



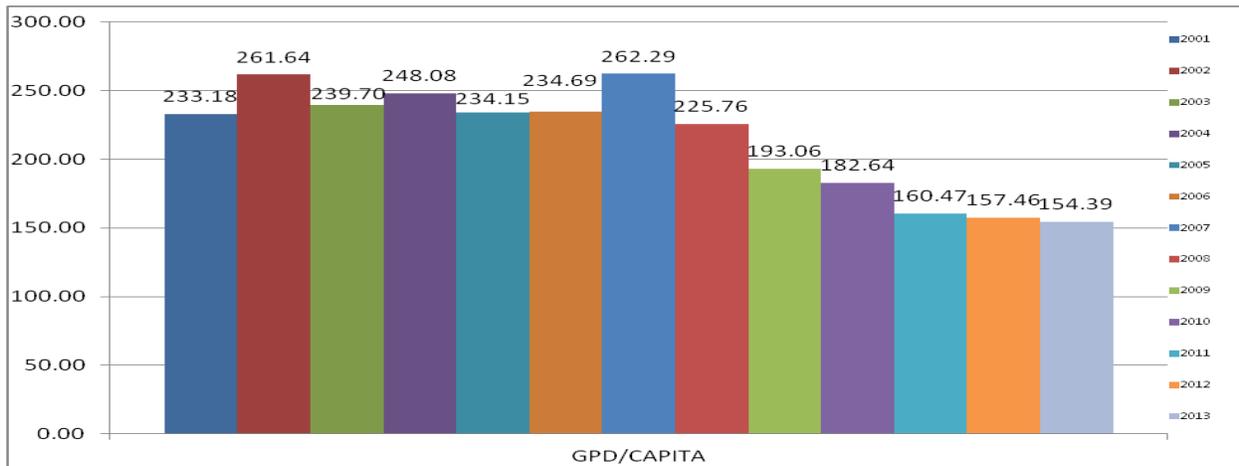
## 2013 Consumer Confidence Report



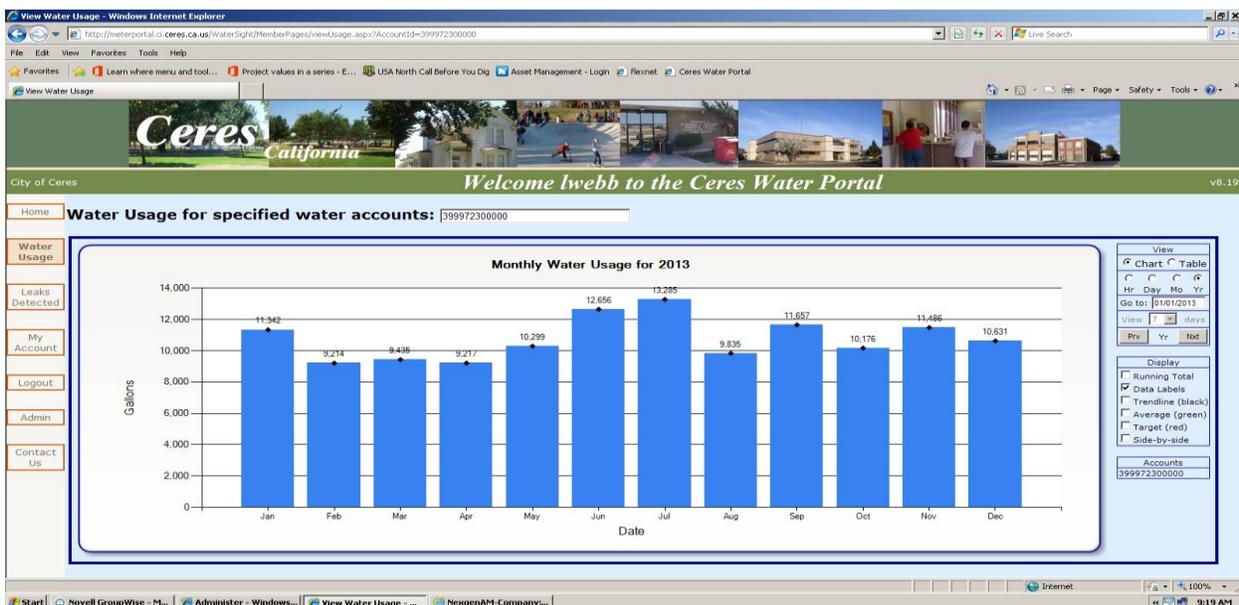
With water Quality being our top priority the City of Ceres is pleased to distribute this year's report to the City of Ceres residents. It provides important information about where your water comes from and the work the water division performs each day to assure that the water delivered to your tap is safe to drink. It also provides data about what is in your water and how the water quality results compare to federal and state standards. In an effort to ensure water quality, water employees sample our water across the city on a weekly, monthly, quarterly and annual schedule depending on the contaminant. In addition, city employees flushed over 43 miles of water mains, exercised 300 water main valves and numerous fire hydrants during the 2013 calendar year. The City also brought two new wells on-line in Smyrna Park and one well had a new chemical treatment facility installed. Well pump efficiency tests were performed on all domestic wells and seven generators were installed to provide backup power in case of outages. During 2013 City of Ceres residents received 2.6 billion gallons of water respectively from 15 groundwater wells located within the City. This was delivered by the water distribution system within the City that contains more than 154 miles of pipeline that moves the groundwater from the source to your tap. In an effort to address future water supply and demand challenge's the City of Ceres partnered with the Cities of Modesto and Turlock to form the Stanislaus Regional Water Authority (SRWA) to develop a future potable water supply plan. The amount of groundwater in storage in each basin is dependent on the precipitation, recharge and the total extraction of water from all the wells within the system. The groundwater management plan will be designed for the political, institutional, legal and technical specifics of the basin, which can help everyone, maintain the quality and quantity of the groundwater supply. This will help the City plan additional programs that will lead to more efficient management.

