

**Bonneville Power Administration  
Fish and Wildlife Program FY98 Watershed Proposal Form**

**Section 1. General administrative information**

**Title of project.**

Improve Water Quality Monitoring Program

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**Bonneville project number, if an ongoing project**    8074

**Business name of agency, institution or organization requesting funding**  
Kittitas Reclamation District

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**Business acronym (if appropriate)**    KRD

**Proposal contact person or principal investigator:**

**Name**                            Jack Carpenter  
**Mailing Address**           PO Box 276  
**City, ST Zip**                 Ellensburg, WA 98926  
**Phone**                         (509) 925-6158  
**Fax**                              (509) 925-7425  
**Email address**               krd@eburg.com

**Subcontractors.**

Organization	Mailing Address	City, ST Zip	Contact Name

**NPPC Program Measure Number(s) which this project addresses.**

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**NMFS Biological Opinion Number(s) which this project addresses.**

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**Other planning document references.**

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**Subbasin.**

Kittitas

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**Short description.**

Enhance the water quality monitoring program that is being conducted by the KRD. By increasing the sampling locations, frequency of sampling, and analytical work, the effectiveness of the water quality improvement programs can be monitored better.

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**Section 2. Key words**

Mark	Programmatic Categories	Mark	Activities	Mark	Project Types
X	Anadromous fish		Construction		Watershed
*	Resident fish		O & M		Biodiversity/genetics
*	Wildlife		Production		Population dynamics
	Oceans/estuaries		Research	*	Ecosystems
	Climate	*	Monitoring/eval.		Flow/survival
	Other	X	Resource mgmt		Fish disease
			Planning/admin.		Supplementation
			Enforcement	X	Wildlife habitat enhancement/restoration
			Acquisitions		

**Other keywords.**

Water quality, turbidity, dissolved materials, sampling

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**Section 3. Relationships to other Bonneville projects**

Project #	Project title/description	Nature of relationship

**Section 4. Objectives, tasks and schedules**

**Objectives and tasks**

Obj 1,2,3	Objective	Task a,b,c	Task
1	Expand Sampling and Data Analysis Capabilities	a	Hire part time technician
2	Analyze Water Samples	a	Increase KRD field analysis capabilities.
		b	Enter into agreements with qualified laboratories.


**Objective schedules and costs**

<b>Objective #</b>	<b>Start Date mm/yyyy</b>	<b>End Date mm/yyyy</b>	<b>Cost %</b>
1	2/1998	12/1999	88.00%
2	3/1998	12/1999	12.00%
			TOTAL 100.00%

**Schedule constraints.**

Enhanced water sampling and analysis program needs to be in place to monitor effectiveness of improvements that KRD proposes to implement.

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**Completion date.**

1999

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**Section 5. Budget**

***FY98 budget by line item***

<b>Item</b>	<b>Note</b>	<b>FY98</b>
Personnel	KRD Staff (2 years salary 25% of year)	\$8,000
Fringe benefits		\$2,000
Supplies, materials, non-expendable property		\$5,000
Operations & maintenance		
Capital acquisitions or improvements (e.g. land, buildings, major equip.)		
PIT tags	# of tags:	
Travel	Vehicle mileage	\$1,500
Indirect costs	Office overhead	\$ 500
Subcontracts	Analytical Laboratory	\$8,000
Other		
<b>TOTAL</b>		<b>\$25,000</b>

**Outyear costs**

<b>Outyear costs</b>	<b>FY1999</b>	<b>FY00</b>	<b>FY01</b>	<b>FY02</b>
Total budget	\$10,000			
O&M as % of total				

**Section 6. Abstract**

The Kittitas Reclamation District (KRD) currently operates a water quality monitoring program of limited scope. With the implementation of the proposed water conservation and water quality enhancement projects, it will be valuable to expand the sampling and analysis program. In order to accomplish the level of monitoring that will be needed to measure the success of the projects, more staff and increased analytical services will be needed. It is proposed that one part time technician be hired to collect samples and manage the analytical results. The KRD proposes to continue to contract with qualified laboratories for analytical services. A limited amount of equipment will be purchased to allow time and environment sensitive parameters to be measured at the time of sample collection.

The water quality monitoring program would be expanded immediately and would continue indefinitely. Funding is requested for the first two years of the program. After the program is fully operational, the KRD will be able cover the costs through increased assessments. The success of the program will be vital to the other conservation and water quality improvements proposed.

**Section 7. Project description**

**a. Technical and/or scientific background.**

The water quality of the Yakima River has been evaluated by many agencies. However, there is no continuing program to monitor individual waterways that carry water to the Yakima River. The expansion of the KRD water quality monitoring program will provide valuable data consistently and continuing into the future. This information will be used to measure the effectiveness of improvements made within the irrigation and drainage systems.

**b. Proposal objectives.**

It is the objective of the water quality program to monitor the improvements in the quality of water returning to the Yakima River that will result from work within the service area. The program represents a relatively small amount of work as compared to the benefits that will be derived from the data collected. Much background data has already been collected and will serve as a benchmark from which the improvements can be compared.

**c. Rationale and significance to Regional Programs.**

The rationale behind the water quality monitoring program is very conventional. It will be more effective for the KRD to expand and continue to operate the program than reliance upon other outside agencies. The KRD has a vital financial and regulatory interest in water quality issues as they impact the waterusers. For those reasons, the KRD is the logical agency to manage the water quality monitoring program.

**d. Project history**

The proposed enhanced water quality monitoring program is an extension of the monitoring that the KRD is now doing with limited funds and staff. The expanded program will be coordinated with the work that has already been done to maximize the value of the previously collected data.

**e. Methods.**

Implementation of the enhanced water quality monitoring program will require part time employment of a trained technician, collecting more samples, and arranging for more analytical work to be done. At the beginning of the work, it will be necessary to obtain the advice from a qualified water quality authority to make recommendations regarding expansion of the program. This will ensure that samples and parameters will be accurate indicators of improvements in the waterway and Yakima River systems.

No continuing O & M budget is projected as part of the enhanced water quality monitoring program since the KRD intends to fund the work into the future.

**f. Facilities and equipment.**

The expansion work needed to improve the water quality monitoring program is similar to the type of work regularly performed by the KRD staff. A limited amount of standard test equipment and consumable supplies will be needed as the program is expanded. This equipment will be used to measure time and environmentally sensitive parameters as the samples are collected.

**g. References.**

CH2M HILL, 1975. Agricultural Return Flow Management in the State of Washington. Prepared for Washington State Department of Ecology.

Department of Ecology, 1990. Statewide Water Quality Assessment 350 (B) Report, State of Washington..

## **Section 8. Relationships to other projects**

The expanded water quality monitoring program is related to efforts currently underway and proposed to improve the quality of water in the Yakima River. This project very specifically links to and will measure the success of the return flow improvement and sediment pond programs.

### **Section 9. Key personnel**

The work will be accomplished with existing KRD staff and a technician hired part time. The technician position may eventually become a duty of a qualified permanent employee.

### **Section 10. Information/technology transfer**

The project is expected to serve as a demonstration of the benefits that can be achieved by monitoring the quality of water that returns to irrigation and drainage waterways by using improved irrigation techniques. This expanded monitoring program could be applied to many other irrigation and drainage projects.