

RECEIVED
MAR 13 2 09 PM '92

CERTIFICATE AND ORDER
FOR FILING
PERMANENT
ADMINISTRATIVE RULES WITH THE SECRETARY OF STATE

I HEREBY CERTIFY that the attached copy is a true, full and correct copy of PERMANENT rule(s) adopted on January 31, 1992 ^{SECRET STATE}
(Date)

by the Water Resources Department Resource Management Division
(Department) (Division)

to become effective upon adoption
(Date)

The within matter having come before the Water Resources Commission after
(Department) (Division)

all procedures having been in the required form and conducted in accordance with applicable statutes and rules and being fully advised in the premises:

Notice of Intended Action published in Secretary of State's Bulletin: NO YES Date Published: May 1, 1991

NOW THEREFORE, IT IS HEREBY ORDERED THAT the following action be taken: (List Rule Number(s) or Rule Title(s) on Appropriate Lines Below)

Adopted:
(New Total Rules) _____

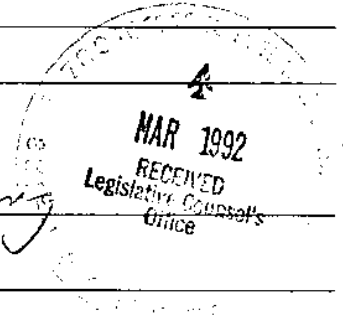
Amended:
(Existing Rules) and renumbered, as OAR 690, Division 502, Willamette Basin

Repealed:
(Existing Rules Only) Program (Upper, Middle, Lower Willamette River, and Upper
McKenzie River Basins - currently a part of OAR 690, Division 8

as Administrative Rules of the Water Resources Department
(Department) (Division)

DATED this 10th day of March, 19 92

By: William H. Young
(Authorized Signer)
Title: Director



Statutory Authority: ORS 536.300 and 536.340 or

Chapter(s) _____, Oregon Laws 19 _____ or

House Bill(s) _____, 19 _____ Legislature; or Senate Bill(s) _____, 19 _____ Legislature

Subject Matter: The rules include definitions, policies, general provisions, objectives and classifications for the beneficial use, development and management of the waters of the Willamette Basin. The rules prescribe which uses of water will be allowed on certain streams. The rules identify eleven groundwater limited areas and prescribe restrictions on the use of groundwater in these areas. The rules require that conditions be included in new groundwater permits requiring permittees to measure and report water levels and cease pumping if declines exceed specified levels.

For Further Information Contact: Al Cook Phone: 378-8455 ext. 23
(Rule Coordinator)

OREGON WATER MANAGEMENT PLAN

WILLAMETTE BASIN SECTION

CONTENTS	Page
Introduction	1
Basin Map	2
Basin Issues	
Surface Water Allocation	3
Groundwater Management and Protection	10
Municipal and Domestic Water Systems	17
State Coordination in Corps of Engineers Regulation of Willamette System Reservoirs	19
Water Conservation/Drought Planning: Opportunities and Priorities	25
Land Use Coordination	29

APPROVED

by the

STATE OF OREGON WATER RESOURCES COMMISSION

January 31, 1992

DRAFT WILLAMETTE BASIN PLAN

INTRODUCTION

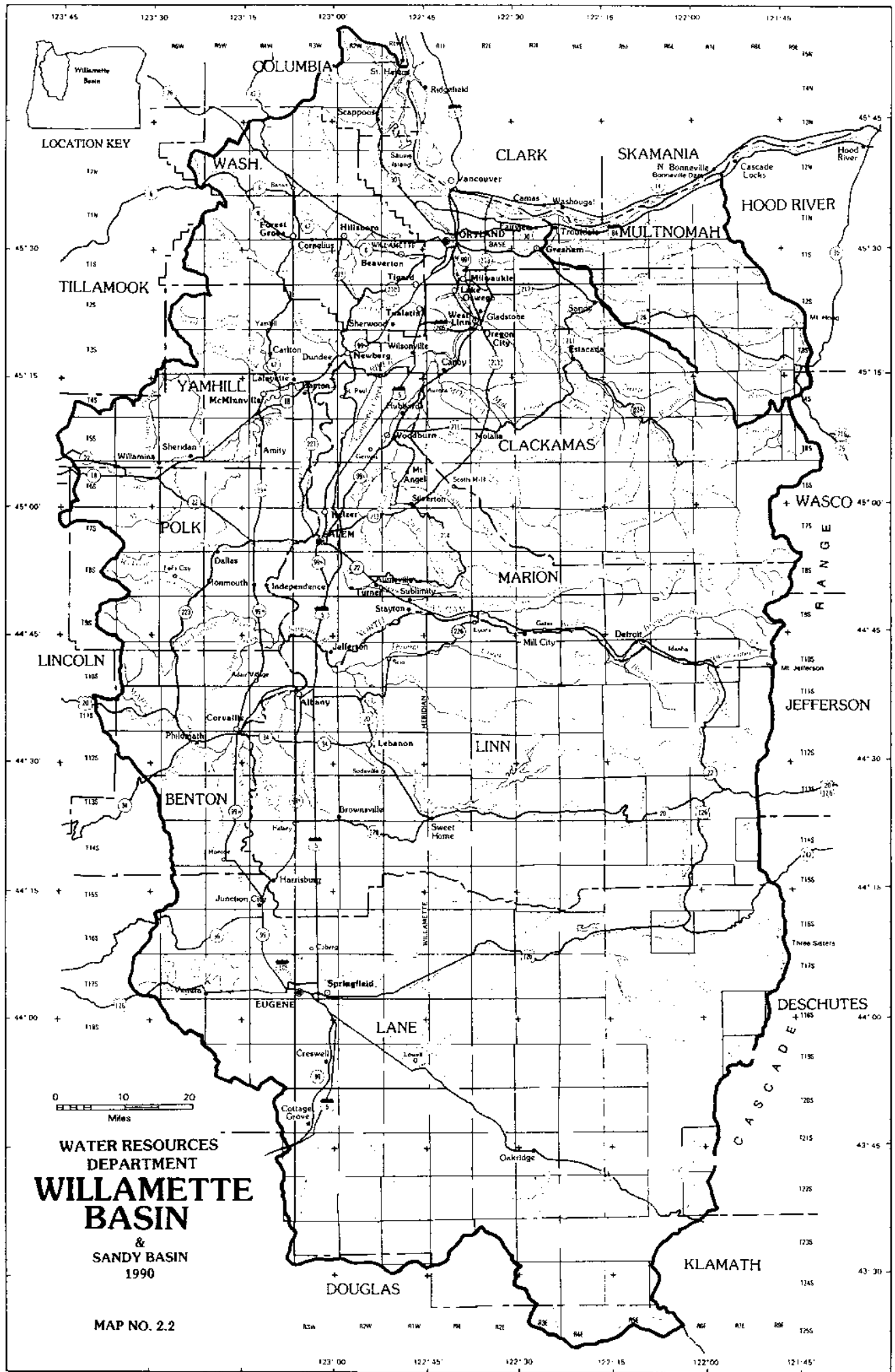
The purpose of the Willamette Basin Plan is to guide the Water Resources Commission and Department in setting priorities for developing programs and conducting activities in the basin (Figure 1). Priorities target the Department's water availability, groundwater database, water conservation and interagency coordination activities. The plan also establishes recommended actions for other agencies, as well as priorities for Department coordination with other agencies, organizations and individuals to address water resource issues and problems in the basin.

