WATER QUALITY IN THE CITY OF CUDAHY

State Water Resources Control Board

Division of Drinking Water

August 2016

Overview

- Division of Drinking Water
- Water Quality Regulations
- Consumer Confidence Reports

Division of Drinking Water

- Jeff O’Keefe, Regional Engineer
- Paul Williams, District Engineer
- Mauricio Santos, Project Engineer

Division of Drinking Water

- California has the legal authority to carry out the federal Safe Drinking Water Act

  [as defined in the California Health and Safety Code, Chapter 4, “California Safe Drinking Water Act”, Sections 116270-116751.]

- The regulations to carry out the Safe Drinking Water Act are defined in the California Code of Regulations, Title 17 and Title 22.

Division of Drinking Water

- The Division of Drinking Water regulates about 8,000 public water systems throughout the state of California.
- Within Los Angeles County, we regulate about 150 water systems.

Division of Drinking Water

- Focus on ensuring the safety of drinking water through the regulation of public water systems
- Activities that the Division performs (to name a few):
  - Permitting of new sources, systems, treatment
  - Compilation and review of water quality data
  - Compliance and enforcement of DW Regulations
  - Developing and adopting new regulations
  - Funding programs
  - Operator Certification
  - Treatment Technology review
  - Review of Recycled Water Projects

Division of Drinking Water

- EPA has delegated primacy to enforce the Safe Drinking Water Act to the Division of Drinking Water.
- The Division interacts with the water company personnel on any water quality, water treatment, storage or distribution activities and questions.

Division of Drinking Water

- The Division receives monthly water quality reports from all water systems.
- Review water quality reports to ensure compliance with water quality standards.
- Provide technical assistance or advice when needed.

Water Quality Regulations

Constituent(s)	**Source** or Distribution System
Primary Standards – Inorganic	Source
Primary Standards – Organic	Source
Radioactivity	Source
Secondary Standards	Source
Unregulated Chemicals	Source
Bacteriological	Distribution System
Disinfection ByProducts (i.e., Trihalomethanes)	Distribution System
Lead and Copper	Distribution System
Surface Water Treatment	Source & Distribution System (if surface water is being treated)
Treated Water	Distribution System (if treatment is being provided

Water Quality Regulations

- The Division requires water systems to monitor their sources (e.g., groundwater wells) for 96 regulated chemicals at specified frequencies.
- Regulated chemicals have Maximum Contaminant Levels (MCLs).
- An MCL represents the highest concentration that a contaminant can be present in the water.
  - If there is a violation of an MCL, enforcement action would be taken against the water system with directives, which includes customer notification.

Water Quality Regulations

- A **Primary MCL** is established for contaminants that can have an impact on human health (acute or chronic effects).
- A Secondary MCL is established for contaminants that have an impact on the aesthetics (taste/odor) of the water. An example is iron and manganese which may discolor the water and have an unpleasant taste, but does not have an impact on human health.

Water Quality Regulations

- **Primary Standards** – 19 inorganic chemicals

Inorganic Chemicals	Maximum Contaminant Level (mg/L)
Aluminum	1.
Antimony	0.006
Arsenic	0.010
Asbestos	7 MFL*
Barium	1.
Beryllium	0.004
Cadmium	0.005
Chromium	0.05
Cyanide	0.15
Fluoride	2.0
Hexavalent chromium	0.010
Mercury	0.002
Nickel	0.1
Nitrate (as nitrogen)	10.
Nitrate+Nitrite (sum as nitrogen)	10.
Nitrite (as nitrogen)	1.
Perchlorate	0.006
Selenium	0.05
Thallium	0.002

* MFL=million fibers per liter; MCL for fibers exceeding 10 µm in length.

Water Quality Regulations

- **Primary Standards –** 27 Volatile Organic Chemicals (VOCs)

Volatile Organic Chemicals (VOCs)	Maximum Contaminant Level (mg/L)
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	0.3
Methyl-tert-butyl ether	0.013
Monochlorobenzene	0.07
Styrene	0.1
1,1,2,2-Tetrachloroethane	0.001
Tetrachloroethylene	0.005
Toluene	0.15
1,2,4-Trichlorobenzene	0.005
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*

Water Quality Regulations

- **Primary Standards** – 33 Synthetic Organic Chemicals (SOCs)

Synthetic Organic Chemicals (SOCs)	Maximum Contaminant Level (mg/L)
Alachlor	0.002
Atrazine	0.001
Bentazon	0.018
Benzo(a)pyrene	0.0002
Carbofuran	0.018
Chlordane	0.0001
2,4-D	0.07
Dalapon	0.2
Dibromochloropropane	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	0.00005
Glyphosate	0.7
Heptachlor	0.00001
Heptachlor Epoxide	0.00001
Hexachlorobenzene	0.001
Hexachlorocyclopentadiene	0.05
Lindane	0.0002
Methoxychlor	0.03
Molinate	0.02
Oxamyl	0.05
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

Water Quality Regulations

- **Primary Standards** – 4 Radionuclides

Radionuclide	Maximum Contaminant Level
Radium-226	5 pCi/L (combined radium-226 & -228)
Radium–228	
Gross Alpha particle activity (excluding radon and uranium)	15 pCi/L
Uranium	20 pCi/L

Water Quality Regulations

- A Primary MCL is established for contaminants that can have an impact on human health (acute or chronic effects).
- A **Secondary MCL** is established for contaminants that have an impact on the aesthetics (taste/odor) of the water. An example is iron and manganese which may discolor the water and have an unpleasant taste, but does not have an impact on human health.

Water Quality Regulations

- **Secondary Standards**

Constituents	Maximum Contaminant Levels/Units
Aluminum	0.2 mg/L
Color	15 Units
Copper	1.0 mg/L
Foaming Agents (MBAS)	0.5 mg/L
Iron	0.3 mg/L
Manganese	0.05 mg/L
Methyl-tert-butyl ether (MTBE)	0.005 mg/L
Odor—Threshold	3 Units
Silver	0.1 mg/L
Thiobencarb	0.001 mg/L
Turbidity	5 Units
Zinc	5.0 mg/L

Constituents, Units	Maximum Contaminant Level Ranges		
	Recommended	Upper	Short Term
Total Dissolved Solids, mg/L	500	1,000	1,500
or			
Specific Conductance, µS/cm	900	1,600	2,200
Chloride, mg/L	250	500	600
Sulfate, mg/L	250	500	600

•Bicarbonate, carbonate, hydroxide alkalinity, calcium, magnesium, sodium, total hardness

Water Quality Regulations

- Unregulated Chemicals
  - No drinking water standard (no MCL)
  - For emerging chemicals, where there is an interest in developing new standards, monitoring is recommended.
  - Some emerging chemicals have Notification Levels and Response Levels established.
  - Notification Levels (NL) are health-based advisories established by the Division.
  - Response Levels (RL) are established at the upper end of risk level.

