

Water Conservation

2010 Annual Report

Fort Collins Conserves. It's Our Style.



Water Conservation in Fort Collins

This is the 19th annual report to the Fort Collins City Council regarding the City’s water conservation efforts. The report includes a review of accomplishments, partnerships and water use achievements. New this year, the report provides an update on the provisions of the City’s *Water Conservation Plan*.

The purpose of Fort Collins Utilities’ sustainability initiative, *Utility for the 21st Century*, is “inspiring community leadership by reducing environmental impact while benefiting customers, society and the economy.” Water conservation decreases our environmental impact while also reducing our long-term costs which benefits our customers, the economy and society.

Water Supply and Demand Management Policy

Since 2003, the *Water Supply and Demand Management Policy* has provided general criteria for decisions regarding water supply projects, acquisition of water rights and demand management measures. The policy sets water use goals to be achieved by 2010, 185 gallons per capita per day (gpcd) for annual water consumption and 475 gallons per capita (gpc) for peak daily demand. A consultant was hired in late 2010 to begin working with staff on the review and update of the policy. Work will begin in earnest in 2011.

Water Conservation Plan

To comply with the State of Colorado’s *Water Conservation Act of 2004* that requires a water conservation plan, Utilities staff worked with the Water Board’s Conservation and Public Education Committee and consultant Aquacraft, Inc. to produce a plan. The plan reflects specific measures, metrics and costs related to the demand management criteria outlined in the *Water Supply and Demand Management Policy*. The plan sets a demand goal of 140 gpcd, a decrease from the 185 gpcd goal in the policy. You can find a copy of the plan at fcgov.com/waterconservationplan. The table below shows the projected water savings from implementing the measures in the plan.

Water Conservation Plan: Summary of Forecast Demand & Savings

Forecast	Average Use (Ac-ft/year)	2020 Forecast Demand (Ac-ft/year)	Savings vs. Pre-2002 Use (Ac-ft/year)	Savings vs. Baseline Use (Ac-ft/year)
Pre-2002 (1998-2001)	34,000	39,700	N/A	N/A
Baseline (2003-2007)	27,500	31,800	7,900	N/A
Pre-2010 Program	N/A	30,800	8,900	1,000
Water Conservation Plan Program	N/A	29,500	10,200	2,300

After being presented the draft plan, City Council recommended submitting the proposed measures for analysis through the Budgeting for Outcome process. Elements of the plan were adopted by Council in the 2010-2011 and 2011-2012 budgets. In April 2010, the Colorado Water Conservation Board approved the plan.

Existing programs continue in the plan, while new and expanded measures have been added. Programs target all customer classes, and indoor and outdoor water use. Attachment 'A' shows the programs and measures in the plan, including the customer class that will be impacted, whether a measure affects indoor or outdoor use, the type of measure and if it's a current measure or one to be implemented in the future.

The result of increasing the budget is reflected below with the 2010 accomplishments. To help implement the programs, a new Water Conservation Coordinator position was filled bringing the full-time water conservation staff up to two.

Weather and Water Use

A fairly wet late spring and early summer rainfall was followed by a very dry September. Total precipitation for the year was 14.1 inches, just below average. Temperatures were somewhat warmer than average throughout the year with a mean daily temperature of 51.3; about two degrees above average.

Total water demand was 24,030 acre-feet, slightly lower than expected due to well-timed moisture during the spring and early summer. The City's peak day use of 40.8 million gallons occurred on July 26, three weeks later than normal. Daily per capita use was approximately 146 gpcd, compared to 135 gpcd in 2009.

Fort Collins Utilities, along with most of the larger Front Range water providers, participated in the *Joint Front Range Climate Change Vulnerability Study* sponsored by the Water Research Foundation (WRF). The draft report is undergoing final review by the participants and WRF.

2010 Accomplishments

The *Water Conservation Plan* identifies eight categories of programs and measures. Below is a review of the accomplishments in each category.

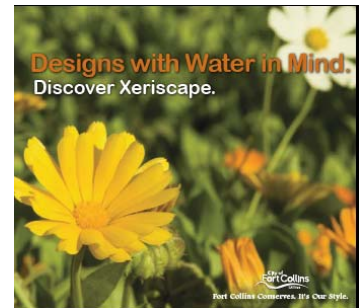
1. Educational and Public Information

Educational and outreach efforts are a strong component of the City's water conservation program to raise public awareness about the need for conservation and ways to conserve. To encourage long-term water conservation and instill water-efficient behaviors among all age groups and sectors, these programs focus on reaching youth and adults, residents and businesses.

- **Public Information Campaign:** distributed xeriscape, lawn watering and other conservation information.
 - Answered customer inquiries and distributed information through brochures, bill inserts and the Utilities' website.
 - Advertised water conservation messages on bus benches, billboards, bus shelters and the newspaper.
 - Wrote articles for the *Coloradoan*, City News and Colorado WaterWise newsletter.



