



The GOLDEN

INFORMER

City of Golden Community Newsletter

SPECIAL EDITION March 2003



Guanella Reservoir Construction

Community Discussion on Water

How should we use our current water supply?

On **Monday, March 31st**, the City of Golden will hold a Community Discussion on water at the **Golden Community Center, 1470 10th Street at 6:30 pm**. You will learn about Golden's current adequate water supply, our water rights status, our regional efforts and conservation tips to help us use our water wisely and responsibly. Golden has done an excellent job of providing water to you, our citizens, even during our current drought period and we are taking steps to meet our water needs into the future. Although an adverse court ruling caused a short-term supply deficiency in September and October of 2003, the City of Golden has enacted other measures to eliminate future water problems. But, it takes all of us to plan and learn to use this precious resource wisely. The public is invited to see displays, hear presentations and comment on the process. City Council is interested in receiving public input and your participation at this important meeting will help us understand the community's thoughts in adopting our drought plan and policies regarding our water.

In This Special Issue

Community Discussion
on Water
City Council Members
It's Time To Be
Water Efficient!
Some Great Water
Saving Tips!
Golden Water Facts
Charts & Graphs
Front Range 2003
Drought Plan
Golden Water Supply
& Demand
City Recommendations

You have been doing a great job—and you're helping us!

You can play a major role in helping the City of Golden operate more efficiently in conserving water. All you need to do is keep an eye out and help us locate conditions such as leaks. No matter when or where a water leak occurs, don't hesitate to report it to the Water Maintenance Division 24 hour reporting number at (303) 384-8151. When calling, give a complete street address of where the problem exists. If no address is visible, please give a description of the problem area.

Community Discussion on Water

Monday, March 31, 2003

Golden Community Center

6:30 – 8:30 pm

The GOLDEN INFORMER

is produced and published by the City Manager's office and mailed as a news and information source for all residents in Golden.

All City departments contribute material for use in this publication. Comments on the newsletter format and content are welcome. Please write to the City of Golden, 911 Tenth Street, Golden, CO 80401

Attn: Office of Public Affairs;
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The City of Golden can only provide you with the highest level of service if you maintain contact with City Council members and city staff. Please feel free to contact them at any time by calling or writing to 911 10th Street, Golden, 80401.

City Council meets at 7:30 pm on the second and fourth Thursday of each month and welcomes comments from the public. ♦

Its time to be water efficient!

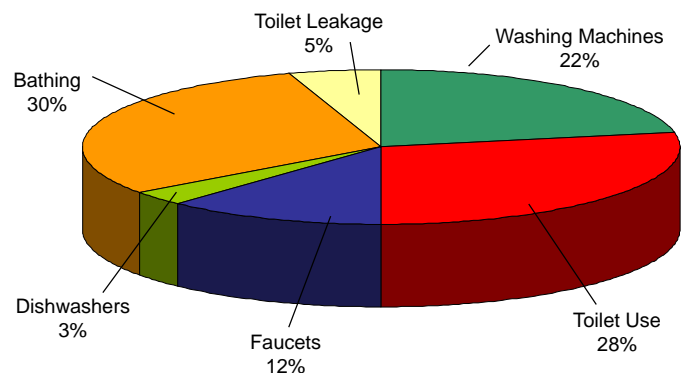
It is obvious that we cannot increase demands for water much more without detrimental effects to the environment, society and the economy. It is time to become water efficient! This involves reassessing our relationship with water, and learning to use it more sparingly. On the most basic level, it requires a behavioral change, and assigning a value to water that truly reflects its worth. Everybody has a responsibility to save water, if we are going to allow future generations to enjoy a similar standard of living that we enjoy now. In fact, many of the impacts associated with water use are likely to have an effect on our own lives!



Some Great Water Saving Tips!

