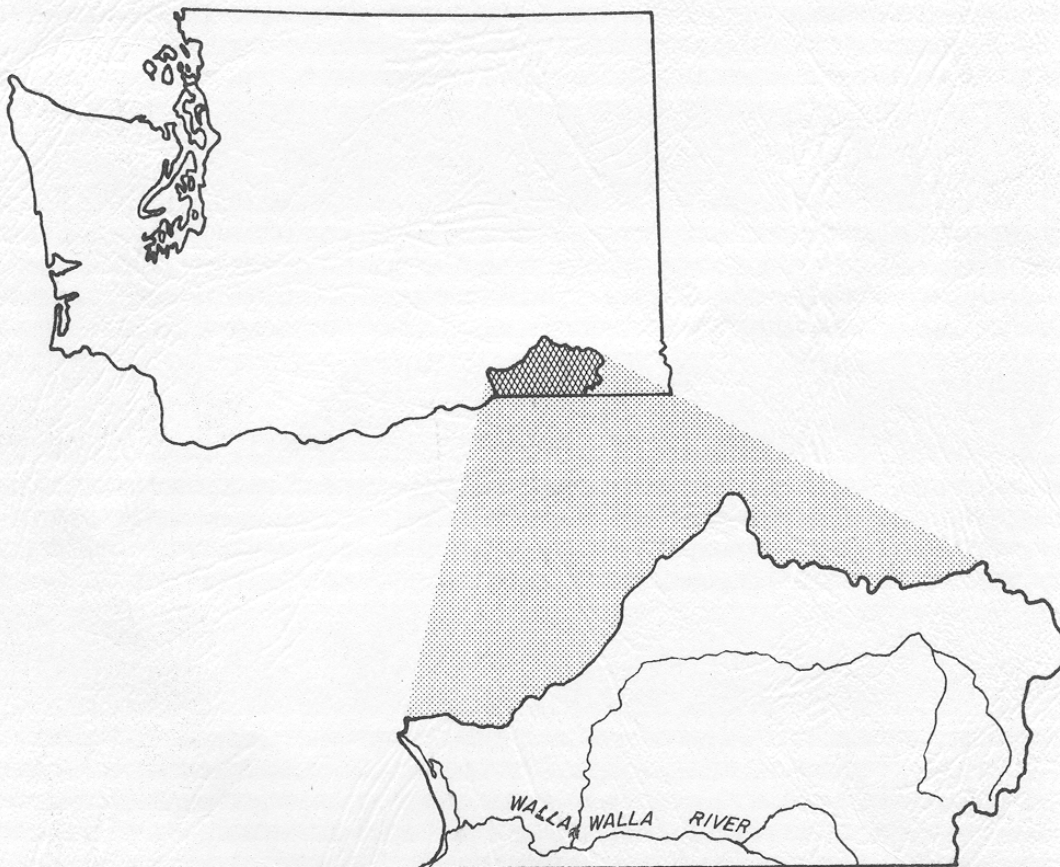


WATER RESOURCES MANAGEMENT PROGRAM



BASIN PROGRAM SERIES 6

WALLA WALLA RIVER BASIN



DECEMBER, 1977
OLYMPIA, WASHINGTON

DIXY LEE RAY
GOVERNOR

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BASIN PROGRAM SERIES NO. 6
WATER RESOURCES MANAGEMENT PROGRAM
WALLA WALLA RIVER BASIN
(WATER RESOURCES INVENTORY AREA NO. 32)

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STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY
POLICY DEVELOPMENT SECTION
WATER RESOURCES MANAGEMENT DIVISION

DECEMBER 1977

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WALL WALLA BASIN - WRIA 32

WATER RESOURCE ALLOCATION POLICY - GENERAL

I. BASIN DESCRIPTION

The Walla Walla River Basin lies between the Snake River Basin on the North, the Blue Mountains to the East and South, and the Umatilla River Basin on the South and West. The basin includes parts of Walla Walla and Columbia counties in Washington and part of Umatilla County in Oregon. The Washington portion has been designated Water Resource Inventory Area (WRIA) 32.

The Walla Walla Basin is divided into two physiographic areas: (a) The Walla Walla section, and (b) the Blue Mountain section.

The Walla Walla section is situated on the upper eastern edge of the central Columbia Basin. It consists of rolling, treeless upland, deeply mantled by fine, windborne deposits of silt which overlie the previously eroded and incised Columbia River basalt. Thick lake and stream terraced deposits occur in the valley.

The Blue Mountain section consists of the extremely northern extension of the Blue Mountains of Oregon and the long, tilted plateau that extends northward into Columbia County. This is a tilted, folded, and faulted uplift of the Columbia River basalt. This topography is largely the result of erosion and stream cutting in the basalt. Flat-topped ridges, steep-walled canyons, and mountain slopes characterize this area of the basin.

Total drainage area of the basin is 1,758 square miles of which 1,275 square miles or 73 percent lies in Washington. Of the total basin area, 273 square miles or 15 percent is forest land. Approximately 952,217 acres (1,488 square miles) or 82 percent of the basin area is in agriculture.

Figure 1 shows a breakdown of land uses in the Walla Walla Basin.

Municipal water systems are supplied from both surface and ground water sources. Walla Walla, the largest city in the basin, obtains approximately 85 percent of its water supply from Mill Creek.

There are 31 community water systems in WRIA 32: Principal users are Walla Walla, College Place, Waitsburg, Dayton, Prescott, Dixie, Burbank, and five irrigation districts near College Place which primarily service residential customers. There are also 35 other water systems in WRIA 32 which are either noncommunity systems or community systems with less than 10 services.

The following findings have resulted from an investigation of all the available information, and from an assessment of the land capability and river flow characteristics within the basin.