- Displayed materials at various events, including World Water Day at CSU, Chamber Showcase, Envirovation, Gardens on Spring Creek's Urban Garden and Harvest Festivals, and Colorado WaterWise's annual workshop.
- Brought water and energy conservation displays and materials to home improvement stores and farmers markets through a *Make Efficient Choices* campaign in the spring and fall.
- Made presentations to various organizations, including Hewlett Packard, Colorado Water Congress, ProGreen Expo, Newcomer's Garden Club and CityWorks.
- **Xeriscape Education:** promoted the use of low water-using landscapes.
 - Offered three presentations, Making the Change to Xeriscape, Xeriscape by Design and Get X-Rated: Great Xeriscape Plants as part of the Residential Environmental Program Series.
 - Produced a new brochure, *Designs with Water in Mind: Discover Xeriscape*, of Xeriscape plans drawn by local landscape designers.
 - Oversaw maintenance for the City's Xeriscape Demonstration Garden with over 160 species of trees, shrubs, perennials and groundcovers. The garden is a Plant Select[®] demonstration garden. Plant Select, a cooperative program between Denver Botanic Gardens, Colorado State University and local horticulturists, identifies and promotes distribution of plants that are well-suited for our region.
 - Co-sponsored the seventh annual *High Plains Landscape Workshop* with a sold-out crowd of 300 people attending presentations on a variety of landscape topics.
- **Irrigation Education:** provided education about wise-watering practices.
 - Provided a daily Lawn Watering Guide on Utilities' website at fcgov.com/lawnguide and on the *Fort Collins Coloradoan* weather page. The guide shows how much water a lawn might need if not watered for three, five or seven days.
 - Sponsored a program, *Water Smart Landscapes*, as part of the City's Business Environmental Program Series. Approximately 55 people attended to learn about new irrigation technology and best management practices.
- **School Education Programs:** offered students a variety of ways to learn about water.
 - Presented classroom programs to elementary and junior high students about the history of water in Fort Collins and the West, watershed studies, microbiology and water chemistry.
 - Visited classrooms as Dr. WaterWISE, bringing a water conservation curriculum to schools. Maps, activity books and teacher's handbooks on a variety of water subjects were distributed to teachers for use during their study of water.



- Co-sponsored the 19th annual Children’s Water Festival. This fun event provided water education to 1,700 third graders. Students spent half a day at CSU learning all about water, attending classroom presentations, an exhibit hall and a trivia contest.
- **Conservation Giveaways:** water conservation kits with a low-flow showerhead, kitchen and bathroom faucet aerators, and toilet leak detection tablets were distributed at events throughout the year.

2. Water Rates and Usage Information

Rate structures are an effective tool to help meet water use goals. Providing an economic incentive to use water efficiently has proven to be an effective way to reduce water use. Until January 2003, Utilities’ residential customers paid a set rate per 1,000 gallons, regardless of water use. The rate structures were revised in response to the drought and continue as a means to send a strong conservation message to customers.

- **Increasing Block Rate:** the three-tiered water rates for single-family and duplex customers were increased three percent in 2010.
- **Seasonal Rate:** with higher rates from May through September, commercial and multi-family customers saw an increase of three percent in 2010. Commercial rates also have a second tier for higher water use.

3. Indoor Fixtures and Appliances: Residential

Incentive programs typically provide rebates, loans, services or goods to customers to encourage use of more efficient technology.

- **Clothes Washer Rebates:** offer a \$50 rebate when customers purchase a high-efficiency, ENERGY STAR[®] qualified clothes washer. Utilities gave 1,249 rebates during 2010. The new washers resulted in an estimated water savings of over 7.6 million gallons per year.
- **Dishwasher Rebates:** a \$25 rebate for high-efficiency, ENERGY STAR qualified dishwashers was introduced in 2007. During 2010, Utilities gave 780 rebates; resulting in a savings of approximately 335,400 gallons per year.
- **Toilet Rebates:** began in February, Utilities offered \$35 for the purchase of a WaterSense labeled high efficiency toilet and \$15 for recycling the old toilet. In 2010, 497 rebates were given. Of the 497 rebates, 440 (89%) recycled their old toilets. At 1.28 gallons per flush (gpf), these toilets use 20% less water compared to the standard 1.6 gpf toilet. Average flush volume of the old toilets was 3.79 gpf, which means a savings of over 4 million gallons a year.
- **Zero-interest Loans:** offered for purchasing high-efficiency clothes washers and replacing water service lines. During 2010, 13 loans were issued, totaling \$15,388; six loans for clothes washers and seven for water service lines.



- **Low Income Retrofit Program:** participated in the Larimer County Youth Corps retrofit program by providing showerheads, faucet aerators, toilet tank bags and shower timers that were installed in low income homes. The Youth Corps estimated the showerheads and faucet aerators will save over 2.4 million gallons of water annually.
- **Home Efficiency Audits:** offered to homeowners to learn what measures are best to improve the home's energy and water efficiency. New this year, 466 audits were conducted in 2010.
- **Residential End Uses of Water Study:** committed to be a participant in this study to evaluate the end use patterns for residential water use throughout North America. The study, sponsored by the Water Research Foundation, will begin in 2011 and last for three years.

