
PART I - ADMINISTRATIVE

Section 1. General administrative information

Title of project

Wanaket Wildlife Mitigation Project Operations & Maintenance

BPA project number: 9009200

Contract renewal date (mm/yyyy): 12/2000 **Multiple actions?**

Business name of agency, institution or organization requesting funding

Confederated Tribes of the Umatilla Indian Reservation

Business acronym (if appropriate) CTUIR

Proposal contact person or principal investigator:

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NPPC Program Measure Number(s) which this project addresses

7.6.A, 7.6B, 7.6C, 11.3A, 11.3D

FWS/NMFS Biological Opinion Number(s) which this project addresses

Other planning document references

1. Conforth Ranch Wildlife Mitigation Feasibility Study, McNary Oregon (USDOE BPA Division of Fish and Wildlife, USDI Fish and Wildlife Service).
 2. Wanaket (Conforth Ranch) Wildlife Mitigation Project Management Plan and Environmental Assessment (CTUIR and BPA).
 3. CTUIR Wildlife Mitigation Plan for the John Day and McNary Dams.
 4. CBFWA Guidelines for Enhancement, Operations and Maintenance for Wildlife Mitigation Projects.
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Short description

Protect, enhance, and mitigate for wildlife habitats impacted by the McNary Hydroelectric Project. Achieve NPPC wildlife mitigation objectives in a cost efficient manner with in-kind habitats located on-site where original habitat inundation occurred.

Target species

Downy woodpecker, yellow warbler, spotted sandpiper, Western meadowlark, California quail, mink, and mallard.

Section 2. Sorting and evaluation

Subbasin

Evaluation Process Sort

CBFWA caucus	Special evaluation process	ISRP project type
Mark one or more caucus	If your project fits either of these processes, mark one or both	Mark one or more categories
<input type="checkbox"/> Anadromous fish <input type="checkbox"/> Resident fish <input checked="" type="checkbox"/> Wildlife	<input checked="" type="checkbox"/> Multi-year (milestone-based evaluation) <input type="checkbox"/> Watershed project evaluation	<input type="checkbox"/> Watershed councils/model watersheds <input type="checkbox"/> Information dissemination <input checked="" type="checkbox"/> Operation & maintenance <input type="checkbox"/> New construction <input type="checkbox"/> Research & monitoring <input type="checkbox"/> Implementation & management <input type="checkbox"/> Wildlife habitat acquisitions

Section 3. Relationships to other Bonneville projects

Umbrella / sub-proposal relationships. List umbrella project first.

Project #	Project title/description

Other dependent or critically-related projects

Project #	Project title/description	Nature of relationship
9705900	Securing Wildlife Mitigation Projects - Oregon.	Proposal allows for the development of a complex of in-kind and on-site shrub/steppe and wetland habitats that could be managed in conjunction with Wanaket
9500800	Umatilla Tribal Wildlife Coordination, Umatilla Riparian Coordination.	A mitigation planning and coordination project which references and integrates the Wanaket Wildlife Area.

Section 4. Objectives, tasks and schedules

Past accomplishments

Year	Accomplishment	Met biological objectives?
1993	BPA acquires Wanaket Wildlife Area Mitigation Project under Columbia Basin Fish and Wildlife Program. CTUIR assumes management responsibility.	Secured an estimated 2,274 Habitat Units (estimate made in 1991 by USFWS) of protection credit.
1995	Completion of management plan, update of original HEP analysis.	Developed management objectives (protect existing habitats, upgrade irrigation infrastructure) and range of acceptable management activities. Refined baseline HU's (2334) and established enhancement credit objectives (2,495 HU's).
1997	Rebuilt pumpstation irrigation infrastructure to allow for continued application of water.	Met biological objective of protecting and mitigating wetland habitats by allowing for continued water application. Increased efficiency of water application.
1998	Upgraded canal water delivery system components to increase control and efficiency of water application. Initiated application of approved water rights transfer order, creating an additional 8 acres of emergent wetland habitats.	Completed management plan objectives for upgrading all irrigation system components. Met NPPC goals for protecting and mitigating wetland habitat losses in a cost efficient manner. Completed first step in increasing wetland habitats.
1999	Completion of water rights transfer order scheduled. An estimated increase in emergent wetland habitats of 20 acres is expected (28 total for 1998/99). Management plan update scheduled.	Creation of additional wetlands, succession to emergent wetland habitats, and water/moist soil management will contribute toward HU enhancement objectives. Time-frame for objective achievement is 2004.

Objectives and tasks

Obj 1,2,3	Objective	Task a,b,c	Task
1	Administer updated 5-year management plan to provide 2,334 Habitat Units of protection credit for 7 target species with in-place and in-kind habitats. Protection will also be provided for State of Oregon Category 2 Species, Federal T/E/S/ Species	a	Administer access and travel management component of management plan; - maintain kiosks, signs, and information.
1	(con't) and long-term ecosystem/species diversity.	b	Monitor/prevent livestock trespass, illegal dumping, other illegal uses.
1		c	Maintain fences and gates.
1		d	Regulate recreational access.
2	Maintain habitat values for selected target species, Category 2 Species and T/E/S species.	a	Flood irrigate McNary potholes to provide wetland habitats. - implement sub-contract for screen maintenance, - maintain canals, - maintain headgates.
2		b	Implement noxious weed control including; - prevention (limit vectors), - manual control (hand pulling), - implement sub-contract for herbicide application.
3	Continue management plan enhancements to provide 2,495 Habitat Units of enhancement credits by the year 2004.	a	Collect and propagate native shrubs and grasses for outyear planting projects.
4	Monitor & Evaluate protection, maintenance and enhancement activities.	a	Implement M&E program; - monitor access and travel management compliance.
4		b	Monitor and record amount of irrigation water applied.
4		c	Biological monitoring - conduct 2 breeding pair surveys.

