

BEST PRACTICE 5: Water Waste Ordinance

- Foundational and Operations best practice
- Utility operations - implemented by water utilities on their own customers
- Customer participation – avoiding waste is the responsibility of customers

Overview

A water waste ordinance is a local regulation that explicitly prohibits the waste of water from a variety of sources including (but not limited to) excess irrigation runoff or from irrigation that occurs at a prohibited day and/or time, excessive pavement washing, failure to repair leaks, utilizing single-pass water cooling, or even improper maintenance of cooling towers at an unnecessarily low conductivity level.

Conservation through ordinance can have limitations. Enforcement is a key piece of making an ordinance effective and enforcement requires staff resources. Additionally, some entities such as special districts may lack proper jurisdiction to enact a water waste prohibition ordinance.

Why a Best Practice?

A water waste ordinance is an important regulatory tool for water utilities that serves several useful purposes.

- A water waste ordinance establishes the importance of wise water stewardship in a community and establishes a utility's intent to put its water resources to maximum beneficial use.
- A water waste ordinance establishes penalties for the blatant waste of water. Such an ordinance empowers local officials to target hands-on assistance and education as well as issue warnings and fines.
- A water waste ordinance provides an important regulatory "stick" during a drought when agency-wide restrictions are put in place and enforcement is required to ensure water supplies are adequate.
- Without a water waste ordinance, a utility may be powerless to act against egregious and profligate waste of water.

State Planning Requirements

Colorado statute requires that all covered entities (water providers that deliver more than 2,000 acre-feet per year) file a water conservation plan with the Colorado Water Conservation Board (CWCB). Entities that do not have an approved plan on file are not eligible to receive grant funding from the State. Under this statute, one of the water saving measures and programs that must be considered in a conservation plan is, "Regulatory measures designed to encourage water conservation." [CRS 37-60-126 (4)(a)(IX)].

Applicability

This best practice applies to all water agencies and all water customers. Water waste usually targets excessive irrigation and drought restriction violations, but other sources of waste could also be the subject of a water waste ordinance. For example, water waste violations could be levied for excessive pavement washing, failure to repair leaks, utilizing single-pass water

cooling, or even improper maintenance of cooling towers at an unnecessarily low conductivity level. Utilities with individualized water budgets could utilize a water waste ordinance to enforce mandatory drought limitations requiring all customers not to exceed their water budget.

Implementation

A water waste ordinance is usually enacted by the municipality or local government, not the water utility itself. Typically water waste ordinances are passed by the city council and entered into municipal code, often at the request of the water utility. Several examples of code language for water waste ordinances are provided in this section.

Water Savings and Other Benefits

Range of Likely Water Savings: Varies

A waste-prohibition ordinance cannot just be a rule that exists only on the books – it must be actively enforced. The water savings achieved through a water waste ordinance depend largely upon the level of publicity and enforcement given to the rules. A water waste ordinance is similar to a new traffic law – without some measure of enforcement the public is unlikely to pay much attention. With a water waste ordinance, savings are only likely to be achieved if there is some level of active enforcement to keep people “on their toes”.

How to Determine Savings

Initially, water savings from a water waste ordinance can be estimated from the number of warnings and tickets issued. Utilities with advanced data tracking capabilities can identify customers who received a citation for water waste and examine billed consumption records before and after the citation was issued.

Once a water waste ordinance has been in place and actively enforced for a year or more it may be possible to measure the impacts on a community-wide level, but much depends upon the implementation effort.

Savings Assumptions and Caveats

Water savings from a water waste ordinance cannot be assumed since it is possible that no savings will be achieved, because it relies heavily on behavior change.

Goals and Benchmarks

The goal of a water waste ordinance should be to eliminate all obvious water waste in a community. Of course this goal is much like the goal of eliminating all speeding from local roads. The water waste ordinance represents an effort to move a community toward a goal, but it does not ensure success and in fact complete success is a virtual impossibility.

Other Benefits

A water waste ordinance on the books, even if it is not actively enforced in normal water years, can be extremely important during a drought. When demand reductions are required to ensure minimum supply levels during a drought, a water waste ordinance is an essential tool for water providers and gives the necessary enforcement power to cite, and if necessary fine, those who do

not obey drought restrictions. As an additional possible benefit, a waste prohibition ordinance can help create a culture change where wasting water is unacceptable.

Costs

Utility Costs

Implementing a water waste ordinance is inexpensive and usually only requires that an ordinance be prepared by staff and then approved by the City Council or other leadership body.

Enforcing a water waste ordinance requires staff time from the water utility and possibly from other city service workers. To enforce their water waste ordinance, Denver Water hires temporary workers, provides them with vehicles (and bikes) and uniforms, and literature. They also incur expenses related to tracking violations and integrating them into their computerized customer information system. During a drought, some municipalities empower all city workers, including law enforcement, meter readers, and road crews, to watch for watering violations and to issue citations.

Depending upon how the ordinance is constructed, citizens who receive a citation may have the option to appear in court to contest the violation and fine. This can increase implementation costs.

Customer Costs

A water waste ordinance does not place costs on the customer *unless* they are caught in violation of the rules at which point they may be subject to a penalty, much like a traffic ticket.

Resources and Examples

Resources

The published literature on water waste ordinances is virtually non-existent. The best resources for water waste ordinances are rules on the books in communities in Colorado and across the US and the experience of water providers in implementing their water waste ordinance.

Examples

Several examples of water waste ordinances with varying levels of detail and specificity are presented below.

Denver Water

Denver Water prohibits water waste, carefully defines what waste is, and enforces the ordinance with seasonal staff.

