

Chapter 23.112. WATER RESOURCES

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23.112.010. Water Resources.

Water in adequate quality and quantity is important to all communities, but in a semi-arid region such as where Deschutes County is located it is of particular importance. Drought is a recurring natural phenomenon which has done much to direct the County's growth and to determine its economic base.

Unfortunately, inadequate information exists on water supplies and on water quality. The County health Department, Oregon Health Division, Oregon Department of Environmental Quality, and U.S. Geological Survey are all presently involved with studies or ongoing programs to provide a greater understanding of the area's water resources. Given the expected continued growth of the area and the existence of water quality and quantity problems already the results of these studies will prove useful in updating this plan and safely accommodating the new growth while protecting existing industries and residents.

It does appear that little additional water for agricultural expansion may be expected locally, except for some new wells in such areas as Lower Bridge and Cloverdale. The use of irrigation water for domestic purposes has not only reduced available water supplies for agriculture but also raised questions about possible health hazards resulting from people drinking from irrigation ditches. Some water quality problems have been identified as resulting from domestic effluent and agricultural operations. At present the domestic effluent is clearly a more pressing concern than agricultural activities (because of local soils, climate, topography and farm operations). The continued use of drill holes for sewage disposal has been noted as a subject of particular concern.

To indicate the County's concern and to serve as important long range objectives the following goals have been identified.

(Ord. 2002-005 §1, 2002; Ord. 2000-017 §1, 2000; Ord. 94-003, 1994; PL-20, 1979)

23.112.020. Goals.

1. To maintain existing water supplies at present quality and quantity.
2. To improve the efficiency with which water is supplied to meet the growing needs of Deschutes County residents.

(Ord. 2002-005 §1, 2002; Ord. 2000-017 §1, 2000; Ord. 94-003, 1994; PL-20, 1979)

23.112.030. Policies.

In order to achieve the desired results three general policy directions have been determined, each general topic composed of several specific policies.

1. Resource Study: To obtain better information than that presently available so as to assure the safe use of the area's water resources the following policies shall be adopted:
 - a. Obtain funding to conduct a complete County-wide hydrology study. Particular emphasis shall be placed on study of urban areas, irrigation water seepage into local water tables, stream flow and limits to water availability.
 - b. The County, in conjunction with appropriate State and Federal agencies, shall conduct a study on the location and characteristics of local aquifers and streams, emphasizing the La Pine area first.

- c. The County shall conduct a study of the legal, economic and environmental consequences of the use of irrigation water for non-agricultural uses.
 - d. When information is available on the location, quality and quantity of groundwater resources, the county will determine the significance of the resource and complete the Goal 5 process for groundwater resources in accordance with OAR 660-16.
2. Water supply. The second general topic is the protection and improvement in efficiency of local water supplies.
- a. The County shall work with local irrigation districts, private and municipal water suppliers as well as adjacent Counties and the State to assist water management planning.
 - b. Consistent with acceptable environmental, social and economic impacts, the County shall cooperate with State and Federal agencies in irrigation canal lining, reservoir construction and watershed management.
 - c. The County shall continue to serve as a sponsor for Federal and State grants for water system improvements.
3. Water quality. The final general policy direction is the protection and improvement of the area's water quality so that the County's new population can be safely accommodated without serious public safety, environmental and economic costs.
- a. The County shall work with State and Federal agencies in planning for water quality (i.e., Sections 208 and 303e) and in the enforcement of anti-pollution regulations. Also, if found necessary, create and enforce local anti-pollution ordinances.
 - b. The County, through educational programs and other similar activities, should encourage the use of non-toxic, rapidly biodegradable chemicals.
 - c. Plans, ordinances, cooperative agreements and other legal and educational tools shall be fostered by the County to protect watersheds, reduce erosion and inappropriate run-off, and otherwise preserve local water quality from undesirable building, agriculture or other practices.
 - d. Any project which would endanger the purity of local ground water shall be vigorously discouraged.
 - e. To protect the public's health and safety irrigation ditch water shall not be an approved domestic water source for subdivisions, partitions or other developments after adoption of this plan. This will not affect existing legal subdivisions, partitions or other developments.
- (Ord. 2002-005 §1, 2002; Ord. 2000-017 §1, 2000; Ord. 94-003, 1994; Ord. 80-203, 1980; PL-20, 1979)

23.112.040. Goal 5 Inventory – Riparian Areas.

1. Inventory: Riparian areas are areas adjacent to rivers, streams, lakes or ponds where there is vegetation that requires free or unbound water or conditions that are more moist than normal. Riparian areas form an interconnected system within a watershed. At the water's edge they define the transition zone between aquatic systems and terrestrial systems. Riparian areas often contain a diversity of vegetation not found in upland areas. Riparian areas are limited in Deschutes County and are important habitats for both fish and wildlife.

In Deschutes County significant riparian habitat is located in one or more of the following three areas:

- a. The area within 100 feet of the ordinary high water mark of an inventoried river or stream.
The 100 foot wide area may contain both riparian vegetation and upland vegetation. Wetlands and flood plain are also frequently within 100 feet of a stream or river. In some cases the riparian vegetation may extend beyond 100 feet from the ordinary high water mark if it is a designated wetland or flood plain.

In forested areas, the Oregon Department of Forestry identifies the riparian management area along Class 1 streams as an area on each side of a stream averaging three times the stream width but not averaging less than 25 feet or more than 100 feet.

The Oregon Department of Fish and Wildlife (ODFW) Land Use Planning Guide contains a section identifying protection policies and standards for various habitats and species. The recommended model ordinance for riparian areas in the handbook identifies a 100-foot area as measured from the ordinary high water line of all Class I and Class II streams.

