

APPENDIX B: eCCR Certification Form (Suggested Format)

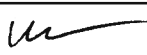
Consumer Confidence Report Certification Form

(To be submitted with a copy of the CCR)

Water System Name:	City of Garden Grove
Water System Number:	3010062

The water system named above hereby certifies that its Consumer Confidence Report was distributed on 06/24/22 to customers (and appropriate notices of availability have been given). Further, the system certifies that the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the State Water Resources Control Board, Division of Drinking Water (DDW).

Certified by:

Name: Duc Nguyen	Title: Water Quality Technician
Signature: 	Date: 08/02/22
Phone number: (714) 741-5539	blank

To summarize report delivery used and good-faith efforts taken, please complete this page by checking all items that apply and fill-in where appropriate:

- ☐ CCR was distributed by mail or other direct delivery methods (attach description of other direct delivery methods used).
- ☒ CCR was distributed using electronic delivery methods described in the Guidance for Electronic Delivery of the Consumer Confidence Report (water systems utilizing electronic delivery methods must complete the second page).
- ☒ "Good faith" efforts were used to reach non-bill paying consumers. Those efforts included the following methods:
 - ☒ Posting the CCR at the following URL: www.ggcity.org/ccr
 - ☒ Mailing the CCR to postal patrons within the service area (attach zip codes used)
 - ☐ Advertising the availability of the CCR in news media (attach copy of press release)
 - ☐ Publication of the CCR in a local newspaper of general circulation (attach a copy of the published notice, including name of newspaper and date published)
 - ☒ Posted the CCR in public places (attach a list of locations)
 - ☐ Delivery of multiple copies of CCR to single-billed addresses serving several persons, such as apartments, businesses, and schools

- ☐ Delivery to community organizations (attach a list of organizations)
- ☐ Publication of the CCR in the electronic city newsletter or electronic community newsletter or listserv (attach a copy of the article or notice)
- ☒ Electronic announcement of CCR availability via social media outlets (attach list of social media outlets utilized)
- ☐ Other (attach a list of other methods used)
- ☒ *For systems serving at least 100,000 persons:* Posted CCR on a publicly-accessible internet site at the following URL: www.ggcity.org/ccr
- ☐ *For privately-owned utilities:* Delivered the CCR to the California Public Utilities Commission

Consumer Confidence Report Electronic Delivery Certification

Water systems utilizing electronic distribution methods for CCR delivery must complete this page by checking all items that apply and fill-in where appropriate.

- ☒ Water system mailed a notification that the CCR is available and provides a direct URL to the CCR on a publicly available website where it can be viewed (attach a copy of the mailed CCR notification). URL: www.ggcity.org/ccr
- ☐ Water system emailed a notification that the CCR is available and provides a direct URL to the CCR on a publicly available site on the Internet where it can be viewed (attach a copy of the emailed CCR notification). URL: www._____
- ☐ Water system emailed the CCR as an electronic file email attachment.
- ☐ Water system emailed the CCR text and tables inserted or embedded into the body of an email, not as an attachment (attach a copy of the emailed CCR).
- ☐ *Requires prior DDW review and approval.* Water system utilized other electronic delivery method that meets the direct delivery requirement.

Provide a brief description of the water system's electronic delivery procedures and include how the water system ensures delivery to customers unable to receive electronic delivery.

CUSTOMERS CAN REQUEST A HARD COPY OF THE CCR BY CALLING OR
EMAILING A REQUEST. THE CCR IS ALSO AVAILABLE AT OUR CITY FACILITIES.

This form is provided as a convenience and may be used to meet the certification requirement of section 64483(c) of the California Code of Regulations.

ZIP CODES USED TO MAIL CCR

92840

92841

92843

92844

92845

List of locations where the CCR is posted

13802 Newhope St, Garden Grove, CA 92843 (Garden Grove Public Works

Department)

- a. Administration Office
- b. Bottom of the stairs at the main entrance
- c. Water Analyst's office