4. Outdoor Efficiency: Landscapes and Irrigation

- **Sprinkler System Audits:** The sprinkler system audit program was offered for the eleventh summer. Sprinkler systems were evaluated for watering efficiency, and homeowners received a watering schedule and information about proper watering.
 - With the help of four seasonal auditors and five Master Gardeners, 449 home, five HOA and two commercial audits were completed in 2010. Since the program's inception in 1999, 2,835 homes, 61 HOAs and four businesses have received audits.
 - Business audits are part of the Climate Wise water assessment. Fort Collins-Loveland Water District again contracted with us to perform audits and 112 home audits were completed.
- **Xeriscape Demonstration Garden:** coordinated tours upon request and a garden party in July. Master Gardeners provided guided tours, while nurseries, landscape designers and a composter set up displays and answered questions.
- **Xeriscape Design Clinics:** offered a series of Xeriscape Design Clinics in response to customers wanting help with xeriscape design. The clinics provided 55 customers with the opportunity to have an individual session with a landscape design professional. Each person took home a landscape plan for a small part of their yard. Sessions were held at the Gardens on Spring Creek on two Saturdays and one evening, with five designers each day.
- **Sprinkler Equipment Rebates:** In April, rebates began for the purchase of sprinkler equipment technology. During 2010, 164 rebates were given.
 - Weather-based controller: \$150
 - Rain sensor: wired, \$15 or wireless \$30
 - Multi-jet rotating nozzles: \$25 (purchases of \$50-\$99) or \$50 (more than \$100)



Sprinkler Equipment Rebates

2010 Rebates	Number
Multi-jet Rotating Nozzles	79
Rain Sensor	44
Controllers	41
Total	164

5. Indoor Fixtures and Appliances: Commercial

- **Commercial Facility Water Assessments:** performed 81 facility water assessments for commercial customers. Typically, the assessments were done only in conjunction with the Climate Wise program, but in 2010 a water component was included with all energy assessments.
- **Hotel and Restaurant Conservation Materials:** water conservation materials are available to local hotels and motels, including a linen reuse card, a towel reuse hanger and a table-top brochure with information about the Poudre River watershed and importance of conserving water.

6. Water Reuse Systems

- **Drake Water Reclamation Facility:** treated wastewater is pumped to the Rawhide Power Plant for landscaping and cooling water.
- **Water Treatment Facility:** treats backwash water and recycles it to the beginning of the treatment process, savings approximately 450 million gallons a year.

7. Regulatory Measures

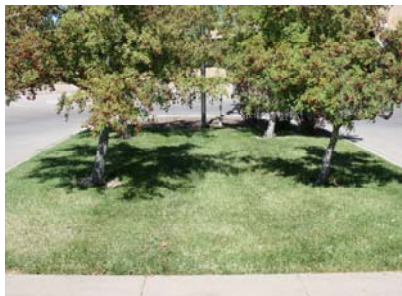
The City of Fort Collins has various regulations to encourage efficient water use and deter water waste.

- **Wasting Water Ordinance:** investigated 26 complaints in accordance with the *Fort Collins Municipal Code* wasting water ordinance.
- **Restrictive Covenants Ordinance:** was adopted in 2003. The ordinance prohibits homeowner association's covenants from banning the use of xeriscape or requiring a percentage of landscape area to be planted with turf. Although questions arose from residents, no enforcement was needed to uphold this ordinance.
- **Soil Amendment Ordinance:** was adopted in 2003. This ordinance requires builders add organic matter to the soil before planting turf to encourage deep roots and water penetration. Enforcement includes a visual inspection of each property.
- **Water Shortage Response Plan:** adopted in 2003, the plan includes a series of measures to be enacted, including water restrictions for four water shortage levels. No water restrictions were necessary during 2010.

- **Landscape and Irrigation Standards for Water Conservation:** updated in the Land Use Code in 2009, the standards promote efficient water use through proper landscape and irrigation system design and installation. Support materials for the new regulations were finalized in 2010 and can be found at fcgov.com/standards.
 - Reviewed 29 landscape plans for new developments for compliance with the *Land Use Code's* water conservation standards. The plan review is part of the process prior to City approval of new developments.
 - Reviewed 11 irrigation plans and completed 21 site inspections of new developments for compliance with the *Land Use Code's* water conservation standards. The plan review is part of construction permitting before a final building permit is issued.
- **Green Building Code:** contributed to water conservation elements of new green building regulations for residential and commercial buildings. City Council will consider adoption of the code in 2011.

8. Operational Measures

- **Water Loss Program:** Utilities' Leak Detection Program uses sound detection equipment to identify small to moderate leaks so they can be repaired before they become large leaks. During 2010, Utilities surveyed 270 miles of water main to detect leaks. Pinpointing the exact location of the leaks before they surfaced saved water and reduced excavation and street pavement repair costs.
- **City Buildings:** the City has committed to leadership and efficiency in the operations of its buildings.
 - City Council mandated that construction of new City-owned buildings achieve LEED "Gold" certification to raise the bar for energy efficiency and environmental design, including water conservation credits.
 - Replaced bluegrass turf from several areas at the City Service Center with low water use plantings and mulch. The sprinkler system was tuned up and a weather-based controller was installed to improve watering efficiency.



Service Center: before



Service Center: after

Collaboration and Regional Participation

The water conservation program is enhanced through partnerships with other City departments, local businesses, and regional and national organizations.