This plan covers six major water resource issues in the basin. The issues were selected after gathering public, state, federal and local government input on important water problems in the basin. They are:

- Surface Water Allocation
- Groundwater Management
- Municipal - Domestic Water Systems
- Corps of Engineers Reservoir Coordination
- Conservation
- Land Use Coordination

This plan provides a brief discussion and identifies policies and implementing actions pertaining to the six issues. The plan policies provide goals and direction. In general, the policies are also adopted as administrative rules. The implementing actions identify current, planned or desirable strategies the Department will pursue to meet the corresponding policy or policies. They also outline the ongoing or future actions of the Department and provide recommendations for actions by other state and local agencies, water providers and water users.

The six issues are discussed in further detail in the companion basin report. The basin report provides background on the issues and identifies management alternatives to address problems. Management alternatives identify specific actions, responsible parties and in some cases timelines for action.



SURFACE WATER ALLOCATION

ISSUE - ALLOCATION OF UNAPPROPRIATED SURFACE WATER

Background

The Willamette Basin supports two-thirds of the state's population. Many of Oregon's major industries are located here. Regionally important fish resources spawn and rear in basin rivers and streams. The Willamette Valley contains some of Oregon's most productive agricultural lands. Water-dependent and water-related recreation opportunities abound on the basin's lakes and streams.

These and other uses place a substantial and growing demand on the basin's surface and groundwater resources. Seasonal water demands are exceeding supplies with growing frequency. Competition between instream and out-of-stream uses is intensifying. New water legislation emphasizes the growing public interest in conservation, instream values and water for future economic development.

Existing water allocation rules and management strategies need updating to reflect changing conditions. These conditions include decreasing supplies, changing social values, projected development trends and the interest in instream values which the Water Resources Commission (Commission) has an obligation to protect.

The Willamette Basin presents a number of water management challenges. Despite abundant annual rainfall and snowpack, natural flows in many streams are low during four or five months through the summer. A growing number of smaller streams and even major tributaries to the Willamette River are over-appropriated during some months throughout the year. Demand for water on these streams exceeds the natural supply. This has resulted in increased regulations of existing water rights and has contributed to diminished fish populations and an increase in water quality standards violations. Remaining unappropriated water must be better managed in the future to help restore and maintain fish runs, water quality and other instream values while sustaining economic development in the basin.

A number of large storage projects have been built in the basin. These projects are managed by the U.S. Army Corps of Engineers and provide a variety of benefits including flood control, power generation, irrigation, recreation and flow enhancement for fish and water quality. They also present their own set of management challenges. The reservoirs are operated under federal guidelines that don't always accommodate the state's interests. Revised operating guidelines, more intensive state management of released

water and a more formal state - federal working relationship affecting the stored water could yield some benefits not being realized now.

Most of the minimum perennial streamflows in the Willamette Basin have been converted to instream water rights in response to legislative requirements established in ORS 537.346. The conversion of 28 minimum streamflows was deferred for Department review during the basin planning process. All but two are comprised of both natural flow and storage components. These two exceptions are for natural flow only and are situated on stream reaches above any storage projects. They were subject to a contested case hearing in accordance with a request by a citizen and subsequently converted to instream water rights.

The Commission is considering modification of the Department's regulation of released uncontracted stored water. Currently, this stored water is managed as natural flow. The proposed change would allow the Department to protect uncontracted releases from Corps of Engineers projects in the Willamette Basin as needed to support instream uses. As a result of a public hearing, action on the modification was deferred until after the minimum streamflows have been converted. Analysis to date indicates that some of the minimum streamflows with storage components realistically reflect current public instream needs. However, some appear to have a significantly higher storage component than the amount the state currently requests the Corps to release each year. In other cases, the storage components should be dropped because upstream storage projects were not built.

These and other issues pertaining to the unconverted minimum streamflows will be resolved through the contested case hearing process, separate from the basin planning process. The Willamette Basin plan and rules will include the unconverted minimum streamflows until the Commission takes action on conversion to instream water rights. After the conversions are completed, the minimum streamflows should be deleted from the basin rules. Those minimum streamflows which have been converted to instream water rights are no longer listed in the basin rules.

In summary, water demand in the basin is growing. Consumptive uses associated with irrigation needs are expected to increase along with municipal and industrial uses. Care needs to be taken now to ensure water supplies for future economic development and to avoid over-appropriating the basin's streams and rivers. By adopting administrative rules, the Commission directs the course of water development and use. The Commission's rules also direct the Department in managing water resources with other resource agencies seeking to protect instream values like fish life, recreation and water quality.

The classifications proposed in this plan were developed using a methodology based on water availability for each subbasin. The Department estimated the mean monthly flows expected to occur in these streams 80 percent of the time. The Department's flow estimates reflect actual water use in the stream. The Department determined whether surplus flows are available for appropriation by subtracting established instream water rights, minimum streamflows (including storage components where they exist in the current basin rules) and proposed instream flow needs, from the 80 percent flow estimates. For months during which the remaining flow is expected to be insufficient for additional out-of-stream uses, the Department has proposed to allow only domestic, commercial use for customarily domestic purposes not to exceed 0.01 cfs, livestock and instream uses. The Department is also proposing to restrictively classify those streams which have high instream use values and are located in headwater areas, often on public lands.

Further, the Commission may use its rulemaking authority to foster development where possible and prudent. For example, the proposed plan and rules would establish a basinwide irrigation season that extends the currently allowed irrigation season in large areas in the Willamette Basin.

The Commission's intentions in responding to these water allocation needs in the Willamette Basin are stated in the following policies, which are proposed for adoption in basin rules.

POLICIES

- A) Protect undeveloped streams with high instream values for public instream uses.
- B) Seek a balance in the future appropriation of water between instream and total out-of-stream uses on those streams already significantly developed for out-of-stream purposes.
- C) Preserve opportunities for future economic development by reserving water for future use.
- D) Minimize the likelihood of over-appropriation due to new uses.

IMPLEMENTING ACTIONS

- 1) Classify the surface waters of the Willamette Basin so that no significant new demands are placed on streamflow unless water is estimated to be available in excess of existing instream and out-of-stream needs at least 80% of the time.

- 2) Protect headwater streams with high instream values from development for out-of-stream use by applying a restrictive classification.
- 3) Proceed with contested case hearings process to see if remaining minimum streamflows should be modified or conditioned upon conversion to instream water rights.
- 4) Limit further appropriations during certain months on streams that have water quality problems during-low flow periods.
- 5) Establish a priority date of January 31, 1992, for a reservation of water for future economic development as requested by the Department of Agriculture and the Water Resources Department for amounts not to exceed the following:

IRRIGATION

- a) Middle Fork Willamette Subbasin
202,100 acre feet from Lookout Point and Hills Creek Reservoirs to serve irrigation needs in both the Middle Fork and downstream subbasins.
- b) Coast Fork Willamette Subbasin
14,000 acre feet from Cottage Grove and Dorena Reservoirs to serve irrigation needs in both the Coast Fork and downstream subbasins.
- c) McKenzie River Subbasin
85,000 acre feet from Blue River and Cougar reservoirs to serve irrigation needs in downstream subbasins.
- d) Long Tom River Subbasin
10,000 acre feet from subsequently developed storage to serve irrigation needs in the subbasin.
- e) Coast Range Subbasin
9,000 acre feet in the Marys River drainage from subsequently developed storage to serve irrigation needs.

36,000 acre feet in the Luckiamute River drainage from subsequently developed storage to serve irrigation needs.

9,000 acre feet in the Rickreall Creek drainage from subsequently developed storage to serve irrigation needs.

