

# Water Management and Conservation Plan Workshop

Guidance for Oregon Municipal  
Water Suppliers



# Agenda

- ▶ Introduction – Water in Oregon
- ▶ Overview of Plan Requirements
- ▶ Guidance for Preparation of the Plan
- ▶ WRD Review Process
- ▶ Wrap-up

# Water in the State of Oregon

## Background



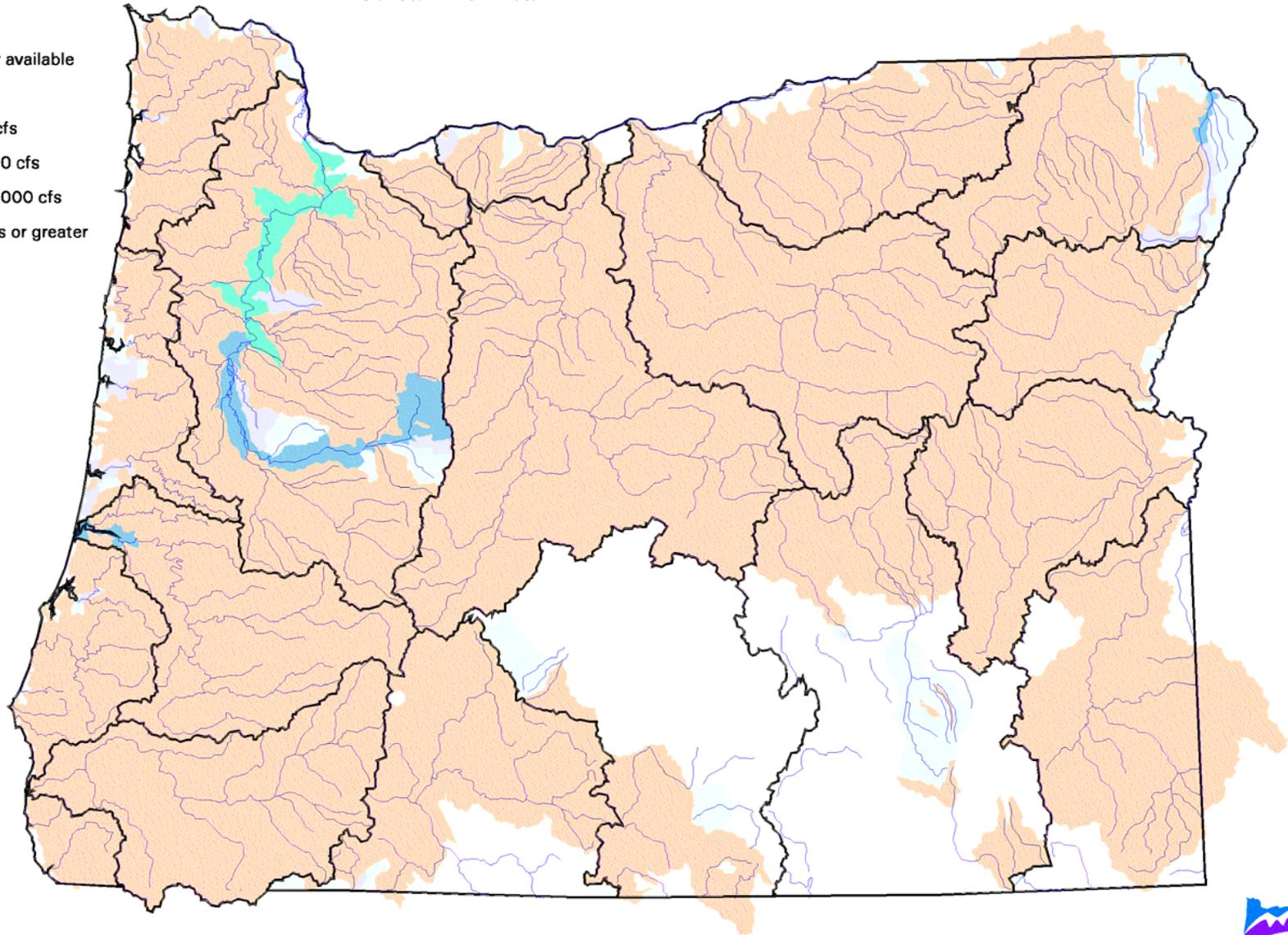
# Prior Appropriations Doctrine

- ▶ System for allocation of scarce resource
  - Evolved from mining law
  - First in time, first in right
- ▶ Most streams are fully allocated
  - Many by 1900
  - Little water is available
  - $\approx$  10,000 regulatory actions per year
- ▶ Municipal supply plans
  - New rights are often not reliable sources
  - Alternatives needed

# AUGUST AVAILABLE STREAMFLOW

Streamflow calculated at 80% exceedance

-  No data
-  No water available
-  1 - 10 cfs
-  11 - 100 cfs
-  101 - 1000 cfs
-  1001 - 10000 cfs
-  10001 cfs or greater



# What is a Water Management and Conservation Plan (WMCP)?

- ▶ A description of the supplier's use, management, and conservation of water resources
- ▶ Documentation of past and current activities
- ▶ A plan for the future

# Water Management and Conservation Plans

- ▶ Systematic evaluation of water supply options
  - Conservation must be considered
- ▶ Communities determine appropriate options
  - Except for required conservation measures
  - However, all measures allow flexibility in implementation

# Water Management and Conservation Plans (cont'd)

- ▶ Justify increased diversions under extended permits
  - Based on 20-year water need
  - Approval of plan “unfreezes” quantity of diversions
  - New maximum diversion specified in approval
- ▶ Plan update schedule
  - ≈ 10 years, or sooner if more water needed

# Benefits of Preparing a WMCP?

- ▶ Establishes a concise set of information for managers of the water system
- ▶ Increases flexibility
- ▶ Prepares a water supplier to meet future challenges
- ▶ Provides a basis for capital improvement projects

# Who Must Submit a WMCP?

- ▶ Almost all water suppliers who request water use permit extensions and new water rights
- ▶ Exception in OAR 690-315 pertaining to a final order approving a permit extension of time:
  - Suppliers that serve a population of less than 1,000 are not automatically subject to the requirement to submit a WMCP
    - ▶ WRD does, however, have discretion to require suppliers with less than 1,000 to submit WMCPs, if review of the criteria demonstrates it to be necessary

# Rules Governing WMCPs

- ▶ WMCP guidelines are based on Oregon Administrative Rules (OAR)
  - OAR 690-315 gives WRD the authority to require WMCPs
  - Criteria for approval of WMCPs is described in OAR 690-086 (*"Division 86"*)
- ▶ WRD has responsibility to require WMCPs and approve WMCPs based on OAR criteria

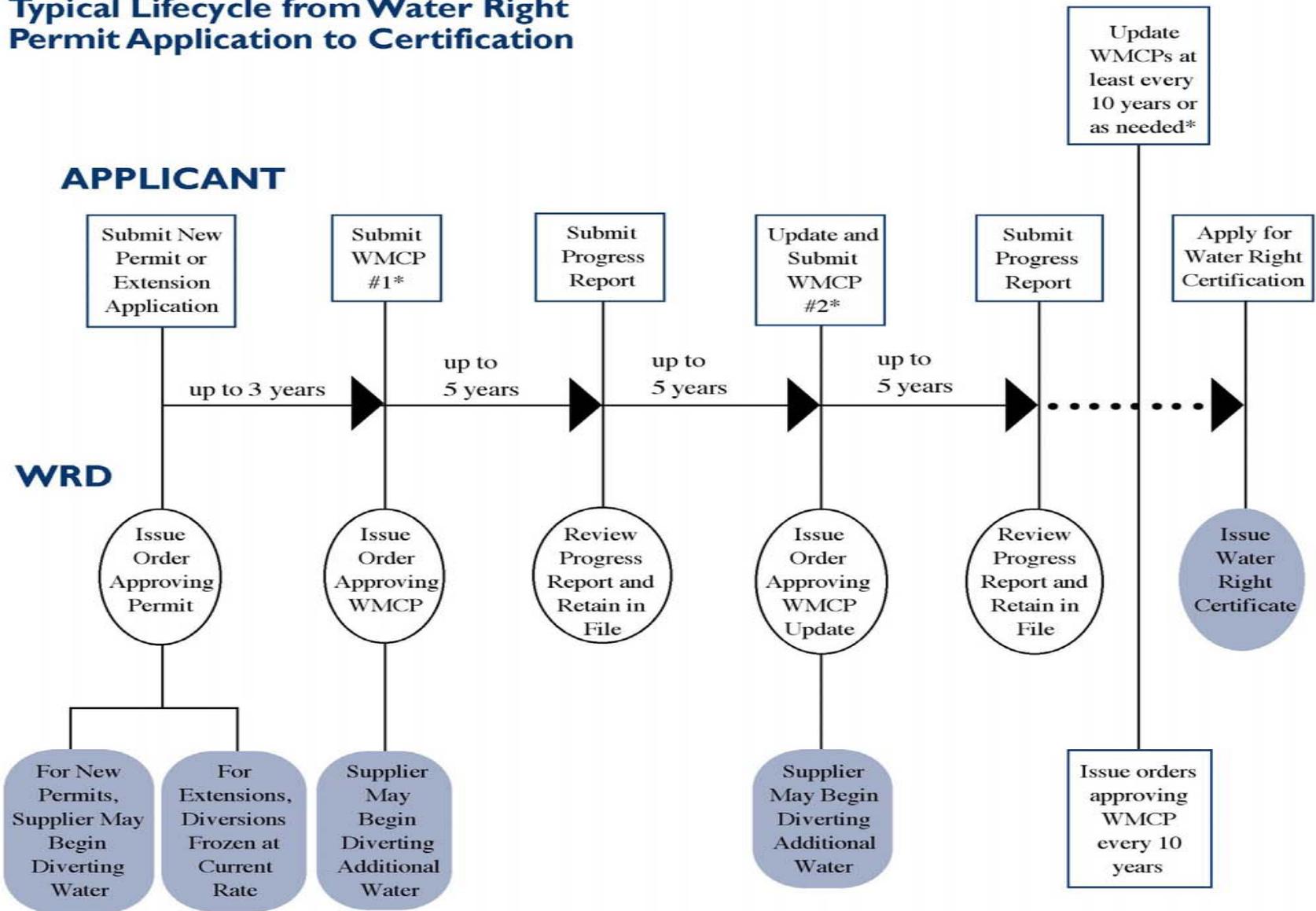
# When are WMCPs Required?

