# Water Conservation Rules in Lakewood

Because of the ongoing drought, the state is requiring every water department in California to implement mandatory water conservation rules in their service area. This includes Lakewood's Water Resources Department, which provides water to your residence or place of business. The rules are targeted at outdoor water use, where the majority of water is used in our state.

Here are the most important aspects of the new rules for Lakewood customers:

**1.** The watering of lawns and landscaping is now limited to two times a week for only ten minutes each time during the months of October through May (three times a week during the months of June through September). For yards with multiple sprinkler zones, each zone can be watered for a maximum of ten minutes each time.

a. The following are exceptions to the water rule:

Watering done with low-water-use "rotor sprinklers" that meet a 70% efficiency standard is exempted from all of the day and time limits. Exemptions are also allowed for watering if done with a drip irrigation system with emitters producing no more than two gallons per hour. Likewise, hand watering of a lawn or landscaping is exempt if done with a hose utilizing an automatic shut-off nozzle.

**2.** No washing down of driveways and sidewalks in Lakewood.

**3.** Watering can only be done in the early morning and evening (before 9:00 a.m. or after 5:00 p.m).

**4.** No runoff from sprinklers (or any type of watering) to sidewalks, gutters and other hardscape.

**5.** The washing of cars and other equipment can only be done with water from a bucket or hose with an automatic shut-off nozzle. (Note: Commercial car washes are already required to recycle most of their water and can continue operations under the conservation rules.)

**6.** The state rules require local enforcement. Lakewood will start with a friendly reminder and placement of a door hanger notice on what needs to be corrected. For a first violation, there will be a written warning from the city with no penalty. A second violation will bring a citation of $100, with further citations bringing more fines and the potential for flow restrictors being installed at the residence.

Rebates from Lakewood's water department can help customers purchase high-efficiency rotor sprinklers, drip and subsurface drip irrigation systems that are exempt from the water restrictions.

For more information, please visit www.lakewoodcity.org/waterrebates or call 562-866-9771, extension 2140.

LAKEWOOD Water Quality Report
5050 Clark Avenue
Lakewood, CA 90712

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## Thank you Lakewood for conserving!

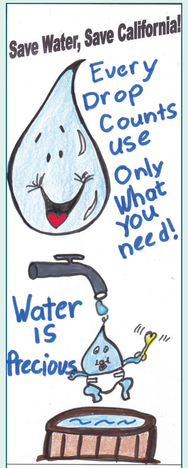
### Keep up the good work—we still have a ways to go!

Lakewood water customers have done a good job over the past year answering the call to conserve during this historic drought in California. As of the end of 2014, Lakewood water customers were using 13% less water on average than in 2013. But because of the seriousness of the drought, the state has set a goal of reducing water usage by 20%. So, we all need to maintain and even expand our efforts.

We're fortunate to live in a country where safe, clean drinking water is widely available. That's not the case in much of the world. Lakewood is especially fortunate to have top-quality, affordable drinking water that comes from underground aquifers right beneath our city.

But Lakewood's aquifers and our state water supply as a whole are under stress because of the drought. Please do your part to help Lakewood and our state make it through this drought and be good stewards of our precious, healthy water supply for the long term, too.

In this edition of Lakewood's annual Water Quality Report, you can learn details of Lakewood's regular water testing and water quality, get tips on conserving water, and get a refresher on the water conservation rules that are now in effect.




The winning entry from Lakewood's 2014 "water conservation bookmark contest" submitted by Alizé Parada, 5th grader from Melbourne Elementary School.

# LAKEWOOD Water Quality Report

*News from the City of Lakewood*
www.lakewoodcity.org
City Hall: 562-866-9771

April 2015 • Volume 36 • No. 2

## Lakewood's 2014 water quality report shows that the city's drinking water meets all state and federal drinking water quality standards.

The city's annual water quality report may look highly technical, but it's designed to provide you with a lot of information in a form that can easily be compared. The report lists the results of analyses that describe and quantify the constituents found in Lakewood's water samples.

