

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

**PERMIT**  
TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

- Surface Water (Issued in accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the Department of Ecology.)
- Ground Water (Issued in accordance with the provisions of Chapter 263, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology.)

PRIORITY DATE September 23, 1991 *	APPLICATION NUMBER S4-30976	PERMIT NUMBER S4-30976P	CERTIFICATE NUMBER
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\* The first ten cubic feet per second of this water right has a priority date of June 24, 1980, pursuant to WAC 173-531A-050(3).

NAME  
Cities of Richland, Kennewick, Pasco and West Richland (c/o Richland)

ADDRESS (STREET) PO Box 190      (CITY) Richland      (STATE) WA      (ZIP CODE) 99352-0190

*The applicant is, pursuant to the Report of Examination which has been accepted by the applicant, hereby granted a permit to appropriate the following public waters of the State of Washington, subject to existing rights and to the limitations and provisions set out herein.*

**PUBLIC WATERS TO BE APPROPRIATED**

SOURCE  
Columbia River

TRIBUTARY OF (IF SURFACE WATERS)  
Pacific Ocean

MAXIMUM CUBIC FEET PER SECOND 178	MAXIMUM GALLONS PER MINUTE	MAXIMUM ACRE- FEET PER YEAR 96,619
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QUANTITY, TYPE OF USE, PERIOD OF USE  
Municipal, industrial, commercial. Year-round Period of Use.

The projected maximum instantaneous and annual diversions from 2002-2008 are 10 cubic feet per second and 7227 acre-feet per year; additional quantities to meet projected demands beyond 2008 are to be determined by a six year review process as described in the Provisions of this permit. The maximum cubic feet per second and acre-feet per year quantities shown above are the maximums that can be used by 2051.

**LOCATION OF DIVERSION/WITHDRAWAL**

APPROXIMATE LOCATION OF DIVERSION--WITHDRAWAL  
Approximate location: Multiple points within the Cities of Kennewick, Pasco, and Richland service areas, including all the existing municipal diversions and treatment facilities in Kennewick, Pasco and Richland (see table below).

Location of Points of Withdrawal/Diversion on the Columbia River

CITY	MAP ID NO.	WATER RIGHT/OTHER ID NO.	LOCATION
Richland	R-1	Energy NW	NENW Section 2, T. 11 N., R. 28 E.W.M.
	R-2	Battelle	SWNE Section 14, T. 10 N., R. 28 E.W.M.
	R-3	S4-29941P	SWNE Section 14, T. 10 N., R. 28 E.W.M.
	R-4	W.S.U.	SWSW Section 24, T. 10 N., R. 28 E.W.M.
	R-5	SWC 9004	SWSW Section 24, T. 10 N., R. 28 E.W.M.
	R-6	S4-26404C Water Treatment Plant	NWNW Section 36, T. 10 N., R. 28 E.W.M.
		S4-27121C	
		SWC 9005	
	R-7	14030C Columbia Point	SWNE Section 13, T. 9 N., R. 28 E.W.M.
		G4-29214P	
		G4-29799P	
Pasco	R-8	Badger Mountain Irrigation District	SWSE Section 23, T. 9 N., R. 28 E.W.M.
	P-1	Water Treatment Plant	SWNE Section 31, T. 9 N., R. 30 E.W.M.
	P-2	S3-28791P (Kidwell)	W½ Section 18, T. 9 N., R. 29 E.W.M.
Kennewick	K-1	S4-25479C (SW Filter Plant)	SWSW Section 31, T. 9 N., R. 30 E.W.M.
	K-2	3897-A (Raney Wells)	Govt. Lots 1 and 2, Section 35, T 9 N, R 29 EWM
	K-3	Corps of Engineers-Columbia Park (Multiple Points)	Sections. 27, 28, 29, 34, 35, T. 9 N., R. 29 EWM

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) Refer to table above	SECTION	TOWNSHIP N.	RANGE, (E. OR W.) W.M.	W.R.I.A. 37, 40, 31	COUNTY Benton, Franklin
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**RECORDED PLATTED PROPERTY**

LOT	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION)
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**LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED**

The water will be used within the area provided with urban water service by Kennewick, Pasco, Richland and West Richland, as identified in the six-year updates of the Quad Cities' Water System Plans, and as currently shown on Figure 1 (attached).

