

State of
Washington
Department
of Ecology

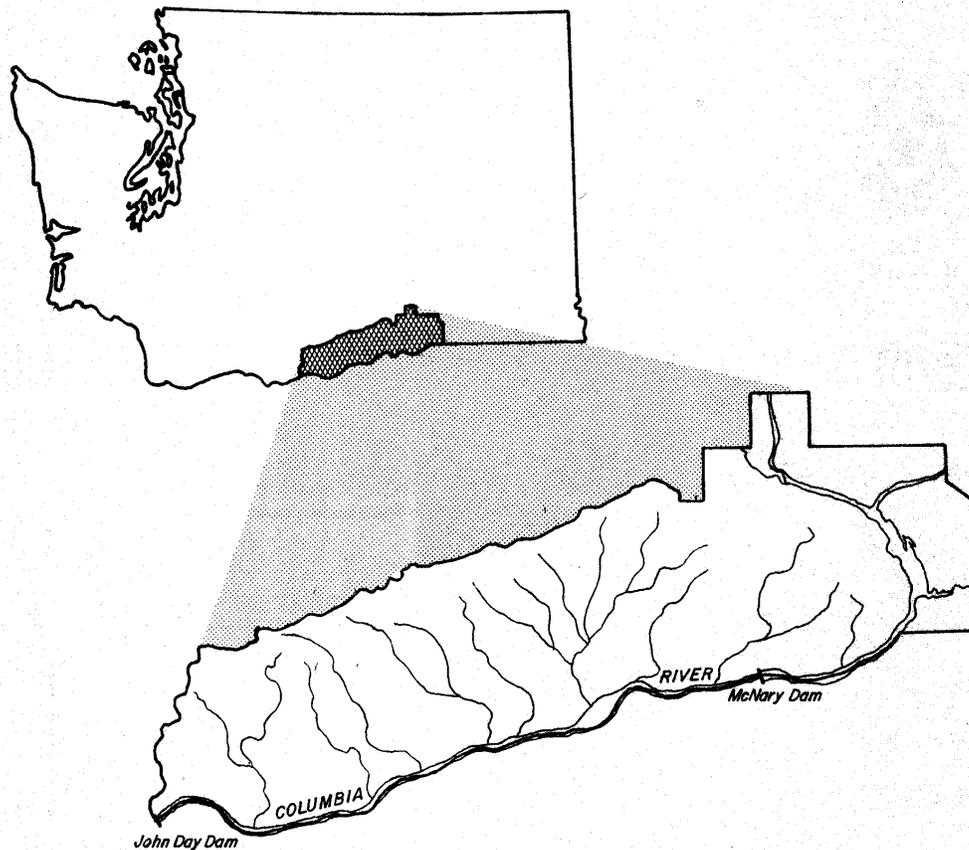


WATER RESOURCES MANAGEMENT PROGRAM



BASIN PROGRAM SERIES 8

JOHN DAY & McNARY POOLS – COLUMBIA RIVER



October 1978

OLYMPIA, WASHINGTON

DIXY LEE RAY
GOVERNOR

WILBUR G. HALLAUER
DIRECTOR

RIVER BASIN PROGRAM SERIES NO. 8

**WATER RESOURCES MANAGEMENT PROGRAM
JOHN DAY AND McNARY POOLS
COLUMBIA RIVER**

DEPARTMENT OF ECOLOGY
POLICY DEVELOPMENT SECTION
WATER RESOURCES MANAGEMENT DIVISION
OLYMPIA, WASHINGTON 98504

October 1978

CONTENTS

	<u>Page</u>
Preface	1
Map of John Day/McNary Pools Study Area	4
Summary	5
Background	6
Water Resources Policies	9
A. Existing Rights Protected	9
B. Federal Rights Recognized	9
C. Instream Resource Protection	9
D. Columbia River System Projects Responsible for Providing Water for Other Uses	12
E. Water Supply for Future Irrigation	12
F. Domestic and Municipal Supply	12
G. Periodic Review of the Reservations	15
H. Navigation Also to be of High Priority	15
I. Other Uses, Resulting in Minor Consumption	15
Additional Considerations	16
Water Resources Management Regulation, Chapter 173-531 WAC	A-1

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1 Existing Water Right Certificates, Permits and Applications as of October, 1977	10
2 Recommendations for Instantaneous and Daily Average Minimum Flows at Lower Columbia River Dams	13
3 Monthly Irrigation Diversion and Return Flow Schedule and Streamflow Impact for 540,000 Acres	14

PREFACE

The Washington State Legislature, aware of developing water problems in the state, passed the Water Resources Act of 1971 (RCW 90.54). The Act directed the Department of Ecology to develop a comprehensive water resources program to insure that the waters of the state are protected and fully utilized for the best interest of the people of the State of Washington.