The City of Ceres has taken extensive measures to focus on water conservation efforts to assist in meeting future demands while tackling water quality issues as the changes in water quality standards are resulting in less water and or more expensive measures needed to assure a safe and reliable drinking water supply. Through modern technology, incentives and education in the form of outreach, the City has lowered our gallons per capita per day from peaks as high as

260 gallons per day (gpd) in 2002 to the lowest to date level of 154 gpd in 2013. The bar graph below illustrates the gradual reduction in gallons per day per capita between the years of 2001 to 2013 from annual results collected from the City of Ceres resident's water usage.



Currently the City offers an online database titled the City of Ceres Water Meter Portal that was successfully implemented in 2011. The program enables Ceres residents the ability to view and monitor their own water consumption, receive usage reports, leak alerts, high consumption alerts, set water usage targets and get information on rebate programs and home surveys offered by the City. The portal is updated daily with the previous day's usage and allows the resident to view their water usage on an hourly, daily, monthly and yearly base with several additional viewing options such as a side by side comparison of their water consumption from previous time frames. The portal serves as a great tool and educator to help promote accountability and the reduction of water usage. The picture below shows an internal City account's usage for the 2013 calendar year. We currently have 9.5% of City residents signed up for the portal and encourage all of our residents with access to a computer and or a smart phone to utilize their free portal account. To foster the most relevant information within our region the portal continues to be updated to promote water conservation and can be accessed via the internet at the following link: <http://meterportal.ci.ceres.ca.us/>.



The City of Ceres has also become a fully metered system on all water service connections in compliance with state mandates and the 20X2020 Water Conservation Plan that aims to set in motion a range of activities designed to achieve the 20 percent per capita reduction in urban water demand by the year 2020. In addition, to the installation of water meters helping to keep the City on track to meet water usage goals it has also sets forth a statewide road map to maximize the state's urban water efficiency and conservation opportunities. Currently the Central Valley is faced with an increase in water demands due to a growth in population and economic development at a time when the stresses on the available water supplies are increasing. Environmentally sound strategies to meet future water supply and quality are crucial to protecting and restoring the groundwater levels in the Turlock Sub-Basin, which is where the City's groundwater is pumped from. Current drought conditions and climate change also have adverse affects on available water supply and quality.