11222 Acacia Pkwy, Garden Grove, CA 92840 (Garden Grove City Hall)

- a. 1st floor
- b. 2nd floor (Front desk and water billing)
- c. 3rd floor

11300 Stanford Ave, Garden Grove, CA 92840

- a. Community Meeting Center
- b. H. Louis Lake Senior Center

CCR Availability via Social Media

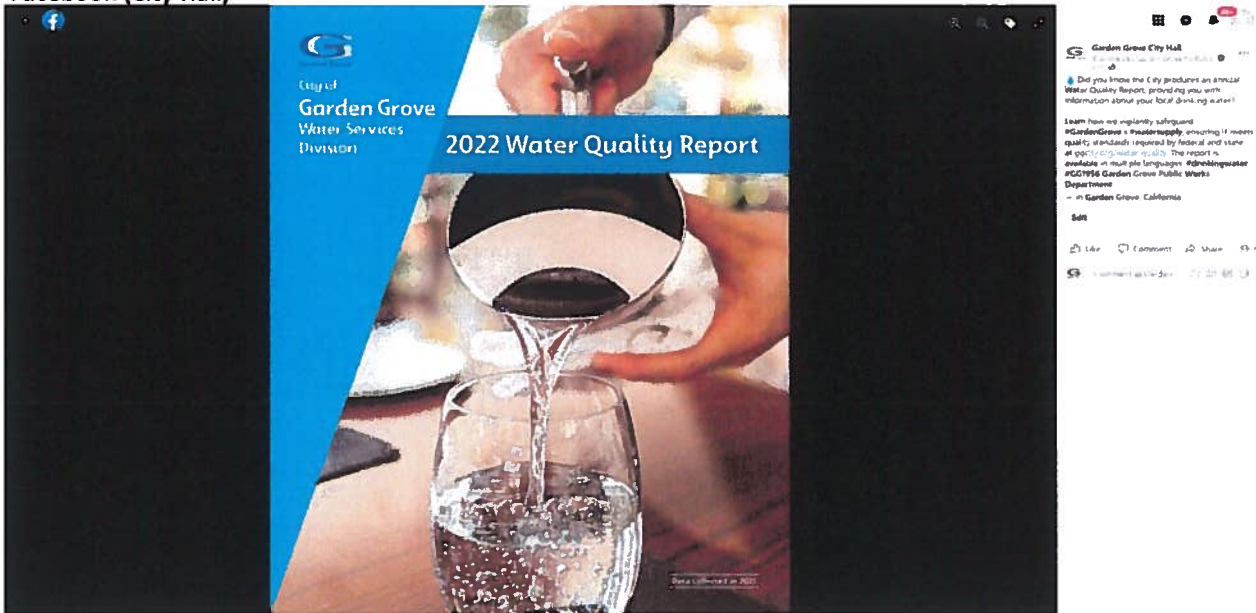
-Facebook

-Instagram

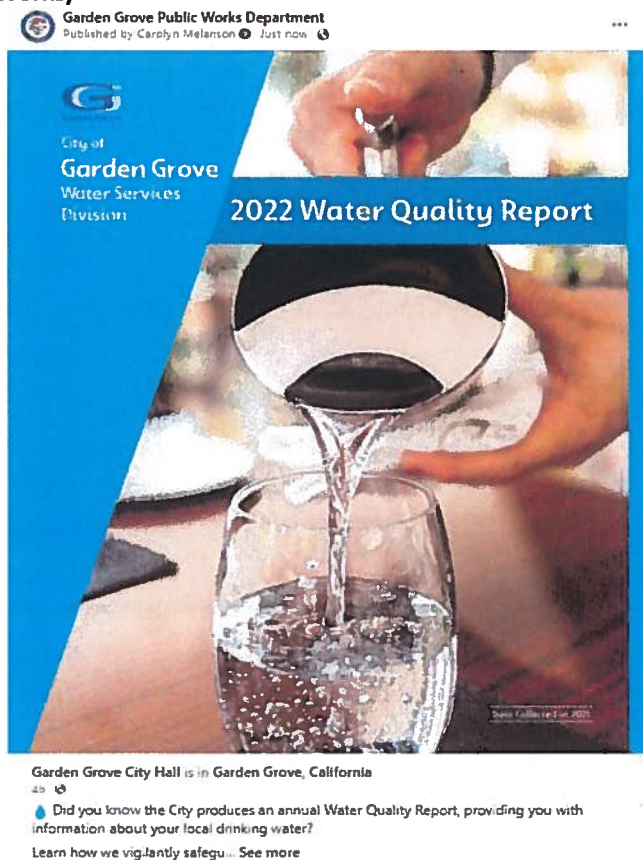
-Twitter

-Nextdoor

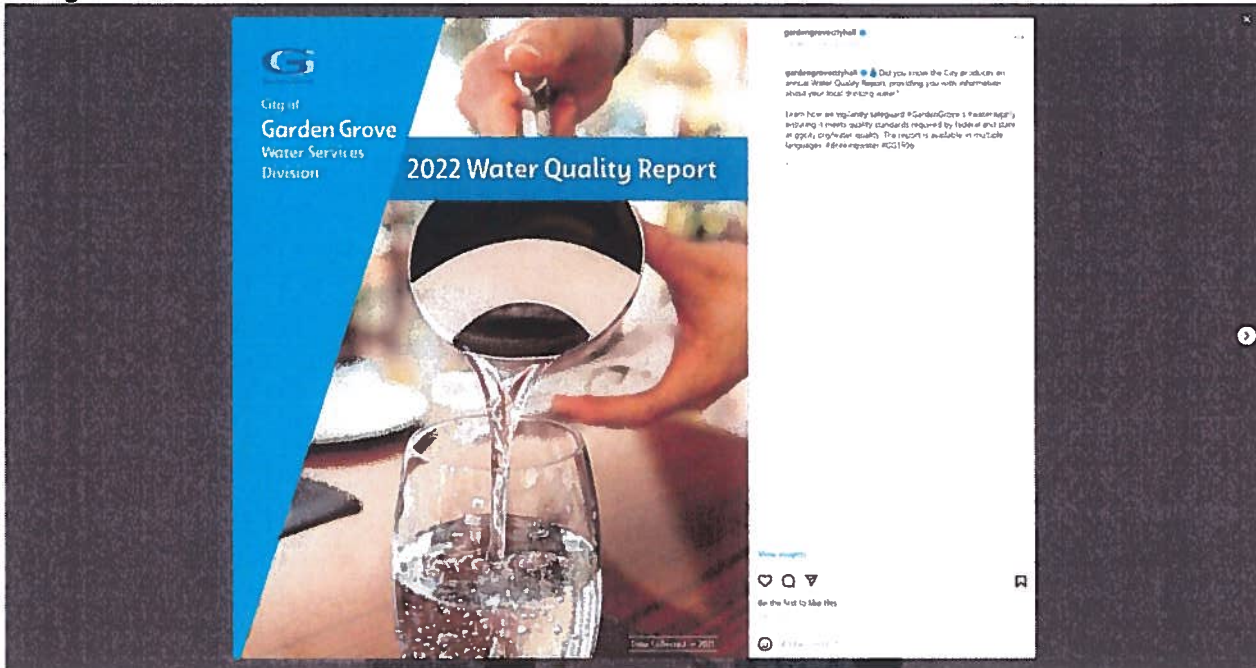
Facebook (City Hall)