If you look at all the possible sources of drinking water (including tap water and bottled water), you'll find that water comes from rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or underground through aquifers, it dissolves naturally occurring minerals (and in some cases, radioactive material) and can pick up substances resulting from the presence of animals or human activity.

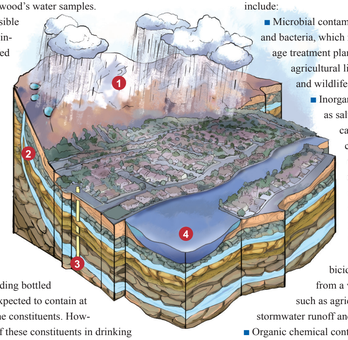
All drinking water, including bottled water, can reasonably be expected to contain at least small amounts of some constituents. However, the presence of any of these constituents in drinking water does not necessarily indicate that the water poses a health risk.

To ensure that tap water is safe to drink, the United States Environmental Protection Agency and the State Water Boards Division of Drinking Water set regulations that limit the amount of certain constituents in the water provided by public water systems.

State Water Boards Division of Drinking Water regulations also establish limits for contaminants in bottled water to provide the same protection for public health.

Constituents 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.
- 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 or farming.
- Pesticides and herbicides, which may come from a variety of sources, such as agriculture, urban stormwater runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, can come from gas stations, urban stormwater runoff, agricultural applications and septic systems.
- Radioactive contaminants, which can be naturally occurring, or the result of oil and gas production or mining activities.




**Where does Lakewood's water come from?** Rain and snowmelt in the mountains ❶ percolates into the underground aquifers ❷. The city taps these with deep wells ❸ located in Lakewood. Some cities get their water from surface sources ❹, but all of Lakewood's water comes from city-operated wells.

(Continues on flap)

### A note on lead

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. Lakewood is responsible for providing high quality drinking water, but cannot control the variety of materials used in home plumbing.

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 at 1-800-426-4791 or online at http://www.epa.gov/safewater/lead.

### Need more water quality information?

More information about constituents in drinking water and their potential health effects is available by calling the U. S. Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791 or logging on to the USEPA's website at www.epa.gov/safewater/.

Lakewood's 2014 water quality report is available on the city's website, www.lakewoodcity.org, as a PDF document.

Call city hall at 562-866-9771 to voice water quality concerns or schedule a free appointment for a water shutdown to make plumbing repairs or locate a water leak.

Water department staff members provide Lakewood water customers with service 24 hours a day, seven days a week. And if you need emergency assistance after normal business hours, call 562-866-9771 and follow the directions for a water emergency. A department representative will respond to your request.

Interested in sharing views on water quality issues? Contact Leon de los Reyes, Water Operations Superintendent, or Toyasha Sebbag, Water Administration Manager at 562-866-9771, extension 2700.

Opinions on the water supply can also be expressed at Lakewood City Council meetings held the second and fourth Tuesday of each month at 7:30 p.m. in the City Council Chambers, 5000 Clark Avenue.

## Sensitive populations may be more vulnerable

Some people may be more vulnerable to constituents in drinking water than the general population. Immuno-compromised persons, such as persons 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 people should seek advice about drinking water from their health care provider.

The United States Environmental Protection Agency and the national Centers for Disease Control have guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial constituents. These are available by calling the Safe Drinking Water Hotline at 1-800-426-4791.

■ About 6,000 Lakewood households east of the San Gabriel River are served by Golden State Water Company, an investor-owned water company. For information on Golden State's water quality report, call 1-800-999-4033.

■ Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. Para ayuda en Espanol, por favor llama Alma Varela, 562-866-9771, extensión 2103.

■ Mahalaga ang impormasyong ito. Mangyaring ipasalin ito. Kung gusto ninyong makausap sa Tagalog ang kinatawan ng lungsod ng Lakewood, tawagan si Leon de los Reyes sa 562-866-9771, extension 2700.