4		d	Biological monitoring - conduct 3 brood counts.
4		e	Continue to utilize existing photo-points.
4		f	Compare noxious weed infestation levels to previous year's surveys.

Objective schedules and costs

Obj #	Start date mm/yyyy	End date mm/yyyy	Measureable biological objective(s)	Milestone	FY2000 Cost %
1	12/1999	11/2000	Provide 2,334 HU's of protection credit.	- Mgmt Plan /Property Admin, -Habitat/property /Infrastructure Maint. - TM Admin.	50.00%
2	2/2000	10/2000	Maintain 2,334 HU's protection credit.	- Flood Irrigation - Irrigation infrascture maint. - Noxious weed control	40.00%
3	4/2000	6/2000	Contribute towards objective of 2,495 HU's of enhancement credit by 2,004.	-Plant collection, propogation	5.00%
4	12/1999	11/2000	Biological/Habitat Monitoring.	-ATM, public use compliance -Photopoints -Breeding Pr Surveys -Brood Count Surveys	5.00%
				Total	100.00%

Schedule constraints

None identified.

Completion date

Operations and maintenance will be covered under the NPPC Wildlife Program which requires BPA to provide adequate O&M funding to sustain the project as long as the hydrosystem operates (FWP Measure 11.2.C.1)

Section 5. Budget

FY99 project budget (BPA obligated): \$150,000

FY2000 budget by line item

Item	Note	% of total	FY2000
Personnel		%36	72887.50
Fringe benefits	@ 28%	%10	20408.50
Supplies, materials, non-expendable property		%17	33760.00
Operations & maintenance	O&M incorporated into personnel and subcontractor line items.	%0	
Capital acquisitions or improvements (e.g. land, buildings, major equip.)		%0	0
NEPA costs	NEPA requirements already covered under existing programmatic EIS/ROD and project management plan.	%0	0
Construction-related support		%0	0
PIT tags	# of tags:	%0	0
Travel		%6	11105.00
Indirect costs		%23	46,975
Subcontractor	Umatilla Co. Weed Control (O&M) Cris Inc, (screen cleaning, O&M) Unidentified nursery contractor	%7	14,864
Other		%0	
TOTAL BPA FY2000 BUDGET REQUEST			\$200,000

Cost sharing

Organization	Item or service provided	% total project cost (incl. BPA)	Amount (\$)
Undetermined at this time.	Opportunities to be developed in update of management plan (1999).	%0	
		%0	
		%0	
		%0	
Total project cost (including BPA portion)			\$200,000

Outyear costs

	FY2001	FY02	FY03	FY04
Total budget	\$210,933	\$222,469	\$234,641	\$247,483

Section 6. References

Watershed?	Reference
<input type="checkbox"/>	Conforth Ranch Wildlife Mitigation Feasibility Study, McNary Oregon. 1991. USDOE BPA Division of Fish and Wildlife, USDI Fish and Wildlife Service. 65 pp.
<input type="checkbox"/>	Confederated Tribes of the Umatilla Indian Reservation (CTUIR). 1996. Wildlife Mitigation Plan for the John Day and McNary Dams, Columbia River Basin.
<input type="checkbox"/>	Hammond, M.C. 1970. Waterfowl brood survey manual. USFWS Publ.
<input type="checkbox"/>	Northwest Power Planning Council. 1994. Columbia River Basin Fish and Wildlife Program.
<input type="checkbox"/>	Prose, B., Farmer, A., and Olson, R. 1986. Cost-effectiveness of easement and fee title acquisition for mitigating wildlife habitat losses. USDI, Fish and Wildlife Service, National Ecology Center, Fort Collins, CO, 61 pp.
<input type="checkbox"/>	Rasmussen, L. and P. Wright. 1990d. Draft wildlife impact assessment, McNary Project, Oregon and Washington. U.S. Fish and Wildl. Serv., Portland Ore., 28 pp.
<input type="checkbox"/>	
<input type="checkbox"/>	
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PART II - NARRATIVE

Section 7. Abstract

Key Words: protect, enhance, mitigate, in-place, in-kind, HEP species, T/E/S species, enhancement credits, methods, and monitoring.