Water Quality Regulations

- Unregulated Chemicals
  - When a chemical is detected above the NL
    - Water system must notify its governing body (example, City Council).
    - It is recommended for water systems to inform their customers (usually done through the Consumer Confidence Reports)
  - When a chemical is detected above the RL
    - It is recommended for water system to remove source from service

Water Quality Regulations

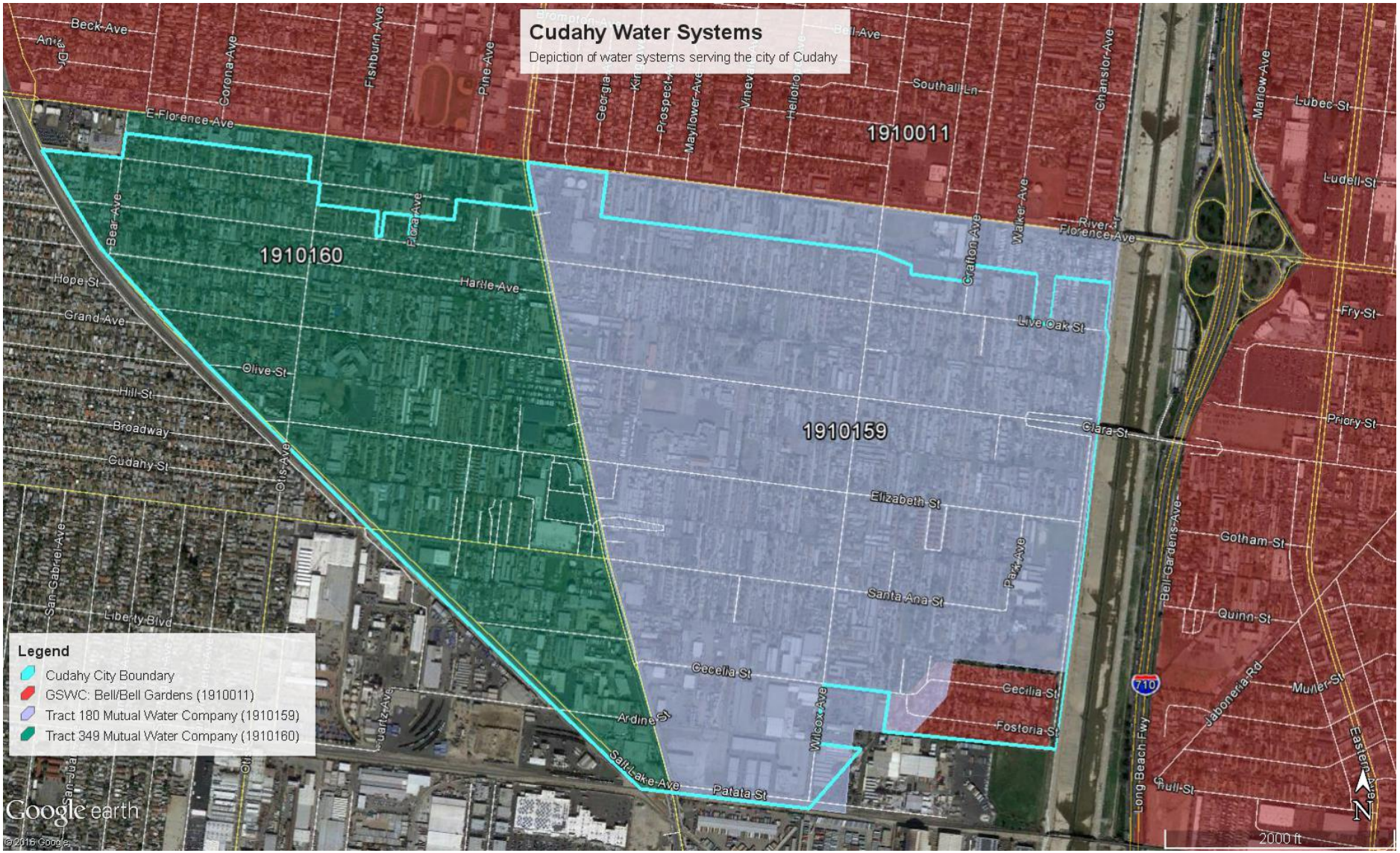
Constituent(s)	Source or Distribution System
Primary Standards – Inorganic	Source
Primary Standards – Organic	Source
Radioactivity	Source
Secondary Standards	Source
Unregulated Chemicals	Source
Bacteriological	Distribution System
Disinfection ByProducts (i.e., Trihalomethanes)	Distribution System
Lead and Copper	Distribution System
Surface Water Treatment	Source & Distribution System (if surface water is being treated)
Treated Water	Distribution System (if treatment is being provided

Water Quality Regulations

- Coliform monitoring occurs on a weekly basis to ensure no bacteria is present.
- Disinfection Byproducts monitoring (trihalomethanes and haloacetic acids) occurs on a quarterly to yearly basis to ensure that chlorination is not producing byproducts above the MCLs.
- Lead and Copper monitoring is conducted once every three years to ensure that the water is not leaching lead and copper from pipe materials.
- Color, odor, and turbidity monitoring monthly to ensure flushing isn’t warranted

Consumer Confidence Report

- The Consumer Confidence Report (CCR) is a report that water systems are required to issue to inform their customers of water quality and related information
- Must be delivered by July 1st of each year


