

No. 1 of Douglas County

1151 Valley Mall Parkway • East Wenatchee, Washington 98802-4497 • 509/884-7191 • FAX 509/884-0553

September 27, 2005

Honorable Magalie Salas, Secretary Federal Energy Regulatory Commission 888 First Street N. E. Washington, D. C. 20426

Subject: FERC Project No. 2149 - Annual Wildlife Mitigation Report

Dear Ms. Salas:

In compliance with Article 41, as modified February 24, 1989, enclosed are the original and four (4) copies of the 2004 Annual Report of the Wildlife Mitigation Program for the Wells Hydroelectric Project No. 2149. The report was prepared by Mr. Marc Hallet, Manager of the Wells Wildlife Area for the State of Washington Department of Fish and Wildlife and has been reviewed by Douglas County Public Utility District.

Very truly yours,

Robert W. Clubb, Ph.D. Chief of Environmental & Regulatory Services

Enclosures

C: with enclosures:

FERC – Portland office FERC – Mr. Jon Miyashiro Washington Department of Fish and Wildlife – Ephrata Jeffers, Danielson, Sonn & Ayward, Mr. Garfield R. Jeffers Colville Confederated Tribes, Mr. Jim Priest 2004 ANNUAL REPORT Wells Wildlife Mitigation Program Federal Energy Regulatory Commission License Number 2149

Submitted by:

Marc Hallet Wildlife Area Manager Wells Wildlife Area Washington State Department of Fish and Wildlife (WDFW)

A. Expenditures

The Wells Special Wildlife Account principal balance totaled \$668,937 at the end of fiscal year 2004 and \$659,628 at the end of the calendar year. The table below summarizes expenditures for fiscal year 2004 (July 2003-June 2004).

Expenditure	Wells	Supplemental	Total
	Account	Budget	
Salaries	44,968	40,186	85,154
Employee Benefits	13,432	10,584	24,016
Goods and Services	37,260	25,562	62,814
Property Tax	5,072	0	5,072
Land Rental (DNR)	1,107	0	1,107
Fire Protection Contracts	2,701	0	2,701
Weed Assessments	286	0	286
Travel	563	31	594
Capital Outlay	23,916	238	24,154
Administrative Overhead	10,574	19,148	29,722
TOTAL	139,879	95,741	235,620

Capital outlay expenses included the purchase of a new pick-up.

B. Game Bird Release

• Captured, banded and relocated a total of approximately 250 California quail (<u>Callipepla californica</u>) on the West Foster Creek Unit, Central Ferry Canyon Unit and the Indian Dan Unit. Captured, banded and released an additional 7 quail on Bridgeport Bar during the summer.

C. Public Use

• Summarized public use in Appendix A. Public use was estimated from hunter registration data, corrected for registration cards not returned and for estimated non-compliance with the registration program. It also includes a correction factor for sites lacking a registration program.

D. Wildlife Habitat Management and Related activities

- Grain Food Plot and Waterfowl Pasture Development:
 - Established 140 acres of agricultural crops for wildlife food and cover.. This includes: 100 acres of irrigated wheat (52 acres on Bridgeport Bar and 48 acres on Washburn Island), 10 acres of corn (6 acres on Bridgeport Bar and 4 acres on Washburn Island in strips), 14 acres of barley on Washburn Island and 16 acres of dryland wheat (10 acres on Indian Dan Canyon and 6 acres on West Foster Creek).

o Irrigated 45 acres of permanent cover on Washburn Island to promote dense nesting and escape cover.

• Riparian Tree and Shrub Planting:

- Planted a total of 4,475 shrubs primarily in low-lying areas with high water table on Washburn Island (Appendix B). Rose and blackberry will provide dense woody cover similar to the rose patches present on Bridgeport Bar and other areas before being flooded by Wells Pool.
- Mowed, rotovated and/or sprayed vegetation competing with these and older woody plantings.

• Ponds:

o Managed flow rates and water levels in five ponds on the West Foster Creek Unit.

• Shrubsteppe and Herbaceous Habitat Restoration:

- o Prepared for seeding and seeded about 30 acres to a shrubsteppe seed mix on Central Ferry Canyon. This project was funded by a WDFW grant and will increase nesting cover in the vicinity of a sharp-tailed grouse lek (display/breeding site).
- o Seeded 5 acres to a bitterbrush/grass mix on the Indian Dan Unit on a site, which burned in 2003.
- o Seeded 10 acres of grass on the Bridgeport Bar Unit.
- o Summer fallowed about 8 acres on Washburn Island to be planted to permanent herbaceous cover in 2005.

• Wildlife Feeding and Watering:

o Filled and maintained 24 upland game feeders.