- ▶ New Permit Issued
- ▶ Permit Extension Approved
- ▶ WMCP Update
  - Update schedule specified in previously approved WMCP
- ▶ Other Agencies
  - Condition of a Loan
  - Capacity Analysis

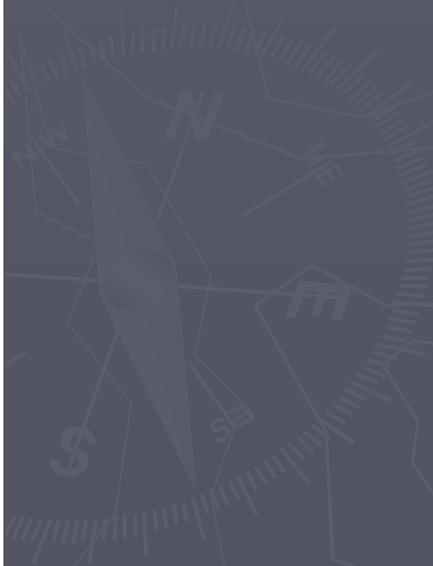
# Permit Extensions

- ▶ Permit extensions
  - Requests for more time to “prove up” on permits
  - Approved for “good cause shown”
- ▶ Review of extension process
  - Change from “5 years” to “time needed”
  - Consideration of additional factors for “good cause”
  - Recognition of unique character of municipal rights
- ▶ Current extension rules *(revised October 2002)*
  - Assessment of need shifted to planning process
  - Authorized quantity of diversions frozen
  - WMCP required within 3 years
  - Exceptions for small communities, short extensions

**Exhibit 2.1  
Typical Lifecycle from Water Right Permit Application to Certification**



# Organizing and Assembling Information



# Getting Organized

- ▶ Establish Plan Objectives
  - Meet State requirements
  - Reduce exposure
  - Manage resource
- ▶ Early Discussion with WRD staff
  - Identify key issues
  - Establish potential needs



# Getting Organized (cont'd)

## ▶ Assembling Information

- Refer to "Exhibit 3.1" in Guidebook
- Link with Master Plan

## ▶ Develop Plan Outline

- Refer to "Appendix E" in Guidebook

# Getting Organized (cont'd)

## Exhibit 3.1

### Water Management and Conservation Plan Guidebook for Municipal Water Suppliers

#### Exhibit 3.1

#### Guidance Section Checklist

For all the tasks that apply, place a check in the first box. Check the second box once the task is completed. Boxes pre-checked  represent tasks required to be performed by all water suppliers.

Sections and Tasks	OAR Reference	Guidance Pg. No.
<b>Water Supplier Description</b>		
<input checked="" type="checkbox"/> Description of supplier's source(s)	690-086-0140 (1)	18
<input checked="" type="checkbox"/> Delineation of current service area	690-086-0140 (2)	19
<input checked="" type="checkbox"/> Assessment of adequacy and reliability of existing supplies	690-086-0140 (3)	19
<input checked="" type="checkbox"/> Quantification of present and historic use	690-086-0140 (4)	20
<input checked="" type="checkbox"/> Summary of water rights held	690-086-0140 (5)	20
<input checked="" type="checkbox"/> Description of customers served and water use summary	690-086-0140 (6)	21
<input checked="" type="checkbox"/> Identification of interconnections with other suppliers	690-086-0140 (7)	22
<input checked="" type="checkbox"/> System schematic	690-086-0140 (8)	22
<input checked="" type="checkbox"/> Quantification of system leakage	690-086-0140 (9)	22
<b>Water Conservation Element</b>		
<input checked="" type="checkbox"/> Full metering of systems	690-86-0150 (4)(b)	24
<input checked="" type="checkbox"/> Meter testing and maintenance program	690-86-0150 (4)(c)	25
<input checked="" type="checkbox"/> Annual water audit	690-86-0150 (4)(a)	26
<input type="checkbox"/> Leak detection program	690-86-0150 (4)(e)	27
<input type="checkbox"/> Leak repair or line replacement program	690-86-0150 (6)(a)	28
<input checked="" type="checkbox"/> Rate structure based on quantity of water metered	690-86-0150 (4)(d)	29
<input type="checkbox"/> Rate structure and billing practices that encourage conservation	690-86-0150 (6)(d)	31
<input checked="" type="checkbox"/> Public education program	690-86-0150 (4)(f)	32
<input type="checkbox"/> Technical and financial assistance programs	690-86-0150 (6)(b)	33
<input type="checkbox"/> Retrofit/replacement of inefficient fixtures	690-86-0150 (6)(c)	33
<input type="checkbox"/> Reuse, recycling, non-potable opportunities	690-86-0150 (6)(e)	34
<input checked="" type="checkbox"/> Other measures, if identified by supplier	690-86-0150 (6)(f)	34
<input checked="" type="checkbox"/> Progress report on previous WMCP	690-86-0150(1)	36
<input checked="" type="checkbox"/> Documentation of water use measurement and reporting	690-86-0150(2)	36
<input checked="" type="checkbox"/> List of measures already implemented or required under contract	690-86-0150(3)	36
<b>Water Curtailment Element</b>		
<input checked="" type="checkbox"/> Assessing water supply	690-086-0160(1)	38
<input checked="" type="checkbox"/> Stages of alert	690-086-0160(2)	39
<input checked="" type="checkbox"/> Triggers for each stage of alert	690-086-0160(3)	39
<input checked="" type="checkbox"/> Curtailment actions	690-086-0160(4)	40
<b>Water Supply Element</b>		
<input checked="" type="checkbox"/> Delineation of current and future service areas	690-086-0170(1)	42
<input checked="" type="checkbox"/> Population projections for service area	690-086-0170(1)	42
<input checked="" type="checkbox"/> Prepare schedule to fully exercise each permit	690-086-0170(2)	42
<input checked="" type="checkbox"/> Prepare demand forecast	690-086-0170(3)	43
<input checked="" type="checkbox"/> Comparison of projected need and available sources	690-086-017 (4)	45
<input type="checkbox"/> Analysis of alternative sources	690-086-0170(5), (8)	45
<input type="checkbox"/> Quantification of maximum rate and monthly volume	690-086-0170(6)	46
<input type="checkbox"/> Mitigation actions under state and federal laws	690-086-0170(7)	46
<b>Other Items</b>		
<input checked="" type="checkbox"/> List of affected local governments and their comments	690-086-0125 (5)	47
<input checked="" type="checkbox"/> Date for submittal of next update	690-086-0125 (6)	48
<input type="checkbox"/> Documentation, where additional time is requested to meet previous benchmarks or metering	690-086-0125 (7)	48

# Tools and Resources

## ▶ State and National:

- Water Resources Department
  - [www.wrd.state.or.us](http://www.wrd.state.or.us)
  - Online plan
- AWWA
  - [www.awwa.org](http://www.awwa.org)
  - Water Wise
  - Conservation Tips
- Water Environment Federation (WEF)
  - [www.wef.org](http://www.wef.org)
  - Reuse options

## ▶ Local Assistance:

- PNWS-AWWA
  - [www.pnws-awwa.org](http://www.pnws-awwa.org)
  - Outreach assistance
  - Publications
- Local Council of Governments
- PNPCA
  - [www.pnpca.org](http://www.pnpca.org)
  - Reuse committee

# Four Major Elements of a WMCP

## ▶ Water Supplier Element

- Description of the supplier and water system, such as sources of water, service area, current and future population, adequacy and reliability of supply, inventory of water rights, etc.