Cudahy Water Systems
Depiction of water systems serving the city of Cudahy
1910011
1910160
1910159
Legend
Cudahy City Boundary
GSWC: Bell/Bell Gardens (1910011)
Tract 180 Mutual Water Company (1910159)
Tract 349 Mutual Water Company (1910160)
Beck Ave
Corona Ave
Fishburn Ave
Pine Ave
E Florence Ave
Bell Ave
Southall Ln
Chanslor Ave
Mariow Ave
Lubec St
Ludell St
Bear Ave
Flora Ave
Hope St
Grand Ave
Harle Ave
Olive St
Hill St
Broadway
Cudahy St
Olis Ave
San Gabriel Ave
Liberty Blvd
Walker Ave
River
Florence Ave
Crafton Ave
Live Oak St
Clara St
Fry St
Priory St
Elizabeth St
Park Ave
Santa Ana St
Gotham St
Bell Gardens Ave
Quinn St
Cecelia St
Fostoria St
Wilcox Ave
Ardine St
Salt Lake Ave
Patata St
Jaboneria Rd
Muller St
Eastern Ave
Long Beach Fwy
Hull St
710
Google earth
© 2016 Google
2000 ft
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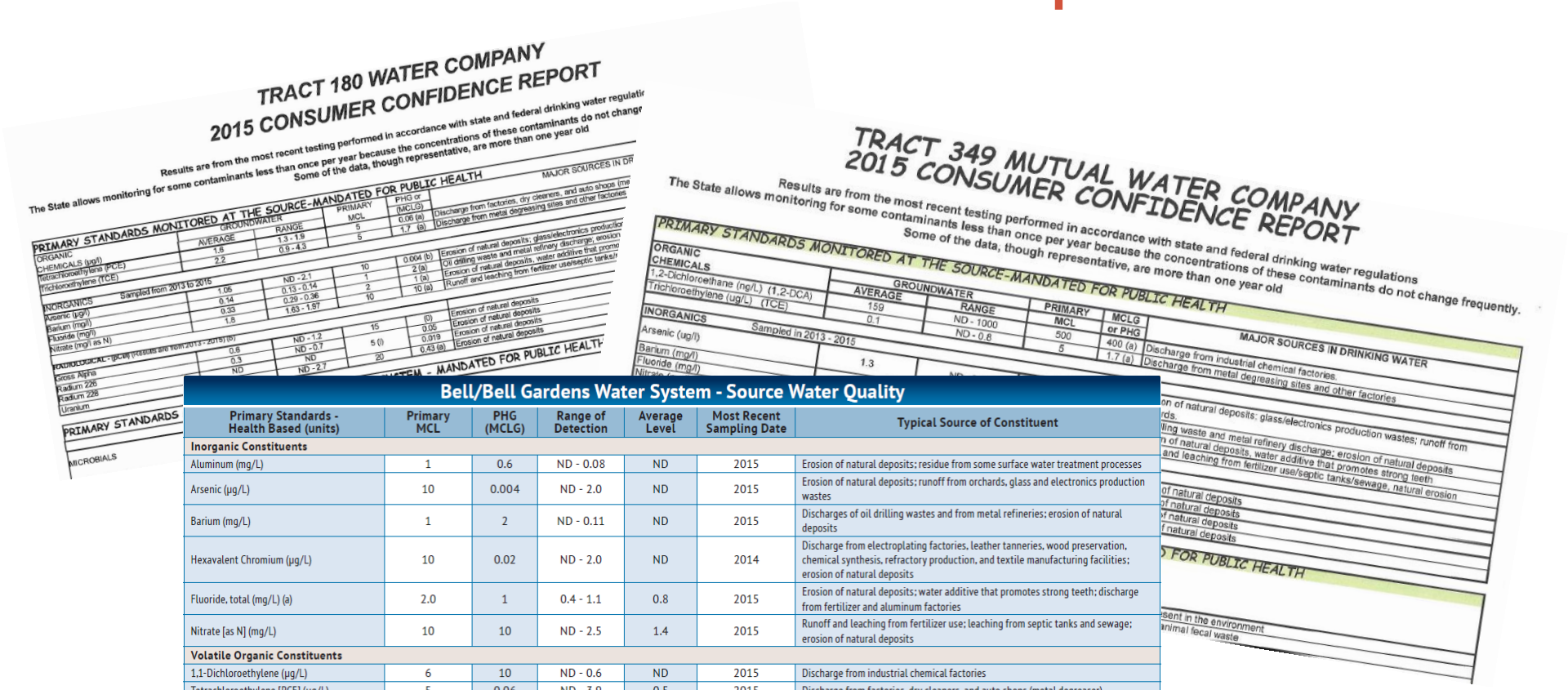
Consumer Confidence Report

- Tract 180 – http://drinc.ca.gov/ear/CCR/CCR2015CA1910159.pdf
- Tract 349 – http://drinc.ca.gov/ear/CCR/CCR2015CA1910160.pdf
- GSWC – http://drinc.ca.gov/ear/CCR/CCR2015CA1910011.pdf

Consumer Confidence Report


TRACT 180 WATER COMPANY
2015 CONSUMER CONFIDENCE REPORT

Results are from the most recent testing performed in accordance with state and federal drinking water regulatio
The State allows monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change
Some of the data, though representative, are more than one year old

PRIMARY STANDARDS MONITORED AT THE SOURCE-MANDATED FOR PUBLIC HEALTH

	GROUNDWATER AVERAGE	GROUNDWATER RANGE	PRIMARY MCL	PHG or (MCLG)	MAJOR SOURCES IN DR
ORGANIC CHEMICALS (µg/l)					
Tetrachloroethylene (PCE)	1.6	1.3 - 1.9	5	0.06 (a)	Discharge from factories, dry cleaners, and auto shops (me
Trichloroethylene (TCE)	2.2	0.9 - 4.3	5	1.7 (a)	Discharge from metal degreasing sites and other factories
INORGANICS Sampled from 2013 to 2015					
Arsenic (µg/l)	1.06	ND - 2.1	10	0.004 (b)	Erosion of natural deposits; glass/electronics productio
Barium (mg/l)	0.14	0.13 - 0.14	1	2 (a)	Oil drilling waste and metal refinery discharge, erosion
Fluoride (mg/l)	0.33	0.29 - 0.36	2	1 (a)	Erosion of natural deposits, water additive that prome
Nitrate (mg/l as N)	1.8	1.63 - 1.87	10	10 (a)	Runoff and leaching from fertilizer use/septic tanks/s
RADIOLOGICAL - (pCi/l) (results are from 2013 - 2015) (b)					
Gross Alpha	0.6	ND - 1.2	15	(0)	Erosion of natural deposits
Radium 226	0.3	ND - 0.7	5 (i)	0.05	Erosion of natural deposits
Radium 228	ND	ND	20	0.019	Erosion of natural deposits
Uranium	ND	ND - 2.7		0.43 (a)	Erosion of natural deposits

TRACT 349 MUTUAL WATER COMPANY
2015 CONSUMER CONFIDENCE REPORT

Results are from the most recent testing performed in accordance with state and federal drinking water regulations
The State allows monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.
Some of the data, though representative, are more than one year old

PRIMARY STANDARDS MONITORED AT THE SOURCE-MANDATED FOR PUBLIC HEALTH

	GROUNDWATER AVERAGE	GROUNDWATER RANGE	PRIMARY MCL	MCLG or PHG	MAJOR SOURCES IN DRINKING WATER
ORGANIC CHEMICALS					
1,2-Dichloroethane (ng/L) (1,2-DCA)	159	ND - 1000	500	400 (a)	Discharge from industrial chemical factories
Trichloroethylene (ug/L) (TCE)	0.1	ND - 0.8	5	1.7 (a)	Discharge from metal degreasing sites and other factories
INORGANICS Sampled in 2013 - 2015					
Arsenic (ug/l)	1.3				
Barium (mg/l)					
Fluoride (mg/l)					
Nitrate					