The CTUIR is proposing to continue protecting, enhancing, and mitigating in-kind and in-place wildlife and wildlife habitat impacted by the construction of the McNary Hydroelectric Power Project on the Wanaket Wildlife Area. The Wanaket Wildlife Area is adjacent to the south shore of the McNary pool, approximately 1.5 River Miles upstream from the McNary hydroelectric facility. Key habitats and cover types provided by the 2,750 acre Project Area include upland shrub-steppe, wetlands, riparian herb, shrub, and tree habitats, and sand/gravel/cobble/mud shoreline habitats. Seven mitigation target species have been chosen to represent these cover types, including California quail (*Lophortyx californicus*), western meadowlark (*Sturnella neglecta*), mallard (*Anas platyrhynchgos*), the yellow warbler (*Dendraica petechia*), downy woodpecker (*Picoides*

pubescens), spotted sandpiper (*Actitis macularia*), and mink (*Mustela vison*). At project initiation in 1993, these habitats were estimated to provide 2,334 Habitat Units (HU's) of protection credit. Protection and enhancement HU's generated by this project contribute towards the 1994 Columbia Basin Fish and Wildlife Program goal of fully mitigating for wildlife losses from hydropower in the Columbia River Basin (11.1)

Threatened, endangered, and sensitive species found on the project area include the northern bald eagle (*Haliaeetus leucocephalus*), which utilize the area as feeding habitat during migrations. State of Oregon Category 2 Species include the Western painted turtle (*Chrysemys picta*), which utilize the ponds and wetlands year round, and the burrowing owl (*Athene cunicularia*) which nests and rears broods on the project area.

Proposal goals and objectives for wildlife and wildlife habitat protection are achieved by the following methods; 1) continued exclusion of livestock grazing, 2) restrictions on motorized access, and 3) regulation of recreational access. Habitat maintenance objectives are obtained through; 1) noxious weed control and 2) flood irrigation and moist-soild management of the McNary Potholes to provide wetland and wetland associated habitats. Enhancements are obtained through native shrub and grass collection, propagation, and planting, with an emphasis on upland habitats.

The objective of continued management, including protection and enhancement of upland and wetland/wetland associated cover types, is to protect and maintain 2,334 HU's of protection credit and generate 2,495 HU's of enhancement credit by the year 2004.

Results of project activities will be monitored and evaluated utilizing HEP protocols for the above listed target species, photo-monitoring, and biological monitoring including breeding pair counts and brood surveys.

Section 8. Project description

a. Technical and/or scientific background

PROBLEM IDENTIFICATION

The development of dams for hydropower, navigation, flood control, and irrigation in the Columbia River Basin resulted in widespread inundation of riparian, riverine, and upland wildlife habitats (NPPC 1994; BPA et. al., 1993). The 1980 Power Act established and charged the Northwest Power Planning Council with the task of developing a comprehensive fish and wildlife mitigation program to protect, mitigate, and enhance fish and wildlife habitat in the Columbia Basin (Power Act 1980, Section 4 (H)(1)(A), page 12; NPPC 1994, Section 2, page 2-1). This program, initially adopted in 1982, was amended in 1984, 1987, 1991-1993, and 1994. Consistent with Section 1003(7) of the Power Council Fish and Wildlife Program, BPA is authorized and obligated to fund implementation of projects that will help reach the Power Council wildlife mitigation goals and objectives.

The *Draft Wildlife Impact Assessment, McNary Project* (Rasmussen and Wright, 1990), provided estimated losses of and/or impacts to 34,951 Habitat Units as a result of the McNary Hydroelectric facility construction. Loss and impact assessments included mainland, island, and river habitats. Mainland habitats, totaling an estimated 12,898 acres, consisted of shrub/steppe grassland, riparian hardwood, riparian shrub, riparian herb, emergent wetland, sand dune, sand/gravel/cobble/mud, disturbed/bare/riprap, and open water cover types. Islands were estimated to have provided 2,741 acres of shrub/steppe grassland, riparian hardwood, riparian shrub, riparian herb, emergent wetland, and sand dune, sand/gravel/cobble/mud cover types. River habitat consisted of an estimated 18,952 acres of open water.

In 1991, the *Conforth Ranch Wildlife Mitigation Feasibility Study, McNary Oregon*, was prepared by the US Fish and Wildlife Service (USFWS) to conduct a baseline study of wildlife habitat on the ranch to estimate existing wildlife values, and to estimate future changes in wildlife values and benefits resulting from management and enhancement actions. The study estimated that management of the property for wildlife would result in Habitat Unit gains of 519 for meadowlark, 420 for quail, 431 for mallard, 466 for Canada goose, 405 for mink, 49 for downy woodpecker, 172 for yellow warbler, and 34 for spotted sandpiper. The estimated total was 2,495 habitat units, a 110% gain over the estimated 2,274 existing habitat units. It was assumed that these habitat units would be credited for acquisition, thereby precluding future development adverse to wildlife. A survey of local interests in the concept of utilizing the Conforth Ranch as wildlife mitigation was for the most part favorable, with opposition limited to industrial development interests.

The Wanaket Wildlife Project, formerly known as the Conforth Ranch, was purchased by BPA in June of 1993 under the Columbia Basin Fish and Wildlife Program to address the problem identified above and provide partial mitigation for the impacts associated with construction of the McNary Hydroelectric facility.

b. Rationale and significance to Regional Programs

The Wanaket Wildlife Area contributes to the 1994 Fish and Wildlife Program goals and objectives of achieving and sustaining levels of habitat and species productivity as a means of fully mitigating wildlife losses caused by construction and operation of the federal and non-federal hydroelectric system (11.1). More specifically, the project area addresses the following goals and principles listed in FWP Section 11.2D.1, which states, “In developing wildlife mitigation plans and projects, demonstrate to the extent to which the plans/projects comply with the following principles:”

- **Are the least-costly ways to achieve the biological objective.**
Perpetual protection and enhancement of the on-site and in-kind habitats provided by the Wanaket Wildlife Area were achieved through fee title acquisition. In a study comparing various mitigation methods (i.e., fee title acquisition and easements), Prose et. al. (1986) concluded that “Fee title land acquisition and subsequent management is generally more cost-effective than easements.”