36,000 acre feet in the Yamhill River drainage from subsequently developed storage to serve irrigation needs.

- f) Santiam River - Calapooia River Subbasin
206,100 acre feet from Green Peter and Detroit Reservoirs to serve irrigation needs in the Santiam and downstream subbasins.
- g) Molalla River - Pudding River Subbasin
36,000 acre feet from subsequently developed storage to serve irrigation needs.
- h) Tualatin River Subbasin
9,000 acre feet from subsequently developed storage to serve irrigation needs.
- i) Clackamas River Subbasin
2,500 acre feet from subsequently developed storage to serve irrigation needs.

MUNICIPAL

Up to 595,210 acre-feet of water annually from the Willamette Basin for municipal purposes. Specific water requirements for future economic development shall be determined in hearings as provided for in OAR Chapter 690, Division 11 and 77. In determining the water requirements for this reservation, the status of existing water rights, water availability, water sources, and alternatives will be taken into consideration during the hearings.

- 6) Classify the surface waters of the basin for the broadest reasonable range of beneficial uses when adequate amounts of water are available to supply those uses.
- 7) Coordinate with local governments on water allocation as described in the implementing actions for Land Use Coordination.

ISSUE 2 - MANAGEMENT OF STORED WATERS

Background

About 1.6 million acre feet of water are stored annually in Corps of Engineer reservoirs in the Willamette Basin. This water is under permit to the Bureau of Reclamation for irrigation. The Bureau contracts with irrigators for only about two percent or about 30,000 acre feet of this water per year. The Corps of Engineers manages the unused portion in a discretionary manner but not necessarily in response to the range of existing needs or state priorities. In some cases, reservoirs are kept full as long as possible through the summer to maximize lake recreation and power generation in the fall. This requires

hurried releases of large volumes of water in the fall to draft the pools to flood control levels. Instream needs and downstream needs could benefit from earlier release of more water during the summer. In other cases, reservoirs are drafted to augment streamflows throughout the summer months.

The Corps of Engineers releases water from storage reservoirs throughout the basin for instream uses. These releases reflect water necessary to meet required minimum outflows and other discretionary purposes. Minimum release requirements are established in the Congressional authorization for each project to benefit fish life and water quality. Discretionary releases are made up of water not otherwise being used for a primary project purpose. The Corps makes these releases in response to special requests but is not required to release the requested flows. The Corps consults with the state annually in determining its project management objectives. Some of the water released in the minimum and discretionary releases is stored water and some is natural flow being passed through the reservoir.

The Water Resources Department has historically treated these minimum and discretionary releases as natural flow available for appropriation because they are not released to satisfy a state issued permit or water right. Accordingly, the Department issues permits to use these minimum and discretionary releases out-of-stream. Consumptive use of this water has a negative impact on the instream values the releases are intended to support. This approach also allows some people to use stored water without payment while others must contract and pay for the use of stored water.

POLICY

Manage stored waters which have been released for instream purposes and those discretionary releases to meet flow needs reflected in established instream water rights.

IMPLEMENTING ACTIONS

- 1) Amend administrative rules governing management of the storage releases for instream purposes on reaches where instream water rights have been established.
- 2) Cooperate with the Corps of Engineers to obtain flow information needed to protect storage releases and secure storage releases needed for state-identified public instream uses.

- 3) Discuss with the Bureau of Reclamation the discrepancy between estimates for current and future irrigation uses and water rights for the use of stored water. Identify and pursue options for resolving the discrepancy.

ISSUE 3 - IRRIGATION SEASON

Background

Approximately 38 percent of the Willamette Basin has been adjudicated. The courts assigned a shorter irrigation season to adjudicated rights than the season the Department generally regulates (March 1-October 31).

The Department has applied the court-decreed irrigation season to subsequently issued permits and water rights granted to irrigators located in the adjudicated areas. Numerous individuals and agricultural industry representatives have requested the Department to consider establishing a longer irrigation season for adjudicated areas. These parties have provided information which indicates that the longer season would provide significant benefit.

The Commission cannot change the irrigation season for previously adjudicated rights. Only the courts can do that. The Commission can, however, change the irrigation season for subsequent, state-issued permits and water rights.

POLICY

Allow irrigation use for the longest period possible between March 1 and October 31 provided sufficient water is available.

IMPLEMENTING ACTIONS

- 1) Establish a basin-wide irrigation season of March 1 through October 31.
- 2) To prevent adverse impacts on existing users' rights, require that irrigators in adjudicated areas apply for a new permit to extend the period of irrigation use. These permits would be subject to adopted classifications and water availability analyses.

GROUNDWATER MANAGEMENT AND PROTECTION

ISSUE 1- GROUNDWATER LEVEL DECLINES

Background

Groundwater levels are declining in several areas in the northern half of the Willamette Basin. Heavy pumping of groundwater from Columbia River Basalt Group aquifers and from Troutdale Formation aquifers is causing water levels to drop. The Department has measured water level declines in wells in several areas. The declines are not consistent or uniform. But they are centered in areas of heavy pumping by large capacity wells. Each summer, more wells must be deepened because of declining water levels. Exhibits 1 - 11 in the Willamette Basin rules contain maps and boundary descriptions of the areas.

Wells developed in separate interflow zones of the Columbia River Basalt Group may show different water levels. Where water leaks from one interflow zone into another, the receiving zone may be recharged to the detriment of the contributing zone. The contributing zone may be dewatered over time.

Water levels in some wells have declined as much as 100 feet below original measured levels in six areas in the basin. The areas are Damascus, Glad Tidings, Kingston, Mt. Angel, Sherwood - Dammasch - Wilsonville, and Stayton - Sublimity. Four other areas are in similar geologic terrain, with similar hydrologic characteristics. Declining groundwater levels, wells drying up and interference between wells have been reported by water users in the Chehalem Mountain, Parrett Mountain, Eola Hills and South Salem Hills areas. Rural residents in the Parrett Mountain area have submitted data to show that water levels in wells in this area are declining, and groundwater protective measures should be considered.

The Department has determined that special management standards must be established in these areas to protect and restore groundwater levels. Several water right holders in the Kingston area are already voluntarily reducing water use.

In the Sandy-Boring area, two aquifers within the Troutdale Formation are being affected. These aquifers are easily identified because they are generally separated by a semi-permeable layer. Further, the groundwater surface in the deep aquifer is usually more than 100 feet below that in the shallow aquifer. Large (30-70 feet) seasonal changes occur in the water level of the shallow aquifer. Late summer water levels generally approach the bottom of this aquifer in some locations. A pocket within the deep aquifer is reacting to

heavy summer pumping, and the aquifer is not recharging as fast as water is being used. On the average, water levels are dropping more than two feet per year in this sub-area.

POLICY

Prevent excessive water level declines, restore aquifer stability and preserve storage aquifers with limited storage capacity for designated uses.