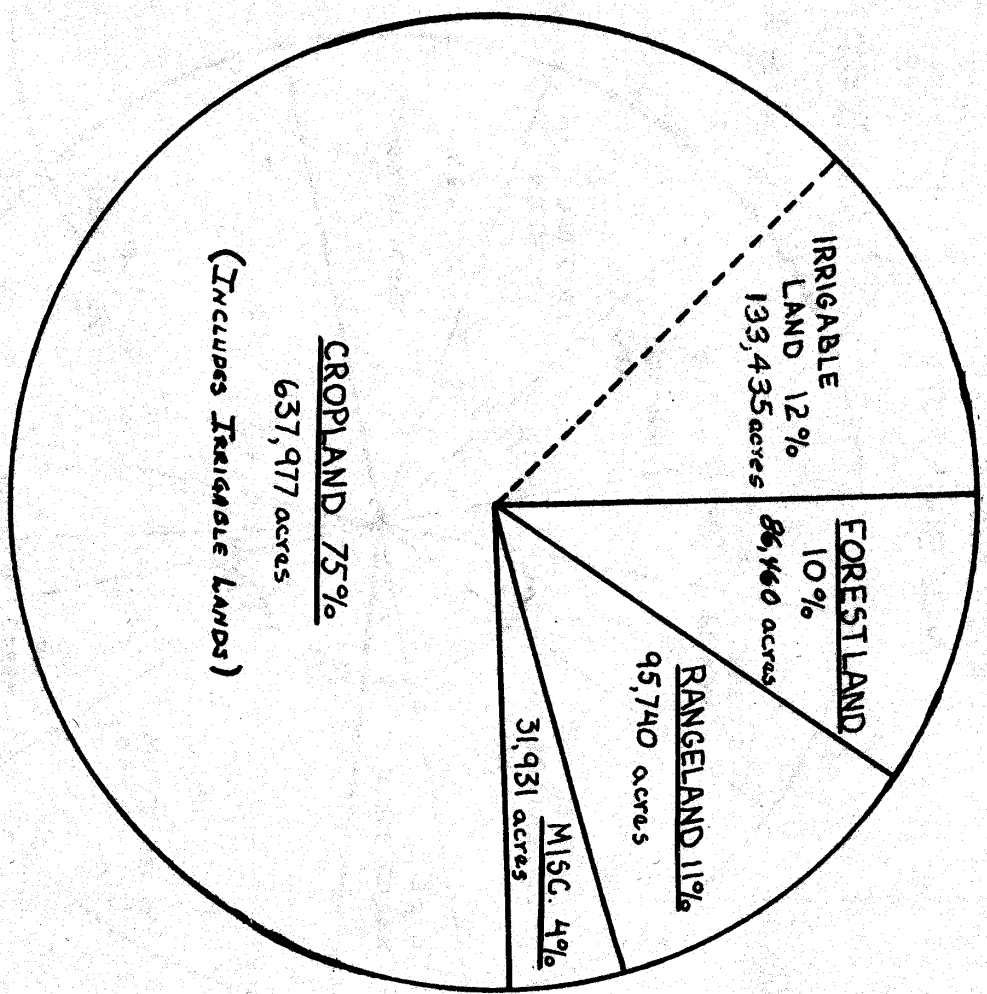
II. BASIN-WIDE FINDINGS

- A. The primary source of runoff in the Walla Walla Basin is rainfall and snowmelt from the Blue Mountains. Precipitation in the basin ranges from about 7 inches near the western edge at Wallula to over 40 inches in the Blue Mountains. Maximum flows occur in the spring when snowmelt combines with the spring rainy season. Minimum flows and dry stream beds occur in late summer due to low precipitation and high irrigation demands.
- B. There is sufficient water supply on an annual basis to satisfy most existing and future needs, provided seasonal distribution problems are resolved, and provided that conjunctive use patterns for surface and ground water sources are instituted.
- C. Total water use from all sources in the Washington portion of the Walla Walla Basin was approximately 400,000 acre-feet in 1974; of this total approximately 228,000 acre-feet was actually depleted from the basin's supply. About 69 percent of this use was by irrigation, 22 percent by municipal, and 9 percent by industry.
- D. Agriculture in the Walla Walla Basin covers 82 percent of the land area. Approximately 638,000 acres in Washington are drylands, and 37,700 acres are irrigated. Approximately 95,800 acres have irrigation potential and some of these are receiving a partial irrigation supply. Primary use of dryland acreage is for small grains, while vegetables and alfalfa crops are of most importance on irrigated acreage.
- E. Heavy competition exists between agriculture, municipal, and industrial demands for ground water, which is the only existing source of supply with a promise for future development.
- F. Current records indicate that approximately 50,000 acres of the potentially irrigable lands could receive a full irrigation supply, provided existing surface and ground water supplies are conjunctively managed to optimize their use. 43,000 potentially irrigable acres lie in the area of the basin known as "Eureka Flats" and would probably be irrigated out of the Snake River Drainage.
- G. Present studies by computer models of the two aquifer systems in the basin, indicate that a substantial development potential does exist. Proper management of further aquifer development can substantially increase public benefits from that resource.

(Source: SCS 1967)

-2-A-

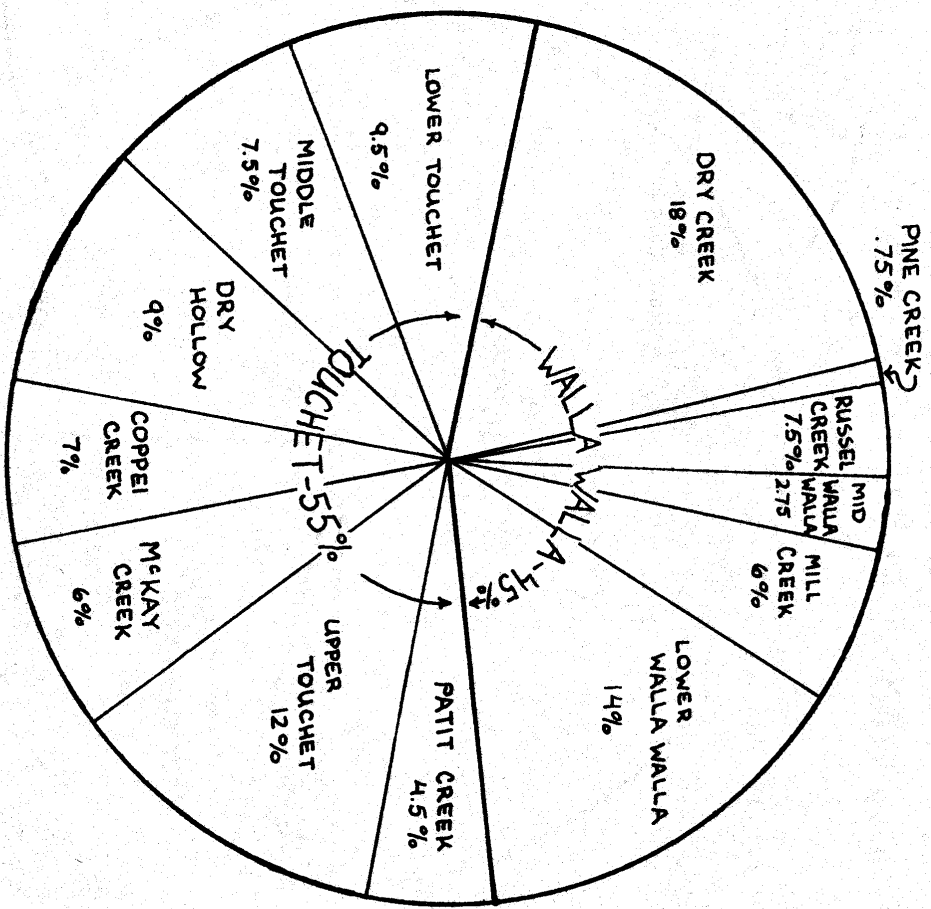
FIG 2



BREAKDOWN
OF LAND USE IN THE WALLA WALLA BASIN
IN WASHINGTON

(Source: SCS 1967)

- 2B -



WASHINGTON
SUB-BASIN AREAS
TOTAL AREA 816,000 ACRES

- H. The gravel aquifer, which underlies approximately 120,000 acres in the Walla Walla-Milton-Freewater area, is recharged from surface streams, precipitation and the basalt aquifer. Annual recharge amounts to 177,000 acre-feet; of this total, 10,000 acre-feet is lost through direct evapotranspiration, 113,000 acre-feet returns to streams, and 25,000 acre-feet was pumped to the land surface in 1975.
- I. The primary basalt aquifer, which underlies the entire basin, is recharged primarily from the Blue Mountains. Annual recharge of this aquifer amounts to 132,000 acre-feet; of this total 97,500 acre-feet discharges laterally to the Columbia and Snake rivers, 12,000 acre-feet to the gravel aquifer, and 22,500 acre-feet was pumped to the land surface in 1975.