From *Chapter 14 Water Conservation*

14.01 Water Waste Prohibited. Water shall be used only for beneficial purposes and shall not be wasted.

14.01.1 Water Waste Defined. Prohibited water waste includes, but is not limited to:

- a. Applying more water than is reasonably necessary to establish and maintain a healthy landscape. Routine watering of turf shall be limited to three days per week, except for watering for up to 21 days to establish new turf from sod or seed; and except for syringing golf course greens when necessitated by weather conditions.
- b. Watering with spray irrigation between the hours of 10.00 a.m. and 6.00 p.m. during the period from May 1 to October 1, except for the following uses:
 - (1) Watering for up to 21 days to establish turf from seed or sod.
 - (2) Watering new plant material such as flowers, trees and shrubs on the day of planting.
 - (3) Watering essential to preserve turf subject to heavy public use.
 - (4) Operating an irrigation system for installation, repair or reasonable maintenance, so long as the system is attended throughout the period of operation.
- c. Watering landscaped areas during rain or high wind.
- d. Applying water intended for irrigation to an impervious surface, such as a street, parking lot, alley, sidewalk or driveway.
- e. Using water instead of a broom or mop to clean outdoor impervious surfaces such as sidewalks, driveways and patios, except when cleaning with water is necessary for public health or safety reasons or when other cleaning methods are impractical.
- f. Allowing water to pool or flow across the ground or into any drainage way, such as gutters, streets, alleys or storm drains.
- g. Failing to repair, for a period of more than ten business days after notice, leaking or damaged irrigation components, service lines or other plumbing fixtures.
- h. Washing vehicles with a hose that lacks an automatic shut-off valve.

14.01.2 “Water Use Restriction” Distinguished. These prohibitions on water waste are not related to drought response, insufficient water supply or system emergency and therefore do not constitute water use restrictions within the meaning of Denver Water’s various water supply agreements and environmental permits.

City of Aurora

The City of Aurora Waste of Water ordinance prohibits water from pooling on or running across impervious surfaces and into the street gutter. This ordinance can also be applied during times of drought restrictions to enforce wrong day watering or watering between 10 a.m. and 6 p.m.

Sec. 138-190. Waste of water.

(a) *Waste of water prohibited.* Waste of water shall be defined as noncompliance with the city's water management plan as defined in section 138-223(b). Notwithstanding the enforcement provisions set forth in subsection (b) of this section, the director may order the installation of a flow restrictor or the shut off of water service to a property if the director reasonably finds that an extreme waste of water is occurring on the premises.

(b) *Enforcement.* The director is hereby authorized to enforce this section. The person billed for water service to a property, whether owner or occupant, shall be responsible for compliance with subsection (a) of this section and shall be subject to the following actions and penalties:

- (1) Upon a first violation, the person billed will be issued a warning.
- (2) Upon any further violations at the same property within a 12-month period, from the date of the warning notice, the person billed will be issued a written violation and the following penalty (see Table 4-12) will be added to the water bill for the property as a civil penalty.
- (3) Any penalty imposed pursuant to this section may be appealed to the director of water pursuant to the appeal procedure set forth in section 138-226.
- (4) Upon any notice(s) of violation of this section, a copy of such notice(s) shall also be mailed to the owner(s) of the real property served, if the owner(s) address differs from the subject property address.

(Code 1979, § 39-78; Ord. No. 2000-132, § 3, 12-11-2000; Ord. No. 2002-29, § 1, 6-3-2002; Ord. No. 2003-08, § 1, 3-24-2003; Ord. No. 2005-74, § 1, 10-10-2005)

Table 4-12: Aurora water waste violation penalties

Customer Category and Meter Size	2nd Violation	All Additional Violations
Single-Family		
All (5/8" - 1")	\$250.00	\$500.00
Non Single-Family		
5/8"	250.00	500.00
3/4"	300.00	600.00
1"	400.00	800.00
1 1/2"	600.00	1,200.00
Large Commercial		
2"	800.00	1,600.00
3"	1,200.00	2,400.00
4"	1,600.00	3,200.00
6"	2,400.00	4,800.00
8"	3,200.00	6,400.00
Irrigation Only		
2"	1,000.00	2,000.00
3"	1,500.00	3,000.00
4"	2,000.00	4,000.00
6"	3,000.00	6,000.00
8"	4,000.00	8,000.00

City of Durango

Water waste. The intentional or unintentional use of water for a non-beneficial use. Non-beneficial uses include, but are not restricted to:

- (1) Landscape water applied in such a manner, rate and/or quantity that it overflows the landscaped area being watered and runs onto adjacent property, public rights-of-way or into drainage ways, including gutters and storm sewers.
- (2) Landscape water which leaves a sprinkler, sprinkler system, or other application device in such a manner or direction as to spray onto adjacent property or public rights-of-way.

- (3) Failing to repair any irrigation system that is broken or leaking.
- (4) Applying water to hard surfaces such as parking lots, aprons, pads, driveways, or other surfaced areas, such as wood or gravel, when water is supplied in sufficient quantity to flow from that surface onto adjacent property or public rights-of-way.
(Ord. No. O-2007-30, § 1, 9-4-07)

City of Longmont

Waste of water prohibited. Customers shall not cause or permit water furnished by the city to run to waste in any gutter or other impervious surface, or other application. Waste, for purposes of this section, shall constitute the use of water serving no beneficial use, and not constituting an unavoidable consequence of the beneficial usage of water. Waste of water does not include incidental and occasional over spraying. For the purposes of this section, the term customer shall include homeowners associations or other entities obligated to maintain irrigation systems along city streets.