

City of Healdsburg

2010 Urban Water Management Plan

Water Use Baseline and Water Use Targets

May 13, 2015
Public Workshop Meeting

Outline

1. Introduction
2. Purpose: 20 by 2020 vs. Drought Mandates
3. 20 by 2020 Requirements
4. City Baseline
5. City Water Use Targets
6. Questions, Input from the Public
7. Current Water Supply Levels
8. Current Drought Restrictions, Short Term
9. Water Conservation Plan, Long Term
10. Requested Input from the Public

Presenters

- 💧 Terry Crowley – City of Healdsburg, Utility Director
- 💧 Meg Lawrence – City of Healdsburg, Utility Conservation Analyst
- 💧 Cristina Goulart – Consultant, GHD



Purpose of Workshop

- 💧 To provide an update on the UWMP
- 💧 To receive input from the community
- 💧 To provide an update to drought conditions

Overview of UWMPs

- ◆ Required by Water Code Section 10610 et. seq. for agencies with 3,000 connections or that serve more than 3,000 AFY annually
- ◆ Should be updated every five years
- ◆ Grant eligibility is tied to compliance with UWMP Act

UWMP Planning Elements

- 💧 Water Demand Analysis
- 💧 Baseline per Capita Use and Water Use Targets
- 💧 Water Supply Analysis
- 💧 Water Shortage Contingency and Drought Planning
- 💧 Water Conservation Plan

2010 UWMP Requirements

- 💧 Water Conservation Act of 2009, SBx7-7
- 💧 Requires a statewide 20% reduction in per capita water use by the year 2020
- 💧 2015 water use target is midway between baseline and 2020 target

Healdsburg's Baseline

Base Daily Per Capita Water Use — 10- Year Range

Base Period Year		Distribution System Population	Gross Water Production (mg/yr)	Gross Annual Production (AFY)	Annual Daily Per Capita Water Use (gpcd)
Sequence Year	Calendar Year				
Year 1	1995	9,788	795.3	2,440.7	223
Year 2	1996	9,800	771.9	2,368.8	216
Year 3	1997	9,875	684.3	2,099.9	190
Year 4	1998	10,100	711.9	2,184.8	193
Year 5	1999	10,250	777.5	2,386.2	208
Year 6	2000	10,722	763.1	2,341.9	195
Year 7	2001	11,381	802.4	2,462.6	193
Year 8	2002	11,650	849.6	2,607.2	200
Year 9	2003	11,628	831.2	2,550.8	196
Year 10	2004	11,639	900.2	2,762.6	212
				Base Daily Per Capita Water Use	202

The table is developed using data for the City of Healdsburg retail distribution system.

Baselines in the Region

Base Daily Per Capita Water Use — 10- Year Range

Supplier	10-year baseline
Santa Rosa	144
Rohnert Park	162
American Canyon	203
Healdsburg	202
Sonoma	216
Ukiah	232
Sacramento	279

Target Method Options

- 💧 Method 1: 80% of Baseline per Capita Use
- 💧 Method 2: Performance Standards
- 💧 Method 3: 95% of Hydrologic Region Target
- 💧 Method 4: Sector Savings Using BMP Calculator

Method 3 Urban Water Use Targets for Hydrologic Regions



Targets are in gallons per capita per day and represent 95% of the Regional 2020 Water Conservation Goals shown on Figure F-1.

City's 2015 and 2020 Targets

Baseline 10-Year Term: 1995-2004	Method 1	Method 3
10-year Baseline	202 gpcd	202 gpcd
2015 "Interim" Target	182 gpcd	163 gpcd
2020 Target	162 gpcd	124 gpcd
Historical Usage	2010 – 147 gpcd	2013 – 136 gpcd

City's 2015 and 2020 Targets

Baseline 10-Year Term: 2001-2010	Method 1	Method 3
10-year Baseline	184 gpcd	184 gpcd
2015 "Interim" Target	166 gpcd	154 gpcd
2020 Target	147 gpcd	124 gpcd
Historical Usage	2010 – 147 gpcd	2013 – 136 gpcd