It would appear that this source has a potential for substantially greater development; however, water levels have shown alarming declines in some areas, especially in the Walla Walla urbanized area.

Total storage capacity of the two ground-water aquifers is estimated at nearly 7 million acre-feet with 3 million of that total being in the gravel aquifer. Approximately 2.6 million acre-feet in the basalt and 1 million acre-feet in the gravel aquifer have a potential for active use.

- J. Principal industrial use of water in the basin is for the processing and canning of vegetables. Food processors use approximately 20,000 acre-feet annually. Walla Walla's Water System supplies water for a portion of this industrial use. The City's source of supply comes from both ground water and surface water via Mill Creek. Some industrial users also have their own water rights in the ground-water aquifers.
- K. The existing anadromous fisheries of the basin is of little significance. Steelhead spawning runs still exist during periods of high stream flow; however, coho and chinook salmon runs are almost nonexistent due to extreme low flows and poor water quality during their spawning season.

Most sport fisheries result from rainbow trout plants in the upper reaches of basin streams and from resident Dolly Vardon, bass, and catfish.

Establishment of adequate perennial stream flows is essential to reestablish the fisheries resource.

- L. All streams in the basin are administratively closed to further appropriation during the irrigation season. Existing rights are adjudicated for even the "wet year" high flows.

- M. Oregon law, substantiated by Federal Court decision, stipulates that all water in a stream in Oregon is reserved exclusively for use in Oregon by Oregon residents. The Walla Walla River is totally appropriated in Oregon during the dry season, and the river is dry at the State border. During these low flow periods, waters occurring in the river in Washington are due to irrigation runoff, springs, and direct discharges from the gravel aquifer.
- N. The gravel aquifer straddles the border between Washington and Oregon and extends from north of Walla Walla to south of Milton-Freewater. Existing evidence indicates that the gravel aquifer will withstand substantially greater pumpages. Overflow from each years' recharge provides streamflow in the lower reaches of the Walla Walla River and its tributaries.
- O. One multipurpose storage project has been authorized for construction by the USBR on the Touchet River. This project would provide flood protection for the cities of Dayton and Waitsburg, and will furnish irrigation waters for an additional 5,220 acres along the river. Other benefits include the enhancement of the sport fisheries, and recreational benefits.

Four other storage sites have been identified. These are the Joe West site in Oregon on the North Fork of the Walla Walla, the Blue Creek site at the confluence of Blue Creek and Mill Creek, the Mill Creek project located on the Washington-Oregon border, and the Hudson Bay watershed project on Pine and Dry Creeks in Oregon.

III. SUBBASIN FINDINGS

A. UPPER WALLA WALLA DRAINAGE - ABOVE OREGON BORDER

- 1. The Walla Walla River originates in the Northeast corner of Umatilla County in Oregon. It dips south from there and then flows north through Milton-Freewater, crossing the Oregon-Washington border 6 miles north of that city. The upper Walla Walla drains about 160 square miles with an average annual discharge of approximately 102 cfs not including diversions.
- 2. During the summer irrigation season, diversions from the river completely deplete the flow. Further, the Oregon State Water Resources Board has resolved that any unappropriated seasonal flows in the Walla Walla River be reserved for future irrigation, domestic, municipal, industrial, and livestock uses within Oregon.
- 3. Two storage projects are under consideration in the subbasin. The Joe West project on the North Fork of the Walla Walla River, which is under

study by the United States Bureau of Reclamation. And, the Hudson Bay project on Pine and Dry Creeks, which was studied by the Soil Conservation Services under Public Law 90-566.

4. Milton-Freewater is the largest community in the subbasin with a population of about 4,500. Studies show that municipal water use is quite high, with per capita consumption in the neighborhood of 400 gallons per day.
5. Present irrigation in the subbasin amounts to approximately 26,000 acres, with 12,000 supplied from surface water sources and 14,000 from ground water. There are potentially an additional 42,700 acres which could be irrigated if water is made available.

B. MILL CREEK DRAINAGE

1. Mill Creek originates in the Blue Mountains in Washington's Columbia County. It dips south into Oregon and then flows northwest through the city of Walla Walla, and enters the Walla Walla River just west of the city. Mill Creek and its tributary Blue Creek drain an area of approximately 100 square miles, with an average annual flow of 91 cfs.
2. A small dam off Mill Creek is used to divert flood flows. Water is also diverted from Mill Creek to provide a municipal and industrial supply for the city of Walla Walla. This source represents approximately 85 percent of the city's water supply.
3. Two storage sites have been studied. One site on Blue Creek above its confluence with Mill Creek, the other site is located on Mill Creek near the Washington-Oregon border. The Blue Creek Dam under study by the Corps of Engineers has been deauthorized by that agency due to a lack of economic feasibility.
4. Walla Walla with a population of approximately 28,000 is the largest city in the basin. The city depends for its water supply on two sources, (1) it has an adjudicated water right for 22 cfs on Mill Creek, and (2) rights to withdraw 19,600 acre-feet from the primary basalt aquifer. The city also has a water right in Oregon for 28 cfs from Mill Creek. The priority date for this right is December 20, 1920.
5. Declining water levels in city wells tapping the basalt aquifer in the Walla Walla urbanized area, has caused the city to look elsewhere for their future water needs. To solve this problem, the city has proposed a dam and

reservoir on Mill Creek which would store 6,000 acre-feet between November 1 and June 1. For this purpose, the city has a water right permit on Mill Creek for 20 cfs in addition to their existing rights.

6. Irrigation in the Mill Creek subbasin totals approximately 4,000 acres, with 3,000 acres being irrigated from surface waters and the remainder from ground water sources. The potential for additional irrigation in this area appears slight, with only 300 acres being identified as having an irrigation potential at this time.

C. TOUCHET RIVER DRAINAGE

1. The Touchet River originates in the Blue Mountains in the southwest corner of Columbia County and flows west through the cities of Dayton and Waitsburg, emptying into the Walla Walla River near Touchet. The Touchet River drains an area of approximately 736 square miles, with an average annual discharge of 220 cfs not including diversions.
2. The USBR has authorization to build a dam on the Touchet River above Dayton. This is a multipurpose project with irrigation, fisheries enhancement, and flood control as its primary purpose. Total irrigation from the project would cover approximately 13,000 acres, with 5,220 acres getting a full supply and 7,780 acres a supplemental supply. Total irrigable acreage in the subbasin amounts to approximately 61,600 acres.
3. Dayton with a population of 2,625 is the largest city in the subbasin. The city has a surface water right on the Touchet for 1000 acre-feet per year.
4. Although it appears that an adequate ground-water supply does exist in the subbasin, little of present irrigation uses this source due to the pumping lifts involved. Also, existing agriculture practices and economies would not benefit substantially from well irrigation.

D. LOWER WALLA WALLA DRAINAGE

1. The lower Walla Walla River from the Oregon border to its confluence with the Columbia River near Wallula drains an area of approximately 771 square miles. Major tributary drainages of this subbasin, excluding the Touchet River and Mill Creek, are Pine Creek, Dry Creek, Yellowhawk Creek, and Cottonwood Creek. Average annual discharge near the mouth is 573 cfs.
2. This part of the basin encompasses the low lying areas of the valley floor. Approximately 62,000 acres are presently irrigated; however, of this total

only about 24,000 acres enjoy a firm supply of water. The remainder receive as little as ten percent of the required supply.