## ▶ Water Conservation Element

- Description of past, current, and future conservation measures

# Four Major Elements of a WMCP (cont'd)

- ▶ Water Curtailment Element
  - Description of water curtailment activities in the event of a water supply shortage
- ▶ Water Supply Element
  - Provides rationale for future water supply needs

# Assembling the Water Supplier Description Element



# Water Supplier Description

- ▶ Delineation of current service area
- ▶ Description of sources
- ▶ Summarize water rights held
- ▶ Assess adequacy of existing supplies
- ▶ Describe customers served and use
  - Quantify present and historic use

# Water Supplier Description (cont'd)

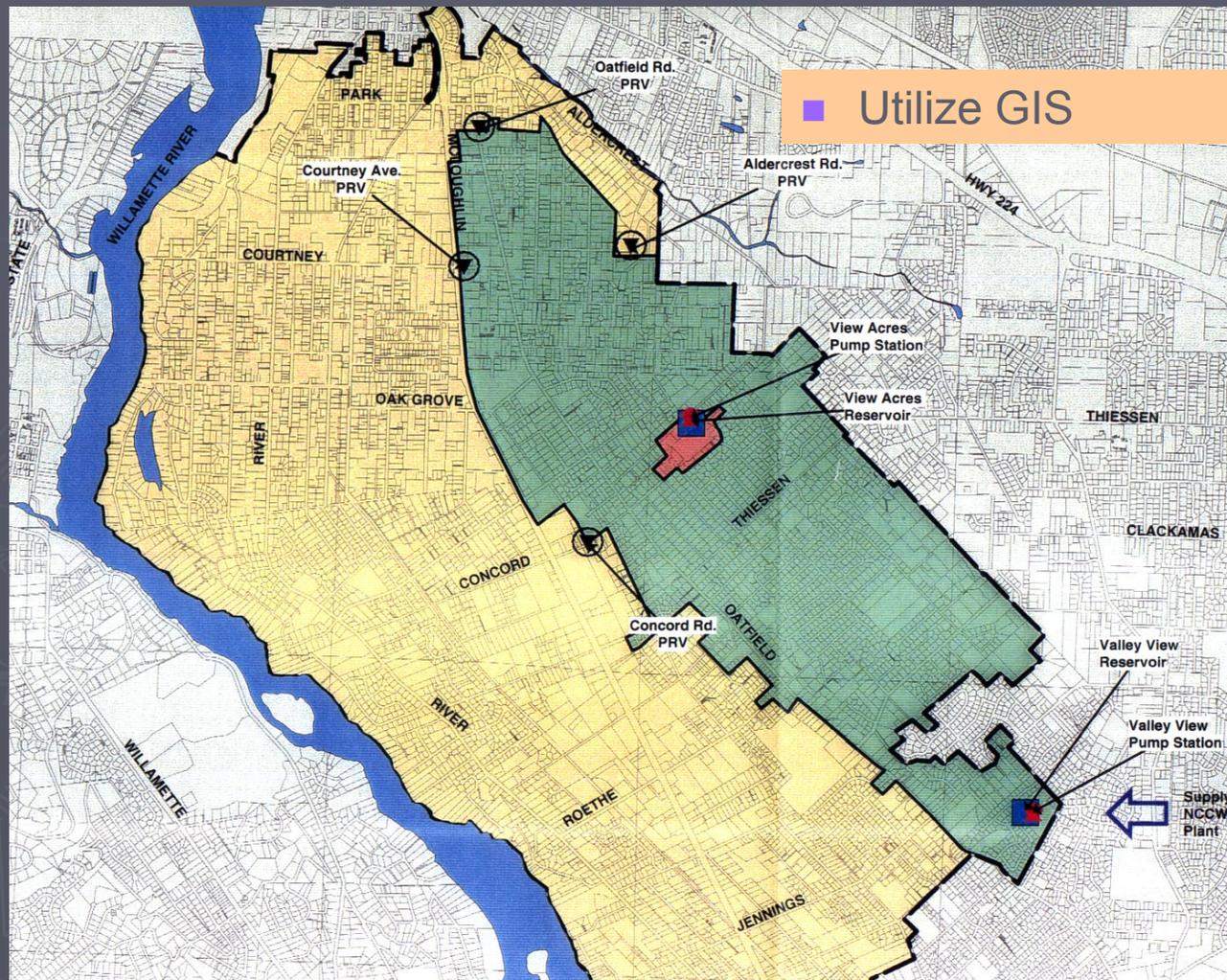
## Example Water Rights Summary

Appl. No.	Permit No.	Priority Date	Certificate No.	Source	Use	Allowed Rate (cfs)	Maximum Rate Diverted to Date (cfs)	Authorized Completion Date	Notes
S-961	S-875	5/12/1920	1079	Little Creek, tributary to Big River	Municipal	1.0	1.0	N/A	Seasonal limitations from June thru Sept. due to low stream flows
G-1610	G-1001	8/19/1922	1234	Wells 1 & 2, within the Big River Basin	Municipal	1.33	1.33	N/A	N/A
G-11874	G-10220	4/26/1986	-----	Well 3, within the Little Creek Basin	Municipal	0.55	0.21	10/1/2018	Located within the Little Creek Ground Water Limited Area
S-75889	S-70123	3/20/1989	-----	Big River, tributary to Pacific Ocean	Municipal	0.8	0.3	10/1/2018	N/A
GR-1245	GR-1198	5/20/1948	-----	A well, within the Big River Basin	Irrigation	0.45	0.45	N/A	Not certificated. GR Claim waiting adjudication. Transfer T-10590 pending for a character of use change to Muni.

# Water Supplier Description (cont'd)

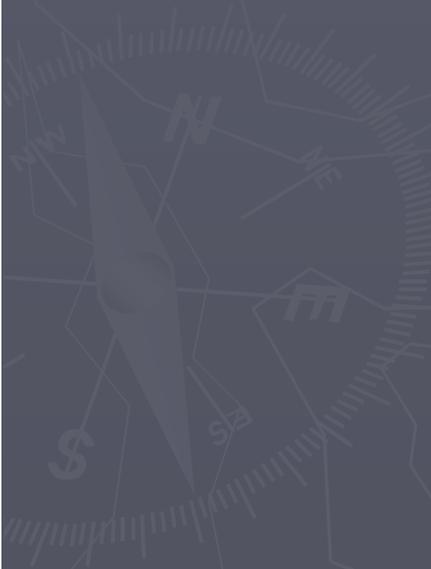
- ▶ Quantify system losses
- ▶ Interconnection description
- ▶ System schematic
  - Existing and planned service area
  - Treatment facilities
  - Storage reservoirs and tanks
  - Major transmission and pumping facilities
  - Interconnections

# Water Supplier Description (cont'd)



Utilize GIS

# Developing the Water Conservation Element



# Conservation Element

## Measures Required of All Suppliers:

- ✓ Full metering
- ✓ Meter testing and maintenance
- ✓ Annual water audit
- ✓ Leak detection
- ✓ Rate structure based on metered quantity
- ✓ Public Education

## “Additional” Measures

- Leak repair program or line replacement
- Rate structures that encourage conservation
- Technical / financial assistance
- Retrofit / replacement
- Water reuse / recycling



# Conservation Measures Required of All Suppliers



# Annual Water Audit

$$Q_{\text{diverted}} = \text{Use}_{\text{metered}} + \text{Use}_{\text{unmetered}} + \text{Losses}$$

## ► Information Sources:

- Production records
- Sales records
- Estimates of authorized unmetered uses
- Information on known major leaks
- Information on meter calibration and age

# Metering

- ▶ All systems must be fully metered – sources and customers
  - including wholesale customers
- ▶ If not fully metered, provide 5-year plan to install meters
- ▶ Document meter testing and maintenance program



# Rate Structures

- ▶ Basic requirement:
  - Rates must be based (in part) on quantity customer uses
    - ▶ Commodity rate



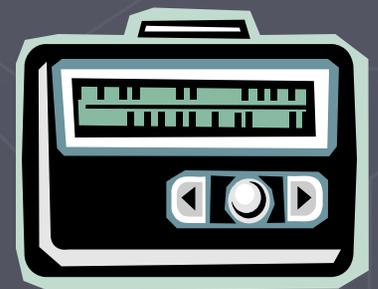
# Leak Detection

- ▶ If the water audit shows that leakage is greater than 10%, must implement leak detection
- ▶ Leak Detection Must:
  - Be regularly scheduled and systematic
  - Cover distribution and transmission system
  - Use methods appropriate to supplier's size and capabilities
- ▶ Document each of these in WMCP
  - *NOTE: Many suppliers use specialized contractors for leak detection*



# Public Education

- ▶ Required of all suppliers, but specific content may vary
- ▶ Examples:
  - Brochures, bill inserts
  - Website
  - Newspaper articles, radio
  - School programs
  - Decals, bumper stickers, eye-catching displays
  - Demonstration garden at City park or District office
- ▶ Provide documentation and explain why this fits community and supplier



# Example Website

# GoingGreen



conserveh2o.org

### Weekly Watering Number

Click here for more info & the watering number

### Online Resources

- Events
- Indoor Conservation Tips
- Outdoor Conservation Tips
- Water Saver Calculator
- Kids Corner



## Water. Save a Little. Help a Lot.



www.conserveh2o.org

### 5 Things YOU can do to save water

#### Indoors:

1. Wash only full loads of laundry or dishes, leaving the tap to get cold water.

### How much is too much?



Did you know over watering is the most common problem in home and commercial landscapes? In fact, outdoor watering can cause water use to double or triple during the summer! This is often because people don't know how much water their landscape needs.

