Remove loose lead solder and debris from the plumbing materials installed in newly constructed homes, or homes in which the plumbing has recently been replaced, by removing the faucet strainers from all taps and running the water from 3 to 5 minutes. Thereafter, periodically remove the strainers and flush out any debris that has accumulated over time.

D. If your copper pipes are joined with lead solder that has been installed illegally since it was banned in 1986, notify the plumber who did the work and request that he or she replace the lead solder with lead-free solder. Lead solder looks dull gray, and when scratched with a key looks shiny. In addition, notify the California Department of Health Services and your local environmental health department about the violation.

E. Determine whether or not the service line that connects your home or apartment to the water main is made of lead. The best way to determine if your service line is made of lead is by either hiring a licensed plumber to inspect the line or by contacting the plumbing contractor who installed the line. You can identify the plumbing contractor by checking the record of building permits which should be maintained in the files of the [insert name of department that issues building permits]. A licensed plumber can at the same time check to see if your home's plumbing contains lead solder, lead pipes, or pipe fittings that contain lead. The public water system that delivers water to your home should also maintain records of the materials located in the distribution system. If the service line that connects your dwelling to the water main contributes more than 15 ppb to drinking water, after our comprehensive treatment program is in place, we are required to replace the line. If the line is only partially controlled by the [insert name of the city, county, or water system that controls the line], we are required to provide you with information on how to replace your portion of the service line, and offer to replace that portion of the line at your expense and take a follow-up tap water sample within 14 days of the replacement. Acceptable replacement alternatives include copper, steel, iron, and plastic pipes.

F. Have an electrician check your wiring. If grounding wires from the electrical system are attached to your pipes, corrosion may be greater. Check with a licensed electrician or your local electrical code to determine if your wiring can be grounded elsewhere. DO NOT attempt to change the wiring yourself because improper grounding can cause electrical shock and fire hazards.

3. The steps described above will reduce the lead concentrations in your drinking water. However, if a water test indicates that the drinking water coming from your

tap contains lead concentrations in excess of 15 ppb after flushing, or after we have completed our actions to minimize lead levels, then you may want to take the following additional measures:

A. Purchase or lease a home treatment device. Home treatment devices are limited in that each unit treats only the water that flows from the faucet to which it is connected, and all of the devices require periodic maintenance and replacement. Devices such as reverse osmosis systems or distillers can effectively remove lead from your drinking water. Since these treatments remove dissolved minerals, water treated by these devices will have a greater tendency to leach lead from brass faucets or fittings which the water contacts after treatment. Some activated carbon filters may reduce lead levels at the tap, however all lead reduction claims should be investigated. Be sure to check the actual performance of a specific home treatment device before and after installing the unit. The California Department of Health Services certifies the effectiveness of home treatment devices. Only devices certified by the California Department of Health Services to remove lead should be used for this purpose.

B. Purchase bottled water for drinking and cooking.

4. You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. State and local government agencies that can be contacted include:

A. [insert the name of city or county department of public utilities] at [insert phone number] can provide you with information about your community's water supply, and a list of local laboratories that have been certified by the California Department of Health Services for testing water quality;

B. [insert the name of city or county department that issues building permits] at [insert phone number] can provide you with information about building permit records that should contain the names of plumbing contractors that plumbed your home; and

C. California Department of Health Services, Childhood Lead Poisoning Prevention Branch at [insert the phone number] or the [insert the name of the city or county health department] at [insert phone number] can provide you with information about the health effects of lead and how you can have your child's blood tested.

5. The following is a list of some state approved laboratories in your area that you can call to have your water tested for lead. [Insert names and phone numbers of at least two laboratories].

(2) A water system shall include the following information in all public service announcements submitted under its lead public education program to television and radio stations for broadcasting:

(A) Why should everyone want to know the facts about lead and drinking water? Because unhealthy amounts of lead can enter drinking water through the plumbing in your home. That's why I urge you to do what I did. I had my water tested for [insert free or cost per sample]. You can contact the [insert the name of the city or water system] for information on testing and on simple ways to reduce your exposure to lead in drinking water.

(B) To have your water tested for lead, or to get more information about this public health concern, please call [insert the phone number of the city or water system].

(b) The water system shall conform with the following requirements concerning delivery of the public education program.

(1) In communities where a significant proportion of the population speaks a language other than English, public education materials shall be communicated in the appropriate language(s).

(2) A community water system that exceeds the lead action level on the basis of tap water samples collected in accordance with Sections 64682 through 64685 shall, within 60 days:

(A) insert notices in each customer's water utility bill containing the information in paragraph (a)(1), along with the following alert on the water bill itself in large print: "SOME HOMES IN THIS COMMUNITY HAVE ELEVATED LEAD LEVELS IN THEIR DRINKING WATER. LEAD CAN POSE A SIGNIFICANT RISK TO YOUR HEALTH. PLEASE READ THE ENCLOSED NOTICE FOR FURTHER INFORMATION."

(B) submit the information in paragraph (a)(1) to the editorial departments of the major daily and weekly newspapers circulated throughout the community.

(C) deliver pamphlets and/or brochures that contain the public education materials in subparagraphs (a)(1)(B) and (D) to facilities and organizations, including the following:

1. Public schools and/or local school boards;
2. City or county health department;
3. Women, Infants, and Children and/or Head Start Program(s) whenever available;
4. Public and private hospitals and/or clinics;
5. Pediatricians;
6. Family planning clinics; and

7. Local welfare agencies.

(D) Submit the public service announcement in paragraph (a)(2) to at least five of the radio and television stations with the largest audiences that broadcast to the community served by the water system.

(3) A community water system shall repeat the tasks contained in subparagraphs (b)(2)(A),(B) and (C) every 12 months, and the tasks contained in subparagraph (b)(2)(D) every 6 months for as long as the system exceeds the lead action level.

(4) Within 60 days after it exceeds the lead action level, a non-transient non-community water system shall deliver the public education materials contained in subparagraphs (a)(1)(A), (B), and (D) as follows:

(A) Post informational posters on lead in drinking water in a public place or common area in each of the buildings served by the system; and

(B) Distribute informational pamphlets and/or brochures on lead in drinking water to each person served by the system.

(5) A non-transient noncommunity water system shall repeat the tasks contained in paragraph (b)(4) at least once during each calendar year in which the system exceeds the lead action level.

(6) A water system may discontinue delivery of public education materials if the system does not exceed the lead action level during the most recent six-month monitoring period conducted pursuant to Sections 64682 through 64685. Such a system shall recommence public education in accordance with this section if it subsequently exceeds the lead action level during any monitoring period.

Section 64681. Supplemental monitoring

A water system that exceeds the lead action level on the basis of tap samples collected in accordance with Sections 64682 through 64685 shall offer to sample the tap water of any customer who requests it. The system is not required to pay for collecting or analyzing the sample. The system may fulfill this requirement by arranging for an independent laboratory to collect and analyze the sample.

ARTICLE 6. MONITORING REQUIREMENTS FOR LEAD AND COPPER IN TAP WATER

Section 64682. Sample site location

(a) By the applicable date for commencement of monitoring under Section 64684(b),

each water system shall complete a materials evaluation of its distribution system in order to identify a pool of targeted sampling sites that meets the requirements of this article, and which is sufficiently large to ensure that the water system can collect the number of lead and copper tap samples required in Section 64684(a). All sites from which first draw samples are collected shall be selected from this pool of targeted sampling sites. Sampling sites shall not include faucets that have point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants.