FILE COPY

DESCRIPTION OF PROPOSED WORKS

The cities of Kennewick, Pasco and Richland will initially use their existing Columbia River water diversion and treatment facilities. Additional diversion/withdrawal facilities, including the potential construction of facilities capable of delivering water for storage and later withdrawal as part of an Aquifer Storage and Recovery (ASR) project and other pumps and pipes, will be added to the system incrementally as needed to respond to demand. Use of any new point of diversion will require the applicant to apply for and receive approval of a change of water right.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE: October 1, 2003	COMPLETE PROJECT BY THIS DATE: October 1, 2050	WATER PUT TO FULL USE BY THIS DATE: October 1, 2051
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PROVISIONS

Over the duration of this permit, diversion of water will not be permitted at any time the applicable flow objectives are not met UNLESS the consumptive portion of the diverted water is properly mitigated through such means as water transfers, replacements, habitat enhancements, or trust water right arrangements. The first ten cubic feet per second (cfs) of this water right are allocated from the John Day/McNary Pools reservation for municipal water use pursuant to WAC 173-531A-050.

The following conditions apply to this approval:

- A. The Quad Cities shall provide municipal water to all municipal, industrial, and commercial users and uses within their urban service areas based on the Quad Cities' six-year updates of their Regional Water Forecast and Conservation Plan (RWFCP) described in Provision H.5.
- B. This authorization is subject to Washington Department of Fish and Wildlife juvenile salmon and gamefish screening criteria (pursuant to RCW 75.20.040). Permit holders should contact the Department of Fish and Wildlife, 600 Capitol Way N., Olympia, WA 98501-1091, Attention: Habitat Management Division, Phone: (360) 753-3318 or call (509) 575-2734 for the Yakima Screen Shop to obtain specific gamefish (trout, bass, etc.) requirements for their projects.
- C. An approved measuring device shall be installed and maintained for each of the sources identified by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use", Chapter 173-173 WAC.

Water use data shall be recorded daily. The maximum monthly rate of diversion/withdrawal and the monthly total volume shall be submitted to Ecology by January 31st of each calendar year. Ecology is requiring submittal of monthly meter readings to collect seasonal information for water resource planning, management and compliance.

The following information shall be included with each submittal of water use data: owner, contact name if different, mailing address, daytime phone number, WRIA, Permit/Certificate, source name, annual quantity used including units, maximum rate of diversion including units, monthly meter readings including units, peak monthly flow including units, Department of Health WFI water system number and source number(s), purpose of use, fish screen status, open channel flow or pressurized diversion and period of use. In the future, Ecology may require additional parameters to be reported or more frequent reporting. Ecology prefers web based data entry, but does accept hard copies. Ecology will provide forms and electronic data entry information.

Chapter 173-173 WAC describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition Ecology for modifications to some of the requirements. Installation, operation and maintenance requirements are enclosed as a document entitled "Water Measurement Device Installation and Operation Requirements".

(Continued on page 3)

*This permit shall be subject to cancellation should the permittee fail to comply with the above development schedule and/or to give notice to the Department of Ecology on forms provided by that Department documenting such compliance.*

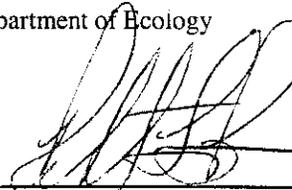
Given under my hand the seal of this office at Yakima, Washington,

this 15<sup>th</sup> day of SEPTEMBER 2003.

DATA REVIEW

OK RID

Department of Ecology

by 

Robert F. Barwin, Section Manager

Provisions Continued

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the records of water use that are kept to meet the above conditions, and to inspect at reasonable times any measuring device used to meet the above conditions.