- Continued the free toilet recycling program in 2010, diverting tons of porcelain from the landfill. The program is a partnership between the Utilities, Natural Resources and Streets departments, along with a local non-profit ReSource. Customers drop off their high water-using toilets and Streets crushes them into road base.
- Worked with an interdepartmental team to review the City's regulations regarding turf; including the grass height, ornamental grass and resource conservation ordinances, and parkway and median landscaping. The team will continue work to recommend revisions to City Code, Land Use Code and Street Standards in 2011. A customer education component also will be part of the team's work.
- Participated in the City's Sustainability Team.
- Participated in the Colorado Water Innovation Cluster, a group formed to serve as a catalyst for innovative and entrepreneurial ways to grow the water resource and technology sector of our economy through various showcase projects.
- Led a regional team of municipalities and professionals to develop a landscape and irrigation contractor partnership program. The goal is to recognize contractors who use water conservation and sustainability practices. Planning will continue in 2011.
- Promoted the WaterSense program through articles and at events. A WaterSense toilet donated by Kohler Co. is displayed at various events. Similar to the EPA label for Energy Star appliances, WaterSense promotes and enhances water-efficient products and services in the market. Utilities became a WaterSense promotional partner in 2008.
- Participated as co-chair of Colorado WaterWise, a state-wide organization with a mission to promote and facilitate the efficient use of Colorado's water resources.
- Participated as a member of the Rocky Mountain Section American Water Works Association's Water Conservation Committee. In 2010, Water Conservation Specialist Laurie D'Audney was awarded the Alice Darilek Water Conservation Award. The award recognizes an individual for exceptional performance and commitment to water conservation in the region.
- Participated in the Alliance for Water Efficiency's Education and Outreach, and WaterSense and Water Efficient Products committees.
- Became a member of the Smart Water Application Technologies (SWAT) Promotions Working Group. SWAT is a national partnership of water purveyors and irrigation industry representatives created to promote landscape water use efficiency through the application of state-of-the-art irrigation technologies.



Other Water Conservation Efforts

Parks Department Water Use Efficiency

Water consumption data was collected and analyzed throughout the City of Fort Collins Parks system. Using evapotranspiration (ET) readings, rainfall and water use readings, Parks calculated the landscape area's need for water and the amount of water that was actually applied.

The ET rate from May to October 2010 was 24.07 inches; effective rainfall was calculated at 2.82 inches. Water need was 21.25 inches or 577,086 gallons per acre. The average water use for all park areas was 83 percent of the irrigation water needed.

Parks found that:

- 8 parks used over 95 percent of water need
- 36 parks used under 95 percent of water need
- Of the 36 parks, 34 used under 90 percent of water need

Audits are performed at sites when more than 95 percent of the area's water need is used for two consecutive months. During 2010, eight sites were audited.

Climate Wise Water Savings

During 2010, Climate Wise grew by 54 businesses for a total of 247 partners. The partners reduced greenhouse gas emissions by over 136,000 metric tons in 2010. Of that, over 1,250 tons were from water conservation projects. Since 2000, Climate Wise partners have saved over 6.3 billion gallons of water.

Other Savings from Water Conservation

Using less water not only decreases the need for raw water resources, but has other associated savings. A Utilities analysis done in 2009 evaluates the cost savings from the reduced water demand since 2002.

- **Water Treatment Facility:** a 2002 water treatment facility master plan identified the need for a 5 million gallon treated water reservoir by 2007 to 2009. Reduced water demands have delayed the need for the \$17 million reservoir until 2015. In addition, the lower water use saves \$233,000 per year in water treatment operation and maintenance costs.
- **Water Reclamation Facility:** decreased wastewater flows have delayed expansion of the Drake Water Reclamation Facility treatment capacity from 2010 to 2028 and lowered operation costs by \$43,000 per year.
- **Environmental Impacts:** reducing the amount of water and wastewater treated also reduces our environmental footprint by decreasing chemical and power usage.

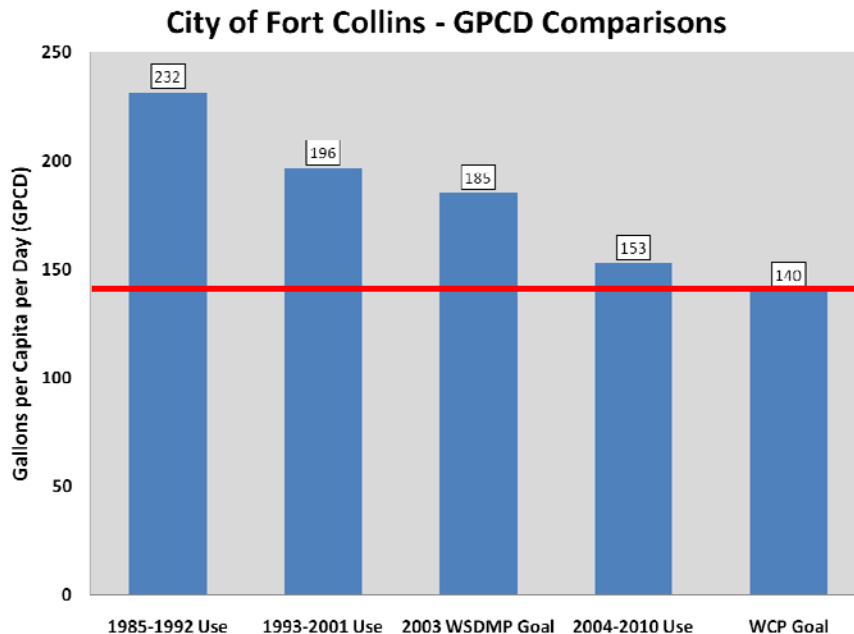
How Are We Doing?