# City of Lakewood Department of Water Resources 2014 Annual Water Quality Report

## DISTRIBUTION SYSTEM ANALYSES (a)

### PRIMARY DRINKING WATER STANDARDS (b) — HEALTH RELATED STANDARDS

| CONSTITUENT (c) | UNIT OF MEASURE | MAXIMUM CONTAMINANT LEVEL (MCL) (d) OR MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL) (e) | PHG (f), (MCLG) (g) OR MRDLG (h) | RANGE | AVERAGE OR HIGHEST LOCATIONAL RUNNING ANNUAL AVERAGE (LRAA) (i) | MAJOR SOURCE IN LAKEWOOD'S DRINKING WATER (j) | HEALTH EFFECTS (k) |
|---|---|---|---|---|---|---|---|
| ***MICROBIOLOGICAL*** | | | | | | | |
| Total Coliform Bacteria (Non-Fecal Coliform) | % Positive (l) | 5% | (0) | 0% - 1% | 0% | Naturally present in the environment | |
| ***DISINFECTION BY-PRODUCTS & DISINFECTANT RESIDUALS*** | | | | | | | |
| Chlorine | ppm | MRDL=4 as $Cl_2$ | MRDLG=4 as $Cl_2$ | 0.1 - 2 | 1 | Drinking water disinfectant added for treatment | |
| Haloacetic Acids (HAA5) | ppb | 60 | NA | 1 - 15 | 13 | By-product of drinking water disinfection | |
| Total Trihalomethanes (TTHMs) | ppb | 80 | NA | 5 - 52 | 40 | By-product of drinking water disinfection | |

ppb=parts per billion, or micrograms per liter (ug/l) • ppm=parts per million, or milligrams per liter (mg/l) • NA=Not Applicable

### SECONDARY DRINKING WATER STANDARDS (n) — AESTHETIC STANDARDS

| CONSTITUENT | UNIT OF MEASURE | MCL | RANGE | AVERAGE | MAJOR SOURCE IN LAKEWOOD'S DRINKING WATER |
|---|---|---|---|---|---|
| ***GENERAL PHYSICAL CHARACTERISTICS OF WATER SUPPLY*** | | | | | |
| Color | units | 15 | <5 | <5 | Naturally occurring organic materials |
| Odor-Threshold | units | 3 | ND - 1 | 0.03 | Naturally occurring organic materials |
| Turbidity (o) | units | 5 | 0.04 - 0.7 | 0.2 | Runoff/leaching from natural deposits |

NA=Not Applicable

## SOURCE OF SUPPLY ANALYSES (a)

### PRIMARY DRINKING WATER STANDARDS (b) — HEALTH RELATED STANDARDS

| CONSTITUENT | UNIT OF MEASURE | MCL | PHG OR (MCLG) | RANGE | AVERAGE | MAJOR SOURCE IN LAKEWOOD'S DRINKING WATER | HEALTH EFFECTS |
|---|---|---|---|---|---|---|---|
| ***RADIOACTIVE*** | | | | | | | |
| Gross Alpha particle activity | pCi/l | 15 | (0) | 0.06 - 7 | 3 | Erosion of natural deposits | |
| Uranium | pCi/l | 20 | 0.43 | ND - 2 | 1 | Erosion of natural deposits | |
| ***INORGANIC CHEMICALS*** | | | | | | | |
| Arsenic | ppb | 10 | 0.004 | ND - 7 | 4 | Erosion of natural deposits | |
| Arsenic: While your drinking water meets the federal and state 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 USEPA 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. | | | | | | | |
| Barium | ppm | 1 | 2 | ND - 0.2 | 0.1 | Erosion of natural deposits | |
| Fluoride | ppm | 2 | 1 | 0.3 - 0.4 | 0.4 | Erosion of natural deposits | |
| Nitrate (as $NO_3$) | ppm | 45 | 45 | ND - 7 | 1.7 | Erosion of natural deposits | |

pCi/L= picocuries per liter (a measure of radioactivity) • ppb=parts per billion, or micrograms per liter (ug/l) • ppm=parts per million, or milligrams per liter (mg/l)