In recent years, rapid irrigation development in the Horse Heaven Hills area, the increasing conflict between power production and maintaining fishery resources, various planning activities by federal agencies, combined with continued interest in diverting Columbia Basin water to the southwest, have established a need for the State of Washington to secure an interest in the waters of the Columbia River. The Department of Ecology has determined that it is essential to adopt reservations of water from the Columbia River for future irrigation and municipal needs as projected to the year 2020, and to establish a commitment to resolve instream resource protection issues.

The Department of Ecology held a public workshop cooperatively with the Pacific Northwest River Basins Commission in April 1976, followed by a public meeting in September 1976. At that meeting, possible allocation and implementation alternatives were presented and comments were received. Several formal and informal meetings were held with state and federal agencies. Some of these agencies provided information used in the development of this program, including impact analysis of instream flow and depletion alternatives by the Corps of Engineers. A second series of meetings was held in October 1977 with interested agencies and groups.

A series of five public hearings were held in December 1977 in Goldendale, Prosser, Pasco, Walla Walla, and Vancouver to hear public and agency testimony on the November draft of this program. In addition, the Washington State Ecological Commission held three public meetings in Spokane, Richland, and Seattle in March 1978 focusing on the department's planning approach for the Columbia/Snake rivers system.

John Day/McNary Pools Program Scope

From the resource standpoint, the John Day/McNary program focuses on the surface waters which flow through the John Day and McNary pools. Geographically, this includes all of Lake Umatilla and Wallula. This includes the Columbia River waters from John Day Dam upstream to the upper limits of McNary pool, including the backwaters of Lake Wallula above Richland, up the Snake River to the base of Ice Harbor Dam, the lower six miles of the Yakima River and the lower nine miles of the Walla Walla River. This program is limited to the use of these waters as regulated by, and of interest to, the State of Washington. It affects development of lands in the area inasmuch as water would be taken from the river to support such development. It does not affect lands developed from ground water sources within the study area, nor does it affect the ground water resource itself. A study of the ground water resources of the Horse Heaven Hills area is underway as recommended herein and in previous drafts of this document.

This program policy report is a statement of Washington State's interest in the future management and use of the John Day/McNary pools reach of the Columbia River, relative to the activities of federal water resource agencies and other Columbia Basin states. A central tenet of this program is that the Columbia River will play a critical role in Washington's future economic and environmental well-being. Although this policy report is directed at only a small part of the vast Columbia/ Snake river system, the policies provided here have been formulated taking into account the characteristics of the entire drainage.

This reach was chosen for concentrated study because of the significant issues involved and the fact that this reach is an important control point in the Columbia/Snake river system. In this reach, the Columbia and Snake rivers join for the last westward run to the Pacific Ocean. As a result, management of this reach affects the management options for land and water resources throughout the entire Columbia-North Pacific region. With this responsibility in mind, the State of Washington presents this policy report as a statement of its vital stake in the future management and use of the Columbia River.

Organization of the Report

This policy report contains two parts. The first part contains background and discussion of policies of the State of Washington concerning management and use of the waters of the John Day/McNary pools reach. The second part consists of the John Day/McNary water resources management regulation, Chapter 173-531, WAC, which provides the administrative tool for implementing policies presented in the policies section. An Environmental Impact Statement (EIS) has also been prepared which describes the impacts of adopting the proposed program policies and actions and discusses the alternatives considered in the planning process.

Legal Authority

The Water Resources Act of 1971, Chapter 90.54 RCW gives broad authority and responsibility to the Department of Ecology to insure that the waters of the state are utilized for the best interests of the people. The department is directed in that act to develop a comprehensive state water resources program which will provide a process for making decisions on future water resource allocation and use. The department may develop the program in segments so that immediate attention may be given to waters of a given physio-economic region of the state or to specific critical problems of water allocation and use. Chapter 90.54.050 RCW provides authority to reserve and set aside waters for future beneficial use.

Policy Implementation

The John Day/McNary water resources management regulation, Chapter 173-531 WAC legally adopts appropriate portions of the management program. Two reservations of blocks of water adequate to meet projected municipal and irrigation requirements to the year 2020 are established in the regulation.

In Section 060, the management regulation provides that the department will develop a program for insuring the future viability of instream resource values of the Columbia and Snake rivers. In consultation with the public and with state and federal authorities, the department will prepare a report by March 31, 1979, outlining alternatives and proposing a recommended course of action for protecting instream resources. Appropriate rules shall be proposed for adoption if necessary to implement the program.