Water Use Goals

The *Water Conservation Plan* sets a goal of 140 gallons per capita per day (gpcd) by the year 2020. These calculations are based on the total treated water used by City customers (adjusted for large contractual customers and other sales or exchange arrangements) divided by the estimated population of the City's water service area.

Per capita annual consumption is calculated by dividing annual total system-wide water use by the population served and 365 days. This calculation is adjusted for weather to provide a fair comparison with other years. In 2010, the adjusted average demand was estimated to be 144 gpcd, compared with 147 gpcd in 2009.

Below are gpcd values; historic averages compared with the *Water Supply and Demand Management Policy* and *Water Conservation Plan* goals.



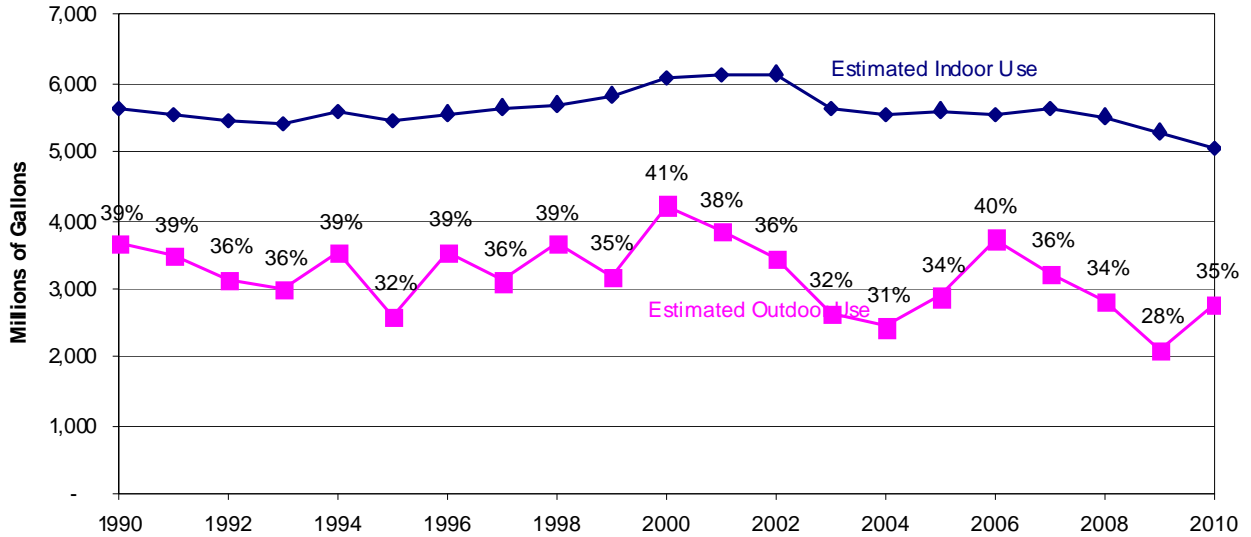
Evaluating Water Use

The water use trend continues to be lower than pre-drought (1993-2001) demand. When adjusted for the weather conditions of 2010, per capita use declined from 2009. Tiered and seasonal water rates, and continuing water conservation efforts, contributed to the trend of decreased water use. How much of the lower usage can be attributed to the City's water conservation measures is difficult to analyze. For almost 20 years, low-flow plumbing standards and metered water taps have contributed to the reduction of per capita water use. Water use can vary for many reasons, including changes in weather, seasons, household size and income.

Per capita water use estimates can misrepresent water use trends over time. Population is not the sole determinant of water use. Precipitation levels and daily temperatures during the watering season cause water use to vary considerably from year to year. For Fort

Collins, the chart below shows the percentage of water used indoors versus outdoors by year. Indoor water use remains fairly consistent while outdoor water use fluctuates. In 2010, outdoor water use increased to 35 percent of the total use, compared with 28 percent in 2009.

Estimated Indoor and Outdoor Water Use



Historic Water Use Per Person¹

Year	Actual Use (gpcd)	Normalized Average Use ² (gpcd)	Actual Peak Day Use (gpc)	1 in 50 Normalized Peak Day Use ³ (gpc)
1999	185	198	435	473
2000	211	204	440	477
2001	198	198	428	503
2002	183	189	378	411
2003	154	157	346	383
2004	146	150	307	327
2005	155	155	365	363
2006	172	156	353	350
2007	162	156	342	356
2008	153	153	321	333
2009	135	147	265	304
2010	146	144	295	323

Notes:

1. Values do not include large contractual water use.
2. Normalized values represent average expected use for 1930-1995 weather conditions.
3. 1 in 50 peak use is expected to occur once in 50 years. Log-Pearson type III distribution applied.