Bell/Bell Gardens Water System - Source Water Quality

Primary Standards - Health Based (units)	Primary MCL	PHG (MCLG)	Range of Detection	Average Level	Most Recent Sampling Date	Typical Source of Constituent
Inorganic Constituents						
Aluminum (mg/L)	1	0.6	ND - 0.08	ND	2015	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (µg/L)	10	0.004	ND - 2.0	ND	2015	Erosion of natural deposits; runoff from orchards, glass and electronics production wastes
Barium (mg/L)	1	2	ND - 0.11	ND	2015	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Hexavalent Chromium (µg/L)	10	0.02	ND - 2.0	ND	2014	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Fluoride, total (mg/L) (a)	2.0	1	0.4 - 1.1	0.8	2015	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate [as N] (mg/L)	10	10	ND - 2.5	1.4	2015	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Volatile Organic Constituents						
1,1-Dichloroethylene (µg/L)	6	10	ND - 0.6	ND	2015	Discharge from industrial chemical factories
Tetrachloroethylene [PCE] (µg/L)	5	0.06	ND - 3.9	0.5	2015	Discharge from factories, dry cleaners, and auto shops (metal degreaser)
Trichloroethylene [TCE] (µg/L)	5	1.7	ND - 1.3	ND	2015	Discharge from metal degreasing sites and other factories
Radioactive Constituents						
Gross Alpha Activity (pCi/L)	15(b)	(0)	ND - 6.5	ND	2015	Erosion of natural deposits
Uranium (pCi/L)	20	0.43	ND - 1.8	1.3	2012	Erosion of natural deposits
Secondary Standards Aesthetic (units)	**Secondary MCL**	**PHG (MCLG)**	**Range of Detection**	**Average Level**	**Most Recent Sampling Date**	**Typical Source of Constituent**
Aluminum (µg/L)	200	n/a	ND - 79	ND	2015	Erosion of natural deposits; residue from some surface water treatment processes
Color (units)	15	n/a	ND - 7.5	1.5	2015	Naturally-occurring organic materials
Chloride (mg/L)	500	n/a	27 - 53	43	2015	Runoff/leaching from natural deposits; seawater influence
Copper (mg/L)	1	n/a	ND - 0.31	ND	2015	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Manganese (µg/L)	50	n/a	ND - 41	ND	2015	Leaching from natural deposits
Odor---Threshold (units)	3	n/a	ND - 2	ND	2015	Naturally-occurring organic materials
Specific Conductance (µS/cm)	1600	n/a	570 - 680	610	2015	Substances that form ions when in water; seawater influence

Consumer Confidence Report

- mg/L = milligrams per liter
  (parts per million)
  about 1 drop in 14 gallons in X 14

- µg/L = micrograms per liter
  (parts per billion)
  about 1 drop in 14,000 gallons in X 14,000

- ng/L = nanograms per liter
  (parts per trillion)
  about 1 drop in 20 Olympic size swimming pools in X 20

2015 Consumer Confidence Report

- Tract 180 Mutual Water Company
  - Wells Do Not exceed a Primary or Secondary Standard
  - 1,4-Dioxane is present above the NL but well below the RL

Regulated Chemical	MCL	Average	Range
Tetrachloroethylene (PCE) (µg/L)	5	1.6	1.3 – 1.9
Trichloroethylene (TCE) (µg/L)	5	2.2	0.9 – 4.3
Unregulated Chemical	**NL**	**Average**	**Range**
1,4-Dioxane* (µg/L)	1	5.2	ND – 8.9

*Response Level (RL) = 35 µg/L

2015 Consumer Confidence Report

- Tract 349 Mutual Water Company
  - Wells Do Not exceed a Primary or Secondary Standard
  - 1,4-Dioxane is present above the NL but well below the RL

Regulated Chemical	MCL	Average	Range
Manganese (Secondary MCL) (µg/L)	50	37.4	24 – 53
1,2-Dichloroethane (1,2-DCA) (ng/L)	500	159	ND – 1000
Trichloroethylene (TCE) (µg/L)	5	0.1	ND – 0.8
Unregulated Chemical	**NL**	**Average**	**Range**
1,4-Dioxane* (µg/L)	1	2.8	ND – 5.3

*Response Level (RL) = 35 µg/L

2015 Consumer Confidence Report

- Golden State Water Company – Bell/Bell Gardens
  - Wells Do Not exceed a Primary or Secondary Standard
  - 1,4-Dioxane is present above the NL but well below the RL

Regulated Chemical	MCL	Average	Range
1,1-Dichloroethylene (1,1-DCE) (µg/L)	6	ND	ND – 0.6
Tetrachloroethylene (PCE) (µg/L)	5	0.5	ND – 3.9
Trichloroethylene (TCE) (µg/L)	5	ND	ND – 1.3
Unregulated Chemical	**NL**	**Average**	**Range**
1,4-Dioxane* (µg/L)	1	1.4	ND – 5.97

*Response Level (RL) = 35 µg/L

Conclusion

- Extensive water quality monitoring requirements are in place by the water systems to ensure compliance with the standards.
- The water supplied to customers meets all of the standards and is considered safe to drink.

Conclusion

- For more information contact:

  Paul Williams, P.E. – District Engineer

  or

  Mauricio Santos – Project Engineer (habla Español)

  (818) 551-2004

- More information on the Division's website:

  http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/publicwatersystems.shtml

LA CALIDAD DEL AGUA EN LA CIUDAD DE CUDAHY

División de Agua Potable de la
State Water Resources Control Board
Agosto del 2016

Resumen

- La División de Agua Potable
- Regulaciones de la Calidad del Agua
- Reportes de Confianza al Consumidor

División de Agua Potable

- Jeff O’Keefe, Ingeniero Regional
- Paul Williams, Ingeniero de Distrito
- Mauricio Santos, Ingeniero de Proyecto

División de Agua Potable

- California tiene la autoridad legal de hacer cumplir el Acta Federal de Agua Potable Segura (federal Safe Drinking Water Act)

  [según lo define el Capítulo 4 del Código de CA de Salud y Seguridad “California Safe Drinking Water Act”, Secciones 116270-116751.]

- Las regulaciones para llevar a cabo el Acta de Agua Potable Segura están definidas bajo el Título 17 y el Título 22 del Código de las Regulaciones de CA.

División de Agua Potable

- La División de Agua Potable regula cerca de 8,000 sistemas de agua públicos por todo el estado de California.
- Dentro del Condado de Los Angeles, regulamos cerca de 150 sistemas de agua.

División de Agua Potable

- Se enfoca en asegurar que el agua potable sea segura regulando los sistemas de agua públicos
- Actividades de las que esta División se encarga (para nombrar algunas):
  - Permisos para nuevas fuentes de agua, sistemas de agua, plantas de tratamiento
  - Recopilación y repaso de datos de calidad del agua
  - Cumplimiento y Aplicación de las Regulaciones de Agua Potable
  - Desarrollo y adopción de nuevas regulaciones
  - Programas de Financiamiento
  - Certificación de Operadores
  - Repaso de Tecnología para Tratamiento
  - Repaso de Proyectos de Agua Reciclada

División de Agua Potable

- La Agencia de Protección Ambiental (EPA) delegó a la División de Agua Potable la autoridad para hacer cumplir el Acta de Agua Segura.
- La División de Agua Potable se interrelaciona con el personal de las compañías de agua para cualquier pregunta y actividades sobre calidad del agua, tratamiento, almacenamiento, o distribución.