Here in the Portland metro area we recommend watering your lawn about once a week, and more during long, hot dry spells.

The Commission makes this possible by providing FREE watering gauge kits at each of their water purveyors - the July 15 2009 Recycling Event and through local partner nursery plants. The kits can be used as a tool to figure out how much water is needed to reach the recommended one inch of water for a healthy green lawn.



Sign up to receive the water Weekly Watering Number. The amount of water, in inches, you will need to water your lawn each week.

\*Trees, shrubs and perennials don't typically need as much water as the lawn. Check with your local garden center or landscaper professional to find out their individual needs.

### Waterwise and beautiful



The Pacific Northwest has many spectacular native, hybrid native, and other plants adapted to local climate and soil conditions.

Once established, native and adapted plants are very low maintenance, require little to no pesticides or herbicides, and survive well on available water.

Find out how to choose the right plants for your yard's many climates and soil conditions [here](#) or stop by one of our [partner nurseries](#) to get some great resources such as our beautiful, low water Water Efficient Plants for the Willamette Valley.

### Video Player



Weekly Watering Number

KCIV News Coverage: Watering Your Lawn

Save Water and Reel a Healthy Lawn

Water Saving Tips for your Home & Yard

### Did You Know?

The greatest waste of water is watering too much, too often. Here in the Portland metro area, outdoor watering can cause water use to double or triple during the summer. Visit [www.conserveh2o.org](http://www.conserveh2o.org) to find out how you can start saving water today!

### Kid's Corner



With adults, we have. Keep your youngsters busy at home playing our **Watering Machine** game!

Learn about what your family can conserve water at home, work and school while having fun making a shut or two!

# School Programs



# Displays at Local Events



# Water Saving Factoids

- ▶ A faucet left running wide open while brushing teeth or shaving puts about 3 to 5 gallons a minute down the drain.
  - Leave the water off when brushing or shaving. Turn it on again to rinse.
- ▶ A 5-minute shower uses from 15 to 40 gallons of water. A low volume showerhead, however, uses only 12 to 15 gallons for a 5-minute shower.
  - Low volume showerheads are inexpensive and can pay for themselves in water, sewer and energy savings in less than a year.

# Water Saving Factoids (cont'd)

- ▶ Studies have shown that front-loading washing machines reduce water use by up to 40% or 16 gallons per load.
- ▶ Encourage water customers to check every faucet in their home for leaks. Just a slow drip can waste 15 to 20 gallons a day.
  - Fixing a leaky faucet will save almost 6,000 gallons a year.



# Links to Water Conservation Guides and Brochures

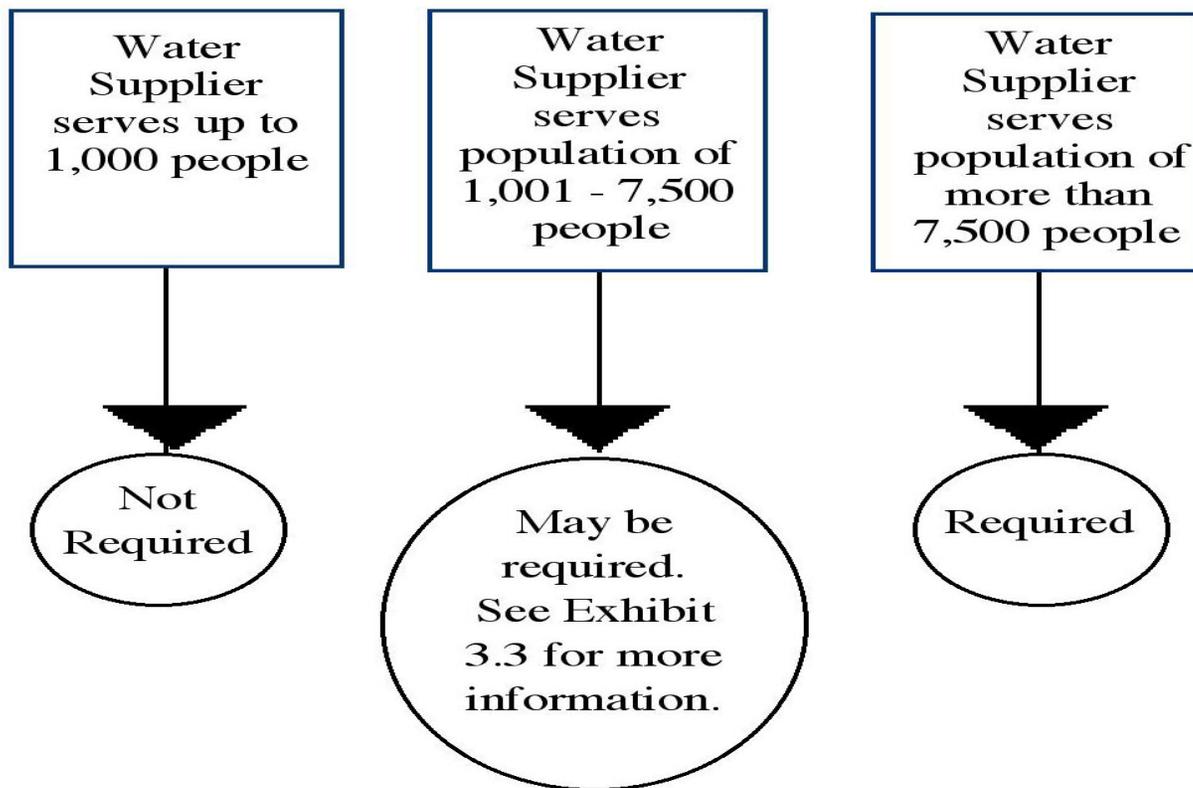
- ▶ Indoor Water Use: A Guide to Water Conservation
  - [http://www1.wrd.state.or.us/pdfs/waterconservation\\_indoor.pdf](http://www1.wrd.state.or.us/pdfs/waterconservation_indoor.pdf)
- ▶ Outdoor Water Use: A Guide to Water Conservation
  - [http://www1.wrd.state.or.us/pdfs/waterconservation\\_outdoor.pdf](http://www1.wrd.state.or.us/pdfs/waterconservation_outdoor.pdf)
- ▶ How to Produce a Lawn-Watering Guide: A Guide to Water Conservation
  - [http://www1.wrd.state.or.us/pdfs/waterconservation\\_lawnwatering.pdf](http://www1.wrd.state.or.us/pdfs/waterconservation_lawnwatering.pdf)
- ▶ A Water Conservation Guide for Commercial, Institutional and Industrial Users
  - <http://www.ose.state.nm.us/water-info/conservation/pdf-manuals/cii-users-guide.pdf>