Historic Annual Water Use

Year	Service Area Population	Annual Precipitation (inches)	Annual Water Use (MG)	Average Day Use (MGD)	Peak Day Use (MGD)
1999	115,900	20.7	9,000	24.7	53.7
2000	118,300	11.3	10,295	28.2	55.9
2001	121,300	12.3	9,978	27.3	55.8
2002	123,700	9.3	9,599	26.2	51.4
2003	125,500	18.2	8,280	22.6	46.9
2004	125,800	18.1	7,984	21.8	42.3
2005	126,900	16.2	8,497	23.3	50.1
2006	127,800	11.2	9,268	25.4	48.9
2007	128,400	13.7	8,860	24.2	47.5
2008	128,700	13.8	8,352	22.8	44.3
2009	128,900	21.9	7,391	20.2	37.1
2010	129,000	14.1	7,830	21.4	40.8

Number of Accounts by Customer Class

	2006	2007	2008	2009	2010
Single-Family	26,413	26,555	26,643	26,658	26,627
Duplex	1,171	1,165	1,165	1,165	1,175
Multi-Family	2,094	2,104	2,124	2,146	2,154
Commercial	2,069	2,103	2,133	2,162	2,184
City Government	194	199	198	214	208
West Fort Collins WD	1	1	1	1	1
Outside City Customers	1,370	1,394	1,410	1,423	1,414
Total	33,312	33,521	33,674	33,769	33,762

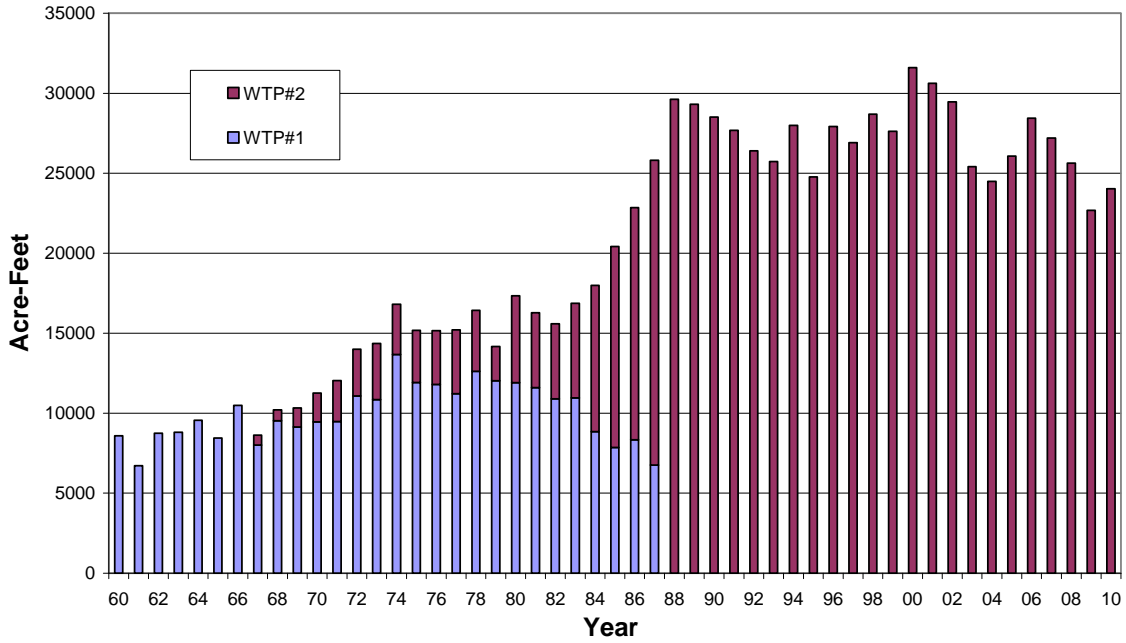
Water Use by Customer Class (Million Gallons)

	2006	2007	2008	2009	2010
Single-Family	3,203.5	2,938.1	2,714.9	2,318.1	2,619.1
Duplex	151.0	142.7	135.8	119.0	134.0
Multi-Family	995.8	987.3	973.4	914.1	1,000.2
Commercial	3,648.4	3,557.3	3,377.7	3,023.4	3,095.3
City Government	164.5	136.5	124.7	87.3	122.8
West Fort Collins WD	166.9	164.1	183.3	142.2	168.3
Outside City Customers	302.9	294.4	272.3	238.9	263.8
System Losses	634.6	640.0	570.3	548.2	426.5
Total	9,267.6	8,860.4	8,352.4	7,391.1	7,830.1