Section 070 of the management regulation requires that the Department of Ecology review the municipal and irrigation reservations every five years after adoption of the management regulation until the reservations expire. In its review, the department will determine whether the reserved quantity should be amended due to changes in economic or environmental conditions or due to changes in public policy. The review will also evaluate and update accounting of water rights established under the reservations and subtract from the irrigation reservation land acreage developed using ground water as a source, as may be appropriate.

SUMMARY

The following items summarize the proposed policies of the State of Washington concerning future management and use of waters of the John Day/McNary pools reach of the Columbia River. Additional details about each of these is found in the body of this report.

- A. Existing water rights will be protected and will not be adversely affected by this program, including federal reserved rights.
- B. The rights of the federal government to Columbia River water are recognized as defined by federal legislation.
- C. The State of Washington recognizes the value of the Columbia River commercial, Indian, and sport fisheries and other instream resource values. Serious impacts on these resources have been imposed by river operations and other water uses.
- D. Because hydroelectric, flood control, and navigation facilities determine the flow in the Columbia River, operations for these purposes should also assure that adequate water is available for other water uses.
- E. 1,360,000 acre-feet per year are reserved for projected additional irrigation development of 340,000 acres. Individual appropriators must apply for rights to use the reserved waters. The date of priority of each granted water right covered by the reservation shall be the effective date of the reservation with respect to other uses. Because of the quantity of land under existing surface water applications and permits (approximately 220,000 acres), only about 120,000 acres of the projected acreage increase remain to be irrigated. This remaining land would account for 480,000 acre-feet/year at a duty of 4 acre-feet per acre. However, some of the existing applications and permits will probably cancel or be issued for lesser amounts. If so, the water currently tied to these applications and permits will again be available for appropriation.
- F. 26,000 acre-feet per year are reserved for future municipal supply. Municipal water supply utilities are encouraged to petition the Department of Ecology for reservation of water for municipal purposes in an amount sufficient for their particular needs according to procedures outlined in Chapter 173-590 WAC, (Procedures Relating to the Reservation of Water for Future Public Water Supply).
- G. The department will review the reservation for irrigation and municipal water supply every five years following adoption of the management regulation.
- H. Navigation is a high priority use of the Columbia River, and sufficient water should be made available to satisfy navigation requirements.

- I. Future requirements for industrial use and thermal power cooling within this reach are not projected to cause sufficient depletion to warrant special treatment at this time. Water right applications for uses other than irrigation and municipal use are not subject to this program and will be processed according to normal water right procedures.

The state's policy regarding the Columbia River is, in summary, that reservation of water for irrigation, subject to specific conditions, is in the interest of the State of Washington, and that flood control and energy production by Columbia River dams are vital uses of the waters of the Columbia River. However, power and flood control operations, including expanded generating capacity, should be designed to provide for alternative beneficial water uses. Only in this manner can a balance of water uses and a balance of socioeconomic benefits be achieved.

BACKGROUND

The John Day/McNary pools reach is situated in south-central Washington on the border between Oregon and Washington (see Figure 1). It includes about 136 miles of the Columbia River from river mile 216 to river mile 352; 9.7 miles of the lower Snake River from its mouth to the base of Ice Harbor Dam; the lower six miles of the Yakima River; and the lower nine miles of the Walla Walla River. Average annual discharge for this reach, measured at John Day Dam, is 190,500 cfs.

This reach includes all of Lake Umatilla (behind John Day Dam) and Lake Wallula (behind McNary Dam). These two lakes comprise about 90,800 surface acres, but provide limited storage capacity due to physical features of the projects. (John Day storage capacity, 530,000 acre-feet, McNary, 185,000 acre-feet.) Installed generation capacity at John Day Dam is 2,484 MW; at McNary Dam, 1,127 MW. Plans have been made to expand McNary's capacity by adding up to 10 additional units, thereby increasing generation capacity to 2030 MW. Both dams are owned and operated by the Corps of Engineers.

Waters of the Columbia River in the Lake Umatilla and Wallula reach are used for a variety of purposes, including irrigation, hydroelectric power production, navigation, fish passage, wildlife, recreation, industrial, and municipal uses. Future demands for these waters are likely to be controversial and conflicting. The supply of water in the Columbia River is considerable, but is largely committed to existing uses. To satisfy an increased water demand in one use may cause an impact on other uses.

The most relevant issues for this reach of the river concern the conflicts among competing uses. The river is an important source of hydroelectric power. In the future, operation of the hydroplants is expected to result in rapid fluctuation of flows because energy demands vary daily and hourly. The mode of operation of the hydro facilities is trending from a combination of peak and base load generation to predominantly peaking, possibly resulting in more extreme fluctuations. (A greater share of base load needs will be met with thermal power sources.)