During 2013 within the City of Ceres we had 9,712 single family resident accounts that used on average 508 gallons per day. Out of our single family residents the top 5 percent of water consumer's used on average 1,246 gallons per day. To educate the public on watering rules, regulations, rebate programs and home water survey options the City of Ceres has increased their outreach with classroom presentations and a strong presence at local events covering the topic of water efficient equipment and water conservation practices; which has aided the City in an increase in rebate applications. Furthermore, since 75% of all water used indoor is in the residents bathrooms City employees are dispensing 5 minute water shower timers, efficient show heads of 1.5 gallons per minute (gpm) and 1.5 gpm sink fixtures and aerators; to help promote residents to utilize efficient devices for long lasting behavior and infrastructure change. Did you know that by turning off the water while you brush your teeth you'll save up to 4 gallons a minute which adds up to 200 gallons a week for a family of four. Also by reducing your shower time to keep it under 5 minutes you'll save up to 1,000 gallons of water a month or by retrofitting your show head with a reduced water flow of 1.75 gpm you can save up to 20% in your bathroom water usage and heating bill.

To further encourage resident participation the City has increased its efforts to promote the current rebate program which offers \$75.00 per replacement of inefficient water equipment with either a high efficiency washing machine and or an ultra low flow toilet. Did you know that a typical residential toilet uses 3 to 5 gallons of water per flush (gpf); while a high efficiency toilet utilizes 1.28 gallons of water per flush? By replacing a high water use toilet with a new HET of 1.28 gpf you can save about 38 gallons of water each day! As well a standard top-loading washing machine uses 40 gallons of water per load in comparison to a high efficiency washing machine that uses approximately 15 gallons of water per load. By making these small changes residents will see a significant difference in their water and heating bills. During the 2013 calendar we received 13 rebates 8 of which were for washing machines and 5 for toilets. To date during the 2014 calendar year we have received 50 rebates 6 of which were for washing machines and 44 for toilets; which is a 285% increase in the rebate program. If you are interested in further information on the rebate program please visit the City of Ceres website at <http://www.ci.ceres.ca.us/213.html>. By implementing a preventive maintenance program the City is ensuring that adequate water supply and reliability for all uses; which is essential to the future economic and environmental health of the City of Ceres.

Another significant area of water use for homes and businesses is water used outside for landscape irrigation, which represents approximately 30 percent of your annual water demand. During the hot summer months this percentage increases to 50 percent of customers total water

demand. There are simple and cost-effective measures that Ceres residents can take to help reduce their outside irrigation water use. For example, set your landscape irrigation controller off during winter months allowing rain to water your lawn and surrounding plants. Keep your turf grass at a height between 2½ to 3 inches tall to help lower evaporation and promotes lawn root growth. Water your lawn and vegetation between the hours of 10:00 p.m. and 6:00 a.m. to reduce evaporation on your watering days and never on Mondays which is a non watering day for all Ceres residents. Replace damaged and poorly spraying sprinkler valves and heads to use water wisely or invest in an efficient drip irrigation system which delivers water only to the plants' roots. Utilize mulch and bark around plants, shrubs and trees to help reduce evaporation of water, mitigate weed growth, and enjoy the benefits of healthier plants. Additionally, if you see water running off properties into the gutter, residents watering on wrong days, wrong times or any form of water wasting please call us to report the situation at (209) 538-5732. The City of Ceres Water Division staff are also available to help our residents set their sprinkler timers free of charge to avoid water waste and possible violations. The year around water schedule is showcased below for your reference.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>No watering is allowed between 12:00 p.m. (noon) to 7:00 p.m.</b>	Odd Address	<b>No watering allowed</b>		Odd Address		Odd Address	
		<b>No watering allowed</b>	Even Address		Even Address		Even Address
<b>Odd</b> addresses end in 1, 3, 5, 7 or 9 <b>Even</b> addresses end in 0, 2, 4, 6 or 8							