IMPLEMENTING ACTIONS

- 1) Classify the basalt aquifers in the Damascus, Gladtidings, Kingston, Mt. Angel, Parrett Mountain, Shérwood - Dammasch - Wilsonville and Stayton - Sublimity areas and the Troutdale aquifer in the Damascus area for exempt uses only. The Department will work with local interested parties in the Parrett Mountain area to determine if sufficient information is available to warrant pursuit of a critical groundwater area designation. If warranted, schedule a Critical Groundwater Area investigation of the Parrett Mountain Area.
- 2) Classify the basalt aquifers in the Chehalem Mountain, Eola Hills and South Salem Hills areas for exempt uses, irrigation and rural residential fire protection systems only. Irrigation permits will be issued for a maximum of five years, for drip or equally efficient systems provided the director finds the proposed irrigation method and amount do not pose a threat to the groundwater resource or existing permit holders' rights. If water use has not detrimentally affected the groundwater resource, the permittee may apply to extend the permit for additional five year periods.
- 3) Classify the *shallow* Troutdale aquifer and the specially designated portion of the *deep* Troutdale aquifer in the Sandy - Boring area for exempt uses only. The Department is proposing to classify the balance of the *deep* Troutdale aquifer for all beneficial uses, so part of the deep aquifer will still be open for appropriation.
- 4) Classify groundwater in the balance of the basin for all beneficial uses except groundwater hydraulically connected to surface water within one-quarter mile of a stream in which case the groundwater would be classified the same as the stream.

- 5) Declare the areas noted in items (1) through (3) Serious Water Management Problem Areas. This designation will allow the Department to obtain information on water use and groundwater levels from existing and new wells drilled in these areas.
- 6) To prevent over-appropriation of groundwater, attach special resource protection conditions to all new permits for use of groundwater from Columbia River Basalt Group aquifers. The conditions will require that pumping be regulated if the water level declines more than a specified amount.
- 9) Require conservation and efficient water use measures when permitting the use of groundwater from the Columbia River Basalt Group.
- 10) Schedule a more detailed groundwater study of the Parrett Mountain area.
- 11) Coordinate with local governments on low-yield aquifer issues as described in the implementing actions for Land Use Coordination.

ISSUE 2 - LOW-YIELD AQUIFERS

Background

In many cases, yields of groundwater to wells in large areas of the basin are small. Ancient fine-grained deposits lie beneath the valley. The extremely small pores between grains restrict movement of water. Compounding the low-yield problem are cases of inefficient well design, well maintenance deficiencies and interference between neighboring wells.

Most of the time, water is available. The aquifers recharge annually. Wells can pump at low rates of flow or at higher rates for short periods. Water levels in wells usually recover shortly after pumps are shut off. However, sometimes a new well will yield water so slowly the well is regarded as "dry," and not enough water is available even for domestic use.

Some areas have already been identified by counties as being limited in groundwater quantity and quality. In order to adequately define these areas, and to develop proper management guidelines for the groundwater, the Water Resources Department will be coordinating its planning and planning implementation efforts with the counties.

POLICY

Identify low-yield aquifers and inform local agencies of probable insufficient groundwater flow for some uses.

IMPLEMENTING ACTIONS

- 1) Encourage water users to adopt the most efficient means to convey and use water, and actively promote water conservation in low-yield aquifer areas. The Department will provide technical assistance to users seeking to increase water use efficiency.
- 2) Require conservation and efficient water use measures when permitting the use of groundwater from low-yield aquifers.
- 3) Coordinate with local governments as described in the implementing actions for Land Use Coordination.

ISSUE 3 - GROUNDWATER CONTAMINATION

Background

Natural and human-induced contamination of the groundwater resource is becoming more prevalent as the population of the basin increases. Sewage effluent, industrial waste, improperly stored hazardous materials, leaking underground storage tanks, municipal waste, agricultural waste, agricultural practices and seepage from landfills have seriously contaminated some aquifers in the basin.

Naturally contaminated water occurs in marine sedimentary rocks of the west valley. High iron content is also common in the marine sediments. Wells frequently yield water having a strong sulfur odor. Water from the basalt may contain high levels of iron and manganese; the lower zones sometimes produce salty water. Groundwater from some wells located in the southern and eastern parts of the basin contain arsenic levels over the limit recommended for drinking water.

The Department of Environmental Quality (DEQ) has general statutory authority to oversee water quality in the state. The DEQ also has personnel with extensive experience in quality monitoring and testing procedures. The Water Resources Department is responsible for managing groundwater quality through proper well construction and protecting the public from health threats arising from commingling of contaminated groundwater with uncontaminated groundwater.

Water Resources Department hydrogeologists have extensive information on well locations and geology in the basin. This information could be used to identify key observation wells that would be valuable in a monitoring program. A cooperative data-gathering effort between the Water Resources

Department and the Department of Environmental Quality would improve chances for early detection of groundwater contamination.

POLICY

Ensure safe municipal and domestic groundwater supplies by participating with the Department of Environmental Quality and the State Health Division in a formal monitoring program to document changes in quality and provide data for aquifer management.

IMPLEMENTING ACTIONS

- 1) When requested by the Department of Environmental Quality, and as resources allow, collect and forward water quality samples from the observation well network. Cooperate with the Department of Environmental Quality to secure funding for water quality sampling activities as needed.
- 2) Facilitate an investigation into the causes of salt-water intrusion in the basalt aquifer near Mt. Angel.

ISSUE 4 - HYDRAULIC CONNECTION BETWEEN GROUNDWATER AND SURFACE WATER

Background

Many alluvial aquifers near streams are hydraulically connected to the streams. The pumping of wells near streams may deplete streamflow and impair beneficial uses. The Commission has adopted administrative rules pertaining to groundwater - surface water hydraulic connection (OAR Chapter 690, Division 9).

POLICY

Minimize impairment of surface water uses resulting from hydraulic connection between groundwater and surface water.

IMPLEMENTING ACTIONS

- 1) Classify hydraulically connected groundwater within one-quarter mile of a stream for the same uses as the corresponding surface water, except for groundwater uses declared exempt by ORS 537.545. Allow the use of water from upstream surface storage, designating the well as the point of appropriation, for wells that are hydraulically connected to surface water.
- 2) Advise applicants of the restrictions associated with the use of groundwater that is hydraulically connected to surface water.

ISSUE 5 - GROUNDWATER INFORMATION NEEDS

Background

The Water Resources Department can access a large amount of groundwater supply information. Water rights information, water level measurements from the state observation well network, reports filed by well drillers, resource assessment reports and other types of information are in departmental files. Information from the observation well network, well reports and resource assessment compiled by the Department can be used to better understand subsurface geology, water availability, well depths and aquifer characteristics. However, this information is not yet in a form readily usable by the public. Further, the Department does not have enough information to predict aquifer response to current and future pumping levels in large portions of the basin.

POLICY

Encourage the development of programs for making water resource information available to the public and local agencies.

IMPLEMENTING ACTIONS

- 1) Establish and promote a public information program.
- 2) Expand the observation well network in the Spencer Creek area, along the west side of the valley from Fern Ridge Reservoir to Yamhill, western Tualatin Valley, in the Salem - Molalla area and in the Sandy - Boring area.

- 3) Continue plans and efforts to:
 - a) Enter all data from well reports and pump tests into the computer database.
 - b) Program the database so the data can be recalled by aquifer unit, and connect well reports for all non-exempt wells to water right permits.
- 4) Continue comparing original water levels with current water levels for basalt wells in the basin. Using these data, delineate areas of possible aquifer stress. If water levels are stable or rising, consider allowing more use from basalt aquifers.
- 5) Use information from required pump tests to build the data base for aquifers in the basin.
- 6) Coordinate with pump installers and request them to measure water levels in wells when installing or reconditioning pumps in wells.
- 7) Coordinate with local governments on groundwater information as described in the implementing actions for Land Use Coordination.