The river is an important passageway and spawning area for anadromous fish. Already, the fish runs on the Columbia have been diminished by competing water uses. Fisheries representatives are concerned about protecting and restoring Columbia River fisheries. According to fishery experts, these fish require substantial instream flows, particularly for juvenile outmigration.

Resident fish, primarily warm water spiny-rayed fish such as bass, provide a recreational fishery for growing numbers of sport fishermen and an income for persons who provide support services. Fishery representatives believe that reservoir fluctuation can severely impact reproduction of bass because eggs are exposed when pool level is drawn down. The John Day/McNary reach is an important wildlife area for waterfowl and riparian species. Riparian and flood plain land in the amount of 36,000 acres is managed specifically for wildlife.

This reach of the river is also an important recreational resource with 65 identified sites of recreational interest. Developed recreation has been provided by the U.S. Corps of Engineers, the state, counties, and private clubs. Developed recreational facilities include public parks, private recreational areas, yacht clubs, campgrounds and boat ramps. Undeveloped public and private shoreline is also available for public use, particularly the shorelines of McNary and Umatilla wildlife refuges. Boaters use numerous embayments for recreation and as harbors of refuge. Many islands within the reach are used both for recreation and by wildlife.

The river is a source of water for irrigated agriculture. Lands adjacent to the John Day/McNary pools reach have significant potential for additional irrigated agriculture. Estimates made using aerial photography indicate that about 85,000 acres are presently irrigated from all sources in the study area. Because of the time lag between irrigation development and the issuance of water right certificates, about 26,000 acres are fully certificated under water rights. 266,000 acres are under existing surface and ground water right permits and applications, a fact which indicates considerable interest in developing land for irrigation. The state projects that 340,000 acres of lands in addition to the present 26,000 acres will be under irrigation using surface water from the study area by the year 2020. Some studies have indicated that economic considerations will tend to slow additional development. Other sources contend that development could eventually total nearly 600,000 acres. The state projection is reasonable for a 40-year time horizon given the limited ability to determine future economic conditions.

The issues concerning management of water resources in John Day and McNary Pools are further complicated by the fact that this reach is shared by the states of Washington and Oregon. In addition, Columbia River system head waters lie in five other states and Canada.

Upstream from this reach, the Columbia and Snake rivers have a current total storage capacity of 43.5 million acre-feet, including storage in Canada. This storage is managed to control the availability of water throughout the system. The state's water management program for this area is affected by the operation of the Columbia River Treaty Reservoirs

(mostly in Canada). These reservoirs provide 15.5 million acre-feet of treaty storage which is allocated to flood control and power production in exchange for part of the downstream power revenues resulting from that storage. An additional 5 million acre-feet of storage above the treaty amount is available.

WATER RESOURCES POLICIES

The primary goal of the John Day/McNary pools water management program is to insure that the waters of the Columbia River within and bordering Washington are utilized for the greatest benefit to the people of the State of Washington. The state recognizes that these policies can not be fully implemented without the establishment of a Columbia River water management agreement with at least the State of Oregon. Such an interstate agreement is supported and is presently being pursued by the State of Washington. Without benefit of interstate agreements, the State of Washington's abilities to manage the resource are limited.

A. Existing Rights Protected

This management program will not affect existing water rights, including valid claims to water rights. Table 1 tabulates existing recorded water rights (certificates, permits, and applications) as of October 1977.

B. Federal Rights Recognized

The rights of the federal government to Columbia River water are recognized as defined by federal legislation. This provision applies to federal reserved rights including rights held in trust for Indian Tribes. Rights of the federal government to construct and operate the Columbia River dams are defined by the congressional authorization for each dam. The authorization for McNary Dam provides that the interests and rights of the state to develop waters for established and potential uses for all purposes be preserved and protected. The authorization also provides that the use of the project for navigation shall not conflict with any beneficial consumptive use, present or future including irrigation, among other uses. The John Day Dam authorization includes the same provisions by reference to the earlier McNary authorization.

C. Instream Resource Protection

The State of Washington recognizes the value of the Columbia River commercial, Indian, and sport fisheries, and the serious impacts on these resources imposed by river operations and other water uses. However, Washington cannot reasonably set flows and fluctuation limits and require their maintenance unilaterally. Preserving and enhancing instream resources is a concern and responsibility of all Columbia Basin states and federal authorities. The Department of Ecology hereby establishes a commitment to develop a program for insuring the future viability of Columbia and Snake Rivers instream resource values. In consultation with appropriate state and federal authorities, the department will prepare a report by March 31, 1979, outlining alternatives and recommending a course of action for protecting instream resources.