División de Agua Potable

- La División de Agua Potable recibe de todos los sistemas de agua, reportes mensuales sobre la calidad del agua.
- Repasa los reportes sobre calidad del agua para asegurar que se cumpla con los estándares de calidad del agua.
- Provee ayuda o consejo técnico cuando se necesita.

Regulaciones de Calidad del Agua

Elemento(s)	**Fuente de agua** o **Sistema de Distribución de agua**
Estándares Primarios – Inorgánico	Fuente de agua
Estándares Primarios – Orgánico	Fuente de agua
Radioactividad	Fuente de agua
Estándares Secundarios	Fuente de agua
Químicos no Regulados	Fuente de agua
Bacteriológico	Sistema de Distribución de agua
Subproductos de la desinfección (es decir, Trihalometanos)	Sistema de Distribución de agua
Plomo y Cobre	Sistema de Distribución de agua
Tratamiento de Agua Superficial	Fuente de agua y Sistema de Distribución de agua (si se está tratando agua superficial)
Agua Tratada	Sistema de Distribución de agua (si se está proporcionando tratamiento)

Regulaciones de Calidad del Agua

- La División requiere que los sistemas de agua monitoreen con frecuencia especificada, sus fuentes (p.ej., pozos de agua subterránea) para detección de 96 químicos regulados.
- Hay MCLs (Niveles Máximos de Contaminantes) para los químicos regulados.
- Un MCL representa la concentración más alta que el agua puede contener.
  - Si hay una violación de un MCL, se tomarían medidas con instrucciones para que el sistema de agua esté en cumplimiento; las cuales incluyen dar notificación a los clientes.

Regulaciones de Calidad del Agua

- Un **MCL Primario** es establecido para contaminantes que pueden tener un impacto en la salud humana (efectos crónicos o agudos).
- Un MCL Secundario es establecido para contaminantes que afectan la estética (sabor/olor) del agua. Un ejemplo son el hierro y el manganeso que pueden decolorar el agua y tener un sabor desagradable, pero no tienen un impacto en la salud humana.

Regulaciones de Calidad del Agua

- **Estándares Primarios** – 19 químicos inorgánicos

Químicos inorgánicos	Nivel Máximo de Contaminantes (en mg/L)
Aluminio (aluminum)	1.
Antimonio (antimony)	0.006
Arsénico (arsenic)	0.010
Asbesto (asbestos)	7 MFL*
Bario (barium)	1.
Berilio (beryllium)	0.004
Cadmio (cadmium)	0.005
Cromo (chromium)	0.05
Cianuro (cyanide)	0.15
Fluoruro (fluoride)	2.0
Cromo Hexavalente (hexavalent chromium)	0.010
Mercurio (mercury)	0.002
Niquel (nickel)	0.1
Nitrato (en forma de nitrógeno)	10.
Nitrato+Nitrito (suma de ambos como nitrógeno)	10.
Nitrito (en forma de nitrógeno)	1.
Perclorato (perchlorate)	0.006
Selenio (selenium)	0.05
Talio (thallium)	0.002

* MFL=imillones de Fibras por Litro (MFL); MCL para fibras que exceden 10 micrómetros (µm) de longitud.

Regulaciones de Calidad del Agua

- **Estándares Primarios –** 27 Compuestos Orgánicos Volátiles (VOCs)

Compuestos Orgánicos Volátiles (VOCs)	Nivel Máximo de Contaminantes (en mg/L)
Benceno (benzene)	0.001
Tetracloruro de carbono (Carbon Tetrachloride)	0.0005
1,2-Diclorobenceno (1,2-Dichlorobenzene)	0.6
1,4-Diclorobenceno (1,4-Dichlorobenzene)	0.005
1,1-Dicloroetano (1,1-Dichloroethane)	0.005
1,2-Dicloroetano (1,2-Dichloroethane)	0.0005
1,1-Dicloroetileno (1,1-Dichloroethylene)	0.006
cis-1,2-Dicloroetileno (cis-1,2-Dichloroethylene)	0.006
trans-1,2-Dicloroetileno (trans-1,2-Dichloroethylene)	0.01
Diclorometano (Dichloromethane)	0.005
1,2-Dicloropropano (1,2-Dichloropropane)	0.005
1,3-Dicloropropano (1,3-Dichloropropene)	0.0005
Etilbenceno (Ethylbenzene)	0.3
Metil-terbutil-éter (Methyl-tert-butyl ether)	0.013
Monoclorobenceno (Monochlorobenzene)	0.07
Estireno (Styrene)	0.1
1,1,2,2-Tetracloroetano (1,1,2,2-Tetrachloroethane)	0.001
Tetracloroetileno (Tetrachloroethylene)	0.005
Tuloeno (Toluene)	0.15
1,2,4-Triclorobenceno (1,2,4-Trichlorobenzene)	0.005
1,1,1-Tricloroetano (1,1,1-Trichloroethane)	0.200
1,1,2-Tricloroetano (1,1,2-Trichloroethane)	0.005
Tricloroetileno (Trichloroethylene)	0.005
Triclorofluorometano (Trichlorofluoromethane)	0.15
1,1,2-Tricloro - 1,2,2-Trifluoroetano (1,1,2-Trichloro-1,2,2-Trifluoroethane	1.2
Cloruro de Vinilo (Vinyl Chloride)	0.0005
Xilenos (Xylenes)	1.750*

Regulaciones de Calidad del Agua

- **Estándares Primarios –** 33 Químicos Orgánicos Sintéticos (SOCs)

Químicos Orgánicos Sintéticos (SOCs)	Nivel Máximo de Contaminantes (en mg/L)
Alacloro (Alachlor)	0.002
Atrazina (Atrazine)	0.001
Betazona (Bentazon)	0.018
Benzo(a)pireno)Benzo(a)pyrene)	0.0002
Carbofurano (Carbofuran)	0.018
Clordano (Chlordane)	0.0001
Acido 2,4- Diclorofenoxiacético (2,4-D) [2,4-D]	0.07
Dalapón (Dalapon)	0.2
Dibromocloropropano (Dibromochloropropane)	0.0002
Di (2 -etilhexil) adipato [Di(2-ethylhexyl)adipate]	0.4
Di (2-etilhexil) ftalato [Di(2-ethylhexyl)phthalate]	0.004
Dinoseb (Dinoseb)	0.007
Dicuat (Diquat)	0.02
Endotal (Endothall)	0.1
Endrina (Endrin)	0.002
Dibromuro de etileno (Ethylene Dibromide)	0.00005
Glifosato (Glyphosate)	0.7
Heptacloro (Heptachlor)	0.00001
Epóxido de heptacloro (Heptachlor Epoxide)	0.00001
Hexaclorobenceno (Hexachlorobenzene)	0.001
Hexaclorociclopentadieno (Hexachlorocyclopentadiene)	0.05
Lindano (Lindane)	0.0002
Metoxicloro (Methoxychlor)	0.03
Molinato (Molinate)	0.02
Oxamil (Oxamyl)	0.05
Pentaclorofenol (Pentachlorophenol)	0.001
Picloram (Picloram)	0.5
Bifenilos policlorados (Polychlorinated Biphenyls)	0.0005
Simazina (Simazine)	0.004
Tiobencarb (Thiobencarb)	0.07
Toxafeno (Toxaphene)	0.003
2,3,7,8- Tetracloro dibenzo-p-dioxina [2,3,7,8-TCDD (Dioxin)]	3×10^{-8}
Silvex (2,4,5-TP)/Propanoico ácido [2,4,5-TP (Silvex)]	0.05