• Artificial Nesting Structures:

- O Cleaned out and repaired goose-nesting, wood duck and kestrel nest structures. Canada goose nesting and nest structure use is summarized in Appendix C. Most kestrel nesting boxes were removed from the area in 2003 to reduce the concentration of potential sharp-tailed grouse chick predators. Nesting activity in the remaining boxes was not reported this year.
- O Surveyed 27 wood duck boxes primarily on Washburn Island of which 13 were active in 2004 (8 new boxes had been erected and one was moved on Washburn Island in 2003).
- Fences: Inspected and repaired fences as needed.

• Vegetation Control:

o Released bio-control agents to assist in controlling Canada thistle (800 <u>Larinus planus</u>) and Dalmatian toadflax (4,500 Mecinus janthinus).

- o Treated a variety of weeds with herbicide including: diffuse knapweed (4 acres), leafy spurge (1 acre), Dalmatian toadflax (17 acres), white top (3 acres), cheatgrass (40 acres) and quackgrass (7.5 acres).
- Mowed 13 miles of road and mowed 10 acres of weeds (primarily Canadian thistle and quackgrass) on the West Foster Creek Unit, 2 acres on the Indian Dan Unit and 20 acres on Bridgeport Bar.
- o Removed about two acres of Russian olive and Chinese elm trees encroaching in shrub and tree plantings.

• Firebreaks and Fire Control:

o Maintained one mile of firebreaks on the West Foster Creek Unit and two miles on the Bridgeport Bar Unit.

• Buildings and Public Use Facilities:

o Maintained and repaired buildings as needed. Cleaned out and mowed parking areas. Replaced signs as needed.

• Other:

- Applied for funding to install new screens and suction lines for irrigation pump intakes located in Wells Pool. Funding was approved to replace all Columbia River irrigation intake filters.
- Applied for funding through the Natural Resource Conservation Service Wetland Reserve Program to relocate a portion of West Foster Creek and develop riparian habitat. The NRCS approved an estimated \$38,179 to be matched with \$12,725 from the WDFW.
- o Applied for and received \$15,000 from the WDFW Migratory Bird Stamp/Print program.
- o Replaced 200 feet of irrigation mainline on Bridgeport Bar.

E. Wildlife Populations and Surveys

Upland Game Birds

- O Total upland game harvest recorded on the wildlife area through the registration program (see Appendices D and E) totaled 1,568 birds (for all units except Washburn Island). The reported Bridgeport Bar quail harvest continues to increase and peaked this year with 936 quail. California quail made up 96 percent of the upland game take on the area in 2004. The quail and gray partridge harvest recorded through the registration program on the Bridgeport Bar, West Foster and Central Ferry Canyon Units was 9.3 and 20.6 percent lower respectively than in 2003 while the pheasant harvest was 57.1 percent higher than in 2003 (the pheasant and Gray partridge sample was very low).
- O Upland game harvest figures for Washburn Island in 2004 totaled 112 birds including 1 pheasants and 111 quail. Washburn Island upland bird harvest has not been included in Appendix E as explained in the 2002 annual report. Washburn Island upland bird harvest has not been included in Appendix E, which compares the latest harvest with the preceding year's harvest since the Island's upland game harvest has been negligible while

- management focused primarily on waterfowl. Here, however, upland game harvest and in particular quail harvest is expected to increase since management has changed to increasingly benefit upland game birds.
- The Bridgeport Bar and Indian Dan Units fall wildlife surveys (Appendix F) yielded a count of 439 California quail 33 gray partridges (<u>Perdix perdix</u>) and 14 ring-necked pheasants (<u>Phasianus colchinus</u>).
- O Banded 160 mourning doves (Zenaida macrura) on Bridgeport Bar as part of a 3-year US Fish and Wildlife Study. The recovery rate for birds banded the first two years was 7.5%.

Waterfowl

- Conducted a Canada goose (<u>Branta canadensis</u>) nesting surveys and estimated production on Wells Pool to be 524 (31 percent lower than in 2003) as outlined in Appendix C.
 Ground nest predation primarily by raccoon continues to be a serious problem on the Bridgeport Bar Islands. The loss of 36 nests on these islands was primarily due to predation.
- O Duck harvest reported at registration booths on Washburn Island and Bridgeport Bar (including Bridgeport Bar Islands) was 7.8 percent lower than in 2003. The decline in the duck harvest, however appears to be related to a decline in hunting pressure (-19.33%) since the duck harvest success (ducks/waterfowl hunter day), was 14.2 percent higher. Lower Canada goose production may be partially responsible for the reduction in geese harvested (-56.4%). This however is inconsistent with the waterfowl aerial counts conducted on Wells Reservoir in October and November. Duck and goose counts were 121 and 155 