- Never pour water down the drain when there may be another use for it such as watering a plant or garden, or for cleaning.
- Verify that your home is leak free. Many homes have hidden water leaks. Read your water meter before and after a two-hour period when no water is being used. If the meter does not read exactly the same, there is a leak.
- Repair dripping faucets by replacing washers. If your faucet is dripping at a rate of one drop per second, you can expect to waste 2,700 gallons per year.
- Check for toilet tank leaks by adding food coloring to the tank. If the toilet is leaking, color will appear in the toilet bowl within 30 minutes. Check the toilet for worn out, corroded or bent parts. Most replacement parts are inexpensive, readily available and easily installed. (Flush as soon as test is done, since food coloring may stain tank.)
- Install a toilet dam or displacement device such as a bag or bottle to cut down on the amount of water needed for each flush. Be sure installation does not interfere with the operating parts. When purchasing new or replacement toilets, consider low-volume units which use less than half the water of older models. **The City is giving away free displacement devices. Call (303) 384-8151.**
- Take shorter showers; five minutes maximum. Replace your showerhead with an ultra-low-flow version. Some units are available that allow you to cut off the flow without adjusting the water temperature knobs.
- Place a bucket in the shower to catch excess water and use this to water plants. The same technique can be used when washing dishes or vegetables in the sink.
- In the shower, turn water on to get wet; turn off to lather up; then turn back on to rinse off. Repeat when washing your hair.
- Operate automatic dishwashers and clothes washers only when they are fully loaded. Set the water level for the size of load you are using.
- When washing dishes by hand, fill one sink or basin with soapy water. Quickly rinse under a slow-moving stream from the faucet.
- Store drinking water in the refrigerator. Don't let the tap run while you are waiting for cool water to flow.
- Insulate your water pipes. You'll get hot water faster and avoid wasting water while it heats up.
- Don't let water run while shaving or washing your face. Brush your teeth first while waiting for water to get hot, then wash or shave after filling the basin.
- Avoid flushing the toilet unnecessarily. Dispose of tissues, insects and other similar waste in the trash rather than the toilet.

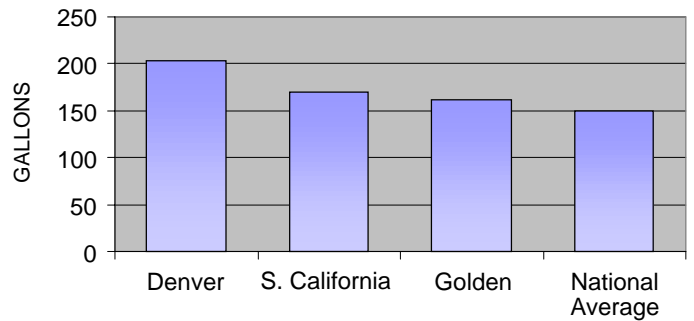
Indoor Water Usage in the United States



Golden Water Facts

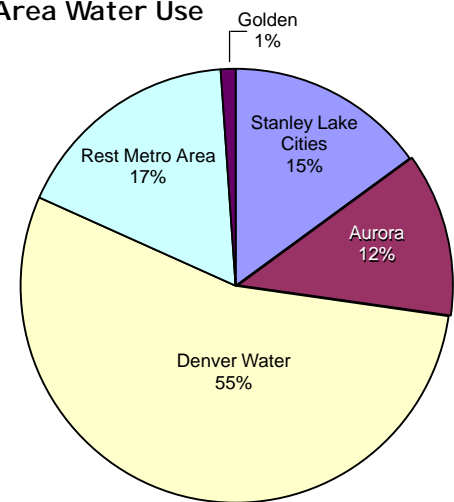
- ▶ Golden diverts all its water from Clear Creek
- ▶ Golden produces 1.3 to 1.5 billion gallons of water annually
- ▶ 2000 was the largest demand year for Golden; we produced just over 1.5 billion gallons
- ▶ Golden uses about 7.5 million gallons a day in the summer and 2.2 million in the winter
- ▶ Golden uses about 500 million gallons of water a year for all outdoor use.
- ▶ The Denver metro area uses about 720 million gallons a day in the summer.
- ▶ The entire supply of outdoor water Golden uses in a year would last the metro area less than 16 hours.
- ▶ Golden will complete construction of Guanella Reservoir in 2003, which will raise total available storage from 661 acre to 2161 acre feet
- ▶ 2161 acre feet of storage will cover Golden's summer demand for 186 days
- ▶ Even in a drought as severe as the 2002 year, Golden would still have sufficient water rights to fill its reservoirs.
- ▶ Wastewater in Golden is treated at the Coors wastewater plant and returned to Clear Creek. We receive a return flow water credit which cannot be used for re-use purposes like golf course irrigation without replacing it with other water.
- ▶ Rain collection barrels are not consistent with Colorado water law, therefore the City of Golden cannot advocate them.