Similarly, wildlife agency acquisition specialists have also consistently found fee title acquisition to purchase land for wildlife mitigation is usually more economical in the long-term compared with the purchase of easements (Oregon Trust Agreement Planning Project, BPA et al. 1993).

- **Have measurable objectives, such as the restoration of a given number of habitat units.**

Management objectives for the seven selected target species are based on Habitat Evaluation Procedures. The Wanaket Wildlife Area provides 2,334 Habitat Units of protection credit and will provide an estimated 2,495 Habitat Units of enhancement credits by the year 2004.

- **Protect high quality native or other habitat or species of special concern, whether at the project site or not, including endangered, threatened, or sensitive species.**

Regionally, shrub/steppe and wetland habitats have decreased significantly from historical levels due to development and conversion to agriculture. Continued operation and management of the Wanaket Wildlife Area will allow for protection and enhancement of these regionally important habitat types.

The project area also provides important habitat for state and federal listed species. These habitats include nesting and brood rearing habitat for burrowing owl (State of Oregon Category 2 species) and long-billed curlew (State of Oregon Category 2 species), year round habitat for western painted turtle (State of Oregon Category 2 species), and feeding habitat for the Northern bald eagle (federally listed, threatened).

- **Where practical, mitigate losses in-place, in-kind.**

The Wanaket Wildlife Area offers a unique opportunity to mitigate in-place, being located less than 1.5 miles upriver from the McNary Hydroelectric facility. The northern boundary of the project area is located approximately 200 feet from the south shore of the McNary pool. Wanaket provides in-kind shrub/steppe grassland, riparian hardwood, riparian shrub, riparian herb, emergent wetland, sand/gravel/cobble/mud, and open water cover types impacted by the McNary Hydroelectric project.

- **Help protect or enhance natural ecosystems and species diversity over the long term.**

Perpetual protection and management of the 2,750 acres of *on-site* and *in-kind* shrub-steppe and wetland habitats found on the Wanaket Wildlife Area provides habitat for seven target mitigation species, nesting and brood rearing habitat for 15 species of waterfowl and 7 species of shorebirds. White pelican utilize island habitats in larger ponds. Nesting and brood rearing habitat for State of Oregon Category 2 species burrowing owl, year round habitat for State of Oregon Category 2 species western painted turtle, and feeding habitat for the federally listed Northern bald eagle are also provided by the area. Year round habitat is

provided for a variety of other wildlife including several species of buteo, pheasant, great blue and black crowned night heron, numerous passerines, mule deer, badgers, yellow bellied marmot, and coyote. Amphibians and reptiles common to the area include the spotted frog, western rattlesnake, bullsnake, and fence lizard.

- **Complement the activities of the region's state and federal wildlife agencies and Indian tribes.**

The location of Wanaket, and its management for shrub/steppe and wetland habitats, directly complement federal wildlife agency efforts to provide habitat for waterfowl and other resident and migratory wildlife species utilizing the Columbia Basin. Wanaket is located approximately 11.5 River Miles upstream from the eastern boundary of the Umatilla National Wildlife Refuge, approximately 24 River Miles downstream from the McNary National Wildlife Refuge, and approximately 4 air miles northwest of the Cold Springs National Wildlife Refuge. Additionally, the CTUIR Wildlife Program has been actively involved with the City of Richland in the development of a management plan and subsequent co-operative management of the Chamna Preserve, located at the confluence of the Yakima and Columbia Rivers. The Chamna Preserve is managed to protect and enhance riparian and wetland habitats and provide regulated recreation opportunities.

Wanaket is located within the Ceded Lands of the Confederated Tribes of the Umatilla Indian Reservation. Continued management of Wanaket therefore meets tribal goals of protecting, restoring, and enhancing key wildlife habitats on the Ceded lands of northeastern Oregon and southeastern Washington (CTUIR Wildlife Mitigation Plan for the John Day and McNary Dams, Columbia River Basin, 1997). Furthermore, it promotes other key Tribal goals and activities including: 1) increasing opportunities for tribal members to exercise treaty rights reserved in the Treaty of 1855; 2) developing and promoting Tribal co-management and cooperative agreements with other federal, state, and tribal agencies for the benefit of biological and cultural resources in the Columbia Basin; 3) promoting regional/landscape biological diversity; 4) maintaining consistency with the Power Council Fish and Wildlife Program; 5) assisting BPA in meeting their wildlife mitigation obligations in a cost-efficient manner; 6) minimizing expenditures on mitigation planning and maximizing on-the-ground mitigation, enhancement, and protection of wildlife habitats.

- **Encourage the formation of partnerships with other persons or entities, which would reduce project costs, increase benefits and/or eliminate duplicative activities.**

To date, project costs for wetland enhancement projects have been reduced through implementation of a cooperative agreement with Ducks Unlimited. In 1997/98, Ducks Unlimited contributed \$10,000 of in-kind services for project survey and design, construction contract development, and contract oversight.

Private entities have provided heavy equipment rental at significantly reduced rates as in-kind contributions towards maintenance of the project area canal system.