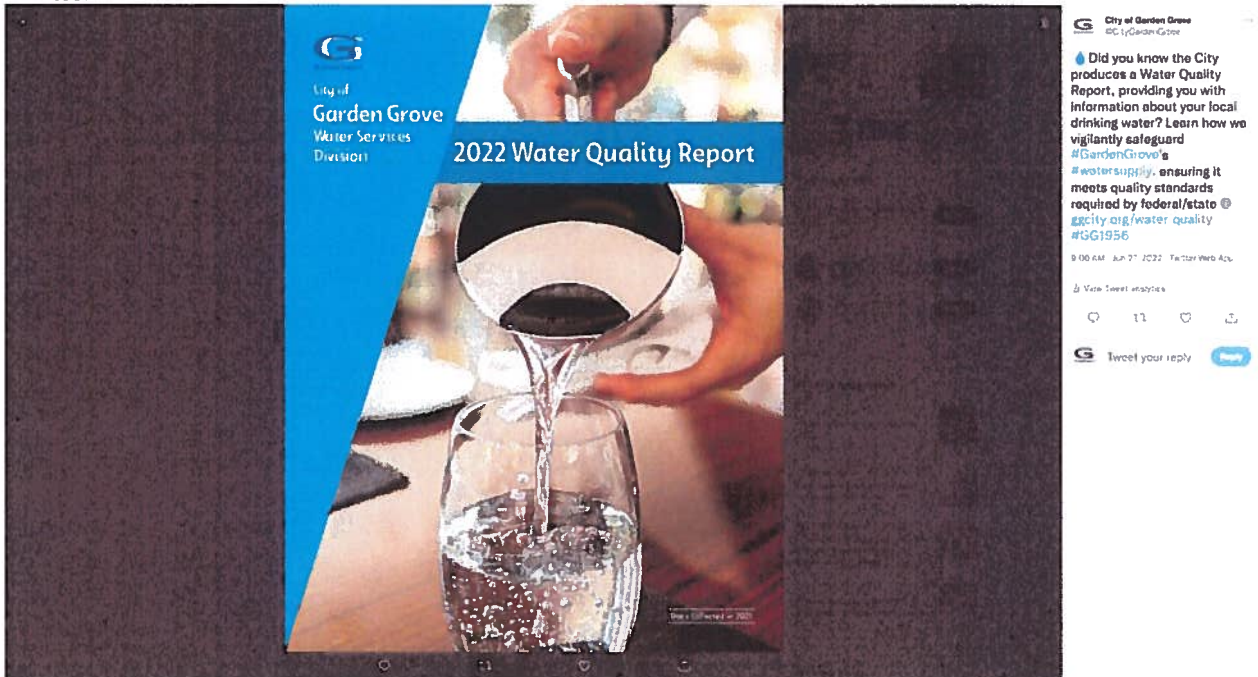
Facebook (Public Works)