(b) A water system shall use existing information on lead, copper, and galvanized steel construction materials present in their distribution systems when conducting a materials evaluation. When an evaluation of the distribution system construction materials information is insufficient to locate the requisite number of lead and copper sampling sites that meet the targeting criteria in this Section, the water system shall review the sources of information listed below in order to identify a sufficient number of sampling sites. In addition, the system shall seek to collect such information where possible in the course of its normal operations (e.g., checking service line materials when reading water meters or performing maintenance activities):

(1) All plumbing codes, permits, and records in the files of the building department(s) which indicate the plumbing materials that are installed within publicly and privately owned structures connected to the distribution system;

(2) All inspections and records of the distribution system that indicate the material composition of the service connections that connect a structure to the distribution system; and

(3) All existing water quality information, which includes the results of all prior analyses of the system or individual structures connected to the system, indicating locations that may be particularly susceptible to high lead or copper concentrations.

(c) Each community water system shall identify a sampling pool of "tier 1 sampling sites" consisting of single-family structures except that, when multiple-family residences comprise at least 20 percent of the structures served by a water system, the system may include these types of structures in its sampling pool. The sampling sites shall:

(1) Contain copper pipes with lead solder installed after 1982; or

(2) Contain lead pipes; or

(3) Be served by a lead service line.

(d) Each community water system with insufficient tier 1 sampling sites shall complete its sampling pool with "tier 2 sampling sites," consisting of buildings, including multiple-family residences that:

(1) Contain copper pipes with lead solder installed after 1982; or

- (2) Contain lead pipes; or
- (3) Are served by a lead service line.

(e) Each community water system with insufficient tier 1 and tier 2 sampling sites shall complete its sampling pool with "tier 3 sampling sites," consisting of single-family structures that contain copper pipes with lead solder installed before 1983.

(f) Each non-transient non-community water system shall identify a pool of "tier 1 sampling sites" consisting of buildings that:

- (1) Contain copper pipes with lead solder installed after 1982; or
- (2) Contain lead pipes; or
- (3) Are served by a lead service line.

(g) Each non-transient non-community water system with insufficient tier 1 sampling sites that meet the targeting criteria in subsection (f) shall complete its sampling pool with sampling sites that contain copper pipes with lead solder installed before 1983.

(h) Each water system whose sampling pool does not consist exclusively of tier 1 sites shall demonstrate to the Department under Section 64691(a)(2) why a review of the information listed in subsection (b) was inadequate to locate a sufficient number of tier 1 sites. Each community water system which includes tier 3 sampling sites in its sampling pool shall demonstrate why it was unable to locate a sufficient number of tier 1 and tier 2 sampling sites.

(i) Each water system whose distribution system contains lead service lines shall draw 50 percent of the samples it collects during each monitoring period from sites that contain lead pipes, or copper pipes with lead solder, and 50 percent of those samples from sites served by a lead service line. A water system that cannot identify a sufficient number of sampling sites served by a lead service line shall demonstrate to the Department pursuant to Section 64691(a)(4) why the system was unable to locate a sufficient number of such sites. Such a water system shall collect first draw samples from all of the sites identified as being served by such lines.

Section 64683. Sample collection methods

(a) All tap samples for lead and copper collected in accordance with this chapter, with the exception of lead service line samples collected under Section 64679(c), shall be first draw samples.

(b) Each first-draw tap sample for lead and copper shall be one liter in volume and have stood motionless in the plumbing system of each sampling site for at least six hours. First draw samples from residential housing shall be collected from the cold-water kitchen tap or bathroom sink tap. First-draw samples from a non-residential building shall be collected at an

interior tap from which water is typically drawn for consumption. First draw samples may be collected by the system or the system may allow residents to collect first draw samples after instructing the residents of the sampling procedures specified in this section. If the sample is not acidified immediately after collection, then the sample must stand in the original container for at least 28 hours after acidification. If a system allows residents to perform sampling, the system may not challenge, based on alleged errors in sample collection, the accuracy of sampling results.

(c) Each service line sample shall be one liter in volume and have stood motionless in the lead service line for at least six hours. Lead service line samples shall be collected in one of the following three ways:

(1) At the tap after flushing the volume of water between the tap and the lead service line. The volume of water shall be calculated based on the interior diameter and length of the pipe between the tap and the lead service line;

(2) Tapping directly into the lead service line; or

(3) If the sampling site is a building constructed as a single-family residence, allowing the water to run until there is a significant change in temperature which would be indicative of water that has been standing in the lead service line.

(d) A water system shall collect each first draw tap sample from the same sampling site from which it collected a previous sample. If the water system cannot gain entry to a sampling site in order to collect a follow-up tap sample, the system may collect the follow-up tap sample from another sampling site in its sampling pool as long as the new site meets the same targeting criteria, and is within proximity of the original site.

Section 64684. Sampling requirements for standard and reduced monitoring

(a) Each water system conducting standard monitoring shall collect at least one sample during each monitoring period specified in subsection (b) and Section 64685(a),(b),(c) and (d), based on the number of people served, from at least the number of sites specified in Table 64684 (Standard Monitoring). Each water system conducting reduced monitoring under Section 64685(c and d) shall collect at least one sample during each monitoring period specified in Section 64685(c and d), based on the number of people served, from at least the number of sites specified in Table 64684 (Reduced Monitoring).

Table 64684
Lead and Copper Tap Sampling Sites

<i>System Size</i>	<i>Number of Sites</i>	<i>Number of sites</i>
<i>(Number People Served)</i>	<i>(Standard Monitoring)</i>	<i>(Reduced Monitoring)</i>
>100,000	100	50
10,001 to 100,000	60	30
3,301 to 10,000	40	20
501 to 3,300	20	10
101 to 500	10	5
101<	5	5

(b) The first six-month monitoring period for small, medium and large size systems shall begin not later than January 1, 1996.

(1) Each large system shall monitor during two consecutive six-month periods.

(2) Each small and medium-size system shall monitor during each six-month monitoring period until:

(A) The system exceeds the lead or copper action level and is therefore required to implement the corrosion control treatment requirements under Sections 64673 through 64675, in which case the system shall continue monitoring in accordance with Section 64685(a), or

(B) The system does not exceed the lead and copper action levels during two consecutive six-month monitoring periods, in which case the system may reduce monitoring in accordance with Section 64685(c) and (d).

Section 64685. Monitoring requirements after installation of corrosion control and source water treatment

(a) Each water system shall conduct tap sampling after installing optimal corrosion control treatment or source water treatment.

(1) Each large system which installs optimal corrosion control treatment pursuant to Section 64674(a)(7) shall monitor during two consecutive six-month monitoring periods by July 1, 1999.

(2) Each small or medium-size system which installs optimal corrosion control treatment pursuant to Section 64675(a)(6) shall monitor during two consecutive six-month monitoring periods by the date specified in Section 64675(a)(7).

(3) Each system which installs source water treatment pursuant to Section 64677(c) shall monitor during two consecutive six-month monitoring periods by the date specified in Section 64677(d).