The river is completely appropriated during the irrigation season, and the resulting stream flows are very low during periods of low precipitation and runoff. This also results in very low water quality and a subsequent loss of sport fisheries. Irrigation from surface waters totals 19,250 acres, with an additional 4,800 acres from ground waters.

The Water Resources Act of 1971 specifies that base flows be established for all perennial streams. These are flow levels necessary to provide for preservation of wildlife, fish, scenic, aesthetic, and other environmental values. However, these flow levels will not be imposed unless onstream storage is provided to augment present flow levels. In the event of storage, all future water right allocations would be subject to the base flows.

Where there are surface waters available in excess of the base flows and existing water rights, priorities among different uses will be established, and subsequently the amounts of water for future appropriation for the beneficial uses will be specified. This management policy verifies the closure from future surface water diversion, except domestic and livestock uses, on certain streams where and when there is not sufficient water available.

All future appropriation of ground waters will be issued subject to provisions of this Walla Walla River Basin Water Resources Management Program or future revisions thereof. Existing valid water rights will not be affected by these management policies.

3. The largest portion of the gravel aquifer lies in this subbasin. Yields from this source have historically ranged up to 300 gpm; however, the potential exists for greater yields with improved well location and drilling techniques. To date, approximately 25,000 acre-feet per year is withdrawn from this source. This represents 13 percent of the average annual recharge to the aquifer. Annual recharge of this aquifer from all sources averages 177,000 acre-feet.

Local interference problems occur in some areas where seasonal fluctuations of the water table affect water levels in shallow domestic wells. At other locations, the aquifer is hydraulically connected to surface streams and substantial drawdown from pumping wells occasionally affect available water in adjacent streams.

IV. WATER RESOURCES MANAGEMENT POLICY

The primary goal of the Walla Walla River Basin Water Resources Management Policy is to protect and fully utilize the basin surface and ground-water resources for the greatest benefit to the people of the State of Washington. Efficient management and enforcement of water-use policies are essential for accomplishment of this primary goal in harmony with the preservation of the natural aesthetic assets of the basin.

Ground water Withdrawals - Gravel Aquifer

This policy recognizes the interstate complexity of the gravel aquifer system. Thus, the following procedure is recommended with some assurance that it is adoptable by both Washington and Oregon.

Primary factors weighed in adopting these procedures are;

- A. Projected development of new irrigation water use would appear to be small over the near term, five to ten year period.
- B. Unlimited use of the waters of the gravel aquifer may have an adverse effect on some surface and ground water diversions.
- C. Sufficient water is available in the gravel aquifer to supply anticipated demands in the next five to ten years.
- D. Under existing administrative procedures, the proliferation of shallow individual domestic wells (existing and proposed) are a very real and significant deterrent to full utilization of the available water resources in the aquifer.
- E. The relative availability of ground water as compared to surface water is considered herein. Every effort will be made to encourage use of the water found in the gravel aquifer, particularly where it is hydraulically connected to a surface channel of the streams of the basin.
- F. Water rights, by virtue of previous or existing laws will be protected.
- G. The existing use of ground water, either independently or in conjunction with surface rights, will be encouraged to the fullest extent possible, subject to the preservation of other existing rights.
- H. The use of ground water may be considered as an alternate or partial source of supply for surface water rights previously issued, taking into consideration both previous usage and the necessity to protect the prior rights of others.

V. RULES AND REGULATIONS

A. Proposals for Future Allocations of Ground Water

1. The Gravel Aquifer

The gravel aquifer limitations have been determined. Best information available indicates that there is sufficient water in the aquifer to adequately supply existing water rights and anticipated future demands. It is also known that any large new withdrawals, along with some existing withdrawals, may adversely affect senior surface and ground water rights.

It is the policy of the state to encourage full use of surface and ground water where possible. To do this in the Walla Walla Basin will require the following actions regarding maximum resource development consistent with protecting the rights of existing appropriators:

- a. Prior to granting a permit, each new ground water application will be carefully evaluated to minimize interference between the new well and existing wells and adjacent surface streams. The potential effect of the new well on water users with existing rights will be analyzed using USGS model data and accepted engineering formula.
- b. Under actual pumping conditions, interference is considered to exist and the department will regulate ground water withdrawals in a given area when the pumping water levels in the wells, affected by junior appropriators drops below the upper two-thirds thickness of the aquifer. It is assumed that the wells are pumping from the bottom one-third of the aquifer and no effort will be made to protect a senior appropriators bowl setting alone.
- c. The department recognizes that some surface water appropriators have been adversely affected by new ground water withdrawals adjacent to surface water streams. In order to minimize the effect of pumping wells on surface stream flow, new appropriations for ground water will be required to locate wells outside of the zone of direct hydraulic continuity between the surface water stream and the ground water aquifer. Generally, the zone reflecting direct hydraulic continuity between the surface stream and pumping wells is a narrow-corridor no more than 300 feet on each side of the stream channel. The actual limits of the corridor at any given location will be determined by the department when individual ground water applications are received.

In order to enhance the opportunity for full utilization of the surface and ground waters of the Walla Walla River Basin, those appropriators holding valid surface water rights may file for a change in point of withdrawal, with this withdrawal point to be located within the zone of direct hydraulic continuity on either side of, or underlying, the stream channel. This change in point of diversion may be used as an alternate source of water when the surface water source is inadequate to satisfy historic use conditions under an existing water right.

- d. The department recognizes that the increase in new, shallow, individual domestic wells has resulted in many interference problems. Therefore, it is the policy of the department to protect these wells from junior rights only as described in (b) above.

The department further supports and encourages efforts by local government to regionalize domestic water supplies. Regional domestic water supplies will alleviate many of the interference problems presently experienced by shallow individual wells.

- e. The stream depletion caused by a well will be calculated by the method shown in the "The pumped Well" by Rover E. Glvoer, Technical Bulletin 100, Colorado State University, or by other accepted engineering formulae appropriately modified to reflect the pertinent physical conditions. See Appendix 2.

Transmissivity values will be obtained from the U.S. Geological Survey's Water Supply Bulletin 45, Digital Model of the Gravel Aquifer, Walla Walla River Basin, Washington and Oregon, 1976, or from calculations using accepted engineering methods.

The specific yield or effective voids ratio generally descriptive of the material in the aquifer will be assumed to range between 10 and 25 percent as indicated in the U.S.G.S. Water Supply Bulletin 45, Digital Model of the Gravel Aquifer, Walla Walla River Basin, Washington and Oregon, for the different areas of the aquifer, or a different value may be used when it can be substantiated generally, or as to any particular situation.

The consumptive use for irrigation purposes will be assumed to be 65 percent of the total quantity pumped for irrigation uses, subject to modification upon proof that a different consumptive use situation exists with respect to a particular withdrawal. For uses other than irrigation, the amount will be determined from actual conditions.

2. The Basalt Aquifer

The basalt aquifer underlying the cities of Milton-Freewater, Walla Walla and College has experienced a substantial decline in static water level. This decline cannot be discounted, as the primary basalt aquifer is the chief source of ground water for supplementing existing municipal surface water supplies and to provide additional water supply for future growth.