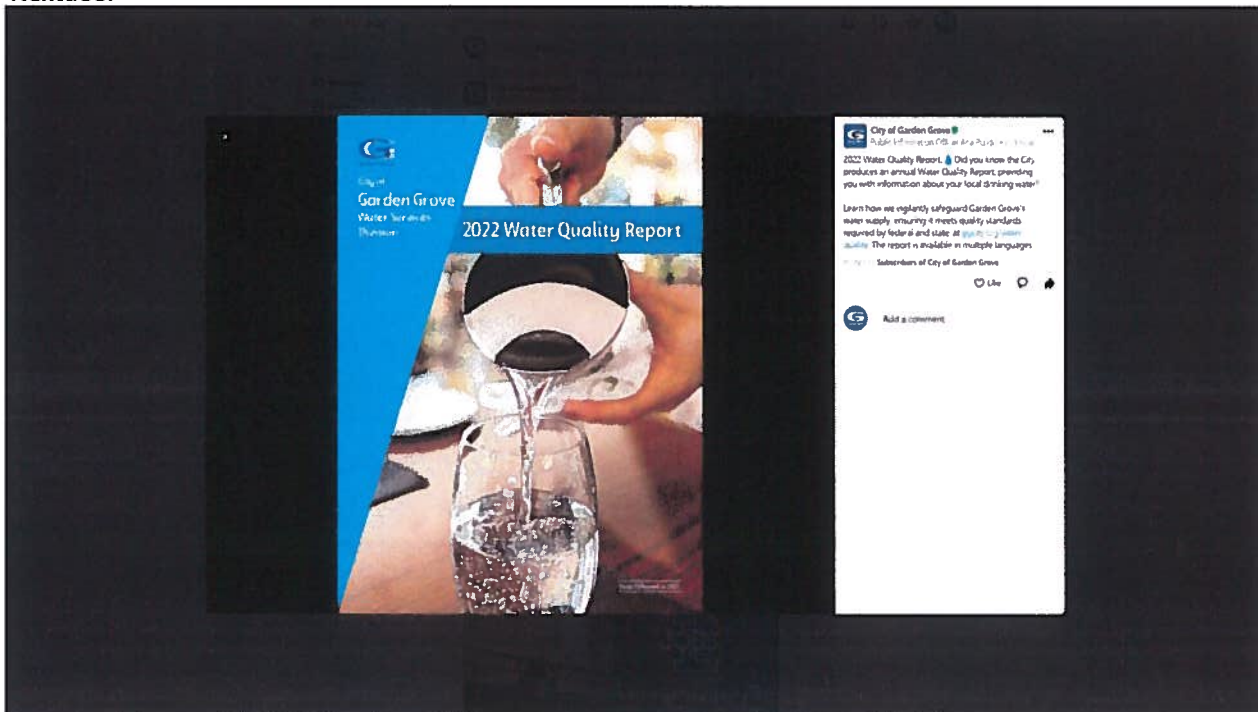
Instagram



Twitter



Nextdoor





Dear Resident:

Your 2022 City of Garden Grove Water Consumer Confidence Report will be available July 1, 2022. This year's report contains information about the source and quality of your drinking water. To view the report, visit ggcity.org/ccr. Please note, Adobe Acrobat Reader must be installed onto your computer to view the report. If you would like the report mailed to you, call (714) 741-5395 or email wqdata@ggcity.org.

Sincerely,

City of Garden Grove
Water Services Division



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Sincerely,

City of Garden Grove
Water Services Division



Estimado Residente:

El 2022 Informe sobre la Confianza del Consumidor de Agua de la Ciudad de Garden Grove estará disponible el 1 de julio del 2022. Este informe contiene noticias sobre las fuentes y calidad de su agua potable. Favor de mirar el 2022 Informe en el sitio de web: www.ggcity.org/ccr. Se necesita tener Adobe Acrobat Reader instalado en su computadora para ver el informe. Si Ud. prefiere una copia impresa del Informe, favor de llamar al (714) 741-5395 o mandar un correo electrónico al: wqdata@ggcity.org y le mandaremos una copia por correo.

Muchas gracias,
La División de Servicios de Agua de Garden Grove

Kính gửi cư dân:

Bản Báo Cáo Cẩn Mật cho Người Tiêu Thụ Nước của Thành Phố Garden Grove 2022 sẽ có sẵn vào ngày 1 tháng 7, 2022. Báo cáo năm nay bao gồm các thông tin về nguồn và chất lượng nước uống của quý vị. Hãy truy cập vào www.ggcity.org/ccr để xem Bản Báo Cáo Cẩn Mật cho Người Tiêu Thụ.

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Thành thật cảm ơn,
Dịch Vụ Nước của Thành Phố Garden Grove

주민 여러분:

2022년 가든 그로브시 수도 소비자 신뢰 보고서가 2022년 7월 1일 준비됩니다.

이 보고서에는 귀하의 식수에 대한 물의 원천과 품질에 관련된 정보가 들어있습니다. www.ggcity.org/ccr 로 들어가서 2022년 소비자 신뢰 보고서를 보십시오.

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감사합니다,

가든 그로브시 수도 서비스





City of
Garden Grove
Water Services
Division

2022 Water Quality Report



Data Collected in 2021

Your 2022 Water Quality Report

Since 1990, California public water utilities have been providing an annual Water Quality Report to their customers. **This year's report covers calendar year 2021 drinking water quality testing and reporting.**

The City of Garden Grove Water Services Division (City) vigilantly safeguards its water supply and, as in years past, the water delivered to your home meets the quality standards required by federal and state regulatory agencies. The U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board, Division of Drinking Water (DDW) are the agencies responsible for establishing and enforcing drinking water quality standards.

In some cases, the City goes beyond what is required by testing for unregulated chemicals that may have known health risks but do not have drinking water standards. For example, the Orange County Water District (OCWD), which manages the groundwater basin, and the Metropolitan Water District of Southern California (MWDSC), which supplies imported treated surface water to the City test for unregulated chemicals in our water supply. Unregulated chemical monitoring helps USEPA and DDW determine where certain chemicals



occur and whether new standards need to be established for those chemicals to protect public health.