TABLE 1
EXISTING WATER RIGHT CERTIFICATES, PERMITS, AND APPLICATIONS
AS OF OCTOBER, 1977
JOHN DAY/MCNARY POOLS STUDY AREA
IRRIGATION ONLY

<u>AREA & TYPE</u>	<u>APPLICATIONS</u>	<u>PERMITS</u>	<u>CERTIFICATES</u>
<u>Horse Heaven Hills</u>			
Ground Water			
Gallons per Minute	143,936	65,695	16,165
Total Acres	23,722	11,623	5,565
Surface Water			
Cubic Feet per Second	2,032	2,308	180
Total Acres	86,788	113,291	9,252
<u>Kennewick Highlands</u>			
Ground Water			
Gallons per Minute	5,715	3,165	7,140
Total Acres	844	363	449
Surface Water			
Cubic Feet per Second	2.8	0.25	1.1
Total Acres	161	13	71
<u>Lake Wallula</u>			
Ground Water			
Gallons per Minute	18,390	10,789	7,059
Total Acres	2,345	1,163	827
Surface Water			
Cubic Feet per Second	12.5	577	206
Total Acres	470	24,848	9,515
<u>Total</u>			
<u>John Day/McNary Pools Area</u>			
Ground Water			
Gallons per Minute	168,041	79,649	30,364
Total Acres	26,911	13,149	6,841
Surface Water			
Cubic Feet per Second	2,047	2,885	387
Total Acres	87,419	138,152	18,838
<u>Grand Total</u>			
<u>Ground and Surface</u>			
Total Acres	114,330	151,301	25,679

Hydroelectric facilities should be operated to meet mutually agreed upon instream resource protection criteria. Operational criteria has been developed by the Corps of Engineers for planning purposes. These criteria should be reviewed to determine if they meet recreation user safety requirements, avoid interference with navigation, and protect resident fish, anadromous fish, wildlife, and recreation values. A study is currently underway by the Department of Game to determine the requirements of fish and wildlife and impacts on these resources of proposed fluctuation limits. Other studies are needed to determine safety and navigation limitations. Existing operating criteria should be reviewed for effectiveness in meeting instream use needs.

Research and testing programs have been conducted in recent years to provide intensive management of the river and fish during periods of downstream juvenile migration. Methods include flow manipulation, sonar fish detection at dams to key critical spill periods, and mechanical transport of smolts past dams by truck and barge. Because these new methods are in the developmental testing phase, with analysis of results awaiting the return of fish used in testing, and because these methods have not been thoroughly discussed in a public forum, it is not yet clear what level of instream flow should be committed to fish passage.

Existing minimum instream flow requirements on the Columbia River are 36,000 cubic-feet per second instantaneous flow at the Energy Research and Development Administration's Hanford works. Priest Rapids, Wanapum, Rock Island, Rocky Reach, Wells and Chief Joseph Dams above the Hanford Reach operate to maintain this flow except if flow conditions are out of the operator's control.

On the Snake River, Idaho Power Company operates Brownlee, Oxbow, and Hells Canyon dams. These projects are subject to federal license requirements to operate in the interest of navigation to maintain a 13,000 cfs flow in the Snake River at Lime Point, a minimum of 95 percent of the time when determined by the Chief of Engineers to be necessary for navigation. Regulated flows of less than 13,000 cfs are limited to the months of July, August, and September. The minimum flow during periods of low flow or normal minimum plant operations is 5,000 cfs at Johnson's Bar at which point the maximum variation in river stage is not to exceed one foot per hour. Lime Point is downstream from the confluence of the Snake with the Salmon River; Johnson's Bar is upstream from this point.

Although the department does not presently endorse specific minimum instream flow levels, it is recognized that provisional minimum instream flows have been recommended by the Columbia Basin Fishery Technical Committee (see Table 2). These flows represent the best judgment of fishery scientists of the minimum instantaneous and average daily flows with which viable runs of salmon and steelhead can be maintained, given the state of development of the hydroelectric facilities on the Columbia/Snake system and the multiple use demands for water. These flows need further evaluation along with instream flow and reservoir fluctuation limits presently being considered by dam operators for future operations.

D. Columbia River System Projects Responsible for Providing Water for Other Uses

Because of the highly regulated nature of the Columbia River stream flow regime, with 43.5 million acre-feet of storage, operations for flood control, hydroelectric and navigational purposes control the flow of the river. In the interest of maintaining the viability of other water uses, it is the position of the State of Washington that the Columbia and Snake River project operations must provide adequate water for both instream and out-of-stream uses in order to attain a balance of multiple uses of Columbia River water.