Discussion Time

Questions, thoughts, ideas about UWMP
methodologies and baseline

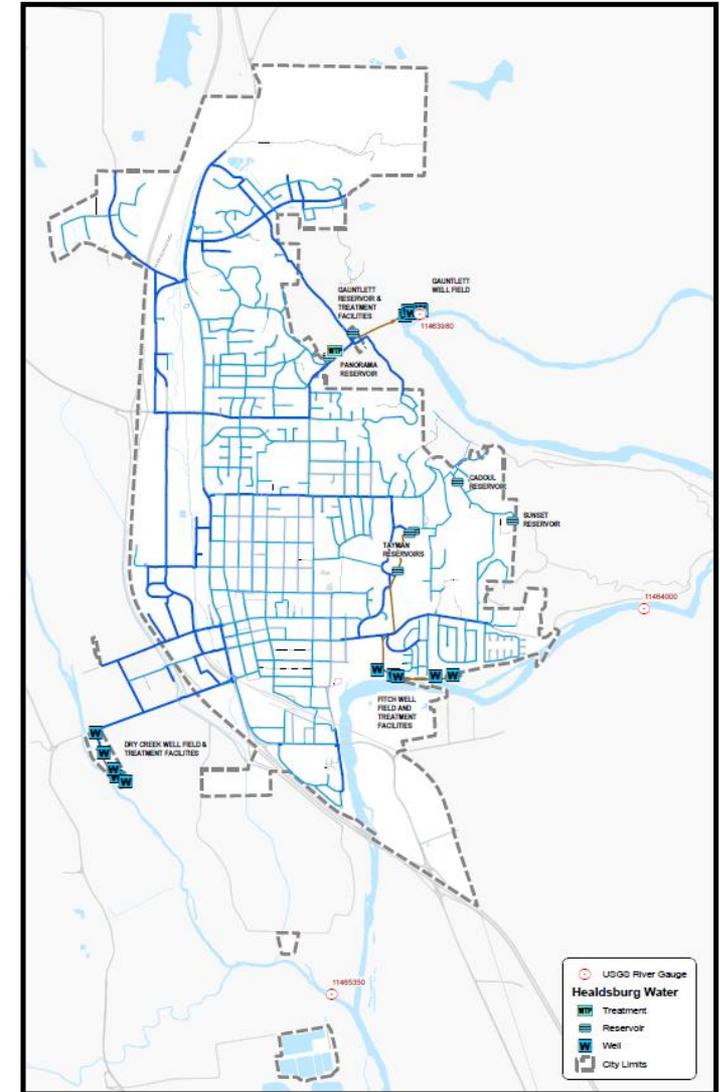
Water Supply and Conservation

- 💧 Overview of City's Water Supply Picture
- 💧 Lake Mendocino and Sonoma Levels
- 💧 Drought Response - Short Term Water Conservation
- 💧 UWMP - Long Term Water Conservation



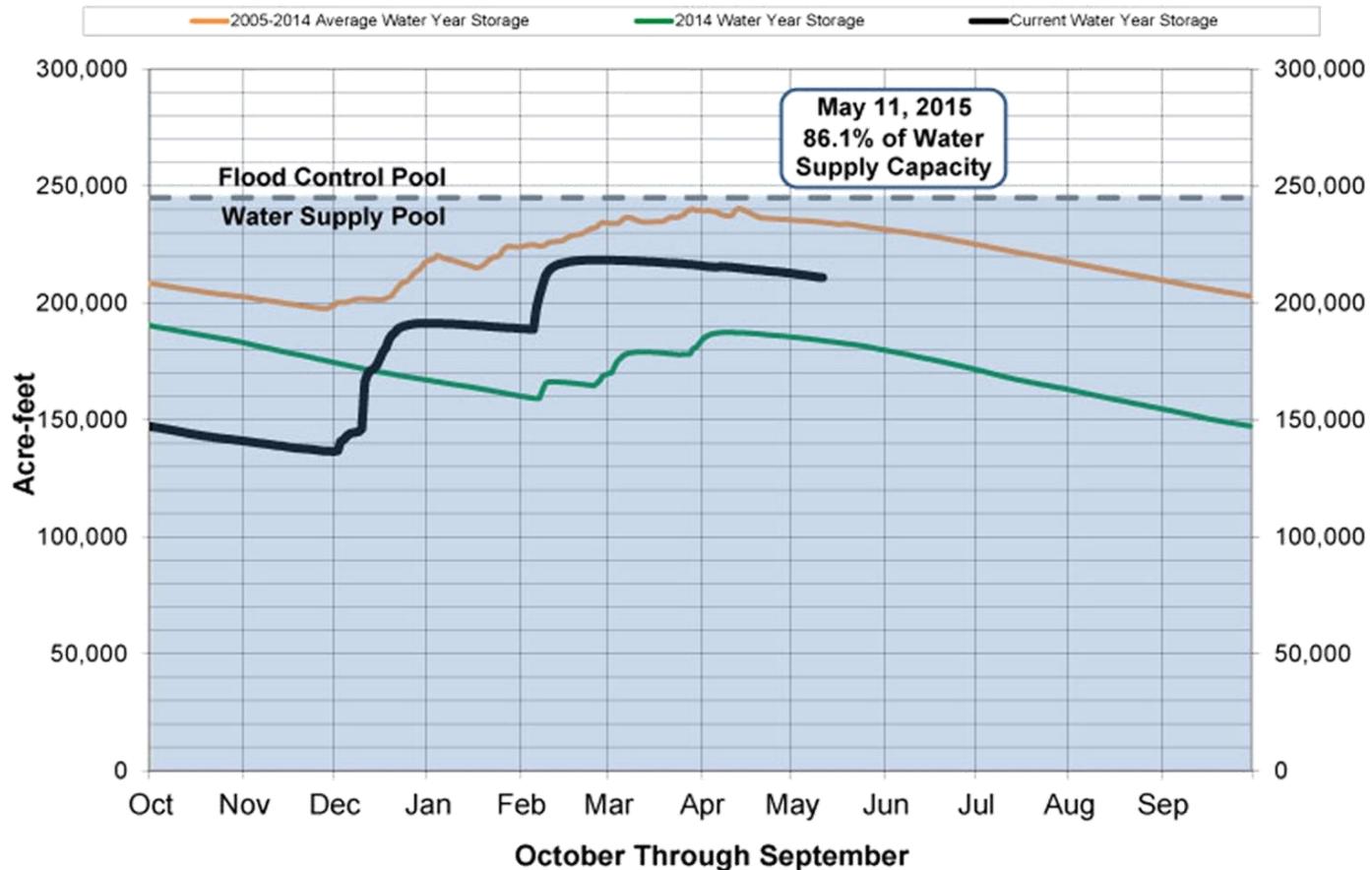
Healdsburg Water System

- Water production from:
 - Gauntlett Wells
 - Fitch Wells
 - Dry Creek
- Gauntlett & Fitch are sourced from water rights on the Russian River.
- Dry Creek is sourced from seasonal water rights of Dry Creek.



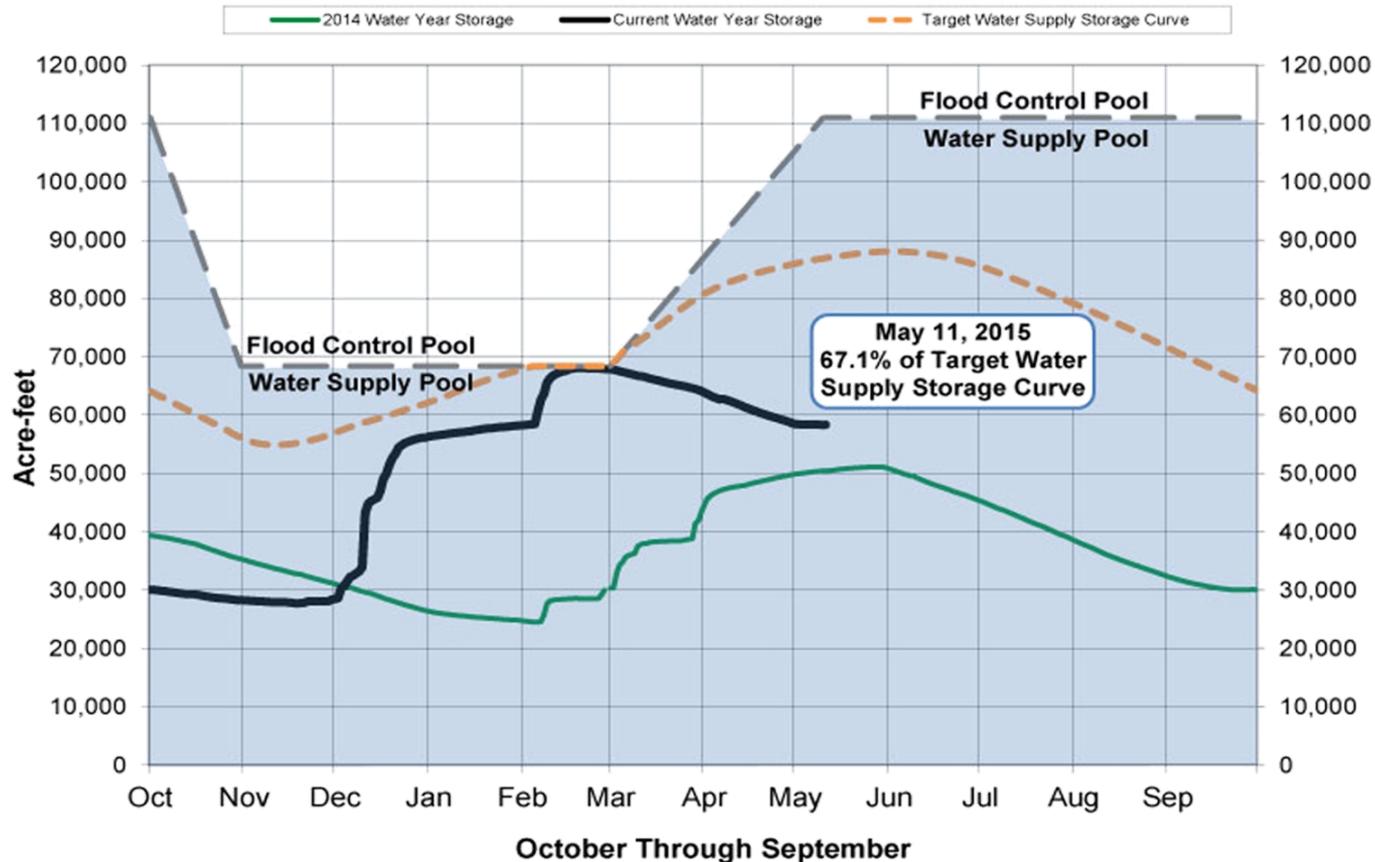
Current Water Levels - Lake Sonoma

Lake Sonoma Water Supply Storage



Current Water Levels - Lake Mendocino

Lake Mendocino Water Supply Storage



Drought Response - Timeline

- 💧 January 2014: State Water Resources Control Board (State Board) issues water restrictions
- 💧 January 21, 2014: City Council updates Water Shortage Emergency Plan and Enacts Stage 2 Mandatory Conservation Measures
- 💧 March 17, 2015: State Board extends and expands water restrictions
- 💧 April 1, 2015: Governor Jerry Brown issues an Executive Order mandating 25% water conservation
- 💧 May 5, 2015: State Board adopts Emergency Regulation

Current Drought Restrictions in Healdsburg

- 💧 Outdoor Irrigation water can only be applied between the hours of 8pm and 7am
- 💧 Properties with even addresses water on even days of the month. Odd addresses on the odd days.
- 💧 Routinely inspect for and repair irrigation leaks
- 💧 Correct and repair plumbing leaks within 72 hours of discovery or notification
- 💧 Adjust irrigation valve run-time to account for fluctuations in weather and to avoid runoff.

Current Drought Restrictions in Healdsburg

💧 Prohibited Uses:

- ◆ Use of water from a fire hydrant for non emergency uses
- ◆ Use of potable water for construction purposes
- ◆ Filling or refilling of swimming pools
- ◆ Washing of sidewalks, walkways, driveways, and other hard-surfaced areas
- ◆ Washing motor vehicles without using a hose equipped with an automatic shut-off

Expanded Restrictions from State

- ❖ Irrigating turf or ornamental landscapes during and 48 hours following measureable precipitation is prohibited
- ❖ Water may only be served upon request at restaurants and other food/beverage service establishments
- ❖ Operators of hotels/motels must provide guests with the option of choosing not to have towels and linens laundered daily
- ❖ Irrigating ornamental turf on public street medians with potable water is prohibited
- ❖ Limit outdoor irrigation to two days per week

How Will Healdsburg Meet Emergency Regulation Conservation Levels?

short term conservation goals

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- 💧 Increase educational outreach
 - 💧 Increase enforcement measures, especially for outdoor irrigation.
 - 💧 Reduce allowed outdoor irrigation to two days per week.
 - 💧 Implement an urban reuse hauling program similar to EBMUD (dependent on NCRWQCB approval).
 - 💧 Increase the incentive for the City's lawn conversion program.
 - 💧 Convert more of the City owned lawns to drought tolerant plantings.
 - 💧 Provide irrigation audits and free in home water audits.

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- 💧 Provide free direct install toilets for higher GPF toilets.
 - 💧 Implement direct install programs for low income housing.
 - 💧 Continue the City's rebate programs (clothes washers, toilets, smart irrigation timers)
 - 💧 Increase use and awareness of rain water and grey water systems.
 - 💧 Work with hotels and restaurants to implement the Governor's executive order.
 - 💧 Implement rate structures that incentivize conservation.

How Will Healdsburg Maintain UWMP Conservation Levels?

Long term conservation goals

Long Term Water Conservation

- 💧 Incentivize Passive solutions:
 - ◆ Toilets
 - ◆ Showerheads
 - ◆ Clothes washers
 - ◆ Lawn conversions
- 💧 Water Smart Education for residents
- 💧 Building Standards
 - ◆ Title 24
 - ◆ Green Building Code
 - ◆ LEED Certification

What is Title 24?

- 💧 Part of the California Code of Regulations, consists of 28 titles
- 💧 Maintained by the California Building Standards Commission
- 💧 California Building Standards Code (Title 24)
- 💧 California Energy Code - Part 6 of Title 24
- 💧 Mandates energy and water efficiency for new construction as well as redevelopment/remodeling

What is the Green Building Code?

- 💧 CalGreen - Part 11 of Title 24
- 💧 Establishes mandatory minimum standards for green building practices
- 💧 Tier 1 requires compliance with the minimum standards
- 💧 Tier 2 exceeds the minimum by 15%
- 💧 Some prescriptive requirements:
 - ◆ Showerheads ≤ 2.0 gpm (gallons per minute) @ 80 psi
 - ◆ Lavatory Faucets ≤ 1.5 gpm @ 60 psi
 - ◆ Kitchen Faucets ≤ 1.8 gpm @ 60 psi
 - ◆ Urinals ≤ 0.5 gal/flush
 - ◆ Toilets ≤ 1.28 gallon effective flush rate

What is LEED Certification?

- 💧 Leadership in Energy and Environmental Design
- 💧 Green building certification program
- 💧 4 levels, point-based
- 💧 Water Component:
 - ◆ Outdoor water use reduction
 - ◆ Indoor water use reduction
 - ◆ Specialized water use
 - ◆ Water metering

In Summary

1. Our long term goal is 20% reduction by 2020
2. The City has already met its 2020 Target
3. What the City is already doing:
 - a. Responding to the emergency drought short term requirements
 - b. Continuing long term conservation to maintain efficiency

Questions?



Thank you!

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