(b) The system shall monitor tap sampling during each six-month monitoring period, commencing when the Department specifies the values for water quality control parameters for optimal corrosion control under Section 64676(f).

(c) Generally applicable criteria for reduced monitoring are as follows:

(1) Each water system that maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the Department under Section 64676(f) during each of two consecutive six-month monitoring periods may request that the Department allow the system to reduce the frequency of monitoring to once per year and to reduce the number of lead and copper samples in accordance with Table 64684.

(2) A water system that maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the Department under Section 64676(f) during three consecutive years of monitoring may request that the Department allow the system to reduce the frequency of monitoring from annually to once every three years.

(3) When the system submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available, including changes in water source, water treatment, or distribution system changes, the Department shall review, and where appropriate revise its determination on reduced monitoring frequency. The Department shall make its decision in writing setting forth the basis for its determination.

(4) Each water system that reduces the number and frequency of sampling shall collect these samples from sites included in the pool of targeted sampling sites identified in Section 64682. Systems sampling annually or less frequently shall conduct the lead and copper tap sampling during the months of June, July, August, or September.

(d) Additional options for reduced monitoring for small and medium-size water systems are:

(1) Each system that does not exceed the lead and copper action levels during each of two consecutive six-month monitoring periods may reduce the number of samples in accordance with Table 64684, and reduce the frequency of sampling to once per year.

(2) Each system that does not exceed the lead and copper action levels during three consecutive years of monitoring periods may reduce the frequency of monitoring for lead and copper from annually to once every three years.

(3) Each small or medium-size water system that exceeds the lead or copper action level shall resume sampling in accordance with subsection (b) and collect the number of samples specified for standard monitoring under Table 64684. The system shall also conduct water quality parameter monitoring in accordance with Section 64687 or 64688 during the monitoring period in which it exceeded the action level.

(4) Each water system that reduces the number and frequency of sampling shall collect these samples from sites included in the pool of targeted sampling sites identified in Section 64682. Systems sampling annually or less frequently shall conduct the lead and copper tap sampling during the months of June, July, August, or September.

(e) Each water system subject to reduced monitoring frequency that fails to operate within the range of values for the water quality parameters specified by the Department under Section 64676(f) shall resume tap sampling in accordance with subsection (b) and collect the number of samples specified for standard monitoring in Table 64684.

(f) The result of any monitoring conducted in addition to the minimum requirements of this Section shall be considered in making any determinations under this chapter, including calculating the 90th percentile lead or copper level.

ARTICLE 7. MONITORING REQUIREMENTS FOR WATER QUALITY PARAMETERS

Section 64686. Water quality parameters general requirements

(a) Each system that exceeds the lead or copper action level shall monitor water quality parameters.

(b) Each water system monitoring for water quality parameters shall collect samples using the following methods:

(1) Tap samples shall be representative of water quality throughout the distribution system taking into account the number of persons served, the different sources of water, the different treatment methods employed by the system, and seasonal variability. Tap sampling for water quality parameter monitoring under this article is not restricted to taps targeted for lead and copper sampling.

(2) Samples collected at the entry point(s) to the distribution system shall be from locations representative of each source after treatment. If a system draws water from more than one source and the sources are combined before distribution, the system shall sample at each entry point to the distribution system during periods of normal operating conditions.

(c) Each system shall, based on the number of persons served, collect two tap samples for applicable water quality parameters during each monitoring period specified under Sections

64687 (a) and 64688(a), (b) and (c) from the number of sites specified in Table 64686.

Table 64686
Water Quality Parameter Monitoring Sites

<i>System Size</i>	<i>Number of Sites</i>
<i>(Number of People Served)</i>	
>100,000	25
10,001 to 100,000	10
3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
101<	1

(d) Each systems shall collect two samples for each applicable water quality parameter at each entry point to the distribution system during each monitoring period specified in Section 64687(a).

(e) Each system shall collect one sample for each applicable water quality parameter at each entry point to the distribution system during each monitoring period specified in Section 64688.

Section 64687. Water quality parameters initial sampling

(a) Each large water system shall measure the applicable water quality parameters, as specified in subsections (b) and (c), at taps and at each entry point to the distribution system during each six-month monitoring period specified in Section 64684(b).

(b) Each small or medium-size system shall measure the applicable water quality parameters as specified in subsections (c) and (d) during each six-month monitoring period specified in Section 64684(b), only if the system exceeds the lead or copper action level.

(c) At taps the applicable parameters are:

- (1) pH;
- (2) Alkalinity;
- (3) Orthophosphate, when an inhibitor containing a phosphate compound is used;
- (4) Silica, when an inhibitor containing a silicate compound is used;
- (5) Calcium;

- (6) Conductivity; and
- (7) Water temperature.

(d) At each entry point to the distribution system the applicable parameters are those listed in subsection (c).

Section 64688. Monitoring requirements for water quality parameters

(a) Each large system which installs optimal corrosion control treatment pursuant to Section 64674(a)(7) shall measure the water quality parameters at the locations and frequencies specified below during each six-month monitoring period specified in Section 64685(a)(1). Each small or medium-size system which installs optimal corrosion control treatment shall conduct such monitoring during each six-month monitoring period specified in Section 64685(a)(2) in which the system exceeds the lead or copper action level.

- (1) At taps, two samples for:
 - (A) pH;
 - (B) Alkalinity;
 - (C) Orthophosphate, when an inhibitor containing a phosphate compound is used;
 - (D) Silica, when an inhibitor containing a silicate compound is used;
 - (E) Calcium, when calcium carbonate stabilization is used as part of corrosion control.
- (2) At each entry point to the distribution system, one sample every two weeks (bi-weekly) for:
 - (A) pH;
 - (B) When alkalinity is adjusted as part of optimal corrosion control, a reading of the dosage rate of the chemical used to adjust alkalinity, and the alkalinity concentration; and
 - (C) When a corrosion inhibitor is used as part of optimal corrosion control, a reading of the dosage rate of the inhibitor used, and the concentration of orthophosphate or silica (whichever is applicable).

- (b) After the Department specifies the values for applicable water quality control

parameters reflecting optimal corrosion control treatment under Section 64676(f), each large system shall measure the applicable water quality parameters in accordance with subsection (a) during each monitoring period specified in subsection 64685(b). Each small or medium-size system shall conduct such monitoring during each monitoring period specified in subsection 64685(b) in which the system exceeds the lead or copper action level. The system may take a confirmation sample for any water quality parameter value no later than 3 days after the first sample. If a confirmation sample is taken, the result shall be averaged with the first sampling result and the average shall be used for any compliance determinations under subsection 64676(g).

(c) A system seeking reduced monitoring for water quality parameters is subject to the following criteria and conditions:

(1) A water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment during each of two consecutive six-month monitoring periods under subsection (b) shall continue monitoring at the entry point(s) to the distribution system as specified in Section 64688(a)(2). Such system may based on the population served, collect two tap samples for applicable water quality parameters from the following reduced number of sites specified in Table 64688 during each six-month monitoring period.

Table 64688
Reduced Water Quality Parameter Sampling

<i>System Size</i>	<i>Number of Sites</i>
<i>(Number People Served)</i>	
>100,000	10
10,001 to 100,000	7
3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
101<	1

(2) A water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the Department under subsection 64676(f) during three consecutive years of monitoring may reduce the frequency with which it collects the number of tap samples for applicable water quality parameters specified in paragraph (c)(1) from every six months to annually. Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified in subsection 64676(f) during three consecutive years of annual monitoring under this Section may reduce the frequency with which it collects the number of tap samples for applicable water quality parameters specified in paragraph (c) (1) from annually to every three years.