MUNICIPAL AND DOMESTIC WATER SYSTEMS

ISSUE - MEETING MUNICIPAL AND DOMESTIC WATER SUPPLY NEEDS IN THE BASIN

Background

As the Willamette Basin population increases, drinking water quality standards become more complex and costly to implement, and as localities experience water shortages, water suppliers need to examine ways to continue providing adequate, high quality, safe drinking water supplies. Numerous cities and special districts provide water throughout the basin. Coordination between these water providers is increasing but warrants improvement.

Portions of the Willamette Basin experience chronic or periodic water supply shortages. An increase in population in the Willamette Valley and an expanding economy fuel the demand for more water. However, some areas of the basin appear to have already reached water resource carrying capacity.

In addition, 1986 amendments to the federal Safe Drinking Water Act set new, stricter quality standards to safeguard drinking water supplies. Funding the required water treatment improvements and monitoring activities will be difficult.

Regional and/or consolidated water supply development, distribution and treatment may prove a cost-effective approach toward both satisfying water supply needs and meeting federal drinking water standards. In several areas of the basin, local governments and water suppliers are exploring opportunities to consolidate water supply service and service areas and develop water supplies to meet regional needs.

The Department views Oregon's land use planning process as an important tool for addressing issues pertaining to municipal and domestic water supplies. Oregon Revised Statutes require public facilities planning and coordination between counties and special districts. The statutes also require state agencies to ensure that their programs are compatible with local comprehensive (land use) plans. Likewise, the laws require comprehensive plans to reflect the State interest in identifying and protecting significant natural resources. The Department will pursue water management goals and objectives through participation in the periodic review and amendment of comprehensive plans as prescribed in its certified State Agency Coordination Program.

POLICY

Support coordinated water service planning and consolidation by water purveyors to preserve and protect adequate safe drinking water supplies for human consumption in the Willamette Basin.

IMPLEMENTING ACTIONS

- 1) Coordinate with local governments on municipal and domestic water supply service planning as described in the implementing actions for Land Use Coordination.
- 2) Pursue the contested case hearing process for reservation as referenced in implementing actions for surface water allocation.

STATE COORDINATION IN CORPS OF ENGINEERS
REGULATION OF WILLAMETTE SYSTEM RESERVOIRS

ISSUE - RESERVOIR OPERATIONS AND MANAGEMENT OF STORED WATER

Background

Operation of the Willamette Basin system of 13 reservoirs by the U.S. Army Corps of Engineers (Corps) is vital to water management in the Willamette River Basin. Water is stored in the reservoirs to reduce the frequency and intensity of floods. The reservoirs provide a source of stored water for irrigation, municipal and industrial water uses. Stored water also provides flat-water recreation opportunities. Water released from storage contributes to maintenance of water quality and supports fish migration and habitat. Water released from storage also provides free-flowing river recreation opportunities.

The Department believes that certain legal and administrative factors influencing the Corps' operation of the reservoir system may prevent optimization of benefits which could be provided from alternative water management approaches. Management of the reservoir system is complex. Congress authorized the construction and management of the reservoir system for specific purposes including irrigation, navigation, flood control and recreation. However, the Corps also releases water from storage for instream purposes (i.e., water quality maintenance) not explicitly authorized by Congress. State agencies and citizens now recognize that non-authorized uses provide a wide array of benefits. Congressional authorization of the reservoir system should be updated to recognize these uses.

The Corps works with the state when developing the annual plan for operation of the Willamette reservoir system. The plan allows the Corps to meet its operational obligations and also contains some provisions for accommodating state resource management objectives. However, federal obligations may conflict with state management objectives, and it is not always possible to satisfy both.

Oregon Congressman Peter DeFazio has sponsored a study to reexamine the operation of the Willamette Basin reservoir system. The study was initiated because the nature of water use has changed substantially since the reservoirs were first authorized. The first phase of the review is a reconnaissance of the reservoir system and its operation. During this phase, the Corps is developing and evaluating the relative costs and benefits of alternative operation scenarios. If one or more scenarios are found to be in the federal interest (positive economic benefit, public acceptability, potential co-sponsor), the Corps may initiate a more detailed feasibility study of the alternative

scenario(s). The study scope also includes an examination of how water stored in the reservoirs is allocated. The outcome of the study could lead to Congressional action that changes the way the Corps operates the reservoir system.

POLICY

- A) Promote funding to implement the Willamette River Basin reconnaissance phase recommendations with significant potential to assist the state in meeting its resource management objectives.

IMPLEMENTING ACTIONS

- 1) Assist the Corps in reevaluating storage allocations and reservoir operations with the goal of meeting state water management policies and objectives for the basin.
- 2) Promote revision of the reservoir system irrigation allocation to allow stored water to be allocated to other purposes, such as water quality, fish life and instream recreation. Recommend that any reallocation of stored water accommodate at a minimum the Oregon Department of Agriculture's reservation request for the following stored water:
 - a) Coast Fork Willamette Subbasin
14,000 acre-feet from Cottage Grove and Dorena Reservoirs to serve irrigation needs in both the Coast Fork and downstream subbasins.
 - b) Middle Fork Willamette Subbasin
202,100 acre-feet from Lookout Point and Hills Creek Reservoirs to serve irrigation needs in both the Middle Fork and downstream subbasins.
 - c) McKenzie River Subbasin
85,000 acre-feet from Blue River and Cougar reservoirs to serve irrigation needs in downstream subbasins.
 - d) Santiam River Subbasin
206,100 acre-feet from Green Peter and Detroit Reservoirs to serve irrigation needs in both the Santiam and downstream subbasins.
- 3) Promote the reallocation of water stored in Corps reservoirs that is currently dedicated to irrigation to meet water quality flow objectives at Albany and Salem (estimated at 305,000 acre-feet per year).

- 4) Promote federal legislation to revise the reservoir system authorization to recognize additional important purposes such as water quality, recreation, fish life, wildlife, municipal and industrial.
- 5) Promote studies and funding for the Corps to make the structural modifications to the reservoirs necessary to mitigate project impacts on water temperature and fish passage.
- 6) Request the Corps to control the temperature of released water as part of its responsibility to mitigate the impacts of dam construction.
- 7) Evaluate the Willamette Basin Review Study reconnaissance phase recommendations and support state co-sponsorship of the feasibility study phase if to do so significantly assists the state in meeting its water resource management objectives.

POLICY

- B) Formalize reservoir operation guidelines with the Corps of Engineers to meet state water management objectives. Enter into a memorandum of understanding or other agreement that defines the reservoir coordination process and water management objectives.

IMPLEMENTING ACTIONS

- 1) Coordinate with the Corps on providing state and local input on reservoir operation as described in the implementing actions for Land Use Coordination.
- 2) Initiate the development and implementation of a state-federal coordination agreement with the Corps of Engineers in 1992. The agreement should:
 - a) Establish the respective water management roles and responsibilities of the Corps and the State of Oregon.
 - b) Establish procedures and guidelines for developing the annual plan of operations to meet water management objectives.
 - c) Identify and develop a process for cooperative water management decision-making and for state participation in the development of the annual reservoir operation plan.
 - d) Establish guidelines and criteria for operating the reservoirs to meet authorized project purposes.

- e) Establish guidelines and criteria for operating the reservoirs to meet state water management objectives to include:
 - i) Aquatic habitat and fish life cycle needs
 - ii) Pollution abatement
 - iii) Reservoir and downstream recreation
 - iv) Municipal and industrial water supply
 - v) Irrigation
 - vi) Instream water rights
 - vii) Other beneficial uses, and
 - viii) Management flexibility for below-normal water years.
- f) Establish a process for resolving disputes and renegotiating the agreement.
- g) Use the following Oregon Department of Fish and Wildlife management objectives to establish the starting point, or baseline, for the state coordination efforts with the Corps in developing an annual plan for reservoir operation.