- b. The area adjacent to an inventoried river or stream and located within a flood plain mapped by the Federal Emergency Management Agency and zoned Flood Plain by the County.

The flood plain may extend beyond 100 feet from the ordinary high water mark of the stream and may contain wetland.

- c. The area adjacent to a river or stream and inventoried as a wetland on the National Wetlands Inventory Map.

A riparian wetland may extend beyond 100 feet from the ordinary high water mark and may be included in a flood plain.

The County has not conducted an inventory of riparian areas adjacent to lakes and ponds on private land. However, many of these areas are included in the National Wetland Inventory Maps and are subject to County, State and/or Federal wetland fill and removal regulations. Riparian areas adjacent to the many lakes on federal lands are managed and protected under the federal land and resource management plans and are not included in the County inventory and are not considered in the ESEE analysis of conflicting uses.

The three areas described above are further identified in the Deschutes County/City of Bend River Study, the Federal Emergency Management Agency (FEMA) Flood Plain maps, the U.S. Department of the Interior National Wetlands Inventory maps, the Deschutes County Comprehensive Plan and Title 18 of the Deschutes County Code.

- 2. Deschutes County/City of Bend River Study. The Deschutes County/City of Bend River Study (1986) inventoried the following significant riparian habitat and completed an ESEE analysis of this habitat. The River Study inventory and ESEE analysis for riparian habitat are incorporated herein by reference.

The River Study resulted in adoption of a 100-foot setback for structures and septic systems, fill and removal regulations, provisions for conservation easements and prohibition of hydroelectric facilities on certain reaches of the Deschutes River and its tributaries.

- a. Riparian Area Inventoried In River Study.

Table 6-2

STREAMS	ACRES
Deschutes River	1,440
Little Deschutes River	2,920
Paulina Creek	846
Fall River	43
Crooked River	38
Whychus Creek	47
Tumalo Creek	50
Indian Ford Creek	573
TOTAL	5,966

- b. FEMA maps. The Federal Emergency Management Agency (FEMA) maps flood plain adjacent to the following rivers and streams. The flood plain along these rivers and streams is zoned Flood Plain (FP) by Deschutes County.

- Deschutes River
- Little Deschutes River
- Whychus Creek
- Crooked River
- Paulina Creek
- Long Prairie

Dry River
 Spring River
 Indian Ford Creek

Portions of Indian Ford Creek and the Deschutes River near Sunriver have not been surveyed and mapped by FEMA. These areas are not zoned flood plain. However, the Flood Plain Zone, Title 18.96.020, states: "When base flood elevation data has not been provided in the flood insurance study, the Planning Division will obtain, review and reasonably utilize any base flood elevation or flood way data available from federal, state or other sources in determining the location of a flood plain or flood way."

3. National Wetlands Inventory Maps. The U.S. Department of Interior National Wetlands Inventory Maps are the County inventory of wetland habitat. These mapped wetlands are subject to County, state and federal fill and removal regulations.
4. Deschutes County Comprehensive Plan. The Deschutes County Comprehensive Plan, adopted in 1979, mapped riparian areas along the following rivers and streams.

<u>River or Stream</u>	<u>Ownership</u>
Deschutes River	Private/Federal
Little Deschutes River	Private/Federal
Fall River	Private/Federal
Tumalo Creek	Private/Federal
Three Creek	Private/Federal
Whychus Creek	Private/Federal
Trout Creek	Private/Federal
Dry Creek	Private/Federal
Cache Creek	Private/Federal
Indian Ford Creek	Private/Federal
Cultus River	Federal
Charlton Creek	Federal
Deer Creek	Federal
Cultus Creek	Federal
Quinn Creek	Federal
Fall Creek	Federal
Moore Creek	Federal

Title 18.88, the Wildlife Area Combining Zone, contained a provision which required advice from the Oregon Department of Fish and Wildlife to determine the minimum lot sizes in these mapped riparian areas. This provision was deleted from Title 18.88 by Ordinance 92-042 because it was not a clear and objective standard. The Comprehensive Plan map was repealed and replaced with a Wildlife Habitat Combining Zone Map that does not include mapped riparian areas.

5. Title 18 - Deschutes County Zoning Ordinance. DCC 18.04.030 includes the following streams in the definition of "perennial stream." These streams, in addition to all those listed above, are subject to the 100-foot setback for structures and septic systems.

Perennial Streams Listed in DCC 18.04.030

Bottle Creek	Metolius Creek
Bridge Creek	Park Creek - East Fork
Brush Draw	Park Creek - West Fork
Bull Creek	Pole Creek
Cache Creek	Rock Creek
Charlton Creek	Snow Creek
Cultus Creek	Soap Creek
Cultus River	Spring Creek
Deer Creek	Soda Crater Creek

Dry Creek	Whychus Creek-North Fork
Fall Creek	Three Creek
First Creek	Todd Lake Creek
Full Creek	Trout Creek
Goose Creek	Tumalo Creek-North Fork
Indian Ford Creek	Tumalo Creek-Middle Fork
Jack Creek	Tumalo Creek-South Fork
Kaleetan Creek	

All of these streams, except portions of Indian Ford Creek, Cache Creek and Dry Creek, are located on federal land and are subject to either the Deschutes National Forest or the Bureau of Land Management Resource Management Plans.

6. Goal 5 Inventory – Wetlands. Inventory: Deschutes County Ordinance 92-045 adopted all wetlands identified on the U. S. Fish and Wildlife Service National Wetland Inventory Maps as the Deschutes County wetland inventory. Wetlands are those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal conditions do support a prevalence of vegetation typically adapted for life in saturated soil conditions.
(Ord. 2002-005 §1, 2002; Ord. 2000-017 §1, 2000; Ord. 94-003, 1994; PL-20, 1979)