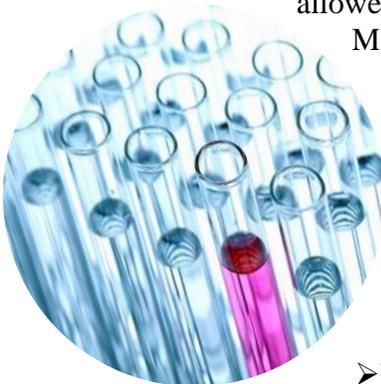
In addition to mandatory water quality standards, the City of Ceres, USEPA and CDPH have set voluntary water quality goals for some contaminants. Water quality goals are often set at such low levels that they are not achievable in practice and are not directly measurable. Nevertheless, these goals provide useful guide posts and direction for water managements practices. The chart listed at the end of this report includes different types of water quality goals, such as:

➤ **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 Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health set by the USEPA.

➤ **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a disinfectant added for water treatment below which there is no known or expected risk to health set by the USEPA.

➤ **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.



Although, the City of Ceres is responsible for providing high quality drinking water, we cannot control the variety of materials used in plumbing. Elevated levels of lead in drinking water can cause serious health problems, especially for pregnant women and young children. You can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water from your tap for drinking or cooking. If you are concerned about levels of lead in your water you can find information on testing methods, and steps you can take to minimize exposure at <http://www.epa.gov/safewater/lead>.

Additionally, some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as individuals with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These individuals should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the *Safe Drinking Water Hotline* at 1-800-426-4791.

## **Nitrate**

In 2013, the average nitrate level found in the City water supply was 24.91 milligrams per liter. Nitrate in drinking water at levels above 45 mg/L is a health risk for infants less than six months of age. High nitrate levels in drinking water can interfere with the capacity of blood to carry oxygen in infants, pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should seek advice from your health care provider. Please note that the confirmed highest nitrate level found in the City water supply during the calendar year of 2013 was 42.0 mg/L.

## **Arsenic**

While your drinking water meets the current EPA standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. The USEPA lowered the Maximum Contaminant Level (MCL) for arsenic to 10 parts per billion (ppb) effective in 2006. Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, and may have an increased risk of getting cancer. Please note that the confirmed highest arsenic level found in the City water supply in 2013 was 9.70 ppb with an average arsenic level of 5.83 ppb.

## **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. If it is ever 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 1-800-426-4791 between 9 a.m. and 5 p.m. Eastern Time (6 a.m. to 2 p.m. in California).

Disinfection of drinking water was one of the major public health advances in the 20<sup>th</sup> century. Disinfection reduces waterborne disease epidemics caused by pathogenic bacteria and viruses, and it remains an essential part of our drinking water treatment today. Chlorine disinfection which is added to your drinking water at the source of supply (groundwater well) has almost completely eliminated the risks of microbial waterborne diseases. The "residual" chlorine helps to prevent the growth of bacteria in the pipes that carry drinking water from the source into your home. However, chlorine can react with naturally-occurring materials in the water to form unintended chemical byproducts, called disinfection byproducts (DBPs), which may pose health risks. It is important to provide protection from these microbial pathogens while simultaneously ensuring decreasing health risks from disinfection byproducts. The Safe Drinking Water Act requires the USEPA to develop rules to achieve these goals.

Trihalomethanes (THMs) and Haloacetic Acids (HAAs) are the most common and most studied disinfection byproducts (DBPs), found in drinking water treated with chlorine. In 1979, the USEPA set the maximum amount of total THMs allowed in drinking water at 100 parts per billion as an annual running average. Effective in January 2002, the Stage 1 Disinfectants / Disinfection Byproducts Rule lowered the total THM maximum annual average level to 80 parts per billion and added HAAs to the list of regulated chemicals in drinking water. Your drinking water complies with the Stage 1 Disinfectants / Disinfection Byproducts Rule.