**BASIS FOR RELEASE OF UNCONTRACTED WATER
AVERAGE OR BETTER WATER YEAR**

RESERVOIRS	RELEASE SCHEDULE	BASIS FOR RELEASE AS REQUESTED BY ODFW
Coast Fork Willamette		
Cottage Grove	o Normal draw down	o Reservoir recreation o Flow augmentation
Dorena	o Normal draw down	o Flow augmentation
Middle Fork Willamette		
Dexter / Lookout Point	o May - Aug; 1500 to 2500 cfs o Sep - mid-Mar; constant 1500 to 2500 cfs	o Boat angling o Maintain slamon redds o Flow augmentation
Hills Creek	o 400 - 500 cfs	o Support wild trout o Flow augmentation
Fall Creek	o Feb 1 - Jun 30; 150 cfs o Mid-Nov; draw down pool to 692' over 14 day period	o Wild winter steelhead attraction and migration o Spring chinook fingerling passage
McKenzie River		
Blue River	o Sep; 50 cfs minimum release	o Maintain constant flow o Flow augmentation
Cougar	o Summer; constant flow of 400 cfs o Sep / Oct; avoid flow fluctuations	o Maintain constant flow for salmon spawning o Flow augmentation
Long Tom River		
Fern Rdige	o Maintain minimum project releases o Draw down last	o Reservoir recreation
South Santiam River		
Foster	o Apr 10 - May 10; draw down pool to 614' and quickly refill o Jun 1 - Jul 31; 800 to 1000 cfs o Sep - Mar; 800 cfs, constant flows Apr 1 - Jul 1	o Native winter steelhead out-migration o Angling flows o Maintain anadromous fish spawning redds o Reservoir recreation
Green Peter	o Surcharge o Normal draw down	o Augment Foster o Flow augmentation o Reservoir recreation
North Santiam River		
Detroit / Big Cliff	o Jun 1 - Aug 15; 1000 to 1200 cfs o Apr & May and Sep & Oct; 1000 to 2500 cfs, constant or slightly increasing flows o May, Jun & Jul; on selected days, 4 - 5 hours of 1500 to 1800 cfs for ODFW boat fish planting	o Angling flows o Anadromous fish spawning redds o Reservoir recreation

**BASIS FOR RELEASE OF UNCONTRACTED WATER
BELOW NORMAL WATER YEAR**

RESERVOIRS	RELEASE SCHEDULE	BASIS FOR RELEASE AS REQUESTED BY ODFW
Coast Fork Willamette		
Cottage Grove	o Normal draw down	o Flow augmentation
Dorena	o Normal draw down	o Flow augmentation
Middle Fork Willamette		
Dexter / Lookout Point	o Apr/May - Jul; at least 1000 cfs o Sep - mid-Mar; 1500 cfs	o Wild winter steelhead spawning o Maintain slamon redds
Hills Creek	o Normal draw down	o Flow augmentation
Fall Creek	o Feb 1 - Jun 30; 150 cfs o If necessary, provide releases in 10 day periods	o Wild winter steelhead attraction and migration
McKenzie River		
Blue River	o Sep; 50 cfs minimum release	o Maintain fish life below reservoir
Cougar	o After Oct; constant flow of 300 cfs	o Maintain constant flow for salmon spawning
Long Tom River		
Fern Rdige	o Maintain minimum project releases o Draw down last	o Reservoir recreation
South Santiam River		
Foster	o Apr 10 - May 10; maintain pool at 614' for fewer days and then gradually refill o Jun 1 - Jul 31; fewer days at 800 cfs o Sep - Mar; 600 cfs, constant flows Apr 1 - Jul 1	o Native winter steelhead out-migration o Angling flows o Maintain anadromous fish spawning redds
Green Peter	o Surcharge o Normal draw down	o Recreation o Flow augmentation
North Santiam River		
Detroit / Big Cliff	o Jun 1 - Aug 15; 900cfs o Absolute minimum release = 750 cfs	o Angling flows o Fish life

- 4) Amend administrative rules to allow protection of Corps storage releases for instream purposes (see discussion in the Surface Water Allocation section).

WATER CONSERVATION/DROUGHT PLANNING: OPPORTUNITIES AND PRIORITIES

ISSUE - OPPORTUNITIES FOR WATER CONSERVATION AND INCREASED WATER USE EFFICIENCY

Background

There is a need to explore and implement appropriate water use efficiency, conservation and drought curtailment measures in the Willamette Basin. Opportunities exist in various water use categories to increase efficiency and implement conservation measures. Water users in the basin need to modify water use practices to eliminate waste, secure sufficient supplies for future uses and plan for drought conditions.

Continued growth is putting increasing pressure on available supplies in the Willamette Basin. In some streams there is not enough water during the summer months to meet all demands. Seasonal water shortages will occur more frequently and for longer periods as growth continues and various uses compete for available supplies.

Water conservation is one method of dealing with seasonal water shortages. The need for water conservation, water use efficiency and drought planning increases as growth continues and greater recognition is given to the needs for instream flows. In allocating the waters of the Willamette Basin, the Department proposes to restrictively classify and condition uses of surface and groundwater to prevent shortages and protect instream and out-of-stream uses.

Conservation involves short and long-term measures to meet water demands with as little water as economically possible. Conservation and water use efficiency help stretch existing water supplies and reduce the impact of drought and other water shortages. Properly selected and carefully applied conservation measures can reduce, postpone and in some cases eliminate the need for costly new water projects. Conservation also reduces costs for water pumping, distribution, application and treatment, and sewage treatment and effluent disposal.

Water conservation helps maintain and enhance water quantity and quality for aesthetic and other environmental reasons. This will result in more water instream to enhance environmental and aesthetic values. The availability of sufficient, high-quality water is crucial for fish, wildlife and pollution abatement.

Water conservation can reduce point and non-point source pollution. Efficient irrigation diversion, conveyance and application methods can reduce the generation of contaminated return flows and the percolation of these return flows into groundwater aquifers. Municipal, domestic and industrial water conservation can reduce the amount of wastewater and effluent discharge into streams and other water bodies.

An easily recognized benefit of water conservation is the reduction of drought effects. The public has a growing expectation that water should be used efficiently. In the fall of 1987, the Portland Water Bureau asked its customers to reduce water use. This resulted in 19 percent reduction in demand. Significantly, this lower water use was achieved without any real hardship.

Potential to increase water use efficiency exists in the agricultural, municipal and industrial sectors in the Willamette Basin. Implementing actions to increase water use efficiency are grouped into three categories: voluntary measures through public education and information; incentives; and regulatory measures.

An appropriate mix of these strategies would be most effective in the Willamette Basin. Measures that promote voluntary water conservation should be given first and high priority in achieving basinwide efficiency. These measures are likely to be more readily accepted and implemented by water users in the Willamette Basin. These measures would also be beneficial during drought conditions.

As part of its strategy to increase water use efficiency statewide, the Commission adopted the conservation and efficient water use policy in 1990. This policy would result in the implementation of conservation programs statewide and on the subbasin level to increase water use efficiency in various water use categories. The conservation efforts in the Willamette Basin must conform with the Commission's statewide conservation policy (OAR 690-410-060). The proposed conservation policy for the Willamette Basin reflects the major components of the statewide conservation policy as follows:

POLICIES

- A) Implement programs to eliminate wasteful water use.
- B) Improve the efficiency of water use through implementation of voluntary conservation measures.
- C) Give priority to developing subbasin conservation plans and providing public assistance in areas of known over-appropriation of surface water and groundwater and of water quality problems as listed by DEQ.