Regulaciones de Calidad del Agua

- **Estándares Primarios** – 4 Radionuclidos

Radionuclido (Radionuclide)	Nivel Máximo de Contaminantes
Radio-226	5 pCi/L (radio combinado-226 y -228)
Radio–228	
Actividad bruta de partículas alfa (gross alpha particle activity) (sin incluir el radón y el uranio)	15 pCi/L
Uranio	20 pCi/L

Regulaciones de Calidad del Agua

- Un **MCL Primario** es establecido para contaminantes que pueden tener un impacto en la salud humana (efectos crónicos o agudos).
- Un MCL Secundario es establecido para contaminantes que afectan la estética (sabor/olor) del agua. Un ejemplo son el hierro y el manganeso que pueden decolorar el agua y tener un sabor desagradable, pero no tienen un impacto en la salud humana.

Regulaciones de Calidad del Agua

- **Estándares Secundarios**

Elementos	Nivel Máximo de Contaminantes/Unidades
Aluminio (Aluminum)	0.2 mg/L
Color (Color)	15 Units
Cobre (Copper)	1.0 mg/L
Agentes Espumantes (Foaming Agents, MBAS)	0.5 mg/L
Hierro (Iron)	0.3 mg/L
Manganeso (Manganese)	0.05 mg/L
Metil-terbutil-éter (MTBE) [Methyl-tert-butyl ether (MTBE)]	0.005 mg/L
Olor—Umbral (Odor—Threshold)	3 Units
Plata (Silver)	0.1 mg/L
Tiobencarb (Thiobencarb)	0.001 mg/L
Turbiedad (Turbidity)	5 Units
Cinc o Zinc (Zinc)	5.0 mg/L

Elementos, Unidades	Escalas de Niveles Máximos de Contaminantes (MCL)		
	Recomendado	Nivel más alto	Nivel para Uso a Corto Plazo
Total de Sólidos Disueltos, mg/L [Total Dissolved Solids (TDS), mg/L]	500	1,000	1,500
o			
Conductancia Especiifica, µS/cm	900	1,600	2,200
Cloruro, mg/L	250	500	600
Sulfato, mg/L	250	500	600

•Bicarbonato, carbonato, alcalinidad de hidróxidos, calcio, magnesio, sodio, dureza total del agua

Regulaciones de Calidad del Agua

- Los químicos no regulados
  - No tienen un estándar para agua potable (MCL o nivel máximo de contaminantes).
  - Para químicos emergentes, se recomienda monitoreo si hay interés en desarrollar nuevos estándares.
  - Some emerging chemicals have Notification Levels and Response Levels established.
  - Para algunos químicos emergentes, hay Notificación sobre los Niveles (NL, Notification Levels) y Niveles para tomar Acción (RL, Response Levels) establecidos.
  - La Notificación sobre los Niveles (NL) son alertas sobre riesgo a la salud establecidos por la División.
  - Los Niveles para tomar Acción (RL) son establecidos en la parte más alta del nivel de riesgo.

Regulaciones de Calidad del Agua

- Químicos no regulados
  - Si se detecta que un químico excede la NL
    - El sistema de agua tiene que notificar a su cuerpo gubernamental (por ejemplo, el Consejo de la Ciudad).
    - Se recomienda que los sistemas de agua notifiquen a sus clientes (usualmente les avisan en el Reporte de Confianza al Consumidor)
  - Si se detecta que un químico excede los RL
    - Se recomienda que el sistema de agua ponga fuera de servicio la fuente de agua

Regulaciones de Calidad del Agua

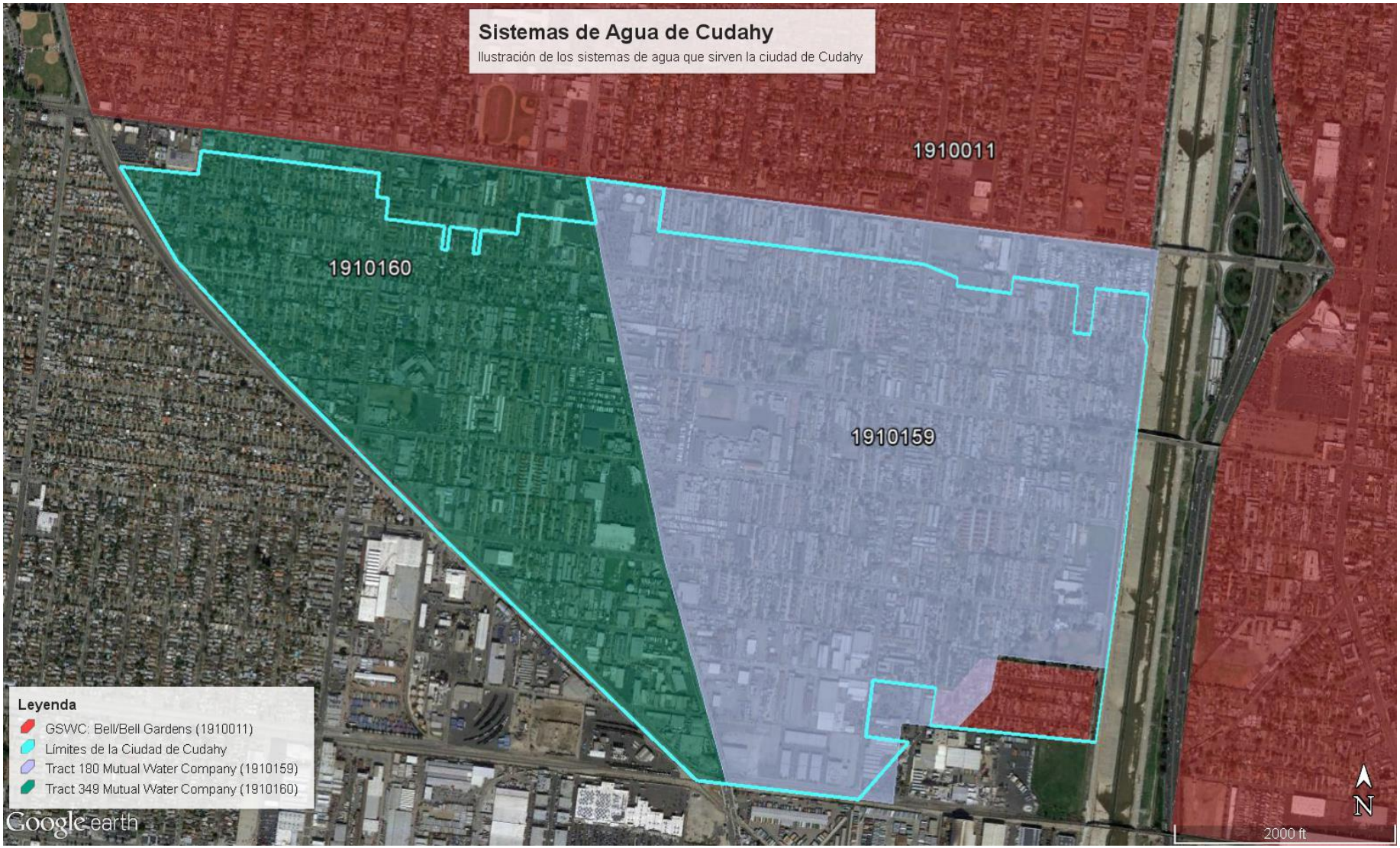
Elemento(s)	**Fuente de Agua o Sistema de Distribución de agua**
Estándares Primarios – Inorgánico	Fuente de agua
Estándares Primarios – Orgánico	Fuente de agua
Radioactividad	Fuente de agua
Estándares Secundarios	Fuente de agua
Químicos no Regulados	Fuente de agua
Bacteriológico	Sistema de Distribución de agua
Subproductos de la desinfección (es decir, Trihalometanos)	Sistema de Distribución de agua
Plomo y Cobre	Sistema de Distribución de agua
Tratamiento de Agua Superficial	Fuente de agua y Sistema de Distribución de agua (si se está tratando agua superficial)
Agua Tratada	Sistema de Distribución de agua (si se está proporcionando tratamiento)