Best information available indicates that there appears to be sufficient water in the basalt aquifer system to satisfy all existing and foreseeable future water use needs. However, some localized areas of the basin are experiencing declines in water levels at a rate which has limited further development.

Notwithstanding the importance of irrigated agriculture in the basin, the continued availability of adequate water supplies for existing and future municipal use is of paramount importance. Therefore, the Department adopts the following policy with regard to the future allocation of water from the basalt aquifer system:

- a. The Basalt aquifer's limitations have been determined and the department's policy is to encourage full use of the resource. Safe yield of the aquifer has been determined to be 132,000 acre-feet on an annual average. In this regard, the aquifer will be closed to further appropriation when total annual withdrawal from the aquifer approaches 125,000 acre-feet which is approximately 95 percent of the total annual recharge.
- b. In order to insure an adequate ground water supply for future growth of the community, the department has designated portions of the ground water resource for specific uses. Within the area outlined on page 13, ground water in the basalt aquifer is limited to appropriation for municipal water supply systems only, and ground water in the shallow gravel aquifer is limited to uses other than municipal water supply systems. A municipal water supply system is defined as a set of facilities including source, treatment, storage, transmission, and distribution facilities whereby water is furnished for commercial and/or industrial uses, and public water supplies with 10 or more connections.

The provisional designation of water in the basalt aquifer for municipal water supply systems will be effective for a period of 5 years beginning on February 1, 1978. After the effective 5-year period all designated waters not appropriated or reserved under

WAC 173-590, Reservation of water for Future Public Water Supply, shall be open for appropriation by other users.

The designation of water in the gravel aquifer for users other than municipal water supply systems shall remain indefinitely until the department determines that a change is needed.

B. Policy Governing Administration of Surface Streams

1. Closures

This management program and proposed regulations verify the closure of basin streams from further consumptive appropriation. The closed streams and periods of closure are listed on Page 15.

2. Base Flows

The level of present appropriations precludes the establishment of base flows under existing conditions.

The only storage facility of any consequence in the Basin is located on Mill Creek. This facility is primarily used as a flood water diversion structure and is not large enough to provide waters for maintaining base flows.

When and if storage projects do become a reality, the department will establish base flow levels which can be included in project benefits and maintained by storage releases.

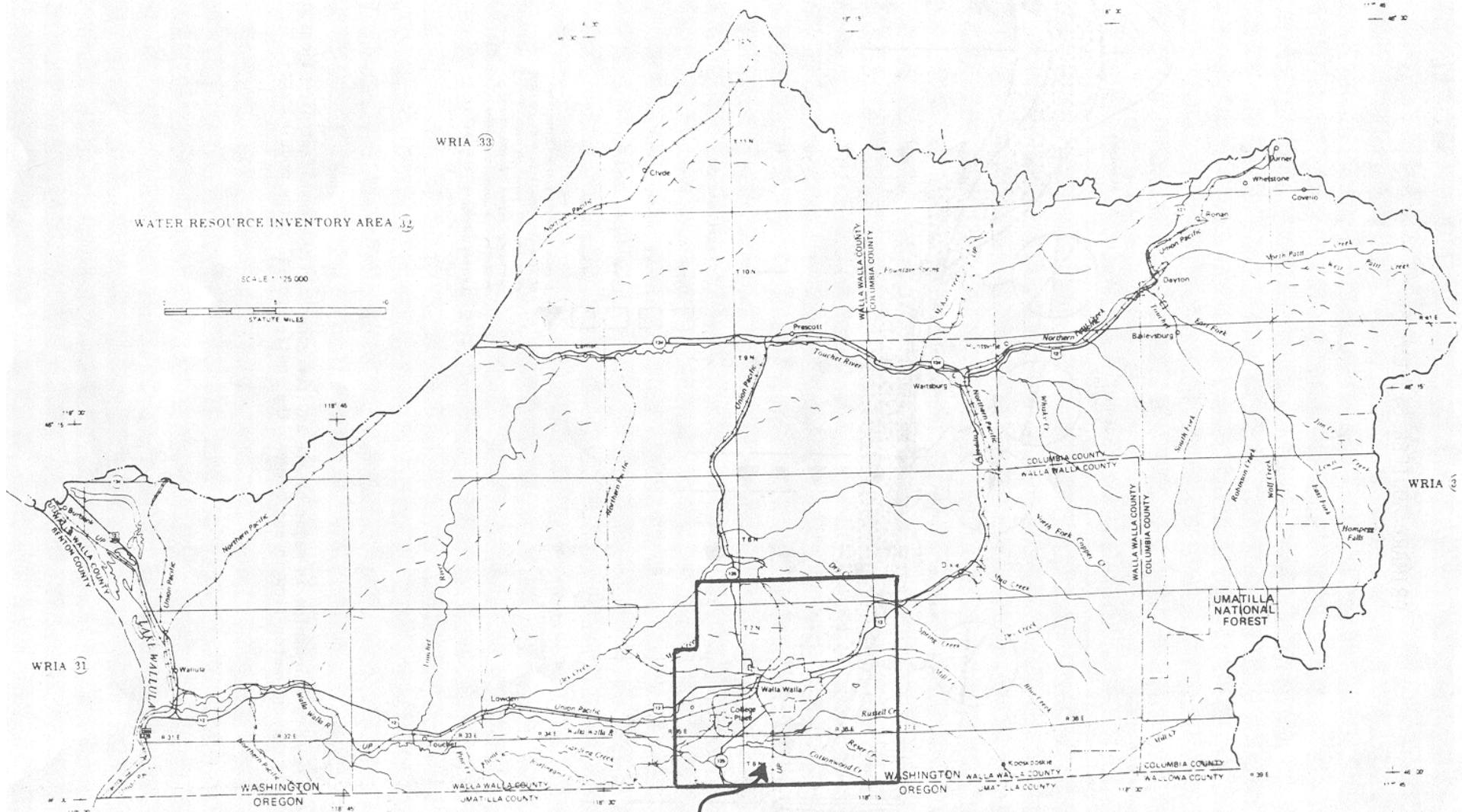
C. Conclusions

In conclusion, it would appear that the Walla Walla Basin has a very real potential for the development of a conjunctive use program with regard to surface and ground waters.

Basin agriculture presently experiences severe drought conditions each year because of its unique hydrology. Surface streams, which experience near flood conditions in the winter and spring, are nearly totally dried up by midsummer when precipitation is low and out-of-stream use is high. While these conditions limit use of surface waters, the high winter-spring flows completely recharge basin ground water aquifers.

These vast reservoirs have a great potential for further development provided interference and stream depletion problems can be resolved.

In our opinion, an institutional arrangement which will promote the conjunctive use of surface and ground waters is feasible and necessary to the full development of basin water resources.