E. Water Supply for Future Irrigation

Adequate water for future irrigation needs should be provided from this reach of the Columbia River. Sufficient surface water of the Columbia River is proposed to be reserved to irrigate 340,000 acres adjacent to the John Day and McNary Pools. 1,360,000 acre-feet per year are reserved for this projected irrigation acreage (4 acre-feet per acre). It is recognized that some additional irrigation from ground water may also be developed in the study area. Table 3 is a monthly diversion and return flow schedule for the 1,360,000 acre-feet and indicates the approximate distribution of withdrawals and return flow during an average year. Estimated stream flow impact is indicated in the last column, and assumes no reclamation of return flow waters. Waste water reclamation could reduce return flow and diversion requirements.

The reservation of water for irrigation shall be fully exercised at such time as the entire reserved amount is developed under certificated water rights. The department shall keep account of water rights established under the reservation. Rights to use this reserved water will be issued with a priority date of the adoption date of this program (as against other uses). Water rights established under the reservation will be issued with a priority date of the date of application (as against other reserved rights).

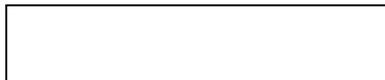
Federal agencies and other interests will need to incorporate the depletion levels resulting from development under the reservation in their plans and programs.

F. Domestic and Municipal Supply

Future requirements for domestic and municipal supplies will probably be met with both ground and surface water development. It is anticipated that most individual domestic water systems will be supplied from wells. Based on a projection that an additional 46,000 persons will reside in utility service areas in the Tri-Cities area by the year 2020, additional municipal water supplies will probably be required. The department estimates that an additional 26,000 acre-feet per year will be needed from the Columbia River to meet the needs of those additional persons.

TABLE 2
 RECOMMENDATIONS FOR INSTANTANEOUS AND DAILY AVERAGE
 MINIMUM FLOWS AT LOWER COLUMBIA RIVER DAMS,
 1000's cfs

	<u>McNary</u>		<u>John Day</u>	
	<u>Instantaneous</u>	<u>Daily Average</u>	<u>Instantaneous</u>	<u>Daily Average</u>
January	20	60	20	60
February	20	60	20	60
March	20	60	20	60
April				
1-15	40	100	40	100
16-25	70	150	70	150
26-30	70	200	70	200
May				
1-15	70	220	70	220
16-31	70	190	70	190
June				
1-15	70	200	70	200
16-30	50	120	50	120
July				
1-15	50	120	50	120
16-31	50	140	50	140
August	50	120	50	120
September	40	60	40	85
October	40	60	40	85
November	20	60	20	60
December	20	60	20	60



Periods of juvenile migration. Twenty percent of the recommended minimum flows should be spilled during juvenile migration periods.

Source: Columbia Basin Fisheries Technical Committee.
 NMFS Letter of September 19, 1975.

TABLE 3

MONTHLY IRRIGATION DIVERSION AND RETURN FLOW SCHEDULE
AND STREAMFLOW IMPACT FOR 340,000 ACRES

<u>Month</u>	<u>Diversion</u> ^{1/}				<u>Return Flow</u> ^{2/}			<u>Streamflow Impact</u> ^{3/}
	<u>Percent of Annual</u>	<u>AF</u>	<u>Avg. CFS</u>	<u>CFS/Acre</u>	<u>Percent of Annual</u>	<u>Max. AF</u>	<u>Max. CFS</u>	<u>CFS</u>
Jan					4	13,600	221	+ 221
Feb					3	10,200	184	+ 184
Mar	5	68,000	1106	.0033	2	6,800	110	- 996
Apr	5	68,000	1143	.0034	3	10,200	171	- 972
May	15	204,000	3318	.0098	8	27,200	442	-2876
Jun	20	272,000	4571	.0134	12	40,800	686	-3885
Jul	20	272,000	4424	.0130	13	44,200	719	-3705
Aug	20	272,000	4424	.0130	14	47,600	774	-3650
Sep	10	136,000	2286	.0067	13	44,200	742	-1544
Oct	5	68,000	1106	.0033	12	40,800	664	- 442
Nov					10	34,000	571	+ 571
Dec					6	20,400	332	+ 332
TOTALS	100	1,360,000			100	340,000		

^{1/} Diversion is 4 acre-feet per acre per year.

^{2/} Return flow is 1 acre-foot per acre per year assuming no attempt to reclaim return flow water.

^{3/} Return flow minus diversion assuring no reclamation of return flow water.

A reservation of a block of water for 26,000 acre-feet per year for future municipal supply is hereby established. Municipal water supply utilities, however, are encouraged to determine specific future requirements, and to petition the department for reservation of water, in an amount sufficient for their particular needs according to procedures outlined in Chapter 173-590 WAC (Procedures Relating to the Reservation of Water for Future Public Water Supply).