(3) Each water system that conducts sampling annually shall collect these samples evenly throughout the year so as to reflect seasonal variability.

(4) Each water system subject to reduced monitoring frequency that fails to operate within the range of values for the water quality parameters specified by the Department under Section 64676(f) shall resume tap water sampling in accordance with the number and frequency requirements in subsection (b).

(d) The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and submitted to the Department for making any determinations (i.e., determining concentrations of water quality parameters) under Sections 64686 through 64688 or Section 64676.

ARTICLE 8. MONITORING REQUIREMENTS FOR LEAD AND COPPER IN SOURCE WATER

Section 64689. Source water sample location, collection methods, and number of samples

(a) A water system that exceeds the lead or copper action level on the basis of tap samples collected in accordance with Article 6 shall collect lead and copper source water samples in accordance with Sections 64690(a) and (b).

(b) If the results of sampling indicate an exceedance of the maximum permissible source water levels established under Section 64678(d), one additional sample may be collected at the same sampling point within 14 days of the initial sample, to confirm the result. If a confirmation sample is taken for lead or copper, then the results of the initial and confirmation sample shall be averaged in determining compliance with the maximum permissible levels. Any analytical results below the detection limit for purposes of reporting shall be considered to be zero.

Section 64690. Source water monitoring frequency requirements

(a) Each system which exceeds the lead or copper action level at the tap shall collect one source water sample from each entry point to the distribution system within six months after the exceedance.

(b) Each system which installs source water treatment pursuant to Section 64677(c) shall collect an additional source water sample from each entry point to the distribution system during two consecutive six-month monitoring periods by the deadline specified in Section 64677(d).

(c) After the Department specifies maximum permissible source water levels or determines that source water treatment is not needed, the following monitoring frequency applies:

(1) In cases where the Department specifies maximum permissible source water levels under Section 64678(d) or determines that the system is not required to install source water treatment under Section 64678(b), the system shall monitor as follows:

(A) If the system uses only groundwater, the system shall collect samples once during the three-year compliance period (as that term is defined in Section 64400.30) in effect when the applicable Department determination under paragraph (c)(1) is made. Such systems shall collect samples once during each subsequent compliance period.

(B) If the system uses surface water, or a combination of surface and groundwater, the system shall collect samples once during each year. The first annual monitoring period for such systems shall begin on the date on which the applicable Department determination is made under paragraph (c)(1) of this Section.

(2) A system is not required to conduct source water sampling for lead and/or copper if the system does not exceed the action level for the specific contaminant in tap water samples during the entire source water sampling period applicable to the system under paragraph (c)(1)(A) or (B).

(d) A water system may reduce the frequency of source water monitoring in the following cases:

(1) Each system using only groundwater which demonstrates that the treated drinking water entering the distribution system has been maintained below the maximum permissible lead and/or copper concentrations specified by the Department in Section 64678(d) during at least three consecutive compliance periods under paragraph (c)(1) of this section, may reduce the monitoring frequency for lead and/or copper to once during each nine-year compliance cycle (as that term is defined in Section 64400.20).

(2) Each water system using surface water, or a combination of surface and ground waters, which demonstrates that the treated drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations pursuant to Section 64678(d) for at least three consecutive years, may reduce the monitoring frequency in paragraph (c)(1) of this section to once during each nine-year compliance cycle (as that term is defined in Section 64400.20).

(e) Each water system that uses a new source of water shall not be eligible for reduced monitoring for lead and/or copper until concentrations in samples collected from the new source during three consecutive monitoring periods are below the maximum permissible lead and copper concentrations specified by the Department in Section 64678(d).

ARTICLE 9. REPORTING AND RECORDKEEPING REQUIREMENTS

Section 64691. Reporting requirements

(a) Reporting requirements for tap water monitoring for lead and copper and for water quality parameter monitoring are as follows:

(1) Each water system shall report the information specified below for all tap water samples within the first 10 days following the end of each applicable monitoring period specified in Articles 6, 7, and 8.

(A) The results of all tap samples for lead and copper including the location of each site and the tier criteria from Section 64682 under which the site was selected for the system's sampling pool;

(B) A certification that each first draw sample collected by the water system was one-liter in volume and stood motionless in the service line, or in the interior plumbing of a sampling site, for at least six hours;

(C) Where residents collected samples, a certification that each tap sample collected by the residents was taken after the water system informed them of proper sampling procedures specified in Section 64683(b);

(D) The 90th percentile lead and copper concentrations measured from among all lead and copper tap water samples collected during each monitoring period calculated in accordance with Section 64672.3(c);

(E) With the exception of initial tap sampling conducted pursuant to Section 64684(b), the system shall designate any site which was not sampled during previous monitoring periods, and include an explanation of why sampling sites have changed;

(F) The results of all tap samples for pH and, where applicable, alkalinity, calcium, conductivity, temperature, and orthophosphate or silica collected under Sections 64687 and 64688;

(G) The results of all samples collected at the point(s) to the distribution system entry for applicable water quality parameters under Sections 64687 and 64688.

(2) By January 1, 1997 each community water system which does not complete its targeted sampling pool with tier 1 sampling sites meeting the criteria in Section 64682(c) shall justify to the Department in writing its selection of tier 2 and tier 3 sampling sites under Section 64682(d) and (e).

(3) By January 1, 1997, each non-transient, non-community water system which does not complete its sampling pool with tier 1 sampling sites meeting the criteria in Section 64682(f) shall justify to the Department in writing its selection of sampling sites under Section 64682(g).

(4) By January 1, 1997, each water system with lead service lines that is not able to locate the number of sites served by such lines required under Section 64682(i) shall justify to the Department in writing why it was unable to locate a sufficient number of such sites based upon the information listed in Section 64682(b).

(5) Each water system that requests that the Department reduce the number and frequency of sampling shall provide the information required under Section 64685(c).

(b) Reporting requirements for source water monitoring are as follows:

(1) Each water system shall report the sampling results for all source water samples collected in accordance with Article 8 within the first 10 days following the month in which the sample result was received.

(2) With the exception of the first round of source water sampling conducted pursuant to Section 64690(a), the system shall specify any site which was not sampled during previous monitoring periods, and include an explanation of why the sampling point has changed.

(c) By the applicable dates under Sections 64674 and 64675, systems shall report the following information related to corrosion control treatment:

(1) For systems demonstrating that they have already optimized corrosion control, information required in Section 64673(b)(2) or (3).

(2) For systems required to optimize corrosion control, their recommendation regarding optimal corrosion control treatment under Section 64676(a).

(3) For systems required to evaluate the effectiveness of corrosion control treatments under Section 64676(c), the information required therein.

(4) For systems required to install optimal corrosion control designated by the Department under Section 64676(d), a letter certifying that the system has completed installing that treatment.

(d) By the applicable dates in Article 3, systems shall provide the following information to the Department related to source water treatment:

(1) If required under Section 64678(a), the system's recommendation regarding source water treatment;

(2) For systems required to install source water treatment under Section 64678(b), a letter certifying that the system has completed installing the treatment designated by the Department within 24 months after the Department designated the treatment.