IMPLEMENTING ACTIONS

- 1) Encourage voluntary, cooperative water conservation practices by promoting increased public awareness of the value of water, methods and benefits of water conservation and water use efficiency. Increasing public awareness will require cooperation and coordination with other agencies, users and purveyors, professional organizations such as the Soil Conservation Service, Soil and Water Conservation Districts, American Water Works Association, Extension Service, city, county and regional planning departments and others.
- 2) Encourage and provide leadership in formation of conservation committees in subbasins facing seasonal shortages or quality problems. These subbasins include the Coast Fork Willamette, Tualatin, Yamhill, Molalla, Calapooia, Long Tom, Pudding, Luckiamute, Rickreall Creek and Columbia Slough. Assist these committees in selecting and applying effective conservation techniques to achieve a high degree of water use efficiency.
- 3) Encourage municipal water purveyors to develop public education and information programs on the value of water and increasing water use efficiency. Purveyors should provide information on water-saving plumbing fixtures and fixture altering devices, lawn watering, water efficient landscaping and other conservation measures to their customers.
- 4) Encourage agricultural, municipal and industrial water purveyors in the Willamette Basin to develop water management plans that include conservation, drought planning, wastewater recycling and reuse and other water use efficiency measures. Provide assistance as resources allow.
- 5) Assist water users and purveyors in identifying and securing grants, loans, tax credits and other financial assistance to implement conservation measures. Some of these incentives may already exist while others may have to be created. This effort should first focus on the areas or systems that experience seasonal water shortages or water quality problems.
- 6) Encourage water purveyors to consider and adopt rate structures that conserve water.
- 7) Encourage water purveyors to work with local sewerage treatment agencies to develop reclaimed wastewater supplies and to distribute the water at a lower price than existing domestic or irrigation supplies.

- 8) Place conditions on permits to appropriate water from sources including but not limited to the Columbia River Basalts and low-yield aquifers to require implementation of conservation and water use efficiency measures.
- 9) Require that conservation and water use efficiency special conditions be employed when permitting the use of water from water quality limited streams and their tributaries including the Coast Fork Willamette, Tualatin, Yamhill, Pudding, and Luckiamute Rivers, Rickreall Creek and the Columbia Slough.

LAND USE COORDINATION

ISSUE - STATE AND LOCAL COORDINATION ON WATER RESOURCE AND LAND USE PLANNING

Background

Basin planning affects water, one of the most important resources addressed by the statewide land use planning goals. By establishing the types and limits of allowable future water uses, basin planning can influence the type and extent of land use. Conversely, by allocating land for a range of uses, land use planning establishes the potential for future water demand. Land use and water planning are integrally related. Therefore, the Water Resources Commission has designated basin planning as an agency "land use program," as defined by the Land Conservation and Development Commission. Under state law, agency land use programs are to comply with statewide planning goals and be compatible with comprehensive plans. Accordingly, it is the Commission's goal to be as compatible with local government land use plans to the maximum extent possible, consistent with the public interest as expressed through state water resources policy. Today, there is increasing pressure on finite water resources for additional consumptive and instream uses as a result of rapid population growth, diminishing fish populations and continued agricultural needs. In many instances we are approaching or exceeding the water resource carrying capacity. Coordination between land and water planning has never been more important.

For several reasons, to date coordination between local comprehensive plans and basin plans has been quite limited. First, when statewide land use planning was initiated and local plans were developed, there was a perception of abundant water supplies in the Willamette Basin, and there were fewer demands for water use. Nothing compelled basin plans to reflect comprehensive plans or vice-versa.

Second, comprehensive plans are founded on the Statewide Planning Goals. There is no water resources goal, per se. General references to water resources carrying capacity are spread throughout the goals. Although Goal 5 is frequently represented as a water resources goal, it actually deals in a very broad fashion with natural resources, open space, and scenic and historic areas. Thus, local plans have not addressed water resources issues in any specific or uniform way. In short, although the Goals require coordination of state and local plans in a general fashion, coordination of local plans with Commission planning programs has not been achieved.

Third, the relationship between basin planning water classifications and land use is not straight-forward. For example, a basin classification may not allow any future irrigation use in an agricultural zone. Although it may appear so, this is not necessarily a conflict. There may be alternative water supply sources for new uses from storage, interbasin transfers or savings from water conservation. In addition, existing agricultural water uses could continue. Even if opportunities for additional irrigation were severely constrained, future agriculture activities which are not water-use intensive, such as grazing or dryland farming, would be possible.

Improving coordination is the goal of the Department's State Agency Coordination (SAC) Program. However, this program was not established until late in the Willamette Basin planning process. Despite efforts of both the Department and local governments during the process, more coordination is needed to explore land use related issues that have arisen during the planning process. These issues include the need to: quantify present and future water needs based on planned land uses; identify additional water sources to serve those needs; improve the exchange of water resource information between the Department and local governments; further identify areas of groundwater concern, especially those referenced in local plans; and analyze effects of, or alternatives to, allowing exempt groundwater uses in areas of concern. Many of the following strategies designed to address these issues in the Willamette Basin are also contained in the SAC Program. The Willamette Basin Program offers one of the first opportunities to apply the SAC Program at a regional level through intensive coordination. Results from implementing the strategies will be basin-specific.

POLICY:

Promote effective state and local water resource planning and protection and efficient water use through coordination with land use programs.

IMPLEMENTING ACTIONS

1. Work with municipal water suppliers and other local governments to assess future municipal and industrial needs and allocation options to meet those needs. Preserve opportunities for future economic development by reserving water for future use.
2. Encourage cities such as Sherwood and Wilsonville and other water purveyors dependent on groundwater from the basalt aquifers to seek alternate water supplies.

WATER RESOURCES DEPARTMENT
ADMINISTRATIVE RULES
CHAPTER 690
DIVISION 502
WILLAMETTE BASIN RULES

690-502-010 Definitions

As used in this rule, unless the context requires otherwise:

- (1) The Willamette Basin is as shown on Water Resources Department Map No. 2.6.
- (2) "Agricultural use" means non-irrigation agricultural use of water such as temperature control, chemigation, mineral leaching, dairy barn washing, greenhouse use, harvest use and other related uses.
- (3) "Classification" or "classified" means the allowed and preferred beneficial use(s) of a given surface or groundwater source for which future uses of water shall be permitted. Except as otherwise provided by the Commission, the Department shall not issue permits to appropriate, and no use shall be initiated of any of the surface or groundwaters of the Willamette Basin for any uses except those for which the waters are classified. A classification does not affect legal uses existing on the date of adoption or alteration of the classification.
- (4) "Commission" means the Water Resources Commission.
- (5) "Commercial use" means use of water at a place where commodities or services are bought or sold or provided by an entity open to the public, such as a gas station, restaurant, motel, etc.
- (6) "Department" means the Water Resources Department.
- (7) "Director" means the Director of the Water Resources Department.

Adopted January 31, 1992. Amends and supercedes Upper Willamette River Basin program adopted June 22, 1964. Amended November 10, 1980 and May 30, 1985. Amends and supercedes Upper McKenzie River Basin program adopted April 13, 1964. Amends and supercedes Middle Willamette River Basin program adopted June 22, 1964. Amended August 2, 1985. Amends and supercedes Lower Willamette River Basin program adopted May 25, 1966. Amended August 26, 1968; April 15, 1970; April 20, 1971; April 19, 1975; October 8, 1976; July 28, 1980; December 9, 1980 and August 2, 1985.