# “Additional” Conservation Measures

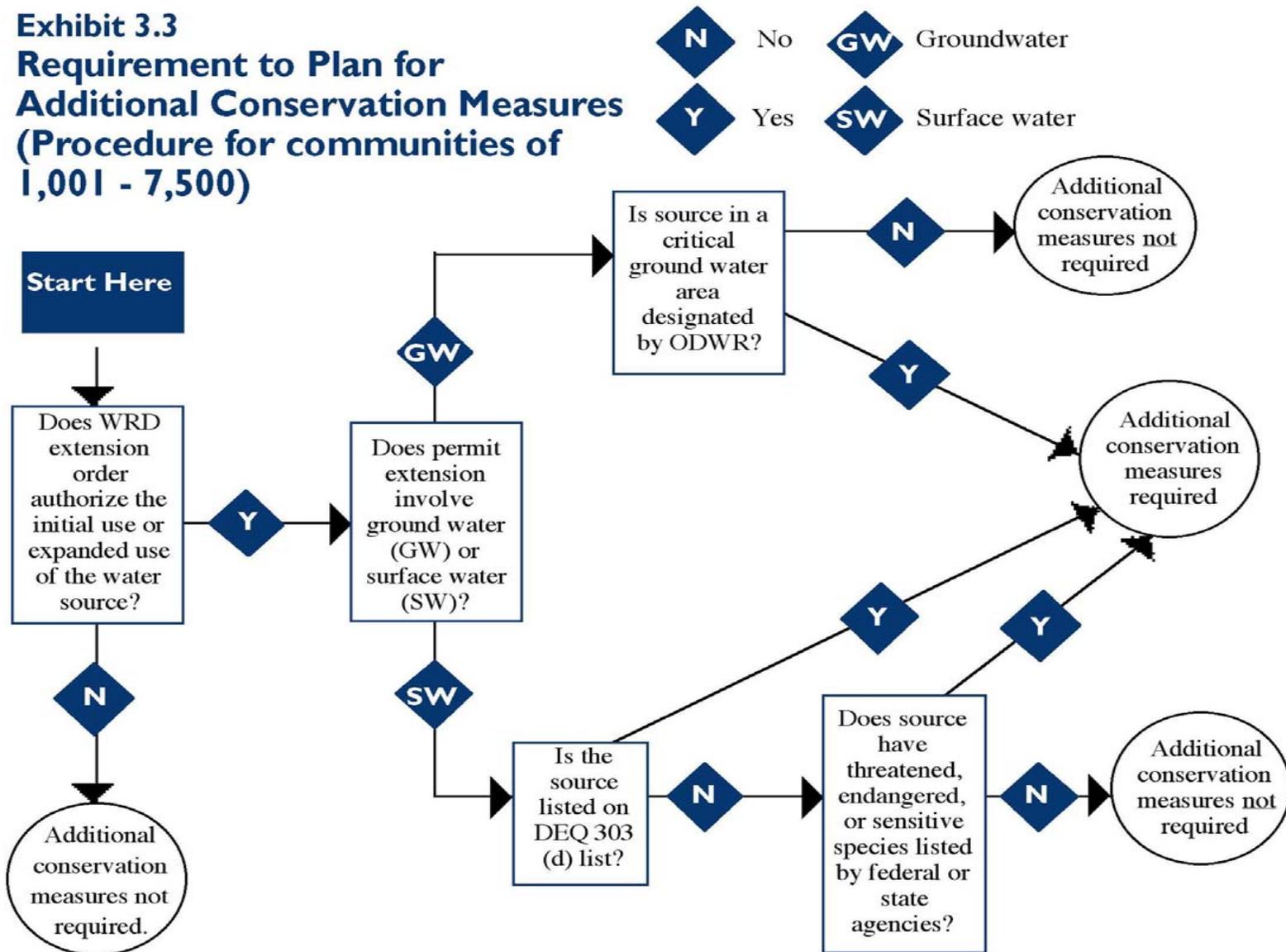


# Who Must Address “Additional” Conservation Measures?

## Exhibit 3.2 Do Additional Conservation Measures Apply?



**Exhibit 3.3**  
**Requirement to Plan for**  
**Additional Conservation Measures**  
**(Procedure for communities of**  
**1,001 - 7,500)**



# If “Additional” Measures Apply, What Does a Supplier Have To Do?

- ▶ Consider each “additional” conservation measures and provide documentation to show how it was evaluated:
  - May conclude the measure is effective and appropriate; *or*
  - May conclude the measure is “neither feasible nor appropriate.” In this case, explain and provide information to back up this finding

# Evaluation Techniques

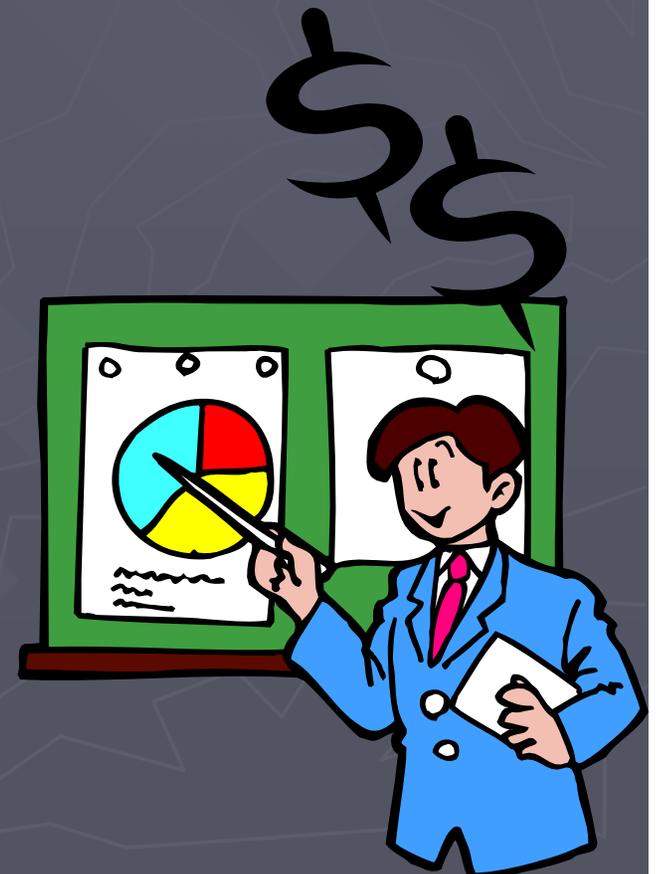
- ▶ Cost effectiveness criteria
- ▶ Comparison with cost of water supplies (capital cost + O&M cost)
- ▶ Peak savings vs. annual savings
- ▶ Relationship to sources of supply
- ▶ Tradeoffs between different measures

# Leak Repair and Line Replacement

- ▶ Must implement if:
  - Additional measures apply and leakage is greater than 15%; *or*
  - Initiating or expanding use of water under an extended permit and “resource issues” apply
- ▶ Document program and decision-making
- ▶ Can take cost into account, if provide adequate documentation in WMCP
- ▶ Other practical considerations may apply

# Technical and Financial Assistance to Customers

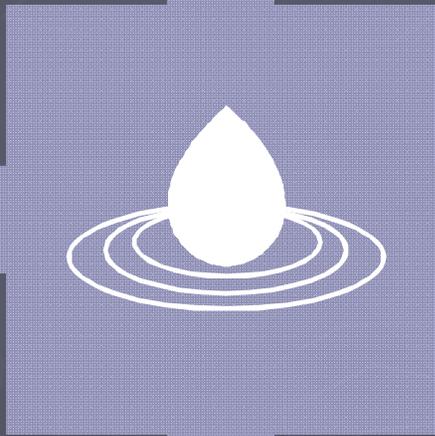
- ▶ Customer water audits (outdoor or indoor)
- ▶ Rebates and cost-share programs
- ▶ Provide training opportunities for customers or maintenance staff
- ▶ Partnerships with home centers, garden centers, etc.
- ▶ Parks, golf courses



# Supplier Financed Retrofit or Replacement

- ▶ Home conservation kits
- ▶ Toilet replacement
- ▶ Washing machine rebates
- ▶ Cooling equipment (HVAC) and ice machines
- ▶ Process-specific equipment in Industrial, Commercial, Institutional (ICI) sector





# Rates & Billing – More Advanced Requirement

- ▶ If “additional” measures apply...
  - rates and billing must “encourage” water conservation
- ▶ For example:
  - Inverted block structure or rates that are higher in summer months
  - Monthly billing
  - Consumption data provided with bill  
*(if billing system permits)*
  - Cost savings information provided with bill

# Reuse/Recycling/Non-potable

- ▶ Municipal wastewater – on site use or dual piping to deliver to selected customers
- ▶ Private sector – in plant recycling
- ▶ Only required where cost-effective and consistent with community needs and market conditions

# Preparing the Water Curtailment Element



# Water Curtailment Element

- ▶ A plan which details activities during a water shortage
- ▶ Describes the type, frequency, and magnitude of supply deficiencies in the last 10 years
- ▶ Current capacity limitation(s)
- ▶ Assessment of the ability of the supplier to maintain delivery during a long-term shortage
- ▶ Assessment of capacity to deal with catastrophic failure

# Water Curtailment Element (cont'd)

- ▶ A list of three or more stages of alert ranging from mild through critical
- ▶ A list of “triggers” for each stage
  - Supply: well or reservoir level
  - Demand: reaches critical level for period of time
  - Capacity: use exceeds percentage of capacity
  - Drought declared by Governor
- ▶ A list of actions within each stage to curtail use

# Example Curtailment Plan 1 (cont'd)

## Mild Stage

Stage	Trigger	Goal	Implementation Measures
Mild	Use reaches 80% of capacity	Awareness and 5% reduction in consumption	<ul style="list-style-type: none"> <li>▪ Activate curtailment plan</li> <li>▪ Disseminate informational brochures on conservation methods</li> <li>▪ Put up posters and sandwich boards about the City</li> <li>▪ Coordinate outreach to customers through direct means (web page) and indirect means (media)</li> <li>▪ Voluntary irrigation schedule based on north and south side customers irrigating every fifth day during early morning or evening</li> <li>▪ Flush lines for essential needs only</li> <li>▪ Turn off city fountains and post a sign describing why</li> </ul>

# Example Curtailment Plan 1 (cont'd)

## Moderate Stage

Stage	Trigger	Goal	Implementation Measures
Moderate	Use reaches 90% of capacity	10% reduction in consumption	<ul style="list-style-type: none"><li>▪ Continue with "Mild" stage measures except where noted below</li><li>▪ Irrigation scheduled implemented in "Mild" stage mandatory</li><li>▪ Close all pools and eliminate city street cleaning, line flushing (unless health of customers at risk), and city park irrigation</li><li>▪ Request businesses reduce consumption by 10%</li><li>▪ Hosing of pavement not permitted except when necessary for public health or safety</li></ul>

# Example Curtailment Plan 1 (cont'd)

## Critical Stage

Stage	Trigger	Goal	Implementation Measures
Critical	Use reaches 95% of capacity	15% reduction in consumption	<ul style="list-style-type: none"><li>Continue with "Moderate" stage measures except where noted below</li><li>No use of city supplied water to fill private swimming pools</li><li>Outdoor irrigation banned</li><li>No use of city supplied water to wash vehicles</li></ul>