(e) Systems shall report the following information to the Department to demonstrate

compliance with the requirements of Article 4 related to lead service line replacement:

(1) Within 12 months after a system exceeds the lead action level in sampling referred to in Section 64679(a), the system shall demonstrate that it has conducted a materials evaluation, including the evaluation set forth in Section 64682, to identify the initial number of lead service lines in its distribution system, and shall provide the system's schedule for replacing annually at least 7 percent of the initial number of lead service lines in its distribution system.

(2) Within 12 months after a system exceeds the lead action level in sampling referred to in Section 64679(a), and every 12 months thereafter, the system shall demonstrate that the system has either:

(A) Replaced in the previous 12 months at least 7 percent of the initial lead service lines, or a greater number of lines if specified by the Department under Section 64679(f), in its distribution system, or

(B) Conducted sampling which demonstrates that the lead concentration in all service line samples from an individual line(s), taken pursuant to Section 64683(c), is less than or equal to 0.015 mg/L. In such cases, the total number of lines replaced and/or which meet the criteria in Section 64679(c) shall equal at least 7 percent of the initial number of lead lines identified under subsection (a) of this section (or the percentage specified by the Department under Section 64679(f)).

(3) The annual letter submitted to the Department under paragraph (e)(2) of this section shall contain the following information:

(A) The number of lead service lines scheduled to be replaced during the previous year of the system's replacement schedule;

(B) The number and location of each lead service line replaced during the previous year of the system's replacement schedule;

(C) If measured, the water lead concentration and location of each lead service line sampled, the sampling method, and the date of sampling.

(4) As soon as practicable, but in no case later than three months after a system exceeds the lead action level in sampling referred to in Section 64679(a), any system seeking to rebut the presumption that it has control over the entire lead service line pursuant to Section 64679(d) shall submit a letter to the Department describing the legal authority (e.g., statutes, municipal ordinances, public service contracts or other applicable legal authority) which limits the system's control over the service lines and the extent of the system's control.

(f) By December 31st of each year, each water system that is subject to the public education requirements in Article 5 shall submit a letter to the Department demonstrating that the system has delivered the public education materials that meet the content requirements in Section

64680(a) and (b) and the delivery requirements in subsection 64680(b). This information shall include a list of all the newspapers, radio stations, television stations, facilities and organizations to which the system delivered public education materials during the previous year. The water system shall submit the letter required by this paragraph annually for as long as it exceeds the lead action level.

(g) Each system which collects sampling data related to optimized corrosion control in addition to the minimum required by this chapter shall report the additional sampling results to the Department within 10 days after the end of the applicable monitoring period under Articles 6, 7, and 8 during which the samples are collected.

Section 64692. Recordkeeping requirements

Any system subject to the requirements of this chapter shall retain on its premises original records of all sampling data and analyses, reports, surveys, letters, evaluations, schedules, Department determinations, and any other information required by this chapter. Each water system shall retain the records required by this section for no fewer than 12 years or two compliance cycles (as defined in Section 64400.20), whichever is longer.

CHAPTER 18. DRINKING WATER ADDITIVES

ARTICLE 1. REQUIREMENTS

Section 64700. Direct additives

(a) No chemical or product shall be added to drinking water by a water supplier as part of the treatment process after January 1, 1994 unless the chemical or product has been tested and certified as meeting the specifications of American National Standard Institute/National Sanitation Foundation Standard 60, ANSI/NSF 60, as amended October, 1988 (Drinking Water Treatment Chemicals--Health Effects). This requirement shall be met under testing conducted by a product certification organization accredited for this purpose by the American National Standards Institute.

(b) Any contract for the purchase of chemicals or products which was signed by a public water system and which was effective prior to January 1, 1994 shall be exempt from the provisions of subsection (a) until January 1, 1995.

Section 64710. Exception

A water supplier may use a chemical, material or product that has not been certified pursuant to Section 64700 or Section 64705 if the chemical, material or product is in the process of being tested and certified and there are no certified alternatives. Prior to use of an uncertified chemical, material or product, the water supplier shall provide the Department with an explanation of the need for the chemical, material or product; the date that the chemical, material or product was

submitted for testing; the name of the accredited product certification organization conducting the testing; and a statement that certified alternatives are not available.

ADDENDUM 1

CFR on Trihalomethanes

40 CFR

Section 141.12 Maximum contaminant levels for organic chemicals

The following are the maximum contaminant levels for organic chemicals. The maximum contaminant levels for organic chemicals in paragraph (a) of this section apply to all community water systems. Compliance with the maximum contaminant level in paragraph (a) of this section is calculated pursuant to Section 141.24. The maximum contaminant level for total trihalomethanes in paragraph (c) of this section applies only to community water systems which serve a population of 10,000 or more individuals and which add a disinfectant (oxidant) to the water in any part of the drinking water treatment process. Compliance with the maximum contaminant level for total trihalomethanes is calculated pursuant to Section 141.30.

	<i>Level, milligrams per liter</i>
(a) [Reserved]	
(b) [Reserved]	
(c) Total trihalomethanes (the sum of the concentrations of bromodichloromethane, dibromochloromethane, tribromomethane (bromoform) and trichloromethane (chloroform)).	0.10

Section 141.30 Total trihalomethanes sampling, analytical and other requirements

(a) Community water system which serve a population of 10,000 or more individuals and which add a disinfectant (oxidant) to the water in any part of the drinking water treatment process shall analyze for total trihalomethanes in accordance with this section. For systems serving 75,000 or more individuals, sampling and analyses shall begin not later than 1 year after the date of promulgation of this regulation. For systems serving 10,000 to 74,999 individuals, sampling and analyses shall begin not later than 3 years after the date of promulgation of this regulation. For the purpose of this section, the minimum number of samples required to be taken by the system shall be based on the number of treatment plants used by the system, except that multiple wells drawing raw water from a single aquifer may, with the State approval, be considered one treatment plant for determining the minimum number of samples. All samples taken within an established frequency shall be collected within a 24-hour period.

(b) (1) For all community water systems utilizing surface water sources in whole or in part, and for all community water systems utilizing only ground water sources that have not been determined by the State to qualify for the monitoring requirements of paragraph (c) of this

section, analyses for total trihalomethanes shall be performed at quarterly intervals on at least four water samples for each treatment plant used by the system. At least 25 percent of the samples shall be taken at locations within the distribution system reflecting the maximum residence time of the water in the system. The remaining 75 percent shall be taken at representative locations in the distribution system, taking into account number of persons served, different sources of water and different treatment methods employed. The results of all analyses per quarter shall be arithmetically averaged and reported to the State within 30 days of the system's receipt of such results. Results shall also be reported to EPA until such monitoring requirements have been adopted by the State. All samples collected shall be used in the computation of the average, unless the analytical results are invalidated for technical reasons. Sampling and analyses shall be conducted in accordance with the methods listed in paragraph (e) of this section.

(2) Upon the written request of a community water system, the monitoring frequency required by paragraph (b)(1) of this section may be reduced by the State to a minimum of one sample analyzed for TTHMs per quarter taken at a point in the distribution system reflecting the maximum residence time of the water in the system, upon a written determination by the State that the data from at least 1 year of monitoring in accordance with paragraph (b)(1) of this section and local conditions demonstrate that total trihalomethane concentrations will be consistently below the maximum contaminant level.