Regulaciones de Calidad del Agua

- Monitoreo semanal de la coliforme para asegurar que la bacteria no esté presente .
- Monitoreo cada 3 meses a cada 12 meses de subproductos de la desinfección (trihalometanos y ácidos haloacéticos). Esto es para asegurar que la cloración no está produciendo subproductos en exceso del MCL.
- Monitoreo 1 vez cada 3 años de Plomo y Cobre para asegurar que el agua no está percolando plomo y cobre de materiales de pipa.
- Monitoreo mensual del color, olor, y turbiedad para asegurar que no es necesario enjuagar las pipas

Reporte de Confianza al Consumidor

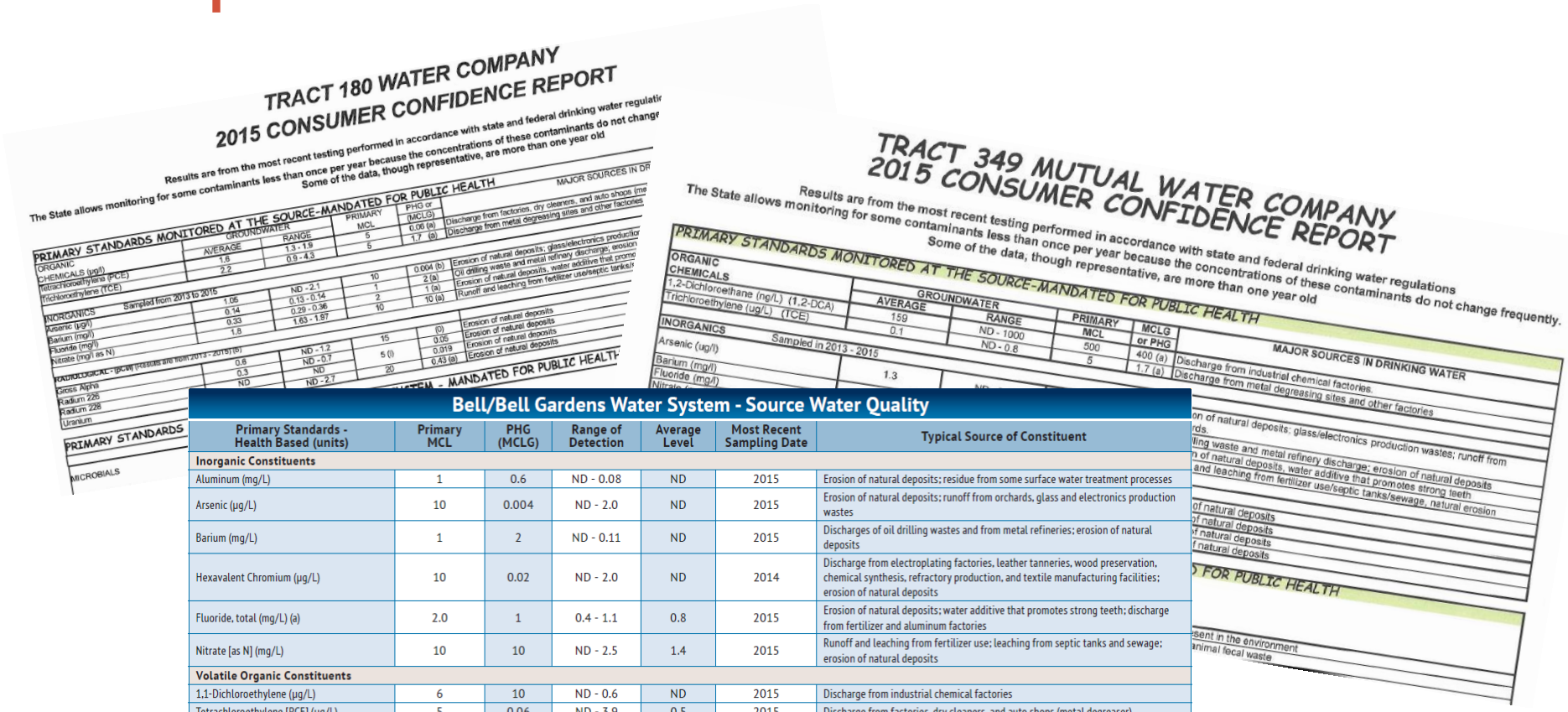
- Los sistemas de agua tienen requerido emitir un Reporte de Confianza al Consumidor (CCR o Consumer Confidence Report) para informar a sus clientes sobre la calidad del agua y sobre información relacionada.
- Deben proveerlo para el 1 de julio de cada año


Sistemas de Agua de Cudahy
Ilustración de los sistemas de agua que sirven la ciudad de Cudahy
1910011
1910160
1910159
Leyenda
GSWC: Bell/Bell Gardens (1910011)
Límites de la Ciudad de Cudahy
Tract 180 Mutual Water Company (1910159)
Tract 349 Mutual Water Company (1910160)
Google earth
N
2000 ft

Reporte de Confianza al Consumidor

- Tract 180 – http://drinc.ca.gov/ear/CCR/CCR2015CA1910159.pdf
- Tract 349 – http://drinc.ca.gov/ear/CCR/CCR2015CA1910160.pdf
- GSWC – http://drinc.ca.gov/ear/CCR/CCR2015CA1910011.pdf