### SECONDARY DRINKING WATER STANDARDS (n) — AESTHETIC STANDARDS

| CONSTITUENT | UNIT OF MEASURE | MCL | RANGE | AVERAGE | MAJOR SOURCE IN LAKEWOOD'S DRINKING WATER |
|---|---|---|---|---|---|
| ***INORGANIC CHEMICALS*** | | | | | |
| Chloride | ppm | 500 | 8 - 35 | 21 | Runoff/leaching from natural deposits |
| Manganese | ppb | 50 | ND - 43 | 7 | Leaching from natural deposits |
| Specific Conductance | micromhos | 1,600 | 300 - 620 | 465 | Substances that form ions when in water |
| Sulfate | ppm | 500 | 7 - 78 | 42 | Runoff/leaching from natural deposits |
| Total Dissolved Solids (TDS) | ppm | 1,000 | 180 - 440 | 299 | Runoff/leaching from natural deposits |

ppb=parts per billion, or micrograms per liter (ug/l) • ppm=parts per million, or milligrams per liter (mg/l) • micromhos=micromhos per centimeter (umho/cm) • NA=Not Applicable


## UNREGULATED CONSTITUENTS (v)

| CONSTITUENT | UNIT OF MEASURE | NOTIFICATION LEVEL (NL) | PHG OR (MCLG) | RANGE | AVERAGE |
|---|---|---|---|---|---|
| 1,4-Dioxane | ppb | 1 | NA | 1.2 - 2.1 | 1.7 |

ppb=parts per billion, or micrograms per liter (ug/l) • NA=Not Applicable

## ADDITIONAL PARAMETERS

| CONSTITUENT | UNIT OF MEASURE | MCL | RANGE | AVERAGE | MAJOR SOURCE IN LAKEWOOD'S DRINKING WATER |
|---|---|---|---|---|---|
| Alkalinity, Total (as $CaCO_3$) | ppm | NS (p) | 120 - 200 | 162 | Natural or industrially influenced balance of hydrogen, carbon and oxygen in the water, affected by temperature and other factors |
| Calcium | ppm | NS | 23 - 89 | 58 | |
| Corrosivity | SI Units | Non-corrosive | 12 - 13 | 12 | |
| Hardness ($CaCO_3$) (q) | ppm | NS | 66 - 270 | 178 | |
| Magnesium | ppm | NS | 2 - 14 | 8 | |
| pH | units | 6.5 - 8.5 | 7.8 - 8.5 | 8.1 | |
| Potassium | ppm | NS | 2 - 4 | 3 | |
| Sodium (r) | ppm | NS | 25 - 49 | 31 | |

SI Units= Saturation Index Units • ppm=parts per million, or milligrams per liter (mg/l) • NA=Not Applicable

## AT-THE-TAP MONITORING PROGRAM (s)

| CONSTITUENT | UNIT OF MEASURE | REGULATORY NOTIFICATION LEVEL (NL) (t) | PHG OR (MCLG) | HIGHEST LEVEL DETECTED | 90TH PERCENTILE VALUE (u) | # OF SITES WITH ANALYSES ABOVE THE NL | MAJOR SOURCE IN LAKEWOOD'S DRINKING WATER |
|---|---|---|---|---|---|---|---|
| Copper | ppm | 1.3 | 0.3 | 0.5 | 0.3 | 0 of 30 | Internal corrosion of household plumbing systems |
| Lead | ppb | 15 | 0.2 | 0 | 0 | 0 of 30 | Internal corrosion of household plumbing systems |

ppb=parts per billion, or micrograms per liter (ug/l) • ppm=parts per million, or milligrams per liter (mg/l)

## DEFINITIONS

(a) **Distribution System and Source of Supply Analyses:** The city draws most water quality samples from 10 wells, the source of the city's water supply. The California Department of Public Health also requires water quality monitoring throughout the city's 175 miles of water distribution mains each week. Those constituents listed in the section entitled Distribution System Analyses are monitored quarterly or weekly. The city conducts over 3,118 water quality tests to the distribution system annually. The remaining constituents are sampled at the city's well sites. The results of these analyses are listed in the section entitled Source of Supply Analyses.