(8) "Domestic use" includes domestic use, domestic use expanded and group domestic, as defined in OAR 690-11.

(9) "Fish life use" includes use of water to support natural or artificial propagation of fish and other aquatic life.

(10) "Groundwater recharge" means the intentional addition of water to a groundwater reservoir where consistent with OAR 690-11.

(11) "Industrial use" includes the use of water in the manufacture of a product and maintenance of industrial sites, facilities and buildings, and includes other related miscellaneous uses.

(12) "Irrigation use" means the application of water to crops or plants by artificial means to promote growth or nourish plants.

(13) "Livestock use" means the use of groundwater or diversion of water from the natural water course or storage of water for consumption by livestock or wildlife.

(14) "Mining use" means the use of water to extract metals or minerals including placer mining as defined in OAR 690-11 and leaching operations.

(15) "Municipal use" means the delivery and use of water through the water service system of an incorporated municipality or a nonprofit corporation and includes quasi-municipal uses as defined in OAR 690-11.

(16) "Pollution abatement" means the use of water to remove or dilute pollutants or achieve water quality standards.

(17) "Power" means the use of water for electrical or mechanical power or for operation of a hydraulic ram where such uses are consistent with OAR 690-51.

(18) "Public instream use" means the public use of water where there is no diversion or other means of physical control over the water. Public instream uses include, but are not limited to, recreation, conservation, maintenance and enhancement of aquatic and fish life, wildlife, fish and wildlife habitat, wetlands other than those referred to in (21) below and any other ecological values, pollution abatement or navigation.

(19) "Recreation use" means the use of natural or stored water to provide recreation uses as defined in OAR 690-11.

(20) "Storage season" means the time period during which reservoirs may be filled.

(21) "Wetland enhancement" means the diversion or control of surface or groundwater for the purpose of mitigating, constructing, enhancing and/or maintaining wetlands.

(22) "Wildlife use" includes use of water by or for sustaining wild animal species and their habitats.

690-502-020 Policies

Water Resources Commission and Department activities which affect the waters of the Willamette River Basin shall be compatible with the policies established in this rule. Surface water allocation, groundwater management, municipal and domestic water systems, reservoir coordination, conservation and land use coordination are important issues in the Willamette Basin. The Commission's policies on these issues are as follows:

(1) Surface water allocation:

- (a) Protect undeveloped streams with instream values for public instream uses.
- (b) Seek a balance in the future appropriation of water between instream and total out-of-stream uses on those streams already significantly developed for out-of-stream purposes.
- (c) Preserve opportunities for future economic development by reserving water for future use.
- (d) Minimize the likelihood of over-appropriation due to new uses.
- (e) Manage stored waters which have been released for instream purposes to meet flow needs reflected in established instream water rights.
- (f) Allow irrigation use for the longest period possible between March 1 and October 31 provided sufficient water is available.

(2) Groundwater management:

- (a) Prevent excessive water level declines, restore aquifer stability in areas of decline and preserve with limited storage capacity for designated uses.
- (b) Identify low-yield aquifers and inform local agencies of probable groundwater capacity limitations for some uses.

(c) Ensure safe municipal and domestic groundwater supplies by participating with the Department of Environmental Quality and the State Health Division in a formal monitoring program to document changes in quality and provide data for aquifer management.

(d) Minimize impairment of surface water uses resulting from hydraulic connection between groundwater and surface water.

(e) Encourage the development of programs for making groundwater resource information available to the public and local agencies.

(3) Municipal and domestic water systems:

Support coordinated water service planning and consolidation by water purveyors to preserve and protect adequate and safe drinking water supplies for human consumption in the Willamette Basin.

(4) Reservoir coordination:

(a) Promote funding to study and implement the Willamette River Basin Review Study reconnaissance phase recommendations with significant potential to assist the state in meeting its resource management objectives.

(b) Formalize reservoir operation guidelines with the Corps of Engineers to meet state water management objectives and enter into a memorandum of understanding or other agreement that defines the reservoir coordination process and water management objectives.

(5) Water conservation:

(a) Implement programs to eliminate wasteful water use.

(b) Improve the efficiency of water use through implementation of voluntary conservation measures.

(c) Give priority to developing subbasin conservation plans and providing public assistance in areas of known over-appropriation of surface water and groundwater and in water quality problem areas as listed by the Department of Environmental Quality.

(6) Land use coordination:

Promote effective state and local water resource planning and protection and efficient water use through coordination with land use programs.

690-502-030 Objectives

The objectives of the Commission in managing the waters of Willamette Basin are to:

- (1) Retain minimum perennial streamflows as provided in OAR 690-502-050 to OAR 690-502-150 until the process for conversion to instream water rights is completed.
- (2) Promote public instream uses and values in headwaters streams exhibiting high instream values.
- (3) Meet public instream needs for fish life, wildlife, recreation and pollution abatement.
- (4) Protect instream values in state scenic waterways as described in ORS 390.835 and support management of national wild and scenic rivers.
- (5) Minimize the potential of future permits to over-appropriate water.
- (6) Reserve stored water for future irrigation development at the request of the Department of Agriculture.
- (7) Reserve water for future municipal water supply needs at the request of the Water Resources Department.
- (8) Coordinate with the Department of Environmental Quality in efforts to meet total maximum daily loads in designated drainages by limiting new surface water appropriations during the low-flow season and placing conditions on permits requiring efficiency measures. These drainages include, but are not limited to, the Coast Fork of the Willamette, Tualatin, Yamhill, Pudding, Rickreall Creek and Columbia Slough.
- (9) Increase basinwide water use efficiency.
- (10) Coordinate with the Northwest Power Planning Council in meeting the objectives of the "protected areas" designation when evaluating hydroelectric permit applications.
- (11) Protect and encourage use of water which sustains economic development.

690-502-040 General Provisions

(1) Water availability:

The classifications in OAR 690-502-050 through 690-502-150 limit access to natural streamflow during periods when remaining available supplies are insufficient to meet existing water rights and public instream uses 80 percent of the time. When improved water availability data show that there is insufficient natural flow to support a classification, any permit issued shall further restrict or condition the time of use to when water is available.

(2) Limited licenses:

The uses of surface water for which limited licenses may be issued are prescribed in ORS 537.143 (1). Applications for limited licenses may be accepted in the Willamette Basin unless expressly prohibited by statute, order of the State Engineer or the Commission, or by the classifications in OAR 690-502-050 through 690-502-150. -- -

(3) Surface water applications:

Applications to use surface water filed after April 18, 1991, shall be processed under the classifications established in OAR 690-502-050 through 690-502-150. Applications filed on or before April 18, 1991, shall be processed under the classification in effect at the time of the application.

(4) Storage:

(a) Unless expressly prohibited by statute, order or administrative rule, the surface waters of the Willamette River and tributaries are classified for storage from November 1 to June 30. A storage permit may be issued for a shorter time period and/or conditioned based on water availability or compatibility with other uses and needs.

(b) Secondary applications to maintain reservoir levels throughout the year may be processed if the proposed use is consistent with the classification.

(c) Water legally stored may be released or used at any time for any beneficial purpose, such as domestic, livestock, irrigation (during the irrigation season as specified in section 6 of this rule), agricultural, commercial, municipal, industrial, power, mining, recreation, fish life, wildlife, pollution abatement, wetland enhancement, public instream uses and uses allowed under a limited license.