Reporte de Confianza al Consumidor


TRACT 180 WATER COMPANY
2015 CONSUMER CONFIDENCE REPORT

Results are from the most recent testing performed in accordance with state and federal drinking water regulatio
The State allows monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change
Some of the data, though representative, are more than one year old

PRIMARY STANDARDS MONITORED AT THE SOURCE-MANDATED FOR PUBLIC HEALTH

TRACT 349 MUTUAL WATER COMPANY
2015 CONSUMER CONFIDENCE REPORT

Results are from the most recent testing performed in accordance with state and federal drinking water regulations
The State allows monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.
Some of the data, though representative, are more than one year old

PRIMARY STANDARDS MONITORED AT THE SOURCE-MANDATED FOR PUBLIC HEALTH

Bell/Bell Gardens Water System - Source Water Quality

Primary Standards - Health Based (units)	Primary MCL	PHG (MCLG)	Range of Detection	Average Level	Most Recent Sampling Date	Typical Source of Constituent
Inorganic Constituents						
Aluminum (mg/L)	1	0.6	ND - 0.08	ND	2015	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (µg/L)	10	0.004	ND - 2.0	ND	2015	Erosion of natural deposits; runoff from orchards, glass and electronics production wastes
Barium (mg/L)	1	2	ND - 0.11	ND	2015	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Hexavalent Chromium (µg/L)	10	0.02	ND - 2.0	ND	2014	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Fluoride, total (mg/L) (a)	2.0	1	0.4 - 1.1	0.8	2015	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate [as N] (mg/L)	10	10	ND - 2.5	1.4	2015	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Volatile Organic Constituents						
1,1-Dichloroethylene (µg/L)	6	10	ND - 0.6	ND	2015	Discharge from industrial chemical factories
Tetrachloroethylene [PCE] (µg/L)	5	0.06	ND - 3.9	0.5	2015	Discharge from factories, dry cleaners, and auto shops (metal degreaser)
Trichloroethylene [TCE] (µg/L)	5	1.7	ND - 1.3	ND	2015	Discharge from metal degreasing sites and other factories
Radioactive Constituents						
Gross Alpha Activity (pCi/L)	15(b)	(0)	ND - 6.5	ND	2015	Erosion of natural deposits
Uranium (pCi/L)	20	0.43	ND - 1.8	1.3	2012	Erosion of natural deposits
Secondary Standards Aesthetic (units)	**Secondary MCL**	**PHG (MCLG)**	**Range of Detection**	**Average Level**	**Most Recent Sampling Date**	**Typical Source of Constituent**
Aluminum (µg/L)	200	n/a	ND - 79	ND	2015	Erosion of natural deposits; residue from some surface water treatment processes
Color (units)	15	n/a	ND - 7.5	1.5	2015	Naturally-occurring organic materials
Chloride (mg/L)	500	n/a	27 - 53	43	2015	Runoff/leaching from natural deposits; seawater influence
Copper (mg/L)	1	n/a	ND - 0.31	ND	2015	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Manganese (µg/L)	50	n/a	ND - 41	ND	2015	Leaching from natural deposits
Odor---Threshold (units)	3	n/a	ND - 2	ND	2015	Naturally-occurring organic materials
Specific Conductance (µS/cm)	1600	n/a	570 - 680	610	2015	Substances that form ions when in water; seawater influence

Reporte de Confianza al Consumidor

- mg/L = miligramos por litro
  (partes por millón o ppm)
  cerca de 1 gota en 14 galones

en

X 14

- µg/L = microgramos por litro
  (partes por cada mil millones o ppb)
  cerca de 1 gota en 14,000 galones

en

X 14,000

- ng/L = nanogramos por litro
  [partes por trillón (estadounidense)]
  cerca de 1 gota en 20 albercas
  olímpicas

en

X 20

Reporte de Confianza al Consumidor para 2015

- Tract 180 Mutual Water Company
  - Los pozos no exceden algún Estándar Primario o Secundario
  - Hay 1,4-dioxano en exceso de la NL (notificación sobre los niveles) pero muy por debajo de los RL (niveles para tomar acción)

Químico Regulado	MCL	Promedio	Escala
Tetracloroetileno (PCE) (ug/L)	5	1.6	1.3 – 1.9
Tricloroetileno (TCE) (ug/L)	5	2.2	0.9 – 4.3
Químico no Regulado	**NL**	**Promedio**	**Escala**
1,4-Dioxano* (ug/L)	1	5.2	ND – 8.9

*Niveles para tomar acción (RL, response levels) = 35 ug/L

Reporte de Confianza al Consumidor para 2015

- Tract 349 Mutual Water Company
  - Los pozos no exceden algún Estándar Primario o Secundario
  - Hay 1,4-dioxano en exceso de la NL (notificación sobre los niveles) pero muy por debajo de los RL (niveles para tomar acción)

Químico Regulado	MCL	Promedio	Escala
Manganeso (MCL Secundario) (ug/L)	50	37.4	24 – 53
1,2-Dicloroetano (1,2-DCA) (ng/L)	500	159	ND – 1000
Tricloroetileno (TCE) (ug/L)	5	0.1	ND – 0.8
Químico no Regulado	**NL**	**Promedio**	**Escala**
1,4-Dioxano* (ug/L)	1	2.8	ND – 5.3

*Niveles para tomar acción (RL, response levels) = 35 ug/L

Reporte de Confianza al Consumidor para 2015

- Golden State Water Company – Bell/Bell Gardens
  - Los pozos no exceden algún Estándar Primario o Secundario
  - Hay 1,4-dioxano en exceso de la NL (notificación sobre los niveles) pero muy por debajo de los RL (niveles para tomar acción)

Químico Regulado	MCL	Promedio	Escala
1,1-Dicloroetileno (1,1-DCE) (ug/L)	6	ND	ND – 0.6
Tetracloroetileno (PCE) (ug/L)	5	0.5	ND – 3.9
Tricloroetileno (TCE) (ug/L)	5	ND	ND – 1.3
Químico no Regulado	**NL**	**Promedio**	**Escala**
1,4-Dioxano* (ug/L)	1	1.4	ND – 5.97

* Niveles para tomar acción (RL, response levels) = 35 ug/L

Conclusión

- Los sistemas de agua tienen en sitio requisitos de monitoreo extenso de la calidad del agua para asegurar que cumplen con los estándares.
- El agua abastecida a los clientes cumple con todos los estándares y se considera segura para beber.

Conclusión

- Para más información, puede contactar a:

  Paul Williams, P.E. – Ingeniero de Distrito

  o

  Mauricio Santos – Ingeniero de Proyecto (bilingüe, Español e Inglés) (818) 551-2004

- Para más información, visite el sitio web de la División en:

  http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/publicwatersystems.shtml