

City of Wichita Internal Water Conservation Plan

In response to the ongoing drought and declining water levels in Cheney Reservoir, City of Wichita staff are directed to:

Reduce water usage on City-owned grass covered land.

Warm season grasses (Bermuda or Buffalo) are planted whenever possible including athletic fields that require the most irrigation. These athletic fields could have watering reduced to minimum levels, but careful consideration would need to be made of potential costs to fixing turfs in future. An overall change to irrigation will be addressed in February prior to the spring watering season beginning.

Mowing grass at a higher level, improving root shade and reducing evaporation. Not only will this result in reduced water usage, but potential savings through reducing the number of mowings as well. While grass that grows taller will also grow a deeper root system thereby making it more drought tolerant, aesthetics may suffer as a result.

Parks and Recreation is pursuing grant opportunities to install artificial turf and have installed at Nafzger Park already.

Reduce water usage on City owned Golf courses.

Wichita Golf courses have made several water saving improvements in recent years. Grass rough at Tex Consulver Golf course has been converted to Bermuda. Auburn golf course uses warm season zoysia throughout the course. Renovations to clubhouses have incorporated automated fixtures and bottle fill stations. Due to drainage improvements at MacDonald and other courses, Golf staff did not need to fill ponds in Fall 2022.

Golf courses could employ several measures to conserve water in any future drought stage. Such as, adjusting watering schedules, creating no mow areas/turning off irrigation to those areas, and suspending the use of city water to refill ponds.

Reduce the water usage of City fountains and splash pads.

With the exception of a small fountain that is only run a few hours a day during the season at Naftzger, all City decorative fountains have been converted to recycled water along with all splash pads. The largest water intensive process for these assets is upon startup which could be suspended based on drought severity. As of December 2022, almost all decorative and interactive fountains have been winterized and are not in operation.

Reduce water usage at the Stryker Soccer Complex.

A \$22 million project was completed in 2021 that converted all fields to turf. There is still irrigation present outside of the field spaces and schedules could be adjusted to conserve water while maintaining grass integrity with agreement of leased operator. In 2023, much of the grass surrounding the field space will be converted to Bermuda.

Protocol for handling water taste and odor complaints.

After the last drought occurrence in 2011-2012, Staff in Water Production and Pumping developed a new protocol for handling water taste and odor complaints which is still in place. Laboratory and troubleshooting staff will coordinate their efforts to look for all reasons other than flushing the water lines that may be contributing to the complaint. Line flushing continues to be a last resort if no other measures resolve the matter.

Utilize gray water from the Herman Hill Water Center to water trees.

Utilizing non-potable water from Herman Hill Water Center was found to be infeasible following the last drought. Due to the geographic proximity of this sole source for reclamation water and the need to utilize a large gas powered pump that is not normal equipment for forestry vehicles, it has not been utilized since approximately 2014. This practice could be picked back up with consideration to time traveling to and from this location and cost associated. Staff will continue to assess the feasibility of expanding the access to reuse water.

Conservation minded landscaping guidelines.

Parks and Recreation landscaping department continues to use drought and heat tolerant plants whenever possible within their planting zone. Mulch layers are maintained in order to prevent water evaporation. Watering is used to establish and then a reduced watering schedule or eliminate irrigation all together in extreme circumstances. Minimum annual flower beds are established because they require regular watering, right now only Park Villa, Douglas Gazebo at Drury, Tennis Center and Veteran's Memorial Park have flower beds. The only Fescue locations are City Hall, Wichita Art Museum, Drury, Veteran's Park Stevens Memorial flag pavilion, and the Tennis Center. Parks mows higher in the summer for turf health, heat, water and weed control. Bermuda goes dormant in drought. Buffalo turf is at the new Library, which has reduced irrigation.

Reducing water used to inspect fire hydrants.

The Fire Department standard is still to inspect all fire hydrants annually. A recent improvement is work to link Water Distribution's Lucity/GIS maps to the Fire Department's inspection map. This would eliminate duplication of inspection if the hydrant was recently installed, serviced or used by Water Distribution. This would save significant hours by Fire and unnecessary water use.

Upgrade irrigation technology to use water more efficiently.

As an ongoing effort among many City Departments, new technology is implemented as it becomes available for irrigation. More recent updates include:

- Irrigation systems set to have multiple run times for better absorption and to reduce run off
- Rain Sensors are installed on almost every system
- Calsense, Advanced Water Mgmt. Software, is installed on all new systems
- Some older/larger systems have also been updated by installing Calsense Evapotranspiration sensor which measures site evaporation and adjusts water requirements

Reducing water usage through technological upgrades.

Facilities has installed motion activated faucets in the majority of City restrooms, as well as low water usage plumbing and fixtures throughout the City. High efficiency fixtures are the standard for all upcoming restroom design. The only exception is in park restrooms which have manual faucets and fixtures due to the history of theft with automated devices.

Reducing water usage at Parks & Recreation facilities.

The recent Park Villa rehabilitation project introduced the use of biological controls to eliminate the need to refill with City water. Fountains and water features at Reflection Square were removed. The pool maintenance program has improved pool structures which has resulted in less leaks/need for refills.

Reduced water usage in Public Works and Utilities Operations

An operational change in Stormwater to the use of pole cameras to inspect storm drains has greatly reduced the need to water-jet drains that do not need to be cleaned. Sewer maintenance has changed to a high pressure, low-water nozzle for cleaning that has also greatly reduced water usage.

Reducing water usage for vehicle cleaning.

All departments will be instructed to reduce vehicle washing to an as necessary basis. Washing of City vehicles and equipment would be scaled back to only when deemed necessary to the operation of the asset or to avoid undue wear and tear on equipment. This would include the Fire Department which typically wash fire trucks every Saturday.

Reducing water usage for Fire training.

Although no training will be completely suspended, consolidating water heavy training modules to maximize the number of trainees and limit the number of occurrences. The "Big Water" training will be postponed until a time when the City is not under a drought advisory.

Determine the feasibility of utilizing additional water sources.

Staff will determine the feasibility of utilizing each of the following water sources. In many cases, this will require a CIP project.

- Utilize sump pump system water from City Hall for on-site irrigation
- Recycle water from washing out concrete trucks
- Recycle water from vehicle wash-bays at the Central Maintenance Facility and Transit facilities
- Capture water from hard surfaces (parking lots, roofs) via cistern systems