Ground Water Area Designated for Specific Uses

PRIMARY AQUIFER SYSTEM

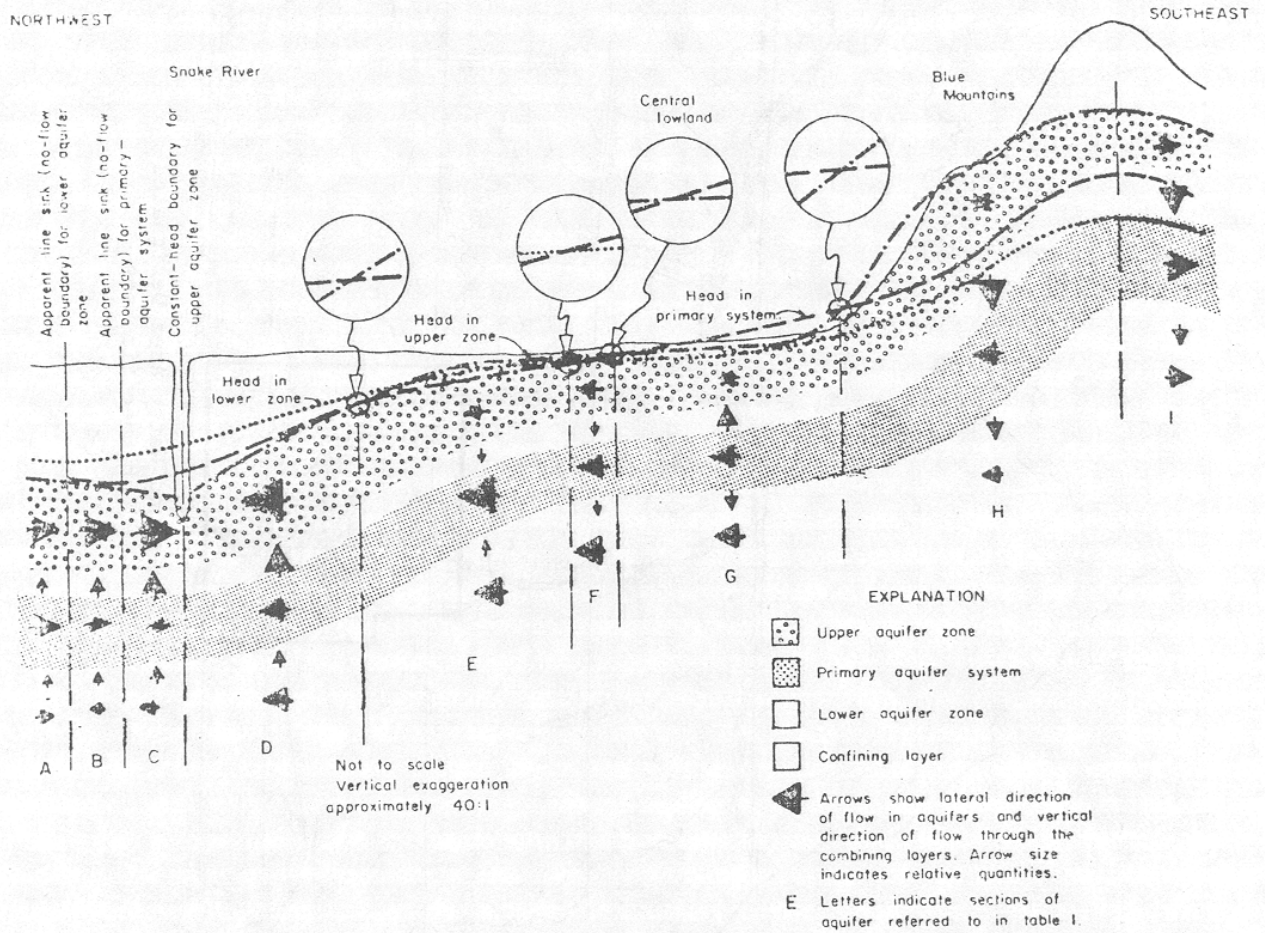


FIGURE 4.--Head relationships in major basalt aquifer zones and the resultant directions of ground-water flow in and between the aquifer zones in the modeled area.

SURFACE WATER CLOSURES*

STREAM NAME	AFFECTED REACH	EFFECTIVE DATE OF CLOSURE	PERIOD OF CLOSURE
Blue Creek	Mouth to Headwaters	Date of Adoption	June 1 – October 31
Mill Creek	Mouth to State Line	2-6-1957	May 1 – October 1
Walla Walla River	Mouth to State Line	Date of Adoption	April 15 – November 15 or whenever Walla Walla at USGS Gage 14.0185 drops below 91.0 cfs.
Dry Creek	Mouth to Headwaters	Date of Adoption	April 15 – November 15 or whenever Walla Walla at USGS Gage 14.0185 drops below 91.0 cfs.
Touchet River	Mouth to Headwaters	Date of Adoption	June 1 – October 31
Coppei Creek	Mouth to Headwaters	6-18-1965	April 1 – November 30
Doan Creek	Mouth to Headwaters	Date of Adoption	June 1 – October 1
Mud Creek	Mouth to Headwaters	Date of Adoption	May 1 – October 31 or whenever Walla Walla below confluence with Mud Creek falls below 50 cfs.
Pine Creek	Mouth to Headwaters	Date of Adoption	May 1 – October 31 or whenever Walla Walla River at confluence with Pine Creek or below Touchet River drops below 50 cfs.
Stone Creek	Mouth to Headwaters	Date of Adoption	May 1 – October 31

*Exception for single-domestic and stock water where no other practical source is available.

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Whittlesey, N. K. and Walter R. Butcher, Irrigation Development Potential in Washington State, Wash. Agr. Exp. Sta. Circ. 579, February, 1975.

FORM OF ORDER AND TRANSMITTAL BY AGENCY HAVING SINGLE HEAD

State of Washington

DEPARTMENT OF ECOLOGY

(agency name)

Administrative Order No. DE 77-30

(1) I, Elmer C. Vogel, deputy director of the Department of Ecology, do promulgate and adopt at the Department of Ecology, Lacey, Washington,

the annexed rules relating to: A water resources management program for the Walla Walla River Basin consisting of elements pertaining to closure of streams to further appropriation, conjunctive use of surface water and ground water, designation of ground water areas for specific uses, and a policy for maximum utilization of the water resources consistent with beneficial use; creating chapter 173-532 MAC--Water Resources Program for the Walla Walla River Basin, WRIA-32.

(2) ALTERNATIVE A. Use only for Adoption of Permanent Rules.

This action is taken pursuant to Notice No. 7853 filed with the code reviser on 11/8/77. Such rules shall take effect

X pursuant to RCW 34.04.040(2) at a later date, such date being _____

(2) ALTERNATIVE B. Use only for Adoption of Emergency Rules.

I, _____, find that an emergency exists and that the foregoing order is necessary for the preservation of the public health, safety, or general welfare and that observance of the requirements of notice and opportunity to present views on the proposed action would be contrary to public interest. A statement of the facts constituting such emergency is:

Such rules are therefore adopted as emergency rules to take effect upon filing with the code reviser.

(3) Pursuant to the requirements of RCW 34.04 ___ (1977 c 19 § 2) that "every agency shall incorporate the most specific, but in no case more than all, of the following language alternatives when adopting or amending rules" (fill in statement (a), (b), or (c) as appropriate)

(a) This rule is promulgated pursuant to RCW 90.54 and is intended to administratively implement that statute.

(b) This rule is promulgated pursuant to RCW _____ which directs that the _____ (agency) has authority to implement the provisions of _____ (name of act or RCW citation)

(c) This rule is promulgated under the general rule-making authority of the _____ (agency) as authorized in RCW _____

(4) The undersigned hereby declares that he has complied with the provisions of the Open Public Meetings Act (chapter 42.00 RCW), the Administrative Procedure Act (chapter 34.04 RCW) or the Higher Education Administrative Procedure Act (chapter 28B.19 RCW), as appropriate, and the State Register Act (chapter 34.08 RCW).