Through drinking water quality testing programs carried out by OCWD for groundwater, MWDSC for treated surface water and the City for the water distribution system, your drinking water is constantly monitored from source to tap for regulated and unregulated constituents. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Some of our data, though representative, are more than one year old.

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Báo cáo này chứa thông tin quan trọng về nước uống của quý vị. Hãy dịch báo cáo, hoặc nói chuyện với một người hiểu báo cáo này.

본 보고는 귀하의 식수에 관한 중요한 정보를 가지고 있습니다. 번역, 또는 이 보고를 이해하는 사람에게 물어보십시오.

We Appreciate All You Do to Save Water

Thank you! For all we've been through these many years of intermittent drought, the City of Garden Grove Water Services Division extends its heartfelt thanks to all of you who have worked so hard to conserve water. When the seemingly impossible was asked of you — that you conserve 20% of our water at the height of the last drought — you not only met this goal, you exceeded it. And best of all, you continued to conserve water after the drought was officially declared to be over.



Now, as we potentially enter another year of drought, the City is in a better position than it has been in previous droughts. All because you, our citizens, take your responsibilities seriously. You know we live in an arid land, and you recognize water conservation has to be more than a passing passion — it must be a way of life.

As with all of you, it is our fondest hope we will escape another year of drought. But beyond our hopes, we have confidence the citizens of Garden Grove will always know what to do to conserve their water.

The Quality of Your Water is Our Primary Concern

Sources of Supply

Your drinking water is a blend of mostly groundwater from 12 wells in the Orange County groundwater basin and also surface water imported by MWDSC.

MWDSC's imported water sources are a blend of State Water Project water from Northern California and water from the Colorado River Aqueduct. Your groundwater comes from a natural underground reservoir managed by the Orange County Water District (OCWD) that stretches from the Prado Dam and fans across the northwestern portion of Orange County, excluding the communities of Brea and La Habra, and stretching as far south as the El Toro 'Y.'

Last year, as in years past, your tap water met all USEPA and state drinking water health standards. The City vigilantly safeguards its water supplies and once again, we are proud to report that our system has never violated a maximum contaminant level (MCL) or any other water quality standard. This brochure is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to federal and state standards.

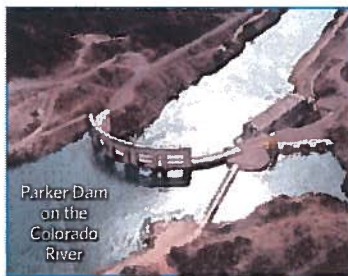
Basic Information About Drinking Water Contaminants

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of land or through the layers of the ground it dissolves naturally occurring

minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animal and human activity.

Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban



stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining and farming.

- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production or mining activities.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gasoline stations, urban stormwater runoff, agricultural application and septic systems.

In order to ensure that tap water is safe to drink, USEPA and the DDW prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.

The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at (800) 426-4791.



We Invite You to Learn More About Your Water's Quality

For information about this report, or your water quality in general, please contact the Water Quality Staff at (714) 741-5395.

Public City Council meetings are held on the second and fourth Tuesdays of each month at 6:45 p.m. in the Council Chambers at the Community Meeting Center, 11300 Stanford Avenue, Garden Grove, California 92840.

You may also contact our City Clerk's Office, Garden Grove City Hall, 11222 Acacia Parkway, Garden Grove, California 92840 or call (714) 741-5040 for information about Garden Grove City Council meetings. Please feel free to participate in these meetings.

For more information about the health effects of the contaminants listed in the following tables, you may call the USEPA hotline at (800) 426-4791.



— To Safeguard Against Issues that May Affect Your Health —

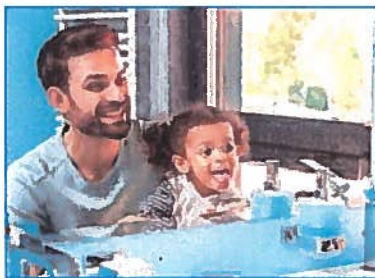
We Comply with All State & Federal Water Quality Regulations

About Lead in Tap Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing.

The City is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking.

If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline, (800) 426-4791, or at: www.epa.gov/safewater/lead.



Drinking Water Fluoridation

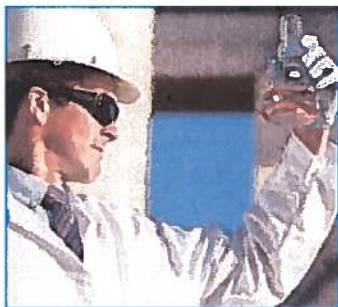
Fluoride has been added to U.S. drinking water supplies since 1945. Of the 50 largest cities in the U.S., 43 fluoridate their drinking water.

In December 2007, MWDSC joined a majority of the nation's public water suppliers in adding fluoride to drinking water in order to prevent tooth decay. MWDSC was in compliance with all provisions of the State's fluoridation system requirements. Our local water is not supplemented with fluoride. Fluoride levels in drinking water are limited under California state regulations at a maximum dosage of 2 parts per million.