Daily Per-Capita Water Use



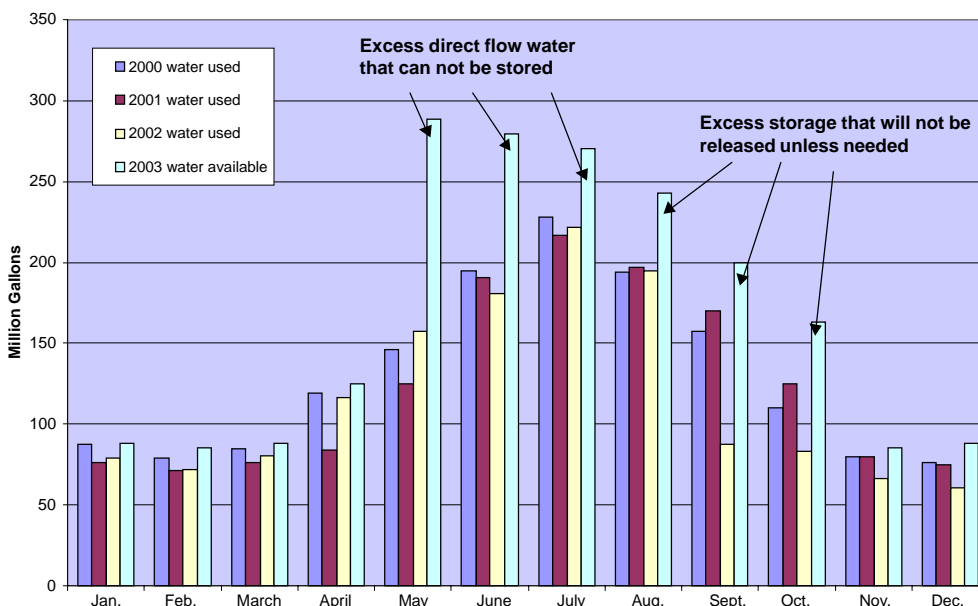
Golden's conservation efforts have our water use at the lower end the Denver region, and the Western US. Historically we have used less water per-capita than other cities in the region, even those with watering restrictions. Our goal is to achieve the national average per-capita use, a challenge for the arid west.