- D. Following each six-year period, Ecology will issue a certificate for the amount of water put to beneficial use during that period after an investigation has been conducted. Compliance with any Ecology Order issued as part of the water use associated with the six-year period is a requirement of the certificate for that six-year increment.
- E. Unless a new instream flow rule for the mainstem Columbia River is promulgated and Ecology approves an application by the Quad Cities to substitute these flows as conditions to this water right, the following flow objectives will apply:

Water may be appropriated under this permit ONLY when the following minimum instream flow requirements are EQUALLED OR EXCEEDED, or when the consumptive water use associated with appropriations under this permit are fully mitigated:

1. Between April 10 and June 30, the minimum flow measured at McNary Dam will depend on the April-September runoff forecast at The Dalles Dam, such that:
  - a. if the forecast is 80 million acre-feet (MAF) or less, the minimum flow is 220,000 cfs;
  - b. if the forecast is greater than 80 MAF and less than 92 MAF, the minimum flow is  $220,000 + ((40(\text{forecast} - 80) / 12) \times 1000)$  cfs;
  - c. if the forecast is greater than 92 MAF, the minimum flow is 260,000 cfs.
2. Between July 1 and August 31, the minimum flow measured at McNary Dam is 200,000 cfs.
3. From September 1 through October 31, the minimum flow measured at McNary Dam is 80,000 cfs.
4. Between November 1 and April 9, the minimum flow measured at Bonneville Dam will range from 125,000 to 160,000 cfs, with the specific flow objective to be set by the FCRPS Technical Management Team every two weeks during that period.

Any future proposed mitigation plans submitted by the Quad-Cities for review by Ecology shall be governed by the following terms:

- Mitigation for appropriations beyond the first ten cfs will be according to the following "fifty percent or more/fifty percent or less" formula: fifty percent or more of water consumptively used by the Quad Cities during times when flows established in Provision E are not met will be mitigated by flow replacement using water upstream of the McNary Dam in the Columbia River system; the balance of the mitigation will be accounted for by fish habitat improvements that benefit Columbia River system fish at least to the same extent as would replacement water.
- For any habitat project mitigation proposed by the Quad-Cities under this provision, the Quad-Cities will demonstrate based upon best available science and other applicable legal requirements that the proposed mitigation will benefit Columbia River system fish at least to the same extent as would replacement water.
- In determining whether any habitat project mitigation proposed under this provision is acceptable, Ecology will consult with and give a high degree of deference to the Washington State Department of Fish and Wildlife, the Confederated Tribes and Bands of the Yakama Nation, the Nez Perce Tribe, the Confederated Tribes of the Umatilla Indian Reservation, and the Confederated Tribes of the Warm Springs Reservation of Oregon.
- Any time Ecology approves the use of mitigation to offset diversion increments after the first increment (the first increment is defined as the first 10 cfs of diverted water), Ecology shall issue an order that is subject to appeal to the Pollution Control Hearings Board or any successor body with jurisdiction to hear appeals from Ecology water right decisions.
- To determine the amount of perpetual mitigation for the first increment of water use, Ecology has used an 80 percent consumptive use estimate; i.e., Ecology has assumed that for the first 10 cfs of diverted water, there will be a consumptive use of 8 cfs. Concurrent with the times that the Quad Cities submit each successive Regional Water Forecast and Conservation Plan (RWFCP) Ecology will reevaluate this 80 percent consumptive use estimate based on then-current metering and other data showing actual water returned to the system, and will assure that the appropriate amount of water-for-water mitigation is in place. If consumptive use increases above 80%, in order to keep the diversion for the first 10 cfs not subject to interruption, Ecology will transfer into trust additional water rights from the McNary Pool to offset the additional consumptive use.