Immunocompromised People

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised people, such as those with cancer who are undergoing chemotherapy, persons who have had organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons, and infants can be particularly at risk to infection. These people should seek advice about drinking water from their health care providers.



Cryptosporidium

Cryptosporidium is a microscopic organism that, when ingested, can cause diarrhea, fever, and other gastrointestinal symptoms. The organism comes from animal and/or human wastes and may be in surface water. MWDSC tested its source water and treated surface water for *Cryptosporidium* in 2021, but did not detect it. If it ever is detected, *Cryptosporidium* is eliminated by an effective treatment combination including sedimentation, filtration, and disinfection.

The USEPA and the federal Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from USEPA's Safe Drinking Water Hotline at (800) 426-4791, or visit them on the web at: www.epa.gov/safewater.

PFAS

PFAS (PFOA and PFOS) are a group of man-made chemicals that may pose a hazard to health. They have been widely used in a variety of products and are resistant to heat, water, oils and stains.

The City monitors very closely on PFOA and PFOS levels in our supply wells per the latest State guidelines. Six of the City's wells have been taken offline as a precaution, and the City is working on design/construction of treatment systems before reactivating the affected wells.

Additional information regarding PFOA and PFOS is available on the California Water Board's Division of Drinking Water website at www.waterboards.ca.gov/pfas/.

PFAS can be found in:



2021 Metropolitan Water District of Southern California Treated Surface Water

Constituent	MCL	PHG (MCLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Constituent
Radiologicals – Tested in 2020 and 2021						
Gross Alpha Particle Activity (pCi/L)	15	(0)	ND	ND – 3	No	Erosion of Natural Deposits
Gross Beta Particle Activity (pCi/L)	50	(0)	5	4 – 6	No	Decay of Natural and Man-made Deposits
Uranium (pCi/L)	20	0.43	2	1 – 3	No	Erosion of Natural Deposits
Inorganic Chemicals – Tested in 2021						
Aluminum (ppm)	1	0.6	0.141	ND – 0.21	No	Treatment Process Residue, Natural Deposits
Barium (ppm)	1	2	0.111	0.111	No	Refinery Discharge, Erosion of Natural Deposits
Bromate (ppb)	10	0.1	ND	ND – 4.6	No	Byproduct of Drinking Water Ozonation
Fluoride (ppm)	2	1	0.7	0.6 – 0.9	No	Water Additive for Dental Health
Secondary Standards* – Tested in 2021						
Aluminum (ppb)	200*	600	141	ND – 210	No	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	96	95 – 97	No	Runoff or Leaching from Natural Deposits
Color (color units)	15*	n/a	1	1	No	Naturally-occurring Organic Materials
Odor (threshold odor number)	3*	n/a	2	2	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	958	950 – 965	No	Substances that Form Ions in Water
Sulfate (ppm)	500*	n/a	214	214 – 215	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	597	597	No	Runoff or Leaching from Natural Deposits
Unregulated Chemicals – Tested in 2018 and 2021						
Alkalinity, total as CaCO ₃ (ppm)	Not Regulated	n/a	125	124 – 126	n/a	Runoff or Leaching from Natural Deposits
Boron (ppm)	NL = 1	n/a	0.13	0.13	n/a	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	66	65 – 66	n/a	Runoff or Leaching from Natural Deposits
Germanium (ppb) ⁽¹⁾	Not Regulated	n/a	0.1	ND – 0.4	n/a	Erosion of Natural Deposits; Industrial Discharge
Hardness, total as CaCO ₃ (ppm)	Not Regulated	n/a	274	271 – 276	n/a	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gallon)	Not Regulated	n/a	16	16	n/a	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	25	24 – 26	n/a	Runoff or Leaching from Natural Deposits
Manganese (ppb) ^(1,2)	50*	n/a	2.23	0.8 – 3.3	No	Erosion of Natural Deposits
pH (pH units)	Not Regulated	n/a	8.1	8.1	n/a	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	4.4	4.2 – 4.6	n/a	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	94	93 – 95	n/a	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	n/a	2.4	1.9 – 2.8	n/a	Various Natural and Man-made Sources

ppb = parts per billion; ppm = parts per million; pCi/L = picoCuries per liter; µmho/cm = micromhos per centimeter; ND = not detected;

MCL = Maximum Contaminant Level; (MCLG) = federal MCL Goal; PHG = California Public Health Goal;

NL = Notification Level; n/a = not applicable; TT = treatment technique

*Chemical is regulated by a secondary standard.

(1) Constituent is part of the Fourth Unregulated Contaminant Monitoring Rule (UCMR 4)

(2) Manganese is regulated with a secondary standard but was not detected, based on the detection limit for purposes of reporting of 20 ppb.

Turbidity – combined filter effluent Metropolitan Water District Diemer Filtration Plant	Treatment Technique	Turbidity Measurements	TT Violation?	Typical Source of Constituent
1) Highest single turbidity measurement (NTU)	0.3	0.03	No	Soil Runoff
2) Percentage of samples less than or equal to 0.3 NTU	95%	100%	No	Soil Runoff

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms.