The Oregon Waterfowlers Association annually contributes 30 -50 man-hours of volunteer labor for general clean up of the project area before and after hunt seasons.

c. Relationships to other projects

Umatilla Tribe Wildlife Coordination/Umatilla Riparian Corridor Coordination.

This is a mitigation planning and coordination project, which identifies potential mitigation opportunities throughout the Ceded Territory and references and integrates the Wanaket Wildlife Area. Potential additions to the Wanaket Wildlife Area are proposed and analyzed in this plan.

Securing Wildlife Mitigation Projects in Oregon.

This new project proposal would allow for the development of a complex of lands containing valuable shrub/steppe and wetland habitats to provide in-kind and on-site habitat values for the McNary project. Protection of these habitats would be achieved on a larger scale and the project areas would serve as shrub/steppe refugia. If the proposal were successful, Wanaket would make a logical inclusion into the complex due to its location and identical habitat types.

d. Project history (for ongoing projects)

1991

The *Conforth Ranch Wildlife Mitigation Feasibility Study, McNary Oregon*, was prepared by the US Fish and Wildlife Service (USFWS) to conduct a baseline study of wildlife habitat on the ranch to estimate existing wildlife values, and to estimate future changes in wildlife values and benefits resulting from management and enhancement actions. The study estimated that management of the property for wildlife would result in Habitat Unit gains of 519 for meadowlark, 420 for quail, 431 for mallard, 466 for Canada goose, 405 for mink, 49 for downy woodpecker, 172 for yellow warbler, and 34 for spotted sandpiper. The estimated total was 2,495 habitat units, a 110% gain over the estimated 2,274 existing habitat units. It was assumed that these habitat units would be credited for acquisition, thereby precluding future development adverse to wildlife. A survey of local interests in the concept of utilizing the Conforth Ranch as wildlife mitigation was for the most part favorable, with opposition limited to industrial development interests.

- **Milestone: identification of project and completion of feasibility study.**

1993

The Wanaket Wildlife Project, formerly known as the Conforth Ranch, was purchased by BPA in June under the Columbia Basin Fish and Wildlife Program. The CTUIR assumed management responsibility.

- **Milestone: acquisition of the 2,750-acre project and an estimated 2,274 HU's of protection credit.**

1993-94

Interim management was conducted pending development of a management plan. Interim management activities included; 1) removal of and exclusion of livestock, 2) flood irrigation of the McNary potholes for the provision of open water and emergent wetland habitats, 3) noxious weed survey and initiation of control measures, 4) development of a regulated hunt program to provide ratepayer access to the mitigation project.

1995

A management plan and Environmental Analysis were finalized (Finding of No Significant Impact) and approved by BPA. The proposed action and selected alternative of the management plan was a "balanced use management approach." The objectives of the proposed action were to:

1. Provide quality habitat for migratory waterfowl and shorebirds;
2. Protect and enhance habitat for Federal and State recognized threatened, endangered, and sensitive species;
3. Protect and enhance native shrub/steppe/grassland habitats and associated wildlife species;
4. Protect, enhance, and create wetland and riparian habitats on the property; and;
5. Provide a variety of cultural and recreational opportunities consistent with wildlife protection, enhancement and mitigation.

Key management activities proposed in the preferred alternative included:

1. Water Distribution System Management;
 - A) Pump station and delivery pipe upgrade,
 - B) Canal/ditch system upgrade,
 - C) Transfer of water rights and expansion of the water delivery system (wetland creation).
2. Habitat Management
 - A). Protection of upland (shrub/steppe/grassland and tree/shrub) habitats;
 - 1) livestock removal and exclusion;
 - 2) allow for natural succession,
 - 3) noxious weed control.
 - B). Protection and enhancement of wetlands;
 - 1) livestock removal and exclusion,
 - 2) flood irrigation,
 - 3) expansion of existing water delivery system,
 - 4) employment of a moist soil management strategy.
3. Public Access and Recreation;
 - A) exclude motorized access,
 - B) regulate recreational use to limited permit entry.

4. Surveys, Inventories, and Monitoring and Evaluations;
 - A) update Habitat Evaluation Procedures,
 - B) establish photopoints to document habitat changes,
 - C) conduct breeding pair surveys to monitor trends and species response to management activities,
 - D) brood counts to monitor trends and species response to management activities,
 - E) harvest reports to monitor recreational use and waterfowl/upland harvest.

An update of the original HEP was conducted by the CTUIR in October to incorporate adjustments to the wildlife area boundary and subsequent changes in cover type acreage. A net decrease in acres occurred in shrub-steppe, irrigated pasture (agriculture), and emergent wetland cover types. A corresponding decrease of 46 HU's from the original HEP analysis occurred (2,380 to 2,334 HU's).

- **Milestones: completion of management plan and update of original Habitat Evaluation Procedures analysis.**

1996

Irrigation system improvements were initiated as per management plan direction, including installation of new fish screens, pump intakes and electrical system. Total costs of improvements was \$17,225.

- **Milestone: initiation of management plan objective of improving pumping station/water delivery system.**

1997

Pump system and irrigation improvements continued, with overhaul/rebuild of two 150 HP irrigation pumps (\$21,300), rehabilitation (mortar lining) of 600 feet of 24 inch diameter irrigation pipe and replacement of an additional 600 feet (\$57,880). Total costs of improvements in 1997, including consulting, project design, and job oversight (\$7,500), was \$86, 680.