- F. If a new instream flow rule for the mainstem Columbia River is promulgated, the Quad Cities may apply to Ecology to have these new flows substituted as permit conditions for the above flows. The application must be in a form and manner that sufficiently explains the basis for the request and the effect of the request on public interest, existing rights and water availability. Upon approval by Ecology, the new flow objectives will replace the conditions described above. Until different instream flow objectives are established through formal rulemaking and Ecology approval of an application by Quad Cities to have these flows applied as new conditions to this water right, the flows set forth above shall remain in effect for the duration of this permit.
- G. Based on the flow replacement mitigation agreed to be supplied by Ecology for the first six-year increment, the maximum water diversion allowed under this permit shall be 10 cfs. If additional water is required prior to 2008, the process to obtain it is the same as that described in Provisions E and H.
- H. To access water beyond the initial 10 cfs, the Quad Cities shall submit an updated RWFCP to the Department of Health and the Department of Ecology on a six-year schedule consistent with the schedule for review of water right quantities. The Quad Cities shall coordinate the preparation and completion of their individual water system plans and related supply, demand, and conservation programs. Prior to completion of the plans, the RWFCP will be completed jointly by the Quad Cities to compare demand to available supply and to evaluate the conservation achieved and the conservation projected resulting from implementation of the program described in section 6. The Quad Cities may submit the RWFCP for access to additional water, under the same process described in this condition, prior to any six-year interval if demand forecasts or other circumstances warrant earlier review. The full quantities of water recommended for a permit in this report may be appropriated in six-year increments associated with submittal of the RWFCP, and only when the applicable minimum instream flow is equaled or exceeded, or when the consumptive water use associated with appropriations under this permit is mitigated. Ecology will review the demand estimates, the water conservation elements of the plan, return flows estimates, and other relevant information contained in the plan that comprises the mitigation or flow replacement proposal. Following public comment, Ecology would approve, conditionally approve, or deny the proposed mitigation plan through an Order. If the Order denies the proposed mitigation or flow replacement proposal, then the appropriation for that 6-year increment would be subject to interruption when the flow objectives in this permit are not met, as described in Provision E.
1. The non-interruptibility of water use beyond the first 10 cfs requires that the Quad Cities submit a mitigation plan to Ecology for approval. Unless extraordinary circumstances exist, when the Quad Cities propose a mitigation plan for future diversion increments under their water right, the Quad Cities will submit their plan at least one year before the Quad Cities need a final decision from Ecology. Ecology will use this one year period for public notice, consultation, and to accomplish any necessary water right trust transfers. For purposes of this section "extraordinary circumstances" is defined only as factual circumstances that establish the need for an Ecology response time of less than one year. In no case will Ecology shorten its review and decision time so as to preclude Ecology from fulfilling its public notice and consultation obligations. The mitigation required for withdrawals of water in the succeeding six-year periods shall be proposed by the Quad Cities in their six-year RWFCPs for approval by the Department of Ecology.
  2. Upon issuance of an Order by Ecology approving, in conformance with Provision E of this permit, one or more trust water rights or approving another replacement water program or a mitigation program proposed by the permittee to offset the full projected consumptive use during periods when flow objectives are not met, the six-year appropriation will not be conditioned as interruptible.
  3. The maximum quantity of withdrawals of water requiring mitigation during the succeeding six-year periods will be presented in the RWFCPs and determined by subtracting estimated return flow from the maximum diversion amount. Return flow calculations shall be based on best available science and shall reflect seasonal conditions. During the course of that six-year period, actual quantities to be mitigated will depend on daily recording and monthly reporting of actual water use under this permit, return flow estimates corresponding to the season of water use, and whether or not the then current flow objectives are achieved during that period.
  4. Each RWFCP shall include a Conservation Program demonstrating how the best available and reasonable conservation technology will be implemented in the subsequent six-year period. The Conservation Program shall meet, as a minimum for the entire life of this permit, current (as of date prepared) Department of Health requirements as well as the conservation conditions described below. In addition, the RWFCP with its Conservation Program shall be submitted to the Department of Ecology for review and approval consistent with the six-year schedule for reviewing water rights. The RWFCP shall propose and implement water conservation activities in the following areas: reducing leakage and unaccounted for water from the municipal water supply system; and monitoring, accounting for (separately) and reducing commercial, industrial, residential (indoor) and landscape water use. The Conservation Program shall include a detailed profile of current water use characteristics for each conservation category defined above including their total annual demand, average demand, unit demand and peak demand. Compliance with the Conservation Program for each six year period shall be a condition of the permit.
  5. The Quad Cities RWFCP shall comply with Department of Health rules (*Conservation Planning Requirements, Washington State Department of Health PUB 331-008, March 1994*) which currently require that these plans contain, as a minimum:
    - *Water Use Data Collection Requirements.* Systems must report the best currently available data on water use for the categories of use, which are identified by the department.

- *Water Demand Forecast.* A complete forecast, including an estimate of reduction of water use from implementation of water conservation measures, must be developed.
- *Conservation Program.* A Conservation Program must be developed and implemented. The Conservation Program elements must include: Conservation Objectives; Evaluation of Conservation Measures; and Identification of Selected Conservation Activities.

If the Department of Health adopts more stringent rules relating to water conservation, the Quad Cities will plan and implement their plans to meet or exceed the more stringent rules.