G. Periodic Review of the Reservations

The department will review the reservations for irrigation and municipal water supply every five years following adoption of the management regulation, Chapter 173-531 WAC, until the expiration of the reservations.

In its review the department will determine whether reservation quantities should be amended due to changes in economic or environmental conditions, or due to changes in public policy. In reviewing the reservations, the department will evaluate the accounting of water rights established under the reservations and will evaluate and update the accounts of ground water development and use on lands related to the reserved waters. The reserved amount of surface water will be reduced commensurate with water requirements provided from ground water sources, as may be appropriate.

H. Navigation also to be High Priority

Navigation is a high priority use of the Columbia River, and sufficient waters should be made available to satisfy navigation requirements. Water used for navigational lockage contributes to the instream flow requirement, but is lost to hydropower generation. However, the quantity of water required is not great. Year 2000 projected requirements show that navigation lockage will utilize an average flow of 700 cfs.

Since this quantity is very small compared to total Columbia River flow, no special consideration or restriction is deemed necessary for navigation except to note that scheduling and minimizing recreational lockages can be used as a means of conserving water in dry years. It is recognized that channel depth will be maintained by the Corps of Engineers.

I. Other Uses, Resulting in Minor Consumption

Projected consumptive uses of Columbia River water in the John Day/ McNary pools area, for industrial, and thermal power cooling, are not included under this reservation. Appropriation applications for these and other purposes shall be evaluated on a case-by-case basis as they are received. The Energy Facilities Site Evaluation Council provides for certification of thermal power plants including water allocation therefor.

ADDITIONAL CONSIDERATIONS

In respect to adopting a water management policy for the John Day/McNary pools reach of the Columbia, the following actions are proposed.

1. The department will seek the establishment of an interstate management agreement with the Water Policy Review Board of Oregon that will address the following points:
 - a. Standardized procedure for issuing water rights from the Columbia River.
 - b. Unified position on instream flows.
 - c. Unified position on Columbia River water use priorities.
2. The department will continue its Columbia River water planning activities related to the John Day/McNary reach. Planning efforts will be undertaken on the remainder of the Columbia River and the Snake River probably in the following order:
 - a. Evaluation of instream resource protection needs. This is in progress. Report due March 31, 1978.
 - b. Lower Snake River. (Reevaluate and revise earlier policy development efforts.)
 - c. Upper Columbia River (from McNary pool to the Canadian Border).
 - d. Lower Columbia River (John Day Dam to the mouth of the river).
3. A study of ground water resources of the Horse Heaven Hills area (WRIA 31) will be pursued by the State of Washington to determine the occurrence and extent of that resource and its management needs. (This effort has begun.)

FORM OF ORDER AND TRANSMITTAL BY AGENCY HAVING SINGLE HEAD

State of Washington

DEPARTMENT OF ECOLOGY

[agency name]

Administrative Order No. DE 77-31

I, Wilbur G. Hallauer, director of the Department of Ecology do promulgate and adopt at the Department of Ecology, Lacey, Washington, the amended rules relating to:

Reservation of water from the John Day/McNary Pools reach of the Columbia River; creating Chapter 173-531 WAC--WATER RESOURCE PROGRAM FOR THE JOHN DAY-McNARY POOLS REACH OF THE COLUMBIA RIVER, WRIA 31 AND PARTS OF WRIAS 32, 33, 36, and 37;

(2) ALTERNATIVE A. Use only for Adoption of Permanent Rules. This action is taken pursuant to Notice No. 7868, WSR 78-02-042, WSR 78-05-066 & WSR 78-07-070 filed with the Code Reviser on 11/14/77. Such rules shall take effect: 1/17/78, 4/27/78 & 6/30/78. X pursuant to RCW 34.04.042(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 34.04.010 (1977 c 19 § 2) that "every agency shall incorporate the most specific, but in no case omit all, of the following language alternatives when adopting or amending rules" (fill in statement (a), (b), or (c) as appropriate):

X (a) This rule is promulgated pursuant to RCW 90.54.040 and RCW 90.54.050 and is intended to administratively implement that statute. (b) This rule is promulgated pursuant to RCW which directs that the

has authority to implement the provisions of

(c) This rule is promulgated under the general rule-making authority of the

as authorized in RCW

(4) The undersigned hereby declares that he has complied with the provisions of the Open Public Meetings Act (chapter 42.90 RCW), the Administrative Procedure Act (chapter 34.04 RCW) or the Higher Education Administrative Procedure Act (chapter 28B19 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 AND ADOPTED August 8, 1978 By Wilbur G. Hallauer, Director

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

Chapter 173-531 WAC

WATER RESOURCES PROGRAM FOR THE JOHN DAY-McNARY POOLS REACH OF THE COLUMBIA RIVER, WRIA 31 AND PARTS OF WRIs 32, 33, 36, AND 37

WAC

173-531-010	Purpose.
173-531-020	Definitions.
173-531-030	Existing Water Rights Protected.
173-531-040	Reservation for Future Irrigation Use.
173-531-050	Reservation for Municipal Use.
173-531-060	Department to Develop an Instream Resource Protection Program.
173-531-070	Department to Review Regulation.