(b) **Primary Drinking Water Standards:** Maximum Contaminant Levels (MCLs) and Maximum Residual Disinfectant Levels (MRDLs) for constituents that affect health along with monitoring and reporting requirements, and water treatment requirements. The city tested for 91 additional regulated chemicals in 2014.

(c) **Constituent:** A constituent is any naturally occurring or manmade substance found in drinking water. The USEPA and the California Department of Public Health establish the list of constituents that require testing and the frequency of each test. Some data, though representative of current water quality conditions, are three years old. The state allows water utilities to monitor some constituents less than once a year because the concentrations of these constituents do not change frequently. All data included in this report was collected between January 1, 2012 and December 31, 2014. Only samples with detectable levels of a constituent are listed in the tables.

(d) **Maximum Contaminant Level (MCL):** Highest level of a constituent allowed in drinking water. Primary MCLs are set as close to Maximum Contaminant Level Goals (MCLGs) and Public Health Goals (PHGs) as technically and economically feasible. (See definitions (f) and (g) for further information on MCLGs and PHGs.)

(e) **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.

(f) **Public Health Goal (PHG):** The level of a constituent in drinking water below which there is no known or expected risk to health. The California EPA establishes PHGs.

(g) **Maximum Contaminant Level Goal (MCLG):** The level of a constituent in drinking water below which there is no known or expected risk to health. The USEPA establishes MCLGs. MCLGs are indicated in ( )s.

(h) **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.

(i) **Highest Locational Running Annual Average (LRAA):** The California Monitoring for TTHM and HAA5 occurs quarterly. MCL compliance is based on the average of the sample results for the four most recent quarters for each location sampled.

(j) **Major Source in Lakewood's Drinking Water:** This column indicates the likely source of the constituent listed.

(k) **Health Effects:** The USEPA and the California EPA require water utilities exceeding an MCL to list potential health effects caused by the ingestion of any constituent that fails to meet a primary drinking water standard.

(l) **% Positive:** Laboratory analysis for coliform bacteria measures the presence or absence of bacteria. The MCL is exceeded when over 5 percent of the samples drawn in a distribution system during a month detect the presence of coliform bacteria.

(m) **Non Detectable (ND):** Laboratory analyses cannot confirm zero detection of a constituent in drinking water. A non detectable result indicates that the constituent is not contained in the sample or the amount of a constituent found in drinking water is lower than the testing procedure can detect.

(n) **Secondary Drinking Water Standard:** The USEPA and the California EPA set guidelines for constituents found in drinking water that may cause aesthetic or cosmetic effects. Secondary MCLs are set to protect the odor, taste and appearance of drinking water. Constituents with secondary drinking water standards are not assigned a PHG or MCLG.

(o) **Turbidity:** A measure of the cloudiness of water. Turbidity serves as an indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

(p) **No Standard (NS):** Constituent for which no regulation established by the USEPA and the California EPA exists.

(q) **Hardness:** Hardness is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally-occurring. Hardness is also measured in grains per gallon. This form is used when calculating hardness levels to operate irons and dishwashers. Hardness levels in Lakewood's water average 10 grains per gallon.

(r) **Sodium:** Sodium refers to the salt present in the water and is generally naturally occurring. Intake from drinking water is not considered a factor for healthy individuals. However, the American Heart Association recommends a sodium intake of 20 ppm in drinking water for high risk populations, e.g. a person on a low-sodium diet. Home water softeners that use the ion-exchange method increase the amount of sodium in water.