NTU = nephelometric turbidity units

Low turbidity in Metropolitan's treated water is a good indicator of effective filtration. Filtration is called a "treatment technique" (TT).

A treatment technique is a required process intended to reduce the level of chemicals in drinking water that are difficult and sometimes impossible to measure directly.

Chart Legend

What are Water Quality Standards?

Drinking water standards established by USEPA and DDW set limits for substances that may affect consumer health or aesthetic qualities of drinking water. The charts in this report show the following types of water quality standards:

- **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.
- **Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Secondary MCLs:** Set to protect the odor, taste, and appearance of drinking water.
- **Primary Drinking Water Standard:** MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.
- **Regulatory Action Level (AL):** The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

What is a Water Quality Goal?

In addition to mandatory water quality standards, USEPA and DDW have set voluntary water quality goals for some contaminants. Water quality goals are often set at such low levels that they are not achievable in practice and are not directly measurable. Nevertheless, these goals provide useful guideposts and direction for water management practices. The charts in this report include three types of water quality goals:

- **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by USEPA.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

How are Contaminants Measured?

Water is sampled and tested throughout the year. Contaminants are measured in:

- parts per million (ppm) or milligrams per liter (mg/L)
- parts per billion (ppb) or micrograms per liter (µg/L)
- parts per trillion (ppt) or nanograms per liter (ng/L)

2021 City of Garden Grove Groundwater Quality

Constituent	MCL	PHG	Average Amount	Range of Detections	MCL Violation?	Most Recent Sampling Date	Typical Source of Constituent
Radiologicals							
Uranium (pCi/L)	20	0.43	8.05	5.15 – 10.1	No	2021	Erosion of Natural Deposits
Inorganic Chemicals							
Arsenic (ppb)	10	0.004	<2	ND – 2.4	No	2020	Erosion of Natural Deposits
Barium (ppm)	1	2	<0.1	ND – 0.128	No	2020	Erosion of Natural Deposits
Fluoride (ppm)	2	1	0.45	0.41 – 0.49	No	2020	Erosion of Natural Deposits
Nitrate (ppm as N)	10	10	3.64	2.38 – 4.36	No	2021	Fertilizers, Septic Tanks
Nitrate+Nitrite (ppm as N)	10	10	3.64	2.38 – 4.36	No	2021	Fertilizers, Septic Tanks
Perchlorate (ppb)	6	1	<2	ND – 3.8	No	2021	Industrial Discharge
Secondary Standards*							
Chloride (ppm)	500*	n/a	79.5	40.5 – 117	No	2021	Erosion of Natural Deposits
Specific Conductance (µmho/cm)	1,600*	n/a	869	613 – 1,060	No	2021	Erosion of Natural Deposits
Sulfate (ppm)	500*	n/a	125	84.4 – 145	No	2021	Erosion of Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	544	387 – 690	No	2021	Erosion of Natural Deposits
Turbidity (NTU)	5*	n/a	<0.1	ND – 0.2	No	2020	Erosion of Natural Deposits
Unregulated Constituents							
Alkalinity, total as CaCO ₃ (ppm)	Not Regulated	n/a	185	167 – 216	n/a	2021	Erosion of Natural Deposits
Boron (ppm)	NL = 1	n/a	0.11	ND – 0.26	n/a	2020	Erosion of Natural Deposits
Bromide (ppm) ⁽¹⁾	Not Regulated	n/a	0.22	0.104 – 0.62	n/a	2019	Industrial Discharge
Calcium (ppm)	Not Regulated	n/a	102	77.8 – 113	n/a	2020	Erosion of Natural Deposits
Chromium, Hexavalent (ppb)	Not Regulated	0.02	1.5	ND – 2.3	n/a	2020	Erosion of Natural Deposits; Industrial Discharge
Germanium (ppb) ⁽¹⁾	Not Regulated	n/a	0.02	ND – 0.3	n/a	2019	Erosion of Natural Deposits; Industrial Discharge
Hardness, total (grains/gal)	Not Regulated	n/a	19	14 – 22	n/a	2020	Erosion of Natural Deposits
Hardness, total as CaCO ₃ (ppm)	Not Regulated	n/a	330	248 – 372	n/a	2020	Erosion of Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	18	13 – 22	n/a	2020	Erosion of Natural Deposits
Manganese (ppb) ^(1,2)	50*	n/a	0.14	ND – 1.8	No	2019	Erosion of Natural Deposits
PFAS Compounds							
Perfluoro butane sulfonic acid (PFBS) (ppt)	NL = 500	n/a	<4	ND – 4.1	n/a	2021	Industrial Discharge
Perfluoro hexane sulfonic acid (PFHxS) (ppt)	Not Regulated	n/a	6.4	ND – 17.4	n/a	2021	Industrial Discharge
Perfluorohexanoic acid (PFHxA) (ppt)	Not Regulated	n/a	<4	ND – 4.3	n/a	2021	Industrial Discharge
Perfluoro octane sulfonic acid (PFOS) (ppt)	NL = 6.5	n/a	8.5	ND – 28.8	n/a	2021	Industrial Discharge
Perfluoro octanoic acid (PFOA) (ppt)	NL = 5.1	n/a	4	ND – 10.4	n/a	2021	Industrial Discharge
pH (pH units)	Not Regulated	n/a	7.8	7.7 – 7.9	n/a	2020	Acidity, hydrogen ions
Potassium (ppm)	Not Regulated	n/a	4	3.2 – 5.2	n/a	2020	Erosion of Natural Deposits
Total Organic Carbon (Unfiltered)(ppm) ⁽¹⁾	Not Regulated	n/a	0.28	0.17 – 0.48	n/a	2019	Various Natural and Man-made Sources
Sodium (ppm)	Not Regulated	n/a	57	36.5 – 90.5	n/a	2020	Erosion of Natural Deposits
Vanadium, Total (ppb)	NL = 50	n/a	<3	ND – 3.8	n/a	2020	Erosion of Natural Deposits; Industrial Discharge