(3) If at any time during which the reduced monitoring frequency prescribed under this paragraph applies, the results from any analysis exceed 0.10 mg/l of TTHMs and such results are confirmed by at least one check sample taken promptly after such results are received, or if the system makes any significant change to its source of water or treatment program, the system shall immediately begin monitoring in accordance with the requirements of paragraph (b)(1) of this section, which monitoring shall continue for at least 1 year before the frequency may be reduced again. At the option of the State, a system's monitoring frequency may and should be increased above the minimum in those cases where it is necessary to detect variations of TTHM levels within the distribution system.

(c) (1) Upon written request to the State, a community water system utilizing only ground water sources may seek to have the monitoring frequency required by paragraph (b)(1) of this section reduced to a minimum of one sample for maximum TTHM potential per year for each treatment plant used by the system taken at a point in the distribution system reflecting maximum residence time of the water in the system. The system shall submit the results of at least one sample for maximum TTHM potential using the procedure specified in paragraph (g) of this section. A sample must be analyzed from each treatment plant used by the system and be taken at a point in the distribution system reflecting the maximum residence time of the water in the system. The system's monitoring frequency may only be reduced upon a written determination by the State that, based upon the data submitted by the system, the system has a maximum TTHM potential of less than 0.10 mg/l and that, based upon an assessment of the local conditions of the system, the system is not likely to approach or exceed the maximum contaminant level for total TTHMs. The results of all analyses shall be reported to the State within 30 days of the system's receipt of such results. Results shall also be reported to EPA until such monitoring requirements have been adopted by the State. All samples collected shall be used for determining whether the

system must comply with the monitoring requirements of paragraph (b) of this section, unless the analytical results are invalidated for technical reasons. Sampling and analyses shall be conducted in accordance with the methods listed in paragraph (e) of this section.

(2) If at any time during which the reduced monitoring frequency prescribed under paragraph (c)(1) of this section applies, the results from any analysis taken by the system for maximum TTHM potential are equal to or greater than 0.10 mg/l, and such results are confirmed by at least one check sample taken promptly after such results are received, the system shall immediately begin monitoring in accordance with the requirements of paragraph (b) of this section and such monitoring shall continue for at least one year before the frequency may be reduced again. In the event of any significant change to the system's raw water or treatment program, the system shall immediately analyze an additional sample for maximum TTHM potential taken at a point in the distribution system reflecting maximum residence time of the water in the system for the purpose of determining whether the system must comply with the monitoring requirements of paragraph (b) of this section. At the option of the State, monitoring frequencies may and should be increased above the minimum in those cases where this is necessary to detect variation of TTHM levels within the distribution system.

(d) Compliance with Section 141.12(c) shall be determined based on a running annual average of quarterly samples collected by the system as prescribed in paragraph (b)(1) or (2) of this section. If the average of samples covering any 12 month period exceeds the Maximum Contaminant Level, the supplier of water shall report to the State pursuant to Section 141.31 and notify the public pursuant to Section 141.32. Monitoring after public notification shall be at a frequency designated by the State and shall continue until a monitoring schedule as a condition to a variance, exemption or enforcement action shall become effective.

(e) Sampling and analyses made pursuant to this section shall be conducted by one of the total trihalomethane methods as directed in Section 141.24(e), and the Technical Notes on Drinking Water Methods, EPA-600/R-94-173, October 1994, which is available from NTIS, PB-104766. Samples for TTHM shall be dechlorinated upon collection to prevent further production of trihalomethanes, according to the procedures described in the methods, except acidification is not required if only THMs or TTHMs are to be determined. Samples for maximum TTHM potential should not be dechlorinated or acidified, and should be held for seven days at 25C (or above) prior to analysis.

(f) Before a community water system makes any significant modifications to its existing treatment process for the purposes of achieving compliance with Section 141.12(c), such system must submit and obtain State approval of a detailed plan setting forth its proposed modification and those safeguards that it will implement to ensure that the bacteriological quality of the drinking water served by such system will not be adversely affected by such modification. Each system shall comply with the provisions set forth in the State-approved plan. At a minimum, a State approved plan shall require the system modifying its disinfection practice to:

(1) Evaluate the water system for sanitary defects and evaluate the source water for biological quality;

(2) Evaluate its existing treatment practices and consider improvements that will minimize disinfectant demand and optimize finished water quality throughout the distribution system;

(3) Provide baseline water quality survey data of the distribution system. Such data should include the results from monitoring for coliform and fecal coliform bacteria, fecal streptococci, standard plate counts at 35[degrees] C and 20[degrees] C, phosphate, ammonia nitrogen and total organic carbon. Virus studies should be required where source waters are heavily contaminated with sewage effluent;

(4) Conduct additional monitoring to assure continued maintenance of optimal biological quality in finished water, for example, when chloramines are introduced as disinfectants or when pre-chlorination is being discontinued. Additional monitoring should also be required by the State for chlorate, chlorite and chlorine dioxide when chlorine dioxide is used. Standard plate count analyses should also be required by the State as appropriate before and after any modifications;

(5) Consider inclusion in the plan of provisions to maintain an active disinfectant residual throughout the distribution system at all times during and after the modification.

(g) The water sample for determination of maximum total trihalomethane potential is taken from a point in the distribution system that reflects maximum residence time. Procedures for sample collection and handling are given in the methods. No reducing agent is added to "quench" the chemical reaction producing THMs at the time of sample collection. The intent is to permit the level of THM precursors to be depleted and the concentration of THMs to be maximized for the supply being tested. Four experimental parameters affecting maximum THM production are pH, temperature, reaction time and the presence of a disinfectant residual. These parameters are dealt with as follows: Measure the disinfectant residual at the selected sampling point. Proceed only if a measurable disinfectant residual is present. Collect triplicate 40 ml water samples at the pH prevailing at the time of sampling, and prepare a method blank according to the methods. Seal and store these samples together for seven days at 25 [degrees]C or above. After this time period, open one of the sample containers and check for disinfectant residual. Absence of a disinfectant residual invalidates the sample for further analysis. Once a disinfectant residual has been demonstrated, open another of the sealed samples and determine total THM concentration using an approved analytical method.