Metro Area Water Use



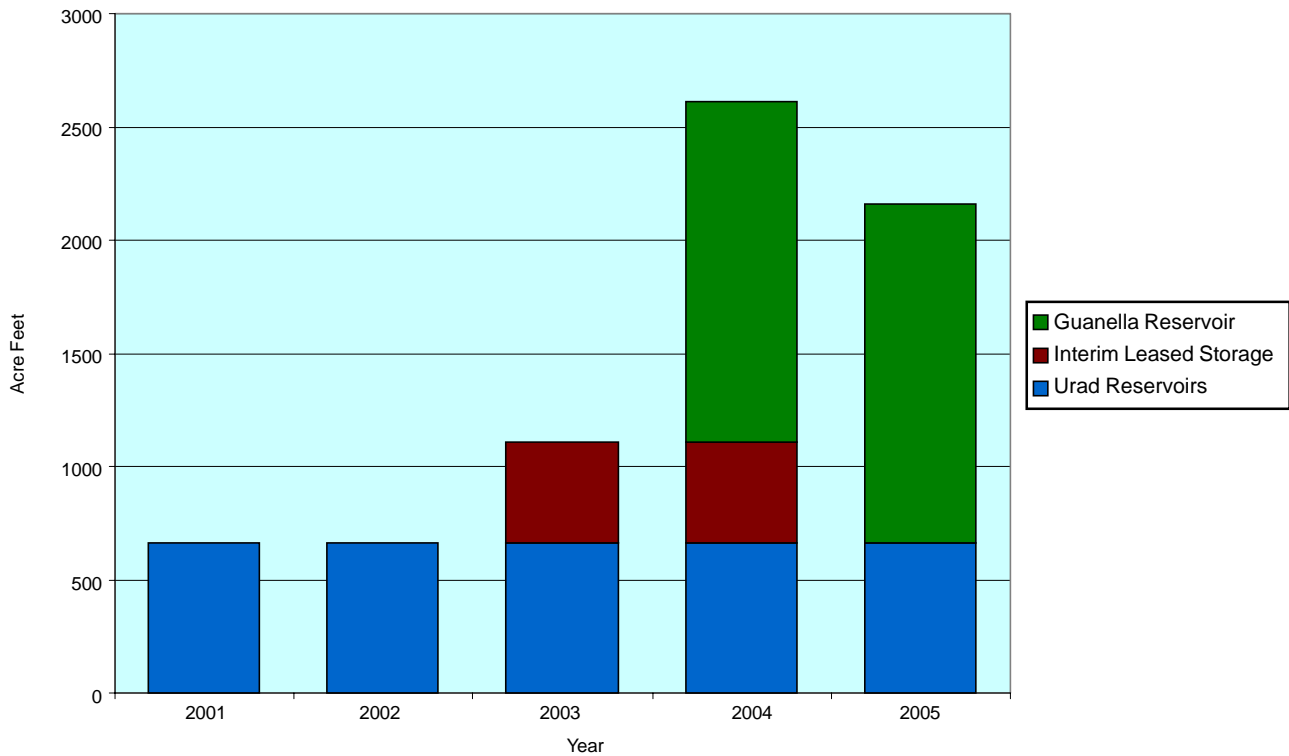
Golden has a water supply that will allow responsible irrigation of lawns, gardens and our parks. While this supply is sufficient for our needs, it is a small amount of water compared to the water needs of the metro region. In fact 100% of all the water used for irrigation in Golden in a year would not last the region one day!