# Example Curtailment Plan 2

Alert	Trigger (Shortage Level)	Participation	Action
Stage I	< 15%	Voluntary	<ul style="list-style-type: none"><li>▪ Curtail non-essential water use</li><li>▪ Request odd-even residential watering</li><li>▪ Conduct public service announcements</li></ul>
Stage II	15 – 25 %	Mandatory	<ul style="list-style-type: none"><li>▪ End non-essential water use</li><li>▪ Require odd-even residential watering</li><li>▪ Limit new customers</li><li>▪ Initiate voluntary rationing</li></ul>
Stage III	> 25%	Mandatory	<ul style="list-style-type: none"><li>▪ Limit non-permanent agriculture</li><li>▪ End landscape irrigation</li><li>▪ Invoke mandatory rationing</li><li>▪ Preserve only essentially health and safety allocations</li></ul>

# Water Supply Element

Projecting Demand, Assessing Supply  
& Bringing It All Together



# Water Supply Plan

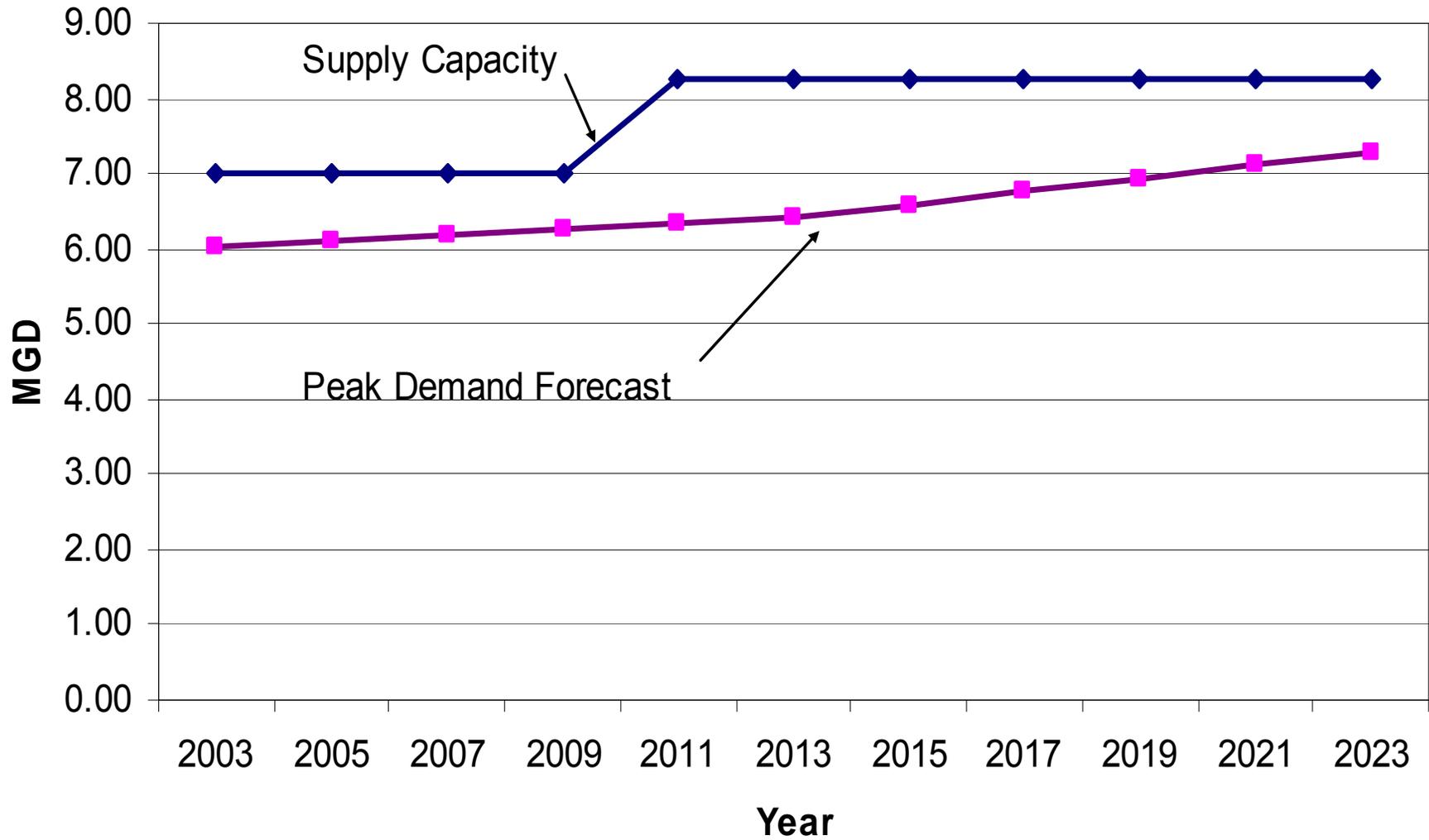
- ▶ Delineate current and future service areas
  - Consistent with “land use laws”
  - Relationship to other boundaries
- ▶ Assess population projections
  - Municipal planning
  - County planning
  - PSU projections
- ▶ Industrial/Economic development

# Water Supply Plan (cont'd)

- ▶ Prepare demand forecast
  - Per capita estimate
  - Disaggregated forecast
  - Advanced modeling
  - Projections at 10 and 20 years (or longer)

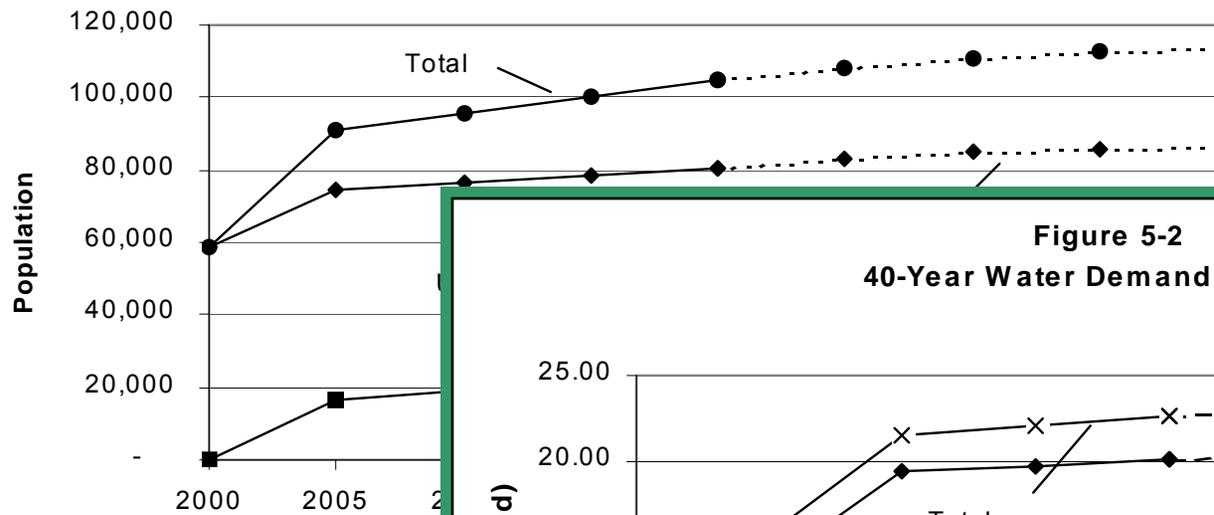
# Comparison of Supply and Demand to 2023

## "Cedar City" Sample Plan

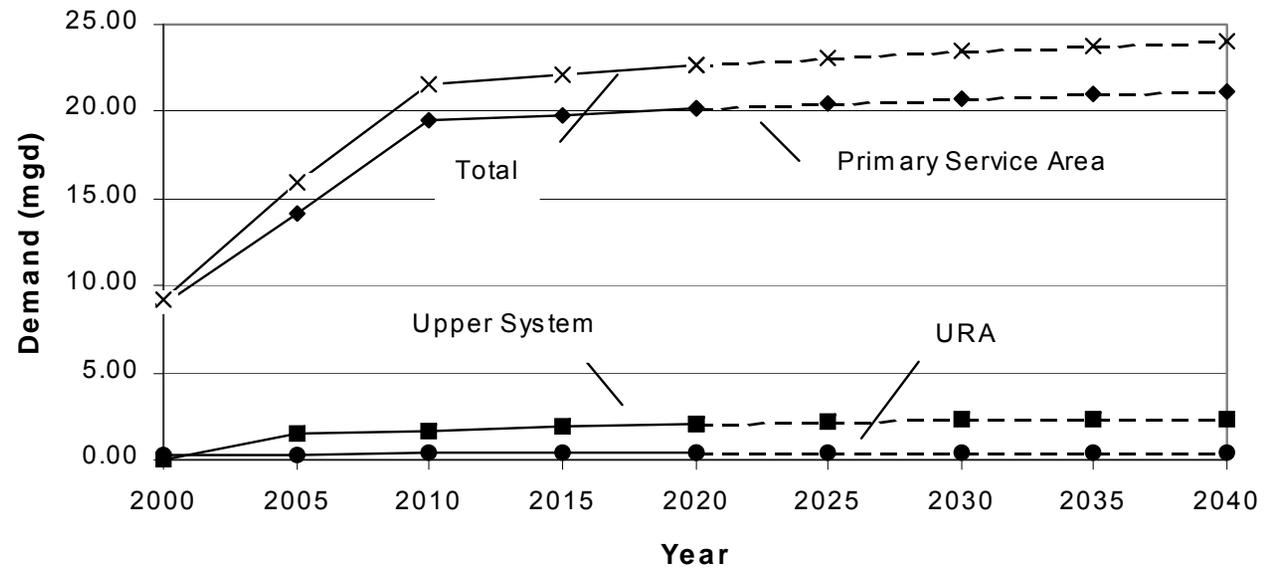


# Water Supply Plan (cont'd)

**Figure 5-1  
40-Year Population Forecast**



**Figure 5-2  
40-Year Water Demand Forecast**



# Water Supply Plan (cont'd)

## ▶ Assess needs

- Compare sources (capacities) and demand
- Outline deficiencies
- Analyze alternative sources
  - ▶ If expansion or initial diversion of water allocated under existing permits is necessary or if new rights will be required within the next 20 years:
    - Address availability, reliability, and feasibility of proposed sources
    - Address likely environmental impacts

