

This presentation premiered at WaterSmart Innovations

watersmartinnovations.com



Adopting Water Wise Landscape Codes; the Potential, Process & Pitfalls

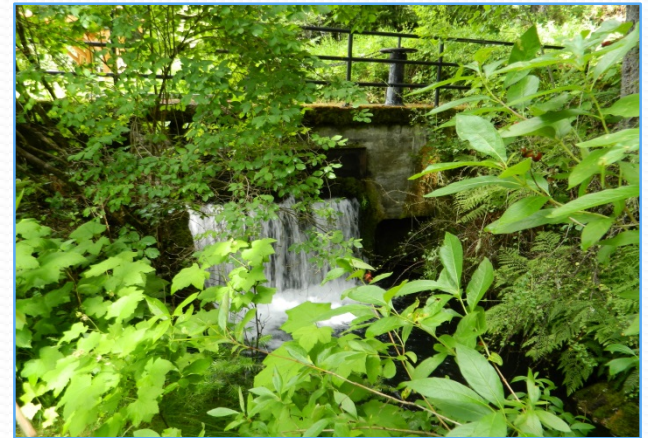
David Searcy
Medford Water Commission

Presentation Outline

- 💧 **Background / History**
- 💧 **Why Amend the City Code**
- 💧 **Selling the Concept**
- 💧 **Project Process**
- 💧 **Highlights of the Code Changes**
- 💧 **Pitfalls**

BACKGROUND

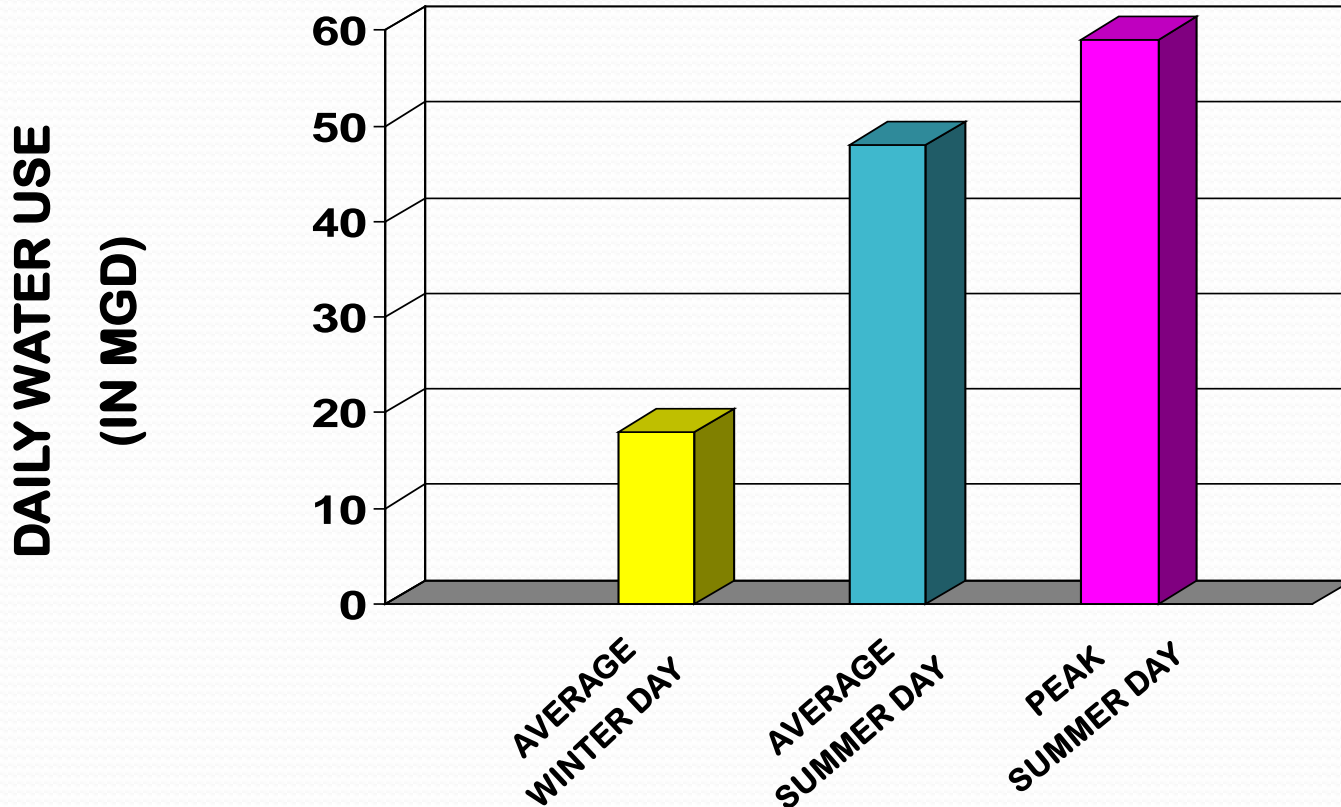
- **Medford Water Commission (MWC), established in 1922, is owned by the City of Medford OR**
- **Population Serviced: 130,000**
 - **Retail to 90,000**
 - **Wholesale to 5+ other cities**
- **Two water sources**
 - **Big Butte Springs @ 26 MGD**
 - **Rogue River currently @ 45 MGD**
 - **Expanding to 65 MGD within 4 years**
- **“Conservation without a Crisis” -20 year program**