- **Milestone: achieved management plan objective of upgrading pumping station and delivery pipe system to insure long-term provision of wetland habitats and enhancement opportunities.**

A co-operative agreement was developed with Ducks Unlimited for design, construction, and construction oversight of water control structures in the water delivery canal system. The agreement included \$65,000 for construction of water control structures and \$10,000 in-kind contribution from Ducks Unlimited for project survey, design, and contract oversight. Construction was initiated in November.

- **Milestone: achieved FWP goals of forming partnerships with other entities to reduce project costs and increase project benefits. Also initiated improvements to the canal system which would significantly improve the efficiency of water delivery, reduce pumping time required, and therefore reduce pumping costs (electrical) in the long term.**

Developed draft map and application for “transfer of water rights application” and submitted to Oregon Water Resources Department for review. The transfer order application, as submitted, would allow for transfer of water rights from lands adjacent to the Wanaket project to lands within the Wanaket project, therefore creating the opportunity for additional wetland habitat creation.

- **Milestone: Initiated water rights transfer order to meet management plan objective of transferring existing water rights and creating additional wetlands within the Wanaket Project boundary.**

1998

Expanded and completed co-operative agreement with Ducks Unlimited for additional construction of water control structures irrigation canal system. The number of structures installed, 28, was double the original amount, with total construction costs increasing by only 8 percent.

- **Milestone: achieved management plan objective of upgrading water delivery system in a cost efficient manner. Additionally, long-term irrigation costs (electricity) are expected to decrease due to increases in water application efficiency.**

Received approval from Oregon Water Resources Department on Water Rights Transfer Application. Initiated application of water to transfer sight October 14, 1998. An additional 8 acres of wetlands were created with the limited time available remaining in the irrigation season (March 1 - October 31).

- **Milestone: achieved management plan objective of obtaining Oregon Water Resources Department approval for water rights transfer. Transfer resulted in the creation of an additional 8 acres of wetlands thus far. Additional wetland habitat will be created in 1999, as we will have a greater portion of the irrigation season with which to apply water to the newly approved transfer site.**

Annual Project Activities (1993 - 1998)

Several activities are conducted to meet management plan goals and objectives of protecting and enhancing upland and wetland habitats. Flood irrigation is practiced during the permitted irrigation season (March 1 - October 31), noxious weed control activities are conducted by Umatilla County Weed Control Department (average annual costs \$8,000), project staff maintain fences to exclude livestock, and vehicle access is restricted.

Management plan goals and objectives for public access and recreation are achieved through restriction of vehicle access and implementation of a regulated hunt program. The regulated hunt program allows a maximum of 60 people per day on Wednesdays and weekends during state hunting seasons. Between 1993 and 1998, there were 4,848 hunter visits and 19,765 hours of recreational use provided by the regulated access program.

To meet management plan goals and objectives for monitoring, photopoints and Global Positioning Surveys have been conducted to monitor changes in habitat resulting from water transfer and wetland creation. Biological surveys conducted annually include two breeding pair surveys and three brood counts.

- **Milestones: achieve management plan goals for protection of wetland and upland habitats, provision of regulated access, and habitat and biological monitoring.**

1999

Key activities scheduled include development of a five-year management plan, completion of the water rights transfer, and creation of an additional 20 acres of wetland habitats.

The management plan will include the following elements:

1. Access & Travel Management Plan;
2. Public Use Opportunities;
3. Habitat Protection Elements;
4. Habitat Enhancement and Restoration;
5. Operations & Maintenance;
6. Monitoring & Evaluation;

Conduct any necessary environmental review (NEPA/Checklist) with BPA under Wildlife Program EIS.

e. Proposal objectives

Objective 1 – Provide 2,334 Habitat Units of protection credit for 7 target species with in-place and in-kind habitats. Protection will also be provided for State of Oregon Category 2 Species, Federal T/E/S species and long-term ecosystem/species diversity.

Objective 2 – Maintain habitat values for selected target species, Category 2 species and T/E/S species.

Objective 3 – Initiate management plan enhancements to provide 2,496 Habitat Units of enhancement credits by the year 2004.

Objective 4 – Monitor & evaluate protection, maintenance, and enhancement activities.

f. Methods

Objective 1, Task a – Administer access and travel management component of management plan; maintain kiosks, signs, and public information.

Methods – Vehicular access is restricted to administrative use throughout the year. Project staff patrol project boundaries and interior, and maintain kiosks/signs through repair, painting, and placement/replacement of laminated signs or informational bulletins.

Objective 1, Task b – Monitor/prevent livestock trespass, illegal dumping, other illegal uses.

Methods - Project staff administer access management by actively patrolling project boundaries and interior and inspecting for livestock or evidence of livestock trespass, illegal dumping, or other trespass. Livestock removal, if needed, is coordinated with adjacent landowners. Illegal dumping is reported to County law enforcement and staff coordinate removal of illegal dumping with County law enforcement and/or dispose of waste materials independently if possible (i.e. non-hazardous materials that do not pose safety hazards).

Objective 1, Task c – Maintain fences and gates.