# Water Supply Plan (cont'd)

- Must also consider:
  - ▶ Conservation measures under OAR 690-086-150
  - ▶ Interconnections with other agencies
  - ▶ Any conservation measure that would provide water at a comparable cost



# Water Supply Plan (cont'd)

- ▶ Quantification of maximum rate and monthly volume

## 20-Year Withdrawal Summary

Permit No.	<u>Permitted Capacity</u>		<u>20-Year Peak Withdrawal</u>		Notes
	Max. Rate (cfs)	Monthly Volume (MG)	Max. Rate (cfs)	Monthly Volume (MG)	
G-1001	1.33	25,786,000	0.66	10,664,000	Wells 1 and 2
G-1020	0.55	10,663,000	0.54	8,725,000	Well 3
G-1030	0.67	12,990,000	0.50	8,143,000	Well 4
G-1040	1.21	23,460,000	0.61	9,888,000	Well 5 and 6
G-1010	0.33	6,398,000	0.20	3,878,000	Well 7

# Water Supply Plan (cont'd)

- ▶ Prepare schedule to fully exercise permits
  - Consistent with extension requests
  - Advantage to certify as soon as practical

Table 5-7  
City of Gales Rock  
Water Rights Perfection Schedule

<b>Permit No.</b>	<b>Priority Date</b>	<b>Certificate</b>	<b>Rate (cfs)</b>	<b>Use</b>	<b>Perfection Schedule</b>	<b>Notes</b>
G-1001	8/19/1923	C-1234	1.33	Municipal	Complete	Wells 1 and 2
G-1020	4/26/1956	-	0.55	Municipal	Summer 2010	Well 3
G-1030	9/16/1972	-	0.67	Municipal	Summer 2010	Well 4
G-1040	10/09/1981	-	1.21	Municipal	Summer 2010	Wells 5 and 6
G-1010	6/14/1931	C-0123	0.33	Irrigation	Complete	Well 7

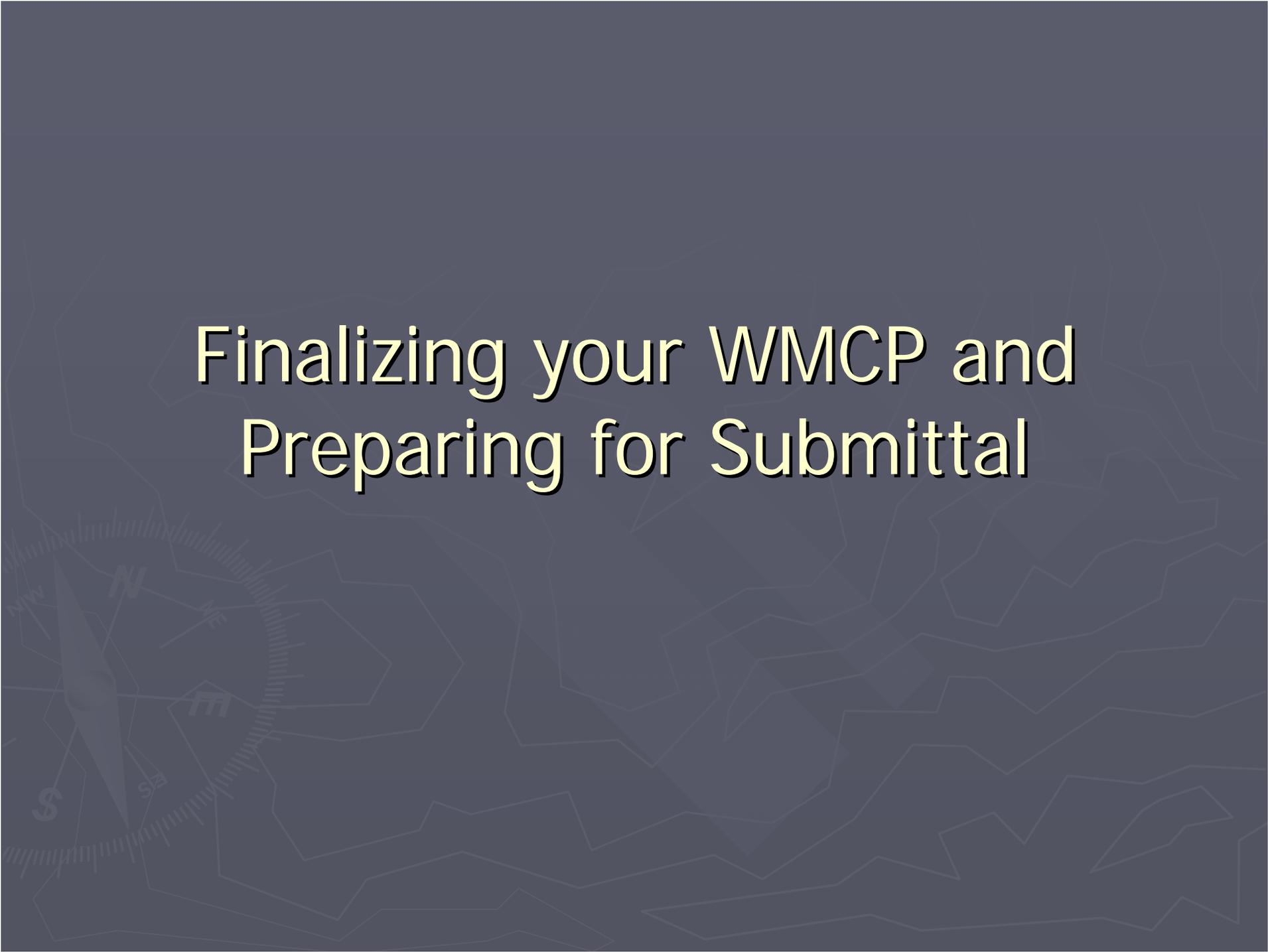
# Water Supply Plan (cont'd)

- ▶ Address mitigation under state and federal law
  - ESA, CWA, SDWA, and others