The City of Ceres drinking water source assessment and the vulnerability summary was completed in 2010 and was updated in 2013 with the addition of 2 new wells in Smyrna Park. Both are available for review at the public works office located at 2220 Hackett Road Ceres, CA. 95307 or you may call the Public Works office at (209) 538-5732 to request a summary of the reports to be sent to you.

The table below list all of the drinking water contaminants that were detected during the 2013 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. We routinely perform additional monitoring for contaminants that could pose health concerns. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, and can pick up substances resulting from the presence of animals or from human activity. Approximately 80% of our exposure to radioactivity is natural and another 20% is from manmade sources, although more frequent use of diagnostic imaging involving radiation (x-rays, CT scans) is increasing exposure from this source. We are exposed to naturally occurring radiation for example from radon gas emanating from rocks and soil, and cosmic radiation from space. We also carry small amounts of potassium-40 in our bodies from the foods containing potassium. When a well exceeds a certain level of detected Gross Alpha Activity, the well water is tested for Uranium. If the detected level of a water source is below the Gross Alpha and Uranium MCL, then the water source is considered safe and is left in service. During the calendar year of 2013 the City of Ceres had a result of 17.70 for Gross Alpha at one of its Wells which is above the 15 MCL. However, this result is not a violation due to the fact that the current requirements call for a 4 quarter average which we have not reached to date.

Chemical	MCL (Legal Limit)	PHG (MCLG)	Average Level Detected	Range of Results	Date	Violation	Typical Source of Contaminant
<b>Microbiologicals</b>							
Total Coliform Bacteria	5.00%	0	0	0 to 0	2013	No	Naturally present in the environment
<b>Radiologicals</b>							
Gross Alpha(pCi/L)	15	0	10.50	4.42 to 17.70	2013	No	Erosion of natural deposits
Uranium (pCi/L)	20	0	9.35	<0.67 to 17	2013	No	Decay of man-made or natural deposits
<b>Inorganic Chemicals</b>							
Arsenic (ug/L)	10	4	5.83	4 to 9	2013	No	Erosion of natural deposits
Barium (BA) (ug/L)	1000	2,000.00	108.78	41 to 200	2013	No	Erosion of natural deposits
Flouride (mg/l)	2	1	0.15	<0.050 to 0.25	2013	No	Erosion of natural deposits
Nitrate as NO <sup>3</sup> (mg/l)	45	45	24.91	<0.44 to 42	2013	No	Agriculture runoff and sewage
Selenium (ug/L)	50	30,000	2	<2.0 to 2	2013	No	Agriculture runoff and sewage
<b>Organic Chemicals</b>							
Dibromochloropropane (DBCP) (ug/L)	0.2	1.7	0.08	<0.010 to 0.10	2013	No	Soil Runoff
Trichloroethane (PCE) (ug/L)	5	0.06	<0.50	<0.50 to <0.50	2013	No	Discharge from factories, dry cleaners, auto shops
<b>Secondary Regulated Chemicals</b>							
Chloride (mg/L)	500	n/a	101.89	18 to 310	2013	No	Runoff/leaching of natural deposits
Color (color units)	15	n/a	1	1 to 1	2013	No	Naturally-occurring organic materials
Manganese (µg/L)	50	n/a	10.50	<1.0 to 18	2013	No	Leaching from natural deposits
Odor (odor units)	3	n/a	ND	ND	2013	No	Naturally-occurring organic materials
Specific Conductance (µmho/cm)	1,600	n/a	686	445 to 1250	2013	No	Substances that form ions in water
Sulfate (mg/L)	500	n/a	12.57	4.60 to 23	2013	No	Runoff/leaching from natural deposits
Total Dissolved Solids (mg/L)	1,000	n/a	427.78	280 to 690	2013	No	Runoff/leaching from natural deposits
Turbidity (NTU Units)	5	n/a	0.17	<0.10 to 0.36	2013	No	Soil Runoff
PH (PH Units)	6 - 8	n/a	8	7 to 8	2013	No	Physical measure of water acidity
<b>Unregulated Chemicals</b>							
Total Alkalinity as COC3 (mg/l)	n/a	n/a	170	120 to 320	2013	n/a	Runoff/leaching from natural deposits
Hardness as CaCO <sup>3</sup> (mg/L)	n/a	n/a	142.67	61 to 300	2013	n/a	Runoff/leaching from natural deposits
Sodium (mg/l)	n/a	n/a	89.33	57 to 150	2013	n/a	Runoff/leaching from natural deposits
<b>Disinfection Byproducts</b>							
Total Trihalomethanes (ug/L)	80	n/a	5.52	<2.0 to 9	2013	No	By-product of water disinfection
Haloacetic Acids (ug/L)	60	n/a	3.54	1 to 26	2013	No	By-product of water disinfection
<b>Disinfection</b>							
Chlorine Residual	4	4	0.61	0 to 1.50	2013	No	Used to disinfect drinking water