Methods - Fencing, typically four-strand barbwire, is used to protect upland and wetland habitats from livestock trespass and to regulate visitor access. Maintenance typically consists of repairing support structures, splicing wire, tightening wires, and replacing stays.

Objective 1, Task d – Regulate recreational access.

Methods - To protect habitats and wildlife use of those habitats during critical life history stages (nesting, brood rearing, and hunting seasons), access is strictly regulated through a permit system. Currently, permits are only issued three days of the week during the state waterfowl and upland bird hunting seasons utilizing a lottery drawing process. This permitting process limits the number of people that may use the Wanaket Wildlife Area, protects wildlife needs during critical life history stages, and allows for partial protection during hunt seasons while at the same time providing recreational access. Vehicular access is restricted to administrative use at all times of the year. This minimizes disturbance during nesting/brood rearing stages.

Objective 2, Task a – Flood irrigate McNary Potholes to provide wetland habitats.

Method(s) -To supplement naturally occurring wetlands found in the McNary Potholes, flood irrigation is practiced in late spring/early summer and late summer/early fall months utilizing a pumpstation located on the McNary Pool. Two Certificates of Water Rights and their associated permits allow the CTUIR to apply a total of 4,763.5-acre feet of water. The permitted irrigation season is March 1 to October thirty-one. Water is distributed throughout the western and southern portions of the Wanaket Wildlife Area utilizing approximately 15 miles of gravity-fed canals. Early season application (March 1 – April 15) is timed to provide waterfowl brood rearing habitat for McNary Wildlife Target Species (mallard) as well as 10 other waterfowl species. Moist-soil management is practiced by allowing natural drawdown of flood irrigated habitats to provide habitat for seven species of shorebirds. Late summer/early fall applications provide feeding and resting habitat for McNary Wildlife Target Species (mallard and Canada goose), and as many as 18 other waterfowl species that utilize Wanaket during migration.

Objective 2, Task b – Implement noxious weed control including; prevention, manual control, and herbicide application.

Methods - Sub-contracts are developed annually with Umatilla County Weed Control for survey and control of noxious weeds. Weed Control Staff conduct surveys at the start of each growing season (determined by weather, plant phenology) for rush skeletonweed, pepperweed, Austrian peaweed, knapweeds, spikeweed, and scotch and Canada thistle. Herbicides utilized include banvel, 2-4, D Amine, Telar, and Escort. Herbicide applications may be made 2 - 3 times per growing season depending on the target species life cycle and growth habit, and success of initial application. Application equipment includes backpack, All Terrain Vehicles, and Tractor mounted spray units.

Objective 3, Task a – Collect and propagate native shrubs and grasses for out-year planting projects.

Method(s): Planting stock are collected on site and propagated at the CTUIR Native Plant Nursery. Grasses are seeded with a harrow or broadcast seeder. Indigenous trees and shrubs are planted as cuttings or bareroot stock.

Objective 4, Task a – Monitor access and travel management compliance.

Method(s) - Project staff administer access management by actively patrolling project boundaries and interior and inspecting for livestock or evidence of livestock trespass, illegal dumping, or other trespass.

Objective 4, Task b – Monitor and record amount of irrigation water applied.

Method(s) – Water application is monitored with ultrasonic flow meters placed on pump intakes. Monitoring of water application insures compliance with permitted volumes and assist project staff in determining irrigation rates and volumes for achieving habitat maintenance objectives.

Objective 4, Task c – Biological monitoring - Conduct 2 breeding pair surveys.

Method(s) -Biological monitoring is conducted to complement habitat monitoring and monitor population trends for waterfowl, shorebirds, and upland game birds. The wetland complex is surveyed in its entirety. Wildlife technicians, working in pairs, systematically walk all ponds and ditches, recording all pairs of waterfowl and lone drakes observed. Observations of shore, wading, and upland birds are also recorded during the surveys.

Two breeding pair counts are made annually using the following protocol:

1. Census during that portion of the breeding season when site attachment by pairs and drakes is greatest (pre-nesting, laying, and early incubation).
2. Census between 0800 and 1200 hours; this is the period of least mobility, and most pairs and lone drakes will be on waiting stations.
3. Census only on bright days with temperatures above 40 Degrees F and winds less than 15 miles per hour.
4. Conduct at least two surveys when sampling a multi-species population.
5. Tall all lone pairs and lone drakes great than 15 feet apart as pairs.

Data from the surveys is entered into an access database and trends in number of breeding pairs monitored over time. Increases in the number of breeding pairs are expected over time due to increases in amounts of emergent wetland habitats and habitat quality.

Objective 4, Task d – Biological monitoring - Conduct 3 brood surveys.

Method(s) - Three brood counts are conducted annually using methodology described in the Waterfowl Brood Survey Manual (Hammond, 1970).

1. Counts should be conducted within 3 days of the following dates:
 - a) June 24 - mallards and pintails are tabulated through brood age class III.
 - b) July 20 - all species are tabulated through brood age class II.
 - c) August 15 - all species are tabulated through brood age class II.
2. Counts are made under the following weather conditions:
 - a) Moderate temperatures.
 - b) Winds less than 10 mph.
 - c) Sky overcast.
3. Counts begin 15 minutes after sunrise and are conducted for 2 - 2.5 hours.