WAC 173-531-010 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 RCW. This chapter applies to the surface waters in the vicinity of John Day and McNary Pools of the Columbia River and the Lower Snake River.

WAC 173-531-020 DEFINITIONS. For the purpose of this chapter, the following definitions shall be used.

- (1) "Department" means the Washington State department of ecology.
- (2) "Reservation" means the designation of specific amounts of the water resources for specific future beneficial uses.
- (3) "John Day/McNary Pools Reach," means that part of the Columbia River from John Day Dam upstream to the upper limits of McNary Pool including the upper limits of the pool in the Snake River, the Yakima River, and the Walla Walla River. This reach extends from river mile 216 to river mile 352 of the Columbia River, and includes the lower 10 miles of the Snake River, the lower 6 miles of the Yakima River, and the lower 9 miles of the Walla Walla River.

WAC 173-531-030 EXISTING WATER RIGHTS PROTECTED. Nothing in the chapter shall be construed to lessen, enlarge, or modify existing rights acquired by appropriation or by other means, including federal reserved rights.

WAC 173-531-040 RESERVATION FOR FUTURE IRRIGATION USE.

(1) One million three hundred sixty thousand (1,360,000) acre-feet per year are hereby reserved from the John Day/McNary Pools reach to provide irrigation water supply for the 340,000 acres of irrigation agriculture that is projected to be developed by the year 2020 using this reach as a source of water. The 340,000 acres includes lands under existing water right permits, pending applications and land for which appropriation applications have not yet been filed.

(2) The priority dates of existing permits and applications covered by the reservation are the dates of original filing of appropriation applications with the department. The priority dates of future filings under the reservation shall be the date of adoption of this regulation as against all other use categories regardless of date of filing.

(3) Water represented by cancelled or relinquished applications and permits will still be considered reserved and may be subsequently filed on by interested appropriators. The reservation of water for irrigation purposes shall expire at such time as the entire reserved amount is developed under certificated water rights unless modified hereafter. The department shall keep account of water rights established under the reservation.

WAC 173-531-050 RESERVATION FOR MUNICIPAL USE. (1) Twenty-six thousand (26,000) acre-feet of water per year is reserved from the John Day/McNary Pools reach to provide for future municipal supply needs to the year 2020.

(2) The department shall keep account of water rights established under the municipal supply reservation. The reservation shall expire when the entire reserved amount is developed under certificated water rights.

(3) The reservation for municipal use does not guarantee any existing or future supply entity a specific quantity of water. Municipal water supply utilities must petition the department for reservation of water, for their particular needs, according to procedures outlined in chapter 173-590 WAC. (Procedures Relating to the Reservation of Water for Future Public Water Supply.)

(4) The priority dates of water right filings under the municipal reservation shall be the date of adoption of this regulation, as against all other use categories, regardless of date of filing.

WAC 173-531-060 DEPARTMENT TO DEVELOP AN INSTREAM RESOURCE PROTECTION PROGRAM. (1) The department will develop a program for insuring the future viability of instream resource values of the main stem of the Columbia River and the main stem of the Snake River, including fish, wildlife, recreation, aesthetics, navigation, and hydropower resource values.

(2) The department will consult and cooperate with appropriate state and federal authorities and with the public in development of this program.

(3) The department will prepare a report by March 31, 1979 outlining alternatives and proposing a recommended course of action for protecting instream resources. Appropriate rules shall be proposed for adoption if necessary to implement the program.

WAC 173-531-070 DEPARTMENT TO REVIEW REGULATION.

(1) The department shall review the reservations for future irrigation use and future municipal use every five years after adoption of this management regulation until the reservations expire.

(2) The department will determine whether the reserved quantity should be amended due to changes in economic or environmental conditions or due to changes in public policy.

(3) In reviewing the reservations, the department will evaluate the accounting of water rights established under the reservations as provided in WAC 173-531-040(3) and 173-531-050(2). The department will also evaluate and update the accounts of ground water development and use on lands relating to the reserved waters and reduce the reserved amounts of surface water as may be appropriate.