## Questions about your water?

Contact us for answers. For information or concerns about this report, or your water quality in general, please contact Jeremy Damas at (209) 538-5797, or send an email to [Jeremy.damas@ci.ceres.ca.us](mailto:Jeremy.damas@ci.ceres.ca.us). You may also address your concerns at the regularly scheduled City Council Meetings held at City Council Chambers at 2701 Fourth Street, Ceres. City Council meeting are held at 7:00 p.m. on the second and fourth Monday of each month (unless the Monday is a holiday, then the meeting will be held on Tuesday). Please feel free to participate in these meetings. The City firmly believes in the public's right to know as much as possible about the quality of their drinking water and the health of their watershed. Your input and concerns are very important to us. For more information about the health effects of the listed contaminants in the following tables, call the U.S. Environmental Protection Agency hotline at (800) 426-4791.

### Want Additional Information?

**There's a wealth of information on the Internet about Drinking Water Quality and water issues in general. Some good sites – both local and national – to begin your own research are:**

**City of Ceres:** [www.ci.ceres.ca.us](http://www.ci.ceres.ca.us)

**Rebates for City of Ceres residents:** <http://www.ci.ceres.ca.us/213.html>

**Water Education Foundation:** [www.watereducation.org](http://www.watereducation.org)

**California Department of Public Health, Division of Drinking Water and Environmental Management:**

[www.cdph.ca.gov/certlic/drinkingwater](http://www.cdph.ca.gov/certlic/drinkingwater)

**U.S. Environmental Protection Agency:**

[www.epa.gov/safewater/](http://www.epa.gov/safewater/)

**California Department of Water Resources:** [www.water.ca.gov](http://www.water.ca.gov)

**Water Conservation Tips:** [www.bewaterwise.com](http://www.bewaterwise.com)  
[www.wateruseitwisely.com](http://www.wateruseitwisely.com)

**For information on water and energy efficient products:**  
[www.energystar.gov](http://www.energystar.gov)

This report contains important information about your drinking water.

Translate it, or speak with someone who understands it.

ال شرب مياه ب لادكم عن هلمة معلومات ب تضمن ال تقرير هذا

ب فهم شخص مع ال تحدث أو و ترجمته

*Arabic*

この報告はあなたの飲用水についての重要な情報を含んでいます

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それを翻訳するか、あるいはそれを理解している誰かと話してください。

*Japanese*

Este informe contiene información importante sobre su agua potable. Tradúzcalo, o hable con alguien que comprende.

*Spanish*

这份报告包含有关你的喝酒水的重要信息。

翻译它，或跟理解它的某人讲话。

*Chinese*

이 보고서에는에 대한 중요한 정보를 물었습니다.

번역하거나 다른 사람과 이야기를 이해하고 이었습니다.

*Korean*

ب و د آشام بذب ب آب درب باره مهمی اطلاعات حاوی گ زارش این

ب باشد فهم قابل که سی ب ا زدن حرف ب ا، است ترجمه

*Persian*