Monthly Water Use and 2003 Supply



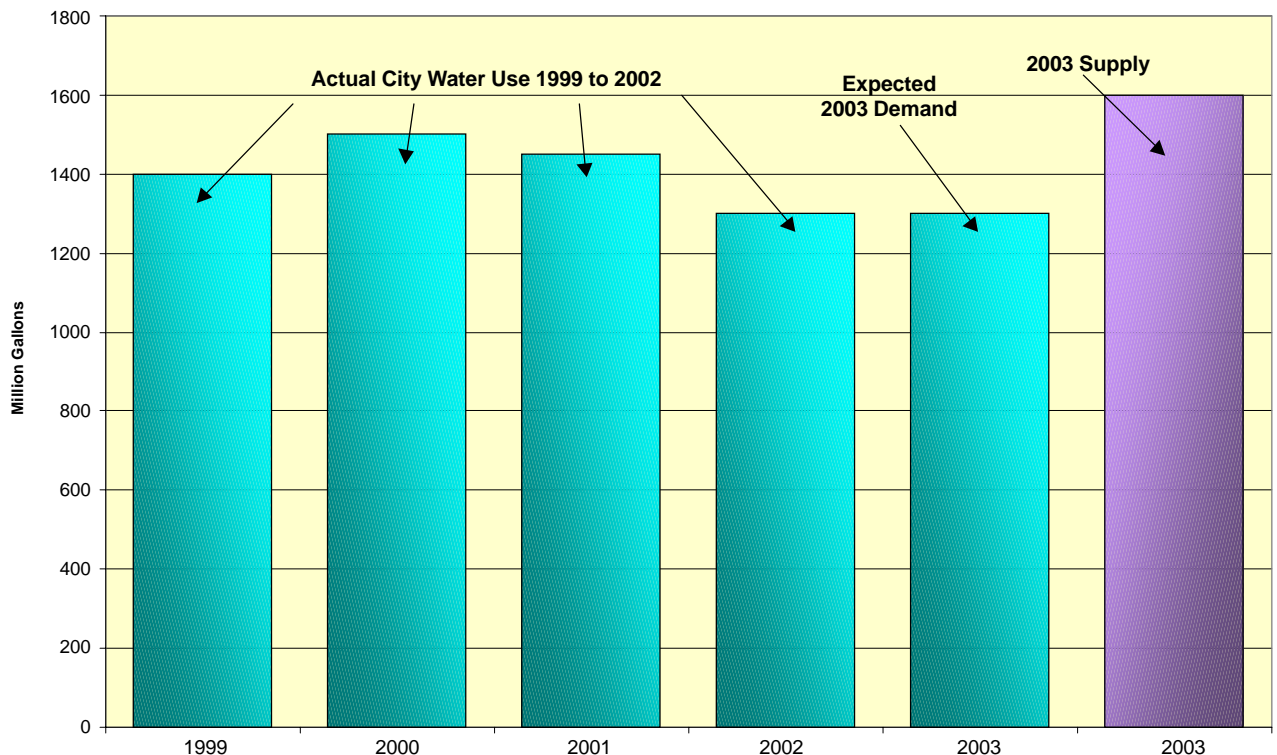
Water use varies monthly throughout the year, and so does the supply that is available. Golden has water from three sources, direct flow in Clear Creek, releases from reservoirs and "trans-mountain" water. We have the unusual situation of often having excess rights to water in Clear Creek that cannot be stored. The water that we save through conservation in May, June or July will not be available in August or September.

Golden's Reservoir Storage



Golden has storage in Upper and Lower Urad Reservoirs and Georgetown Lake. We will finish constructing Guanella Reservoir in 2003, for use in 2004 which will provide all the storage we will need in the future. Last fall, Golden suffered an adverse ruling in water court that resulted in the loss of some water in certain drought circumstances. To accommodate that loss of water Golden has leased reservoir space to cover possible shortfalls until Guanella is complete. Our water rights are sufficient to refill this storage each year even in years as dry as 2002.

Historic Water Use and 2003 Supply



The water supply that Golden will have, based on the water that was available during the 2002 drought will exceed the demand for any of the last four years. In fact, we should have about a 15% reserve even if this year's snow pack is the same as 2002.

Front Range 2003 Drought Plan

Water providers and suppliers along the Front Range of Colorado have cooperated to develop the consistent response to drought conditions described in the table below. The drought stage applicable to each part of the region will be determined by each water entity or supplier depending on individual water rights, storage and ability to supply. As the appropriate stage of drought is determined by each jurisdiction, the response will be consistent. All Front Range communities are being asked to adopt this plan.