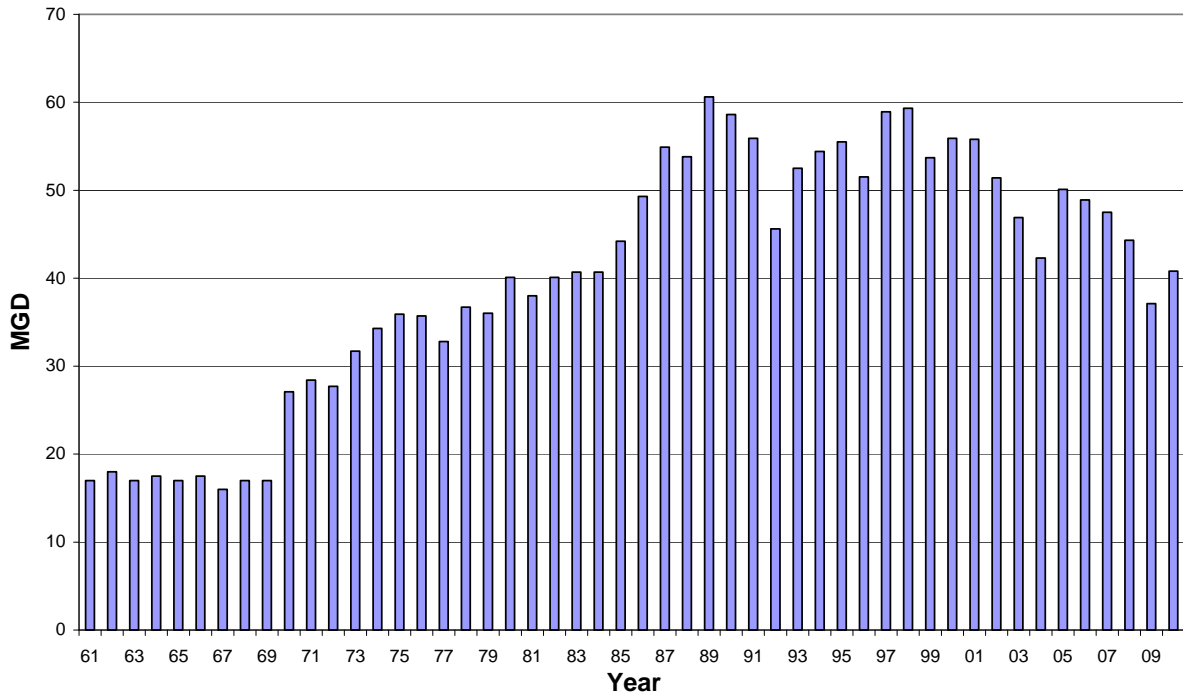
Water Use per Account by Customer Class (Gallons per Year)

	2006	2007	2008	2009	2010
Single-Family	121,285	110,644	101,901	86,957	98,363
Duplex	128,908	122,489	116,627	102,105	114,085
Multi-Family	475,682	469,229	458,390	426,000	464,338
Commercial	1,762,374	1,691,314	1,583,600	1,398,439	1,417,338
City Government	851,554	686,922	629,088	407,309	591,785
Outside City Customers	221,041	211,186	193,153	167,827	186,599