ADDENDUM 2

PUC Rule 103

INDEX

A		Monitoring.....	171
Acrylamide		Bacteriological Quality	
Notification	257	General Requirements.....	186
Acute risk		Barium	
Definition.....	180	BAT.....	222
Additives	331	Notification.....	239
Advisory committee		Basic design	260
Definition.....	110	Basic design of distribution reservoirs.....	269
Agricultural systems	42	Bentazon	
Air and vacuum relief and air release valves	275	BAT.....	224
Air-gap separation		DLR.....	217
Construction.....	136	MCL.....	214
Definition.....	134	Benzene	
Location.....	137	BAT.....	223
Alachlor		MCL.....	213
BAT.....	224	Notification.....	244
DLR.....	217	Benzo(a)pyrene	
MCL.....	214	BAT.....	224
Notification	249	DLR.....	217
Aluminum		MCL.....	214
BAT.....	222	Benzo[a]pyrene	
Secondary MCL	225	Notification.....	250
Annual report	233	Beryllium	
Antimony		BAT.....	222
BAT.....	222	Notification.....	240
Notification	239	Best Available Technologies (BAT) inorganic chemicals.....	222
Approved surface water			
Definition.....	277	C	
Approved water supply		Cadmium	
Definition.....	134	BAT.....	222
Arsenic		Notification.....	240
BAT.....	222	Carbofuran	
Asbestos		BAT.....	224
BAT.....	222	DLR.....	217
Monitoring and compliance.....	201	MCL.....	214
Notification	239	Notification.....	250
Atrazine		Carbon tetrachloride	
BAT.....	224	Notification.....	244
DLR.....	217	Carbon Tetrachloride	
MCL.....	214	BAT.....	223
Notification	250	MCL.....	213
Auxiliary water supply		Certificate	
Definition.....	134	Definition	110
AWWA standard		Certification	
Definition.....	134	Issuance of Certificates	129
		Issuance, Renewal, Suspension, Revocation ...	132
B		Types of.....	131
Backflow exception.....	59	Chemical quality monitoring	171
Backflow preventers		Chlordane	
Testing and maintenance.....	139	BAT.....	224
Bacteriological		DLR.....	217
Notification	259	MCL.....	214
Bacteriological quality		Notification.....	250

Chloride		DBCP	
Secondary MCL	226	BAT.....	224
Chromium		DLR.....	217
BAT.....	222	MCL.....	214
Notification	240	Notification.....	251
Citations	82	Definitions.	173
Civil penalties.....	85	Department	
Coagulant chemical		Definition	106, 145
Definition.....	277	Responsibilities	45
Coagulation		Department authority to adopt regulations	55
Definition.....	277	Detection limit for purposes of reporting.....	181
Color		Detection Limits for Purposes of Reporting (DLRs)	
Secondary MCL	225	for Regulate	217
Community water system		Di(2-ethylhexyl)adipate	
Definition.....	180	BAT.....	224
Compliance cycle		DLR.....	217
Definition.....	180	MCL.....	214
Compliance period		Notification.....	251
Definition.....	180	Di(2-ethylhexyl)phthalate	
Conditions for adding service connections.....	268	BAT.....	224
Confluent growth		DLR.....	217
Definition.....	180	MCL.....	214
Consumer confidence report.....	67	Notification.....	252
Contaminants		Diatomaceous earth	
Definition.....	106	Definition	277
Contract County authority	71	Dichlorobenzene	
Conventional filtration		BAT.....	223
Definition.....	277	MCL.....	213
Copper		Notification.....	244
Monitoring requirements for tap water	316	Dichloroethane	
Notification	241	BAT.....	223
Regulations start at.....	298	MCL.....	213
Secondary MCL	225	Notification.....	245
Corrosion control treatment requirements	302	Dichloroethylene	
Corrosion protection	270	BAT.....	223
Corrosivity		MCL.....	213
Secondary MCL	225	Notification.....	245
Cross-connection		Dichloromethane	
Program	135	BAT.....	223
Cross-Connection		MCL.....	213
Regulations at.....	134	Notification.....	246
Statutes at.....	104	Dichloropropane	
Cryptosporidium	47	BAT.....	223
CURFFL Exemption	41	MCL.....	213
Cyanide		Notification.....	246
BAT.....	222	Dichloropropene	
Notification	241	BAT.....	223
		Dinoseb	
D		BAT.....	224
Dalapon		DLR.....	217
BAT.....	224	MCL.....	214
DLR.....	217	Notification.....	252
MCL	214	Dioxin	
Notification	251	BAT.....	224

DLR	218
MCL	214
Notification	256
Diquat	
BAT	224
DLR	218
MCL	214
Notification	252
Direct enforcement by DHS.....	43
Direct filtration	
Definition.....	278
Disinfectant contact time	
Definition.....	278
Disinfection	
Definition.....	278
Distribution reservoirs	
Definition.....	140
Distribution Reservoirs	
Regulations at.....	269
DLR	
Definition.....	181
Domestic water quality and monitoring.....	180
Domestic Water Quality and Monitoring	
Definitions	180
Domestic water supply reservoir	
Definition.....	140
Regulations start at.....	140
Double check valve assembly	
Construction.....	137
Location	137
Double Check Valve Assembly	
Definition.....	134
Drinking Water Supplies.....	134
Drought relief loans	114
E	
EDB	
BAT	224
DLR	218
Notification	253
EDP	
MCL	214
Emergency Grant Fund.....	69
Emergency notification plan	67
Endothall	
BAT	224
DLR	218
MCL	214
Notification	252
Endrin	
BAT	224
DLR	218
MCL	214
Notification	252

Engineering report	
Definition	278
Epichlorohydrin	
Notification.....	257
Ethylbenzene	
BAT.....	223
MCL.....	213
Notification.....	246
Exemptions	
Public water systems	62
Extrapolation of data	155

F

Fees	
Application	132
At recreational reservoirs	35
Cross-connection control.....	104
Enforcement	77
Exemption	77
Litigation	77
Operating.....	74
Permit application.....	76
Plan review	77
Sunset January 2002	80
Variance	77
Waiver.....	77
Water treatment devices.....	108, 157
Water Treatment Plant Operator	30
Felonies	
Public water systems	86
Filter-to-waste	
Definition	278
Filtration	
Definition	278
Filtration avoidance criteria.....	281
Financial assurance	72
Fire hydrants	275
Fish and Game	88
Flocculation	
Definition	278
Fluoridation.....	201
Fluoride	
Optimal levels.....	203
Flushing valves and blowoffs	275
Foaming Agents	
Secondary MCL.....	225
G	
General requirements	186, 212
Giardia	47
Glyphosate	
BAT.....	224
DLR.....	218
MCL.....	214

Notification	253
Groundwater protection program	
Statute	120
Groundwater under the direct influence of surface water	278

H

Health Agency	
Definition	134
Health effects language	257
SOCs	249
Hearing	113
Heptachlor	
BAT	224
DLR	218
MCL	214
Notification	253
Heptachlor epoxide	
BAT	224
DLR	218
Notification	253
Hexachlorobenzene	
BAT	224
DLR	218
MCL	214
Notification	254
Hexachlorocyclopentadiene	
BAT	224
DLR	218
MCL	214
Notification	254

I

Initial compliance period	
Definition	181
Initial finding	
Definition	181
Injection	120
Injunctions	83
Inorganic chemicals	
BAT	221
Notification	239
Inspection authority	87
Interest rate	101
Internal combustion engines	268
Iron	
Secondary MCL	225
Irrigation canal exception	41

J

Judicial review	114
-----------------------	-----

L

Laboratory	
------------	--

Certification requirement	57
Laboratory and personnel	185
Lead	

Monitoring requirements for tap water	316
Notification	241, 258
Plumbing and solder	108
Public Education	311
Regulations start at	298
Service line replacement requirements	309
Solder	108
solder or pipe	27

Lead and Copper

Monitoring requirements for source water	326
Monitoring requirements for water quality parameters	322
Reporting and recordkeeping requirements	327

Legionella	279
------------------	-----

Lindane

BAT	224
DLR	218
MCL	214
Notification	254

Local Health Agency

Definition	134
Local primacy agency minimum program requirements	175

Local primacy delegation

County monthly report	44
Department 3-year review	44
Enforcement	178
Statute starts at	43