Data from the surveys is entered into an access database and trends in number of broods produced is monitored over time and compared to the number of breeding pairs observed in the same year. Brood surveys allow for estimates of productivity (broods per breeding pair) and average brood size to flight. Obtaining these estimates allows managers to identify factors that may be limiting production, such as habitat quality and/or predation.

Observing and assigning broods to age classes has also allowed project staff to estimate nest initiation and hatching dates, which are important factor in determining the spring irrigation season.

Objective 4, Task e – Continue to utilize existing photo-points.

Method(s) - Photopoints have been established to photo-document improvements in upland habitats resulting from livestock exclusion. Photo-points are also utilized to photo-document succession of newly created open water wetland habitats to emergent wetlands. Photos are taken with a 35mm camera.

g. Facilities and equipment

As a full service Tribal Government, the CTUIR possesses a full range of support facilities and services, including both technical and administrative staff. Tribal government offices have been consolidated in recent years within a series of buildings in the Tribal Government Complex near the Umatilla Reservation center where other community facilities are located. The Tribal Wildlife contains sufficient private and shared office space for both existing and future professional and management staff, a fully equipped secretarial services center, a conference/meeting room, library, and supply storage space.

Tribal offices are electronically interconnected through a LAN network and feature modern Pentium computer workstations for each existing staff member. Current software capabilities include extensive word processing, spreadsheet, data base development and management, and GIS (ArchView) capabilities. In addition, several General Service Administration (GSA) vehicles (primarily 4X4 trucks) and All Terrain Vehicles and trailers are available to Wildlife Program staff. Field and sampling equipment has previously been secured to conduct HEP evaluations and monitoring and evaluation.

h. Budget

This proposal contains an operations and maintenance budget that is higher than that projected in the FY98 proposal, where operations and maintenance were projected to decrease to \$150,000 by FY2000. However, in that proposal personnel needs were underestimated and inflationary factors were not fully considered. This proposal corrects those oversights and more accurately project future funding needs.

Out-year costs estimated in Section 5 are based on calculations that incorporate a maximum 5% merit increase for permanent personnel and a 3%, maximum annual cost of living increase associated with inflation. The inflation rate was applied to materials and supplies, travel, and contracting. Following is a summary of activities planned under each major budget line item.

Personnel:

Funding for personnel includes necessary staffing to administer, plan, and implement operations and maintenance of the property. Key staff includes: administrative oversight provided by an administrative/program manager, project manager (project biologist), onsite caretaker, biological technicians, and limited GIS/Cartographic support.

The majority of personnel funding is identified for the project manager, onsite caretaker, and biological technician staff. Individuals funded under these positions will be responsible for administration of the management plan, implementation of project area maintenance, design and implementation of resource specific maintenance, and monitoring and evaluation. In addition, these staff will perform as contracting officers for subcontracts developed for various project activities. The project manager will accomplish the majority of public involvement/scoping, management plan updates, design, layout, and contracting for habitat maintenance and enhancement, and scheduling for monitoring and evaluation.

Fringe Benefits:

Fringe incorporated at standard rate of 28% per CTUIR personnel department.

Services, Supplies, Materials, Non-Expendable Property:

Included under this line item of budget are materials such as fence material, signs, film; office supplies (pens, paper, et. al.); printing/duplication, office equipment rental (fax,

copy machine); communications (cellular service); advertising (public notices); postage and freight (newsletters, etc.), and equipment rental for canal maintenance.

Travel:

Travel expenses include GSA vehicles, mileage, per diem, and limited travel to Portland to coordinate project management with BPA.

Indirect Costs:

Indirect costs incorporated at rate of 34% per CTUIR administrative department.

Subcontractor:

Contracting includes noxious weed control, intake screen maintenance, and native plant collection and propagation.

Section 9. Key personnel

All CTUIR Department of Natural Resource staff funded under this project are professionally trained and meet standard job descriptions (professional and technical grade and series requirements) established under the CTUIR Policy and Procedures Manual (under current revision, 1998). Technical staff involved in implementing the work identified under this proposal includes biological and administrative staff.

Name: Carl Scheeler

Title: Wildlife Program Manager

Education: BS Wildlife 1981 Oregon State University

Experience: 16 years fisheries/wildlife experience; last 11 years CTUIR Program Manager; expertise in multi-project development, coordination, and oversight.

Name: Eric Quaempts

Title: Wildlife Biologist

Months funded this project: 4

Education: BS Wildlife Science 1990, Oregon State University, Corvallis OR., 17 Graduate level credits from Colorado State University, Ft. Collins, Co. in Technical Fire Management Training, 1993. Washington Institute, Duvall, WA.

Experience: 12 years wildlife experience

Biological Technician

Education: High School Diploma

Experience: 6 years wildlife technician experience

Section 10. Information/technology transfer

Information transfer/exchange will be accomplished for this project through several means. First and foremost, the comprehensive management plan will be published and distributed to regional wildlife managers, project advisory committee, and other participants as well as made publicly available through local libraries and/or on the

CTUIR Homepage via Internet. Likewise, the HEP Evaluation, workplan updates, etc will be made publicly available. Information exchange on the project will also occur through open public forums such as an open house and through media such as local newspapers, articles, and public announcements.

Additionally, project reports of accomplishments are produced quarterly and annually for the Bonneville Power Administration. Project personnel sponsor field tours as requested to demonstrate accomplishments, techniques, and exchange experiences/knowledge with other managers.

Congratulations!