

# Drought Management Plan



Presentation to LUC

April 24, 2013

## City of Loveland Drought Management Plan



- ❧ **Drought management** is the short-term managed response to water shortages at or exceeding a 1-in-100 year event.
- ❧ **Water conservation** is a long-term process involving the wise use of water resources. It is the subject of a separate plan.

## City of Loveland Drought Management Plan - Purpose



- ❧ Preserve and allocate water to protect the public health, safety, and welfare.
- ❧ Ensure adequate water reserves for future water years.
- ❧ Establish a methodology to inform and educate the public.
- ❧ Outline demand-reducing measures based on the degree of water supply shortage.

## City of Loveland Drought Management Plan



- ❧ Proposed plan outlines 4 supply shortage scenarios
  - ❧ Response level increases with every 10% increase in supply deficit
- ❧ School District and Parks response plans should be executed before residential restrictions are recommended

## City of Loveland Drought Management Plan – Level 1



- ☞ Up to a 10% shortage of water
- ☞ Minimal impact on landscape health
- ☞ Lawn watering – 3 days per week
- ☞ Non-automated car washing – shut off nozzle and bucket required
- ☞ City Fleet vehicles – washed once per week
- ☞ Fire hydrant flushing/testing – limited to transmission lines and critical situations

## City of Loveland Drought Management Plan – Level 2



- ☞ Up to a 11-20% shortage of water
- ☞ Minimal impact on long-term landscape health, but may cause wilting or browning during hot summer
- ☞ Lawn watering – 2 days per week
- ☞ Non-automated car washing – shut off nozzle and bucket required
- ☞ City Fleet vehicles – once per week
- ☞ Fire hydrant flushing/testing – limited to transmission lines and critical situations

## City of Loveland Drought Management Plan – Level 3



- ☞ Up to a 21-30% shortage of water
- ☞ Visible wilting/browning during hot summer, but should keep trees, shrubs, perennials and most lawns alive
- ☞ Lawn watering – 1 day per week
- ☞ Non-automated car washing – not allowed
- ☞ City Fleet vehicles – washing not allowed
- ☞ Fire hydrant flushing/testing – limited to critical situations

## City of Loveland Drought Management Plan – Level 4



- ☞ Greater than a 30% shortage of water
- ☞ Visible wilting/browning during hot summer, and some customers may lose part of landscaping.
- ☞ Lawn watering – not allowed
- ☞ Non-automated car washing – not allowed
- ☞ City Fleet vehicles – washing not allowed
- ☞ Fire hydrant flushing/testing – limited to critical situations

Drought Management Plan						
Response Level		I	II	III	IV	
% Projected Raw Water Supply Shortage		1-10%	11-20%	21-30%	>30%	
Type of Water Use	Customer	Residential Turf/Lawn Watering	3 days/week	2 days/week	1 day/week	No lawn watering
		Trees, Shrubs, Perennials	Hand/drip/subsurface or 3 days/week	Hand/drip/subsurface or 2 days/week	Hand/drip/subsurface only	Hand/drip/subsurface only
		Non-automated Car Washing	Best Management Practices	Best Management Practices	Not allowed	Not allowed
		Dedicated Irrigation Meters	Best Management Practices	2 days/week	1 day/week	No lawn watering
		Spraying Impervious Surfaces	Not allowed (except as necessary for health & safety)	Not allowed (except as necessary for health & safety)	Not allowed (except as necessary for health & safety)	Not allowed (except as necessary for health & safety)
		Hydraulic Fracturing	Customer provides raw water	Customer provides raw water	Customer provides raw water	Customer provides raw water
	City	Curtail Leases	Limited by water availability	Limited by water availability	No agricultural leases	No agricultural leases
		Public Facilities/Parks/ R2J School District/ Turf/Lawn Watering	Separate approved plans for equal or greater reductions	Separate approved plans for equal or greater reductions	Separate approved plans for equal or greater reductions	Separate approved plans for equal or greater reductions
		Non-automated Car Washing	Best Management Practices	Best Management Practices	Not allowed	Not allowed
		Washing City Fleet Vehicles	Once/week	Once/week	Not allowed	Not allowed
		Fire Hydrant Flushing & Testing	Limited to transmission lines or critical situations	Limited to transmission lines or critical situations	Limited to critical situations	Limited to critical situations
		Permits	Medical Hardship	Permit required	Permit required	Permit required
	Religious Objection		Permit required	Permit required	Permit required	No exception
	New Lawns		Permit required	Permit required	Permit required	Not allowed
	Fines	Residential Fines per Violation	\$50 to \$1000	\$50 to \$1000	\$50 to \$1000	\$50 to \$1000
		Business Fines per Violation	\$50 to \$1000	\$50 to \$1000	\$50 to \$1000	\$50 to \$1000

Notes: 1. Voluntary Restrictions may be used equivalent to any appropriate level if deemed to be effective  
2. Vegetable gardens are exempt  
3. Measures are intended to avoid impact on successful business operations  
4. Best Management Practices as referenced by Greenco <http://www.greenco.org/> and Colorado WaterWise Council <http://coloradowaterwise.org/>

## Drought Management Plan Customer Relations



- ☞ Basic suite of outreach methods
  - ☞ (press releases, newspaper articles & ads, website, social media etc.)
- ☞ Direct mailings
- ☞ Door to door visits with local businesses
  - ☞ (table top displays, posters)
- ☞ "Drought Blog" in RH
- ☞ Video Series on channel 16 and You Tube
- ☞ Community meetings
  - ☞ (Local Clubs, HOAs, Industry Professionals)
- ☞ Educational take home materials to schools
- ☞ Open House at the Service Center
- ☞ Email blasts to Key Accounts
- ☞ Events
  - ☞ (Key Accounts Earth Day Events, Children's Day, Public Works Day, Lunch and Learns, GIAB, Garden Tour, Corn Roast)

## Proposed Process



Once City Council adopts the Drought Management Plan:

1. Staff determines projected sufficiency of water supplies
2. Staff reports to LUC
3. LUC and staff recommend to City Council
4. City Council enacts drought response actions
5. As drought conditions change, staff informs City Manager and recommends changes for City Council consideration

## Questions?