BACKGROUND continued

- **Ability to accommodate growth will rely in part on how efficiently we use water resources**
- **Major water infrastructure expansions will be *very* expensive**
- **Peak day usage determines infrastructure requirements**
- **Irrigation of landscapes is by far the largest contributor to summer peak water demands**
- **Previous landscape code in Medford**
 - **85% coverage in 8 years**
 - **Automatic irrigation with backflow**

PEAK USAGE – THE KEY ISSUE



WHY AMEND THE CITY CODE?

- 💧 **Development occurring today will impact a water system for decades or more**
- 💧 **Making changes before there is a crisis will require less drastic changes later**
- 💧 **More costly to retrofit later than to build it right initially**
- 💧 **Avoid the “value engineered” project**
- 💧 **Reliance on voluntary action not found to be effective**

WHEN ANYTHING IS ALLOWED...



SELLING THE CONCEPT

- 💧 **Have a champion**
 - **Laura Hodnett**
- 💧 **Create allies**
 - **Within your organization**
 - **Outside your organization**
- 💧 **Develop an undeniable story**
- 💧 **Know who you must convince**



WHAT IS WATERWISE LANDSCAPING ??



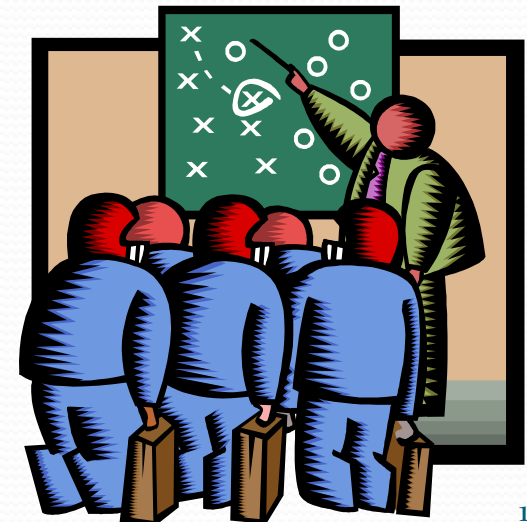
NOT This ↑

↓ **This**



PROJECT PROCESS

- **Medford Council appointed committee December 2009 with expertise in:**
 - **Landscape / irrigation design**
 - **Landscape / irrigation installation**
 - **Development / architecture**
 - **Landscape maintenance**
- **Committee met 45 times (Feb 2010 – May 2013)**




SOLUTIONS MUST FIT COMMUNITY

**“Perfection is not attainable.
But if we chase perfection, we
can catch excellence.”**

~ Vince Lombardi

PROCESS continued

- 💧 **Extensive research, evaluations and discussion**
- 💧 **Review of other landscape codes and existing Medford code**
 - **Primary objective – water efficiency**
 - **Other landscape code changes also accomodated**
- 💧 **Proposed changes forwarded to local design and contracting businesses for comment**
- 💧 **Several study sessions held with public bodies**
- 💧 **Code revisions approved by City Council – June 2013; become effective Dec 1, 2013**



“In the end, we will conserve only that which we love, we will love only what we understand, and we will understand only what we are taught.”

~Baba Dioum

HIGHLIGHTS OF CODE CHANGES

- 💧 The Medford code was not the first, but done without a crisis, nor government mandate
- 💧 It is not as sophisticated as some landscape codes, yet provides a good basis for water wise landscaping
- 💧 The code serves as an model for surrounding communities



APPLICABILITY

Code amendments apply to:

- Commercial
- Industrial
- Institutional
- Multi-family
- Open space tracts



REVIEW & APPROVAL PROCESS REVISED

- 💧 Simplified process to address unique circumstances
- 💧 Installation to be completed before occupancy
- 💧 If installation delay, provisions allow use of surety; bond or cash
- 💧 Plan design and installation certification required



LANDSCAPE LICENSE REQUIRED TO PREPARE PLANS AND CERTIFY INSTALLATION

Assures education and experience in:

- **Horticulture**
- **Irrigation design**
- **Soil science**
- **Application of knowledge in an integrated manner**

OTHER BENEFITS OF REQUIRING LANDSCAPE LICENSING

- 💧 **Accountability for compliance**
- 💧 **Recourse associated with licensure**
- 💧 **Consistency with Oregon Revised Statutes; only Landscape Architects & Full Phase Landscape Contractors are empowered to prepare landscape and irrigation plans**

SITE DESIGN PROVISIONS

- 💧 **Limit percentage of “high water use landscape elements” such as lawn / water features**
- 💧 **Allow credit for trees decorative features in plant coverage requirements**
- 💧 **Soil amendments required to improve permeability**



OTHER SITE DESIGN PROVISIONS

- Minimum width allowed for lawn (6' Minimum ; 8' avg.)