Drought Stages and Restrictions

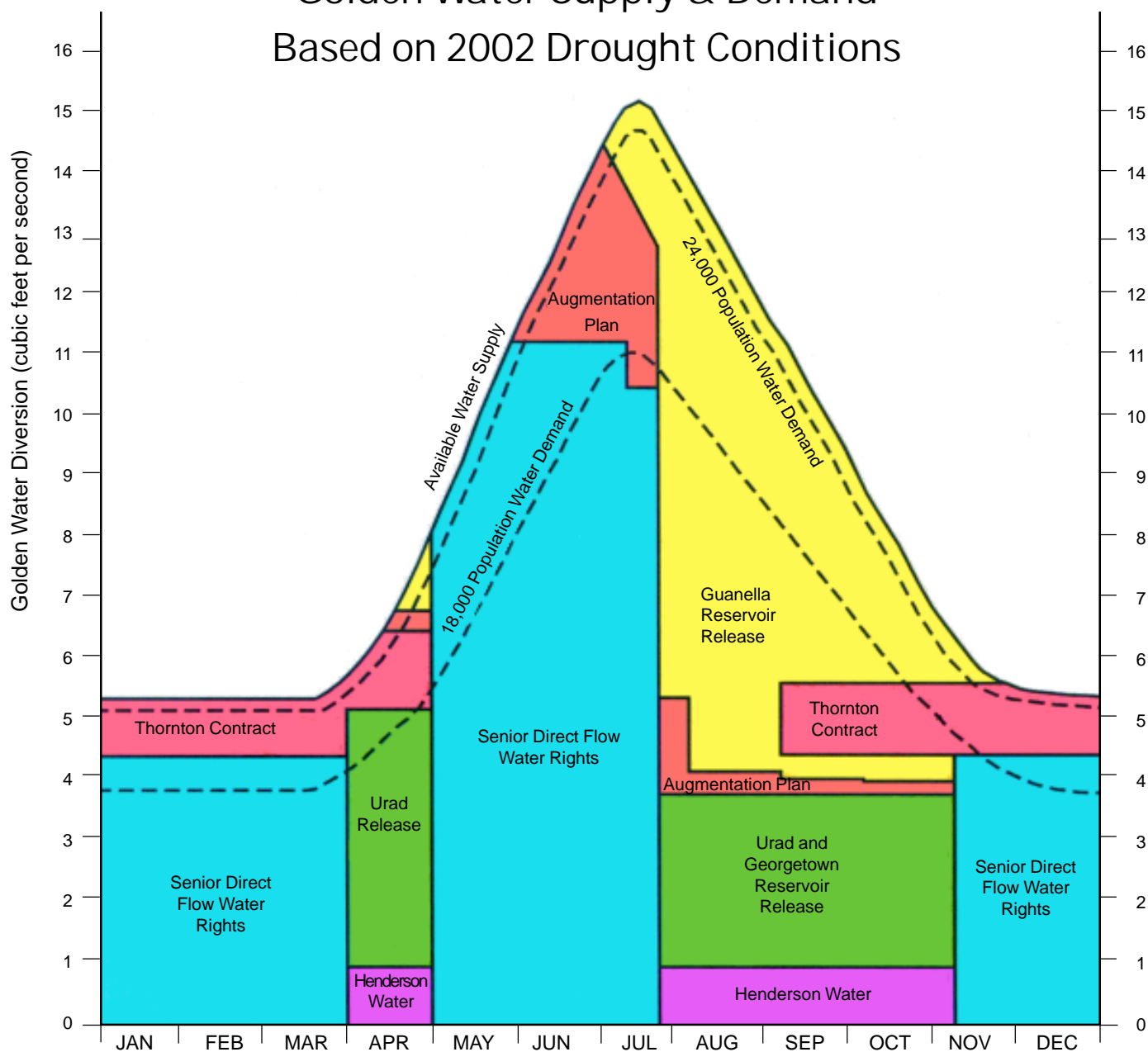
	Stage 1		Stage 2	Stage 3	Stage 4
Element	No Drought	Mild Shortage	Moderate Shortage	Severe Shortage	Extreme Shortage
General restrictions	Voluntary conservation	Voluntary conservation	Mandatory restrictions	Mandatory Restrictions	Mandatory Restrictions
Outdoor use	Voluntary conservation	Voluntary restrictions	Two day a week based on even/odd addresses	No outdoor watering except trees & plants by hand	None allowed
Prohibited watering hours	Voluntary conservation	Voluntary restrictions	10am to 6pm	10am to 6pm	No watering
Sprinkler Zone time limits	Voluntary conservation	Voluntary restrictions	15 minutes per zone with maximum time 1 ½ to 2 hours	No watering	No watering
Special permits new lawns, etc.	Voluntary conservation	Voluntary restrictions	No watering, discourage new lawns	No watering, discourage new lawns	No watering, discourage new lawns
Trees, shrubs and perennials	Voluntary conservation	Voluntary restrictions	Twice per week – deep watering only	Twice per month – deep watering only	No watering
Golf Courses	Voluntary conservation	Voluntary restrictions	No watering roughs & zone times or water budget*	Tees and greens only. Zone times or water budget*	None
Athletic Fields & Parks	Voluntary conservation	Voluntary restrictions	Two times per week or water budget*	Two times per week or water budget*	None
Car Washing –at home	Voluntary conservation	Voluntary restrictions	Conservatively with bucket	No washing	No washing
Car Washing –Commercial	Voluntary conservation	Voluntary restrictions	No restrictions	No washing	No washing
Restaurants	Voluntary conservation	Voluntary restrictions	Water served only upon request	Water served only upon request	Water served only upon request
Swimming pools	Voluntary conservation	Voluntary restrictions	Ok with best management practices for the industry	Public pools, recreation centers, community pools, therapy pools and hot tubs only	None
Other water features (fountains, etc.)	Voluntary conservation	Voluntary restrictions	No filling except to protect fish	No restrictions if water not sprayed in the air; fish could be at risk; no new water features	None