(5) This order after being first recorded in the order register of this agency is herewith transmitted to the Code Reviser for filing pursuant to chapter 34.04 RCW and chapter 1.12 WAC.

APPROVED STATE OF WASHINGTON December 14, 1977

FILED

DEC 14 1977

CODE REVISER'S OFFICE DOCKET # _____ FILE # _____

By Elmer C. Vogel Deputy Director

[Form CR-7: Effective 12/1/77]

Washington State Department of Ecology

chapter 173-532

Water Resources Program for the Walla Walla River Basin, WRIA 32

WAC

<u>173-532-010</u>	<u>Purpose.</u>
<u>173-532-020</u>	<u>Definitions.</u>
<u>173-532-030</u>	<u>Base Flows.</u>
<u>173-532-040</u>	<u>Streams closed to further consumptive appropriations.</u>
<u>173-532-050</u>	<u>Protection of surface water rights from new appropriators of ground water.</u>
<u>173-532-062</u>	<u>Designation of ground water areas for specific uses.</u>
<u>173-532-070</u>	<u>Closure of ground water aquifer to further appropriation.</u>
<u>173-532-030</u>	<u>Evaluation of ground water applications.</u>

NEW SECTION

WAC 173-532-010 PURPOSE. This regulation is adopted in accordance with the Water Resources Management Regulation, chapter 173-500 WAC, which was promulgated under the authority of the Water Resources Act of 1971, chapter 90.54 RCA. This chapter, including any amendments, applies to all waters that lie within or contribute to the Walla Walla River drainage basin. This chapter sets forth the department's policies to manage the basin's water resources.

NEW SECTION

WAC 173-532-020 DEFINITIONS. For purposes of this chapter, the following definitions shall be used.

(1) "Allocation" means the designating of specific amounts of the water resource for specific beneficial uses.

(2) "Base Flow" means a level of stream flow established in accordance with Provisions of Chapter 90.54 RCW required in perennial streams to preserve wildlife, fish, scenic, aesthetic, and other environmental and navigational values.

(3) "Consumptive Use" means use of water whereby there is discernible diminishment of the water source.

(4) "Department" means the Washington State department of ecology.

(5) "Director" means the director of the department of ecology.

(6) "Domestic Use" means use of water associated with human health and welfare requirements, including water used for drinking, bathing, sanitary purposes, cooking, laundering, irrigation of not over one-half acre of lawn and garden per dwelling, and other incidental household uses.

(7) "In-house Domestic Use" means use of water for drinking, cleaning, sanitation, and other uses in a residence, excluding irrigation of lawn and garden.

(8) "Municipal Water Supply System" means a set of facilities including source, treatment, storage, transmission and distribution facilities whereby water is furnished for commercial and/or industrial uses, and public water supplies with 10 or more connections.

(9) "Nonconsumptive Use" means a type of water use where either there is no diversion from a source body, or where there is no discernible diminishment of the source.

(10) "Perennial Stream" means a stream with a natural flow which is normally continuous at any given location.

(11) "Public Water Supply" means any water supply intended or used for human consumption and community uses.

(12) "Water Right" means a right to make beneficial use of public waters of the state.

(13) "Zone of Direct Hydraulic Continuity" means that zone of inter action between the surface water stream and the adjacent ground water whereby a pumping well can effectively reduce the flow in the stream to the detriment of surface water users, as determined by the department.

NEW SECTION

WAC 173-532-030 BASE FLOWS. The establishment of base flows for surface streams will be deferred until such time as storage project or projects become a reality. At present, all surface streams are totally appropriated during the irrigation season and water is not available for protection of instream values. With the advent of future storage projects, the department may establish base flows which can be included as project benefits and maintained by storage releases.

NEW SECTION

WAC 173-532-040 STREAMS CLOSED TO FURTHER CONSUMPTIVE APPROPRIATIONS. The department has determined that no waters are available for consumptive appropriation through the establishment of water rights for the following streams for the periods indicated:

TABLE II-1
SURFACE WATER CLOSURES*

STREAM NAME	AFFECTED REACH	EFFECTIVE DATE OF CLOSURE	PERIOD OF CLOSURE
Blue Creek	Mouth to Headwaters	Date of Adoption	June 1 – Oct. 31
Mill Creek	Mouth to State Line	2-6-1957	May 1 – Oct. 1
Walla Walla River	Mouth to State Line	Date of Adoption	May 1 – Nov. 30
Dry Creek	Mouth to Headwaters	Date of Adoption	April 15 – Nov. 15 or whenever Walla Walla at USGS Gage 14.0185 drops below 91.0 cfs.
Touchet River	Mouth to Headwaters	Date of Adoption	June 1 – Oct. 31
Coppei Creek	Mouth to Headwaters	Date of Adoption	April 1 – Nov. 1
Doan Creek	Mouth to Headwaters	Date of Adoption	June 1 – Oct. 1
Mud Creek	Mouth to Headwaters	Date of Adoption	May 1 – October 31 or whenever Walla Walla below confluence with Mud Creek falls below 50 cfs.
Pine Creek	Mouth to Headwaters	Date of Adoption	May 1 – October 31 or whenever Walla Walla River at confluence with Pine Creek or below Touchet River drops below 50 cfs.
Stone Creek	Mouth to Headwaters	Date of Adoption	May 1 – Oct. 31

* Exception for single-domestic and stock water where no other practical source is available.

NEW SECTION

WAC 173-532-050 PROTECTION OF SURFACE WATER RIGHTS FROM NEW APPROPRIATORS OF GROUND WATER. New appropriators of ground water will be required to locate wells outside of the zone of direct hydraulic continuity between the surface water stream and the ground water aquifer. The actual limits of the zone of direct hydraulic continuity at a specific location will be determined by the department after an individual ground water application is received. The department will use accepted engineering methods for its determination.

NEW SECTION

WAC 173-532-060 DESIGNATION OF GROUND WATER AREAS FOR SPECIFIC USES. A portion of the ground water resource in the Walla Walla-College Place vicinity is designated for the anticipated growth of the community. Within the following area, ground water in the basalt aquifer is limited to appropriation for municipal water supply systems only, and ground water in the shallow gravel aquifer is limited to uses other than municipal water supply systems:

All the area contained within the following listed sections: Sections 35 and 36, T8N, R35E; Sections 1, 2, 11, 12, 13, 14, 15, 23, 24, 25, 26, 27, 28, 34, 35, and 36, T7N, R35E; Sections 1, 2, 3, 10, 11, 12, and all of 13, 14, and 15 lying within Washington State, T6N, R35E; Sections 31, 32, 33, 34, 35, and 36, T8N, R36E; all the area within T7N, R36E; all the area within T6N, R36E lying within the State of Washington; Section 31, T8N, R37E; Sections 6, 7, 18, 19, 30, and 31, T7N, R37E; and Sections 6, 7, and all of Section 18 lying within Washington State, T6N, R37E.

The provisional designation of water in the basalt aquifer for municipal water supply systems shall be effective for a period of five years beginning on February 1, 1978. After the effective five-year period all designated waters not appropriated or reserved under WAC 173-590 Reservation of Water for Future Public Water Supply, shall be open for appropriations by other users as determined by the department.