# Open Discussion

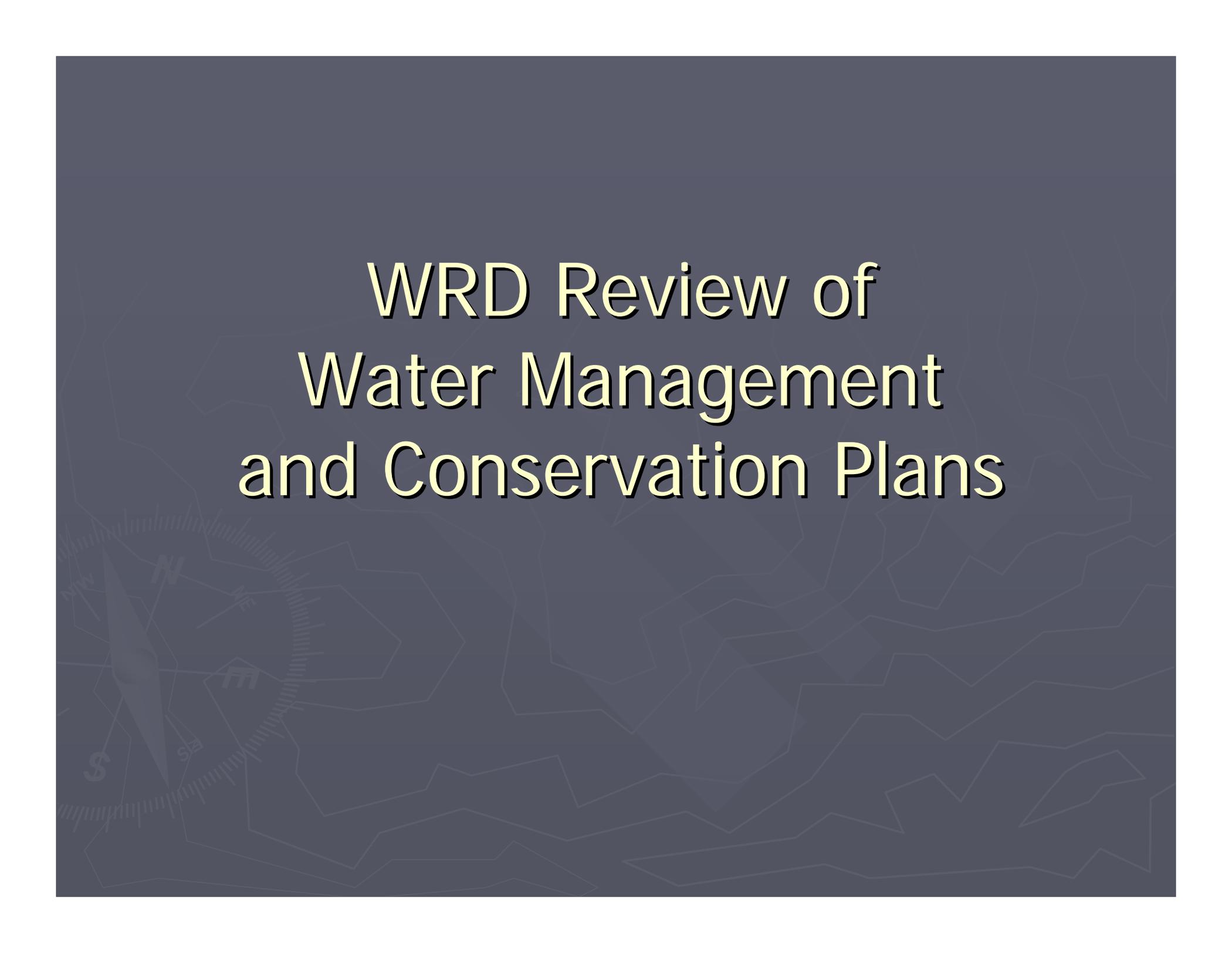


The background is a dark blue-grey color with a faint, light-colored graphic. On the left side, there is a compass rose with a needle pointing towards the top-left. The cardinal directions 'N', 'E', 'S', and 'W' are visible. To the right of the compass, there is a faint outline of a map or a series of irregular shapes representing landmasses or a specific region. The overall aesthetic is technical and professional.

# Finalizing your WMCP and Preparing for Submittal

# Additional Required Items

- ▶ A list of affected local governments to whom the plan was made available
  - Must provide a copy of any comments received
- ▶ A proposed date for submittal of an updated plan
  - Must be within 10 years

The background of the slide is a dark blue-grey color. It features a faint, light-colored map of a region, possibly a watershed or a specific geographic area, with various lines and shapes representing terrain or boundaries. In the lower-left corner, there is a faint compass rose with a needle pointing towards the top-left, and the letters 'N', 'S', 'E', and 'W' are visible around it.

# WRD Review of Water Management and Conservation Plans

# WRD Plan Review

## ▶ Preliminary review

- Public notification of plan submittal
- Public comment within 30 days
- WRD review within 90 days
- Supplier has at least 60 days to respond

## ▶ Review criteria

- All required information included
- Demonstrated need for water given projected growth
- Reasonable conservation with 5-year benchmarks
- Resource issues accurately identified
- “Least-cost” resources to be developed

# WRD Plan Review (cont'd)

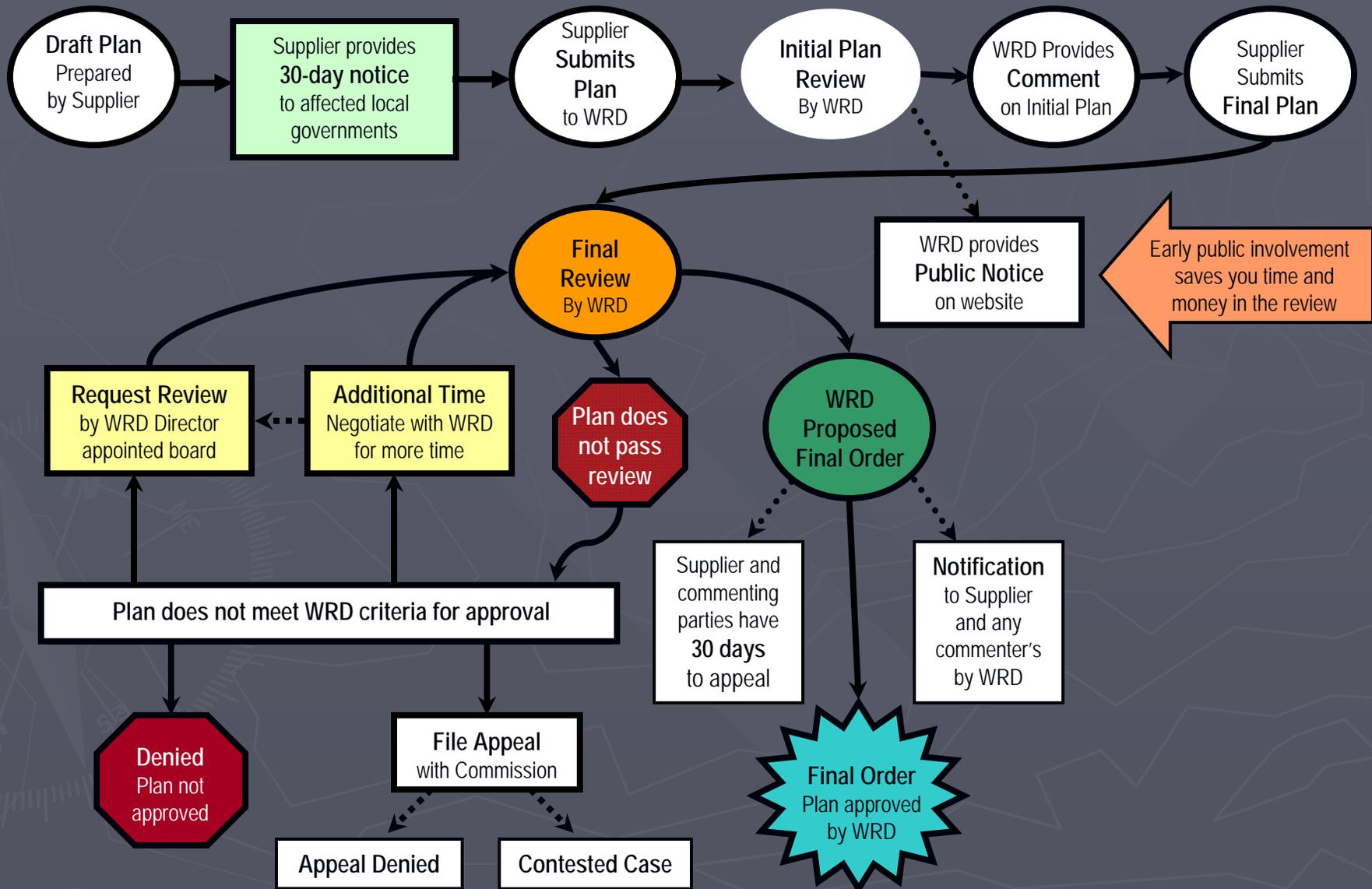
## ▶ Final plan submitted

- WRD final review
- Approval order with findings and quantification of allowable diversions
- Work plan, if needed
- Update and progress report schedule

## ▶ Appeals of WRD decision

- Supplier or commenter may appeal to Water Resources Commission
- Supplier may request appointment of 5-member review board

# The WMCP Process



# Progress Reports

- ▶ Progress reports due every 5 years
  - List of the benchmarks and implementation progress
  - Average monthly and daily diversions
  - Results of annual water audits
  - Comparisons of quantities of water used by sector
- ▶ Progress report reviews
  - Public notice of WRD receipt of progress report
  - Public comments forwarded to supplier
  - No formal review or approval, but
  - Progress reports will be used when evaluating future plans

# Plan Revisions and Updates

- ▶ Periodic revision and update schedule
  - Deadline specified in approval order ( $\approx$  10 years), *or*
  - Earlier if needed for more water authorization
- ▶ Plan content
  - Can be full revision or addendum
  - Must meet rule requirements and include current information
  - Must report on implementation of benchmarks
- ▶ WRD Review
  - Same process as original plan review
  - Evaluation of progress on previous benchmarks

# Helpful Links for Preparing a WMCP

- ▶ Oregon Water Resources Department: Municipal Water Management

- [http://www.wrd.state.or.us/OWRD/mgmt\\_muni\\_wmcp.shtml](http://www.wrd.state.or.us/OWRD/mgmt_muni_wmcp.shtml)

- ▶ League of Oregon Cities Planning Guidebook

- [http://www.wrd.state.or.us/OWRD/mgmt\\_muni\\_wmcp.shtml](http://www.wrd.state.or.us/OWRD/mgmt_muni_wmcp.shtml)

...OR...

- <http://www.orcities.org/Publications/SpecialPublications/tabid/1086/Default.aspx>

- ▶ Water Management and Conservation Plan Matrix

- [http://www1.wrd.state.or.us/pdfs/muni\\_plan\\_matrix.pdf](http://www1.wrd.state.or.us/pdfs/muni_plan_matrix.pdf)

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Any  
Questions/Comments?