**Parks and Recreation will operate on a strategic reduction system and may decide on specific usage areas rather than across the board reductions.*

Consumptive verses Non-Consumptive

Much of the water that the city uses is returned to Clear Creek. Water that is returned is considered non-consumptive because it is available for others to use downstream after its use in Golden. About 90% of the water we use in our homes is returned to Clear Creek by going down the drain to city sewer lines and the wastewater treatment plant. Water used in the summer for irrigation is not all lost to downstream users. Some water runs to storm drains or streams, and some of the water finds its way back to the stream as ground water. The city gets a 25% return flow credit for water used for outdoor purposes. This irrigation return flow credit was almost 650,000 gallons per day in 2002.

Golden Water Supply & Demand Based on 2002 Drought Conditions



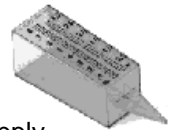
The water supply mosaic shows the water Golden has available based on the 2002 drought, and assuming the availability of water with the completion of the 1500 acre-foot Guanella Reservoir.

Prepared 09/30/02



City of Golden Recommendations

1. Hold a community discussion on March 31st to discuss water and water related drought issues.
2. Present a City Council Resolution to adopt the metro region drought plan authorizing the City Manager to anticipate, respond and impose drought stages and restrictions based upon the Front Range Plan for 2003.
3. Declare a "Stage I" drought in Golden as outlined on the Front Range Drought Plan.
4. Enact the following voluntary conservation programs:
 - a. Recommend watering turf areas two times per week for residential and commercial properties.
 - b. Provide adequate water to city parks, athletic fields and the golf course necessary to keep them in good shape, based upon a specific conservation plan.
 - c. Work with CSM, Jefferson County, Jeffco Schools, and the Lookout Mountain School for Boys to encourage them to adopt similar conservation programs.
 - d. Discourage watering between 10 am and 6 pm.
 - e. Provide continuous updates of the city's water supply and usage on the city's web page, and mail status post cards in June, July, August and September.
5. Continue our significant conservation education programs.
6. Set conservation goal for 2003 to reach the national average of 150 gallons per capita water use, down 10 gallons per day from current use.
7. Provide a \$25.00 credit towards installation of a rain sensor gauge to citizens.
8. Provide free rain gauge and water moisture meters to citizens.
9. Upgrade all city irrigation systems to include rain sensor gauges.
10. The City Manager will adjust the drought stage applicable to Golden based upon supply and projected demand for the balance of the year.
11. Upon declaration of a Stage 4 drought for Golden, the City Council will be asked to suspend the sale of any new water taps until the drought stage is reduced to a Stage 3 or better.



Future things to consider

If the city does not meet the goal of reducing per capita demand additional measures can be implemented. We are not recommending these now mostly because our city water use is lower than the region's and we believe we can achieve the additional reduction without them. Additionally the city's water supply will be adequate to meet demand.

1. Switch to monthly meter reading and implement conservation rates.
2. Implement a fixture and appliance rebate program.
3. Restrict new sod.



CITY OF GOLDEN

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