(s) **At-the-Tap Monitoring:** The California Department of Public Health and the USEPA require water utilities to conduct at-the-tap monitoring for lead and copper. The results from 30 samples drawn by customers indicate that levels of both lead and copper are below the state and federal standards.

(t) **Regulatory Notification Level (NL):** The concentration of a constituent which, if exceeded, triggers treatment or other requirements that a water system must follow.

(u) **90th Percentile Value:** The Action Level for Lead and Copper is exceeded if 10% of the sample results are greater than 15 ppb for lead and 1.3 ppm for copper.

(v) **Unregulated Constituents:** Monitoring unregulated constituents helps the USEPA and the State Water Boards Division of Drinking Water determines where certain constituents occur and whether the constituents need to be regulated.

# Tips for conserving water...and saving money!

■ **Visit www.lakewoodcity.org/waterwiseplants for landscaping ideas for different parts of your yard, such as frontyard, entryway and walkways.** Try your favorite nursery for ideas, too.

■ **Use rebates to make water-wise improvements to your irrigation system or landscaping.** You can start small with water-wise sprinkler heads or drip irrigation systems that only cost a few dollars each after the Lakewood rebates. (Water-wise devices also exempt you from the mandatory time limits on watering your yard.) Or think bigger with water-wise re-landscaping. Go to **www.lakewoodcity.org/waterrebates** for details and information on extra rebates from the Metropolitan Water District.

■ **Make your lawn a water miser.** Most homeowners use four times the amount of water necessary for a healthy lawn. Before you water, step on your grass. If it springs back when you lift your foot, it doesn't need water. Keep lawns aerated and dethatched so water will penetrate to the roots.

■ **Group plants with similar water use.** This allows you to install sprinklers that match watering requirements. Also, use mulch and weed barriers. They retain moisture and reduce weed growth. Install three to four inches of mulch in planting beds.

■ **Learn how to water your trees effectively and learn how to read your water meter to track your usage.** Those tips and more are at **www.lakewoodcity.org/conserve**.

■ **Attend Eco-gardener and Smart Gardener classes** offered for free. Details at **www.ecogardener.org** or 562-275-4215 and **http://ladpw.org/epd/sg**.

# City of Lakewood Groundwater Vulnerability Assessment

**The Lakewood Department of Water Resources completed an assessment of all drinking water wells that serve the city's drinking water system. These studies examined the potential vulnerability of each well to contaminants that could enter the water supply. The table on this page indicates the results. The checks indicate the type of business or activity that could potentially contaminate the groundwater supply. To learn more about the constituents found in the city's drinking water supply, please refer to the charts located on the center pages of this report.**

**A copy of the complete assessment is available at the Lakewood City Clerk's Office at 5050 Clark Avenue. You may request a summary of the assessment by contacting the Lakewood Department of Water Resources at 562-866-9771, extension 2700.**

### POTENTIAL SOURCES OF GROUNDWATER CONTAMINATION

| WELL NUMBER | ASSESSMENT COMPLETION DATE | GAS STATIONS & REPAIR SHOPS | HISTORIC GAS STATION LOCATIONS | STORAGE TANKS | DRY CLEANERS |
|---|---|---|---|---|---|
| 2A | April 2003 | | ✓ | ✓ | |
| 4 | April 2003 | ✓ | ✓ | ✓ | |
| 8 | April 2003 | ✓ | ✓ | ✓ | ✓ |
| 10 | April 2003 | ✓ | ✓ | ✓ | ✓ |
| 13A | July 2003 | | ✓ | | |
| 15A | April 2003 | ✓ | ✓ | | |
| 17 | April 2003 | ✓ | ✓ | ✓ | ✓ |
| 18 | April 2003 | ✓ | | ✓ | ✓ |
| 22 | April 2003 | ✓ | | | |
| 27 | October 2006 | ✓ | ✓ | ✓ | ✓ |