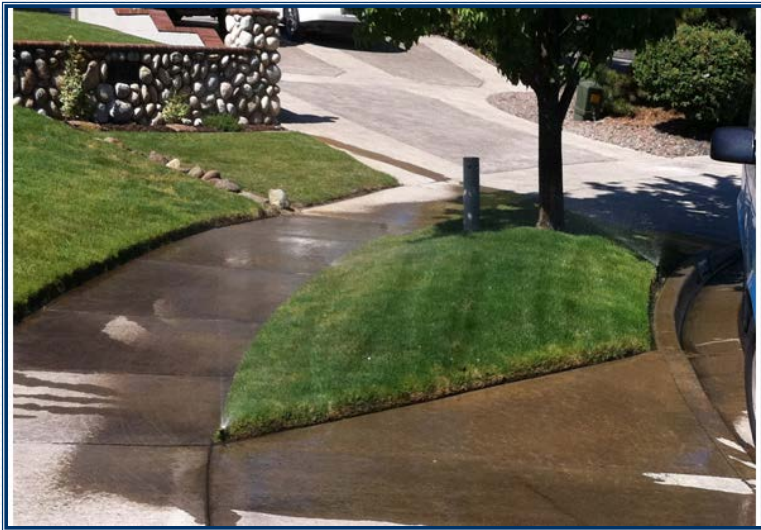


- Slopes limited to reduce runoff (15% Lawn ; 33% other)



SITE DESIGN PROVISIONS continued

- Allow untouched natural areas
- CC&Rs cannot require high water use landscape elements

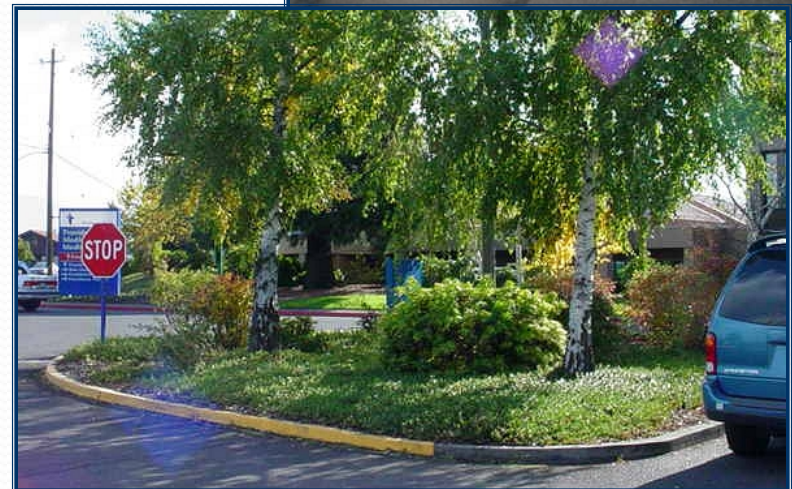


- Grouping plants to incorporate hydrozoning

PARKING AREA PLANTERS

Combination of provisions to better assure:

- Adequate soil for tree health
- Shade & cooling
- Break up expanse of parking areas
- Reduced overspray & runoff



NEW IRRIGATION PROVISIONS

- 💧 Irrigation plan required
- 💧 Required worksheet to demonstrate system functionality



- 💧 Irrigation plan review by staff after approval of landscape planting plan

IRRIGATION PROVISIONS cont.

- Irrigation hydrozoning: plants watered in same zone *with overhead irrigation* must have similar water needs; otherwise must use point source drip irrigation
- With overhead irrigation: minimum average width of landscape area to be 8 feet & no point less than 6 feet
- All sprinklers within a zone to have matched precipitation & designed for uniform coverage

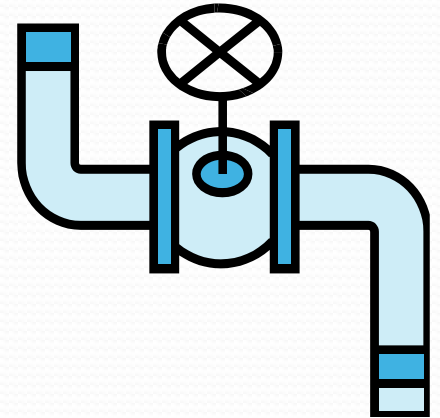


IRRIGATION PROVISIONS cont.