The designation of water in the gravel aquifer for users other than municipal water supply systems shall remain indefinitely until changed by the department.

NEW SECTION

WAC 173-532-070 CLOSURE OF GROUND WATER AQUIFER TO FURTHER APPROPRIATION. When the department determines that annual ground water withdrawals from the basalt aquifer have reached 125,000 acre-feet, which is approximately 95 percent of the average annual recharge to that aquifer, the aquifer will be closed to further appropriation.

NEW SECTION

WAC 173-532-080 EVALUATION OF GROUND WATER APPLICATIONS. Each new application for ground water appropriation will be evaluated to minimize interference with existing wells and with adjacent surface water streams. The department will issue permits for ground water withdrawal in those cases where senior surface water and ground water rights will not be adversely affected as determined by the department.

- COMMENTS -

WALLA WALLA RIVER BASIN

WATER RESOURCES MANAGEMENT PROGRAM

Dept. of Ecology
St. Martins College
Olympia, WA. 98504

Dec. 4, 1977
Ric Zarwell
1355 Bryant Ave.
Walla Walla, WA.
99362

Dear Sirs

This is in regards to the Walla Walla River Basin -
Water Resources Management program, and the public hearing
held recently in Walla Walla. I would like this letter to be
made a part of the response to this proposed program.

In no way does the review draft of the Walla Walla
River Basin program address itself to the central issues
of wise use of the water resource. DOE is attempting to
rubber stamp a program through, which will allow a selected
area around Walla Walla and College Place Washington to
exploit the ground water at the will of the biggest + fastest
working well diggers "big money developers" can hire. The
level of wells has constantly gone down within the
Walla Walla river basin why OK greater exploitation?

This program should come up with ways of conserving
water, not ways of pump more + more of it up. The DOE

Does not take ecology ^{Dec 8 9 03 AM '77} into account! How about mentioning the interrelationships between additional pumping and the cost of energy? How about addressing the multitude of ways we waste water? Examples irrigators sprinkling when the wind is blowing at 20-30 or even 40 mph. There is a relationship between wind, water droplets and evaporation! An agency worthy of your name would look into this - isn't it applied ecology? There are many many more areas you should be looking at such as: car washes running full blast when cafes are not serving water for conservation sake, "washing" the streets of Walla Walla (for what reason?) and many more.

No Friends, your review draft missed the boat entirely. You did not address wise management, only the needs of vested interests. Future generations will suffer on the whole, because you gave in to the greed of a few.

The data from ground water was largely that of U.S. Geological Survey and private geologists - why do we pay for another bureaucracy like DOE to write the plan? IF you cannot find your own pertinent data - and you can't interpret the USGS data correctly (the water table is dropping) then what can you do? Your yes men can continue to draw their checks from public money and not serve the best interests of the public that's what. It's a shame.
Sincerely, Ric Zarell



STATE OF
WASHINGTON

Dixy Lee Ray
Governor

DEPARTMENT OF ECOLOGY

Olympia, Washington 98504

206/753-2800

December 15, 1977

Mr. Ric Zarwell
1355 Bryant Ave.
Walla Walla, WA 99362

Dear Mr. Zarwell:

Your letter of December 4, 1977, is acknowledged and we do appreciate the fact that you took the time to write and express your views on the Walla Walla River Basin Management Program. I am enclosing a copy of the regulation that was signed on December 14, 1977.

You will note that some changes have been made but the regulation still does not cover the primary areas of your concern. As a matter of clarity, it is pointed out that regulations cannot extend an agency authority beyond what is allowed in the statutes.

Several of your points are well taken and in a desirable category, but there is scant statutory authority to implement them and secondly, there is a matter of practical enforcement capability. For example, if there were a law that said, "There shall be no sprinkler irrigation in the State of Washington when the wind is blowing in excess of ___ miles per hour", please consider for a moment the staff and funding that would be required to monitor and enforce the regulation. Then, too, there would be no significant benefits from such a conservation type regulation in water surplus years.

In closing I would like to emphasize that we have never contended that our management program would take care of all the problems in the Walla Walla area -- it is an interim program and subject to modification as needs and conditions change with time.

I regret that you apparently have seen no positive factors in our efforts to date.

Sincerely,

Eugene F. Wallace
Supervisor, Water Resources
Management Division

EFW:vhp

Enclosure

DEPT. OF ECOLOGY

Nov 16 8 44 AM '77

11/13/77

(Date)

TO: Wilbur G. Hallauer, Director
Department of Ecology

FROM: A.L. MASLEY MD
Member, Ecological Commission

SUBJECT: REQUEST FOR ADVICE AND GUIDANCE No. 070

Relating to: Adoption of Chapter 173-532 WAC; Water Resources
Program for the Walla Walla River Basin, WRIA 32.

In accordance with RCW 43.21A.200 and your request of

November 4, 1977, I submit the following views:

An excellent work - for a real problem area. I especially like the concept of the "zone of hydraulic continuity."

A.L. Masley MD

RECEIVED
NOV 13 1977
ATTORNEY GENERAL'S OFFICE
ECOLOGY DIV.
OLYMPIA

Response due Dec. 8, 1977



STATE OF
WASHINGTON

Dixy Lee Ray
Governor

DEPARTMENT OF ECOLOGY

Olympia, Washington 98504

206/753-2800

MEMORANDUM

December 12, 1977

TO: Al Hanson, Water Resources

FROM: Bill Bafus, Major Authorizations and Planning

SUBJECT: Economic Impacts - Proposed Walla Walla River Basin Program Regulation

I have reviewed your proposed Ch. 173-532 WAC (Walla Walla River Basin Program) for economic impact as required by the State Economic Policy Act. A close reading of the proposed regulation, along with associated program documents, indicates that you have acquired a thorough understanding of the water resources of the area, their limitations, and their potential for future development. My observations are preliminary in nature at this time, and descriptive. On that basis:

1. Those provisions of the proposed regulation which protect holders of existing surface water rights from interference (specifically, restrictions upon further consumptive appropriations from certain streams on a seasonal basis and restrictions on placement of new wells) should act to guard such right holders against economic damage. These provisions should also aid in preventing some investments reliant upon surface water availability which might prove to be unwarranted.
2. Reservation of certain ground waters for future municipal use would appear to be more strongly justified on grounds of public health and welfare than economic considerations. The five year limitation upon this reservation should, however, act to mitigate any potential long-term adverse economic impacts.
3. Restriction of appropriation of the basalt groundwater aquifer to 95% of its average annual recharge is a conservation (in both senses of the word) approach. It may turn out not to be the optimal economic use of the resource. However, we do not have the information required to make that judgment at this time. Therefore, your approach is wise in that it preserves options for the future.
4. It is clear that the nature of the Walla Walla River Basin's surface and ground water resources provide considerable potential for both public and private resource-development investments.

Memo to Al Hanson
December 12, 1977
Page 2

As you are well aware, much more detailed and precise economic impact (and benefit-cost) analysis will be called for if and when such investments are contemplated by State government than has been either possible or warranted in the case of the present regulatory statement of policy.

Should you have any questions regarding this analysis, or should such questions arise during your regulation adoption process, please feel free to call upon me for any assistance which I might provide.

BB:bjw