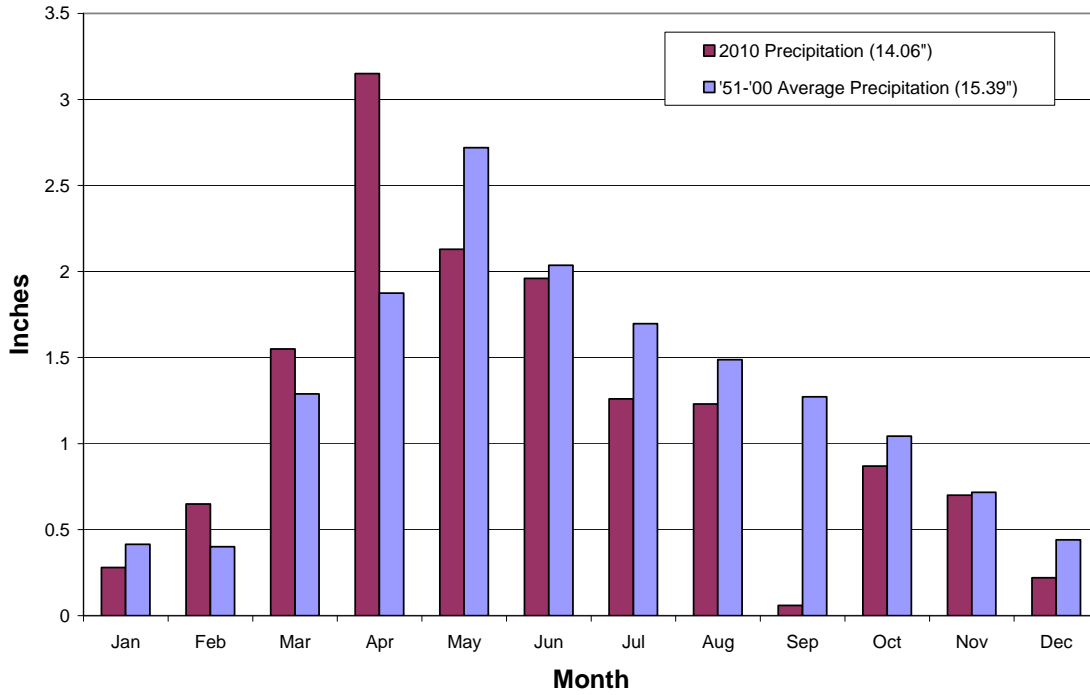
Annual Treated Water Use 1960-2010



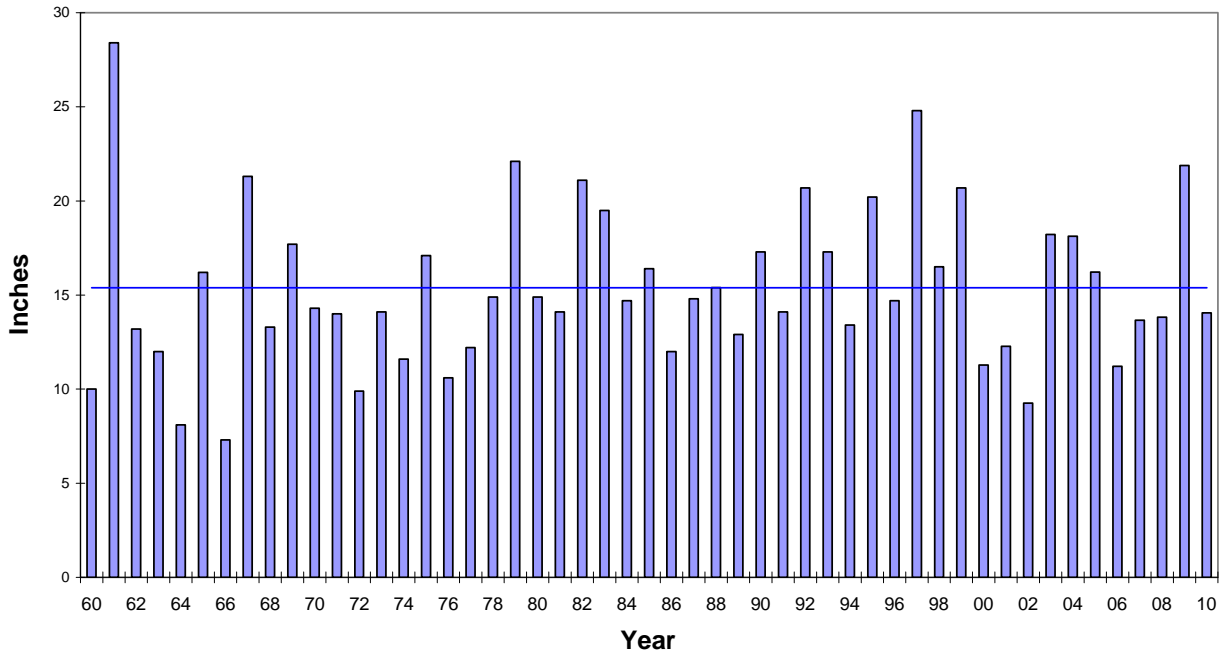
Peak Day Use 1961-2010



2010 Precipitation



Historic Annual Precipitation Fort Collins 1960-2010



Attachment 'A'

Fort Collins Utilities Water Conservation Plan: Recommended Measures

Measure	Customers				Water Use		Existing or Future	
	RSF	RMF	CII	City	Indoor	Outdoor	Existing	Future
Education and Public Information								
Conservation public information campaign	X	X	X	X	X	X	X	
Adult education programs	X	X			X	X	X	
Business environmental programs		X	X		X	X	X	
School education programs	X	X			X	X	X	
Conservation giveaways	X	X			X	X	X	
Water conservation awards	X	X	X	X	X	X		X
Water Rates and Usage Information								
Increasing block rate – Res.	X				X	X	X	
Seasonal rates – Comm. & MF		X	X	X	X	X	X	
Online access to water history	X	X	X		X	X		X
Online water use calculator	X				X	X		X
Indoor Fixtures and Appliances - Residential								
Residential clothes washer rebates	X	X			X		X	
High efficiency toilet rebates	X	X			X		X	
Dishwasher rebates	X	X			X		X	
Low income retrofit program	X				X		X	
Zero-interest loans for conservation	X				X		X	
Research: Water end use study	X				X	X		X
Outdoor Efficiency - Landscapes and Irrigation								
Sprinkler system audits	X	X					X	
Xeriscape Demonstration Garden	X	X	X	X		X	X	
Xeriscape design clinics	X	X				X	X	
Irrigation technology rebates	X	X	X			X	X	
Raw water for irrigation at parks, cemeteries and golf courses				X		X	X	
Research: Determine irrigated area for lots	X	X	X	X		X		X
Indoor Fixtures and Appliances - Comm., Indust., Institutional (CII)								
CII facility audits			X		X	X	X	
Commercial clothes washer rebates			X		X			X
Commercial toilet and urinal rebates			X		X			X
Financial incentives for commercial water-saving upgrades			X		X	X		X
Hotel and restaurant conservation materials			X		X		X	

Measure	Customers				Water Use		Existing or Future	
	RSF	RMF	CII	City	Indoor	Outdoor	Existing	Future
Restaurant pre-rinse spray valve distribution			X		X			X
Water Reuse Systems								
Large customer reuse			X	X	X	X	X	
Backwash recycling at water treatment facility				X			X	
Regulatory Measures								
Wasting water ordinance	X	X	X	X	X	X	X	
Restrictive covenants ordinance		X	X			X	X	
Soil amendment ordinance	X	X	X	X		X	X	
Water Shortage Response Plan	X	X	X	X	X	X	X	
Landscape & irrigation standards for new development		X	X	X		X	X	
Operational Measures								
Utility water loss program				X			X	
Water loss program enhancement				X				X
Water conservation upgrades at City LEED buildings				X	X	X	X	
Water conservation upgrades at City facilities				X	X	X		X

Key:

- RSF – Residential Single Family
- RMF – Residential Multi-family
- CII – Commercial, Industrial, Institutional
- City – City government
- Indoor – effects indoor water use
- Outdoor – effects outdoor water use
- Exist – existing measure
- Future – future measure