ppb = parts-per-billion, ppm = parts-per-million, ppt = parts per trillion, pCi/L = picoCuries per liter, NTU = nephelometric turbidity units, ND = not detected, µmho/cm = micromho per centimeter, NL = Notification Level; n/a = not applicable, < = average is less than the detection limit for reporting purposes; MCL = Maximum Contaminant Level, PHG = California Public Health Goal

*Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

(1) Constituent is part of the Fourth Unregulated Contaminant Monitoring Rule (UCMR 4)

(2) Manganese is regulated with a secondary standard but was not detected, based on the detection limit for purposes of reporting of 20 ppb.

2021 City of Garden Grove Distribution System Water Quality

Disinfection Byproducts	MCL (MRDL/MRDLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Constituent
Total Trihalomethanes (ppb)	80	32	ND – 74	No	Byproducts of Chlorine Disinfection
Haloacetic Acids (ppb)	60	8	ND – 17	No	Byproducts of Chlorine Disinfection
Chlorine Residual (ppm)	(4 / 4)	1.13	0.12 – 2.65	No	Disinfectant Added for Treatment

Aesthetic Quality

Color (color units)	15*	<1	ND – 2	No	Erosion of Natural Deposits
Turbidity (NTU)	5*	<0.1	ND – 0.36	No	Erosion of Natural Deposits

Eight locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids; thirty-three locations are tested each month for color, odor and turbidity. Odor was not detected in 2021.

MRDL = Maximum Residual Disinfectant Level; **MRDLG** = Maximum Residual Disinfectant Level Goal

* Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

Lead and Copper Action Levels at Residential Taps

	Action Level (AL)	Public Health Goal	90 th Percentile Value	Sites Exceeding AL / Number of Sites	AL Violation?	Typical Source of Constituent
Lead (ppb)	15	0.2	ND<5	0 / 50	No	Corrosion of Household Plumbing
Copper (ppm)	1.3	0.3	0.19	0 / 50	No	Corrosion of Household Plumbing

Every three years, at least 50 residences are tested for lead and copper at-the-tap. The most recent set of samples was collected in 2019.

Lead was not detected. Copper was detected above the reporting level in 38 samples, but none of the samples exceeded the copper Action Level.

A regulatory Action Level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

In 2021, no school submitted a request to be sampled for lead.

Unregulated Chemicals Requiring Monitoring in the Distribution System

Constituent	Notification Level	PHG	Average Amount	Range of Detections	Most Recent Sampling Date
Dibromoacetic Acid (ppb)	n/a	n/a	0.64	0.4 – 1.2	2019

Source Water Assessments

Imported (MWDSC) Water Assessment

Every five years, MWDSC is required by DDW to examine possible sources of drinking water contamination in its State Water Project and Colorado River source waters.

The most recent surveys for MWDSC's source waters are the

Colorado River Watershed Sanitary Survey – 2020 Update, and the State Water Project Watershed Sanitary Survey – 2016 Update.

Water from the Colorado River is considered to be most vulnerable to contamination from recreation, urban/stormwater runoff, increasing urbanization in the watershed, and wastewater. Water supplies from Northern California's State Water Project are most vulnerable to contamination from urban/stormwater runoff, wildlife, agriculture, recreation, and wastewater.

USEPA also requires MWDSC to complete one Source Water Assessment (SWA) that utilizes information collected in the watershed sanitary surveys. MWDSC completed its SWA in December 2002. The SWA is used to evaluate the vulnerability of water sources to contamination and helps determine whether more protective measures are needed.



A copy of the most recent summary of either Watershed Sanitary Survey or the SWA can be obtained by calling MWDSC at (800) CALL-MWD (225-5693).

Groundwater Assessment

An assessment of the drinking water sources for the City was completed in December 2002. The groundwater sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: known contaminant plumes, historic agricultural activities and application of fertilizers, and parks. The groundwater sources are considered most vulnerable to the following activities not associated with detected contaminants: confirmed leaking underground storage tanks, dry cleaners, gas stations, and photo processing/printing.

A copy of the complete assessment is available at State Water Resources Control Board, Division of Drinking Water, 2 MacArthur Place, Suite 150, Santa Ana, California 92707.

You may request a summary of the assessment by contacting the City at (714) 741-5395.