6. In addition to the general water conservation requirements described above, the following Conservation Program activities are required as conditions of this permit. The Quad Cities will initiate development of the following programs within one year after issuance of the permit and will adopt them for implementation within two years of the date of permit issuance.

For the purposes of the following conservation program elements, the term "implement" means obtaining and expending funding for capital facilities and operational staff, program assessment, and monitoring and reporting associated with each program element in a manner and on a schedule to achieve, and once achieved to maintain, the stated goal or target.

**i. Leak Detection Program**

The Quad Cities shall implement a program to reduce leakage and unaccounted for water for each water supply system within the Quad Cities area. Leakage and unaccounted for water includes water loss due to leaking water mains and smaller distribution lines and inefficient fixtures, including inaccurate metering. Unaccounted for or unmetered water consumption also includes uses such as street sweeping, contractors, flushing hydrants, dust control, and erosion control by the Cities, County and private parties. The goal of the program is to reduce unaccounted for water to no more than 10% of the total diversion by 12/31/2010. The improvements to achieve the goal that are not concluded by 2010 must be identified and incorporated in the State approved Water System Plan for the city's capital improvement program with a completion date of no more than 2016.

**ii. Large Meter Testing Program**

The Quad Cities shall implement a program by December 31, 2005 to test all large meters (greater than 2-inches diameter, primarily used in commercial/industrial connections) and repair or replace all meters found to be defective. The testing and maintenance program will continue after the December 31, 2005 date on a schedule consistent with the manufacturer's recommendations.

**iii. Residential Meter Repair/Replacement Program**

The Quad Cities shall implement a program by December 31, 2005 to test and repair or replace all residential water meters on a schedule consistent with manufacturers' recommendations. The testing and replacement program will continue after the December 31, 2005 date on an appropriate schedule to ensure that the users meters are reasonably accurate.

**iv. Residential Retrofit Program**

The Quad Cities shall implement a residential retrofit program by December 31, 2004 to provide the public with low-flow shower heads, toilet tank displacement bags, leak detection tablets and other residential water conservation measures. The initial program will be completed by December 31, 2008.

**v. Source Metering Replacement and Improvement**

The Quad Cities shall implement a source metering replacement and improvement program by December 31, 2005 to ensure that all water sources are accurately monitored.

**vi. Develop a Water Audit Program for Large Water Users**

The Quad Cities shall develop and implement a water audit program for large (commercial, industrial and institutional) water users. At least 50% of the large water users will be audited by December 31, 2007 and the remainder of the audits completed by 2010. The water audit program shall continue on an ongoing repeat schedule for those large customers where the audit suggests that reasonable additional water use reduction is possible.

**vii. Develop a Joint Plan with Irrigation Districts to address Urban Area Irrigation Needs**

The Quad Cities shall pursue development of a Joint Plan with Irrigation Districts whose service areas overlap with the Quad Cities service area. The Plan shall address irrigation water supplies for landscape use (e.g., which entity supplies landscape water and Quad Cities policies on serving those areas) and landscape water demands during water-short periods when Irrigation Districts may prorate their water users. This plan will be completed by December 31, 2009.

**viii. Develop an Integrated Water Shortage and Drought Response Plan**

The Quad Cities shall develop an integrated Water Shortage and Drought Response Plan for periods when water demands exceed allowed diversions. This plan will be completed by December 31, 2007.

**ix. Develop a recommended School Education Program**

The Quad Cities will work with the school districts within the UGA for the Quad Cities to define appropriate classroom materials and assist the school districts with implementation of the program. The plan will be outlined and a recommended program be adopted for initial implementation by the cities within two years from the issuance of the permit. The implementation in the schools will be on the schedule approved by the school districts.

**x. Develop a General Public Education Program.**

The Quad Cities will develop a public education program as committed to in the Regional Water Supply Plan that will include outreach to all customers emphasizing the efficient use of both indoor and outdoor watering, consumptive use records on water bills, the promotion of water efficient devices such as low flow shower heads, and regional publications explaining conservation programs. This program shall be developed by December 31, 2005 and implemented on an on-going basis.

- I. This permit herein recommended is specifically subordinate to any future permits that may be issued under applications No. S4-29956, S4-30052, R4-30102, S4-30185, S4-30465, and S4-30584.