Local Primacy Delegation

Regulations start	173
-------------------------	-----

M

Manganese	
Secondary MCL	225

Maximum Contaminant Level0

Man-made radioactivity	211
------------------------------	-----

Maximum Contaminant Levels

Natural radioactivity	211
Organic Chemicals	212
Radioactivity	212

MCL	181
-----------	-----

Mercury

BAT	222
Notification	242

Methoxychlor

BAT	224
DLR	218
MCL	214
Notification	255

Microbiological contaminants

BAT	221
-----------	-----

Minimum number of routine total coliform samples	189
Misdemeanor	
Cross-connection control	105
Public water system	86
Modification of a certification	148
Molinate	
BAT	224
DLR	218
MCL	214
Monitoring	
Asbestos	201
Authority	57
Nitrate and nitrite	199
Requirements for unregulated	231
Unregulated Organic Chemicals	229
Monochlorobenzene	
BAT	223
MCL	213
Notification	247
MTBE	
Discharge list	120
Monitoring	230
Statue	81
Statute	81
Multibarrier treatment	
Definition	279
Multiple use	
Definition	33
Mutual associations prohibited	172
N	
Nickel	
BAT	222
Notification	242
Nitrate	
BAT	222
Monitoring and compliance	199
Notification	242
Nitrite	
BAT	222
Notification	243
Nontransient-noncommunity water system	
Definition	181
Notice pertaining to lead	258
Notification	
Acute health risk	238
Methods	234
New users	238
Procedural failure	237
REGULATIONS START	233
To Department	65
To Local Agency	66
To Users	65

Water quality failure	236
Notification language for total coliform MCL violations	259
NTU	
Definition	279
Nuisance	84
O	
Odor--Threshold	
Secondary MCL	225
Operational requirements	73
Operator	
Definition	110
Operator certification	
Minimum qualifications	130
Operator Certification	
Application Process	129
Operator Certification	
Regulation start at	127
Operator-in-training	127
Optimal corrosion control	299
Orders	83
Organic	
BAT	223
DLR	217
Initial sampling	215
Repeat Sampling	217
Oxamyl	
BAT	224
DLR	218
MCL	214
Notification	255
P	
PCBs	
DLR	218
Pentachlorophenol	
BAT	224
DLR	218
MCL	214
Notification	255
Permits	71, 175
Application review	72
Changes requiring amendment	72
Conditional	72
Revocation	81
Suspension	81
Person	
Definition	106
Persons served determination	184
Picloram	
BAT	224
DLR	218
MCL	214

Notification	255
Point-of-entry.....	56
Polychlorinated biphenyls	
Notification	256
Polychlorinated Biphenyls	
BAT.....	224
MCL	214
Pressure filter	
Definition.....	279
Primacy delegation application.....	173
Prior Test Data.....	153
Processing time.....	149, 170
Product data sheet.....	157
Product labeling.....	156
Program management.....	178
Public agency	
Definition.....	33
Publication.....	116
PUC	
Orders	67
Rule 103.....	339
Pumping Stations.....	270
Purple pipe for reclaimed water.....	105

Q

Qualified engineer	
Definition.....	279
Quantity of Supply	261

R

Radioactivity.....	211
Receivership	84
Reclaimed water	
Definition.....	134
Record maintenance.....	232
Records and Reporting	
Requirements	232
Reduced pressure principle backflow prevention device	
Construction.....	137
Location.....	137
Reduced pressure principle backflow prevention device	
Definition.....	135
Regulation authority	
Lead.....	109
Public water systems.....	55
Water treatment devices	106
Water treatment plant.....	110
Regulations and restrictions	
Duration of.....	114
Remote area.....	127
Repeat compliance period	
Definition.....	181

Repeat sample	
Definition	181
Repeat sampling	217
Bacti	190
Replacement sample	
Definition	181
Reporting requirements	232
Reservoir	
Definition	33
Reservoirs	
Recreational Use.....	32
Residual disinfectant concentration	
Definition	279
Retailer	
Definition	183
Retesting	155
Revocation	
Operator Certification	28
Routine sample	
Definition	182
Routine sample siting plan	187
Routine sampling	187

S

Safe Drinking Water Account.....	78
Safe Drinking Water Act.....	35
Safe Drinking Water Plan.....	46
Sample	
First draw	299
Sample analysis and reporting of results	190
Bacti	190
Sample invalidation	
Bacti	191
Sampling and monitoring.....	177
Sampling of treated water sources.....	220
Sampling plan	
General.....	185
Sampling Plan	
Bacteriological.....	186
Sanitary survey	
Criteria	195
Definition	182
Secondary Standards	
Regulations start	225
Sedimentation	
Definition	279
Selenium	
BAT.....	222
Notification.....	243
Service connection	
Limitation.....	172
Pipe	276
Service line sample.....	300
Significant rise in bacterial count	

Criteria.....	192
Definition.....	182
Silver	
Secondary MCL	225
Silvex	
BAT	224
DLR	218
MCL	214
Simazine	
BAT	224
DLR	218
MCL	214
Notification	256
Siting requirements.....	185
Slow sand filtration	
Definition.....	280
SOCs	
BAT	224
DLR	217
MCL	214
Notification	249
Source capacity	261
Source Water Protection Program	102
Source water treatment requirements	
For lead and copper.....	308
Standby	
Source definition	182
Source monitoring.....	184
State authority	
Moratorium authority	114
P.U.C.	114
Priorities authority.....	113
Regulations authority.....	113
State Authority	
State powers over water.....	113
State Revolving Fund	
Affordability.....	99
Applications	97
contracts.....	99
Department authorities	92
management.....	101
priority list	94
STATUTE STARTS.....	88
State small water systems	
Regulations start.....	170
State Small Water Systems	
Statutes start.....	44
Styrene	
BAT	223
MCL	213
Notification	247
Subsurface distribution reservoirs.....	269
Sulfate	
Secondary MCL	226

Supplier	
Definition	280
Surface water	
Definition	280
Surface Water	
Design Standards.....	289
Sanitary Surveys	297
Surface water treatment requirement	172
Surveillance.....	176
System pressure.....	268
System with a single service connection.....	182

T

Tampering with public water systems	88
Technical report	72
Terminal reservoir exemption.....	35
Terms used in this division.....	117
Tetrachloroethane	
BAT.....	223
MCL.....	213
Tetrachloroethylene	
BAT.....	223
MCL.....	213
Notification.....	247
Thallium	
BAT.....	222
Notification.....	243
Thiobencarb	
BAT.....	224
DLR.....	218
MCL.....	214
Secondary MCL.....	225
Toluene	
BAT.....	223
MCL.....	213
Notification.....	247
Too numerous to count	
Definition	182
Total coliform	
MCL determination	193
Total coliform-positive	
Definition	182
Total Dissolved Solids	
Secondary MCL.....	226
Toxaphene	
BAT.....	224
DLR.....	218
MCL.....	214
Notification.....	256
Transient-noncommunity water system	
Definition	183
Treatment	
Definition	183
Treatment technique	

Definition..... 183
Workplans 179
Writ of mandate 85

X

Xylene
BAT 213

MCL..... 213
Notification..... 224, 249

Z

Zinc

Secondary MCL..... 225