- **Minimum pop-up height of 4 inches**
- **Pressure regulation required when appropriate (overall pressure regulator or pressure regulation by zone; not just in-head)**
- **No overhead watering in parking island planters; bubblers are allowed**
- **High flow systems**
 - **Greater than 50 GPM requires a master valve**
 - **Greater than 80 GPM requires a high flow sensor**

IRRIGATION PROVISIONS cont.

- All sprinklers to be on swing joints
- Isolation valves
 - At irrigation point of connection
 - At each valve box
 - At paved crossings of 20 feet or more



IRRIGATION PROVISIONS cont.

Irrigation Controller:

- **Did not have to be a “Smart Controller”**
 - Not enough local expertise to require them
 - Compromise with the development community
- **Multiple options for watering in various ways**





"Good judgment comes from experience, and experience - well, that comes from poor judgment."

**~ Alan Alexander Milne (1882-1956)-
"House at Pooh Corner"**

CODE ADOPTION PITTFALLS

Cooperation

- 💧 “Why can’t we just do things the way we’ve always done them?”
- 💧 “This is my property/project”
(including some city entities)
- 💧 Nay Sayers “no one will build here”



CODE ADOPTION PITTFALLS

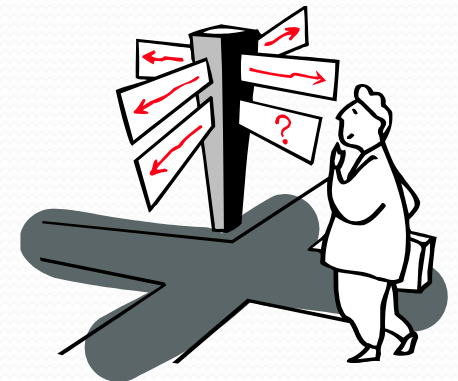
Communication

- 💧 Even with emails, letters, & online posting, not everyone got the information needed
- 💧 Within the review committee, not all sure of their roles/duties
- 💧 Assumptions as to what was happening, rather than asking

CODE ADOPTION PITTFALLS

Ongoing tasks

- 💧 Clarification of intent of some code sections
- 💧 Recognition that not *everything* was covered within the code
- 💧 Readdressing issues, then bringing back to city council



WHERE TO VIEW CODE


<http://www.ci.medford.or.us/Page.asp?NavID=3066>



The screenshot shows the City of Medford Oregon website. At the top left is the city seal. To its right is a holiday banner that reads "HAPPY HOLIDAYS FROM THE CITY OF MEDFORD" with a background of pine trees and snowflakes. Below the banner is a navigation menu with links: Home, City Departments, Elected Officials, Online Services, Get Involved, Maps, and Contact Us. On the left side, there is a search bar with the text "Enter Search Term" and a "GO" button. Below the search bar are links for "Site Map" and "Advanced Search". A list of navigation links is provided, including "Back to Planning", "Application Status: CLICK2GOV", "Contact Information", "Landmarks and Historic Preservation Commission", "Landscape & Irrigation Information" (which is highlighted), "Map Gallery", "Planning Achievements", "Planning Staffed Commissions & Committees", "Political Signs", "Various Plans", "Zoning Information Handouts", "Infographics", and "Calendar Events". The main content area shows the breadcrumb "City of Medford Oregon / Planning / Landscape & Irrigation Information" and the page title "Landscape & Irrigation Information". The text on the page states: "This page provides information intended to help in preparing Landscaping and Irrigation System Plans for development projects submitted to the City for review and approval. New landscaping and irrigation standards became effective December 1, 2013." It then says: "For your convenience, please click here to view a pdf document containing all of the ordinances from the Medford Land Development Code related to landscaping, screening, and buffering (including Section 10.780 Landscape and Irrigation Requirements)." Below this, it lists "Landscaping & Irrigation Standards and Processes are applicable to the following type of projects:" followed by a bulleted list: Commercial, Industrial, Institutional, Multi-family Residential, and Subdivision Open space/landscaping tracts. Finally, it states: "Landscaping and Irrigation Standards and processes ARE NOT applicable to the following:" followed by another bulleted list: Single-family lots, Duplex lots, Individual townhome lots, and Areas reserved for future site development as part of a larger phased project (unless irrigated landscaping is placed thereon).

QUESTIONS?

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“After all the cheers have died down and the stadium is empty, after the headlines have been written, and after you are back in the quiet of your room and the championship ring has been placed on the dresser and after all the pomp and fanfare have faded, the enduring thing that is left is the dedication to doing with our lives the very best we can to make the world a better place in which to live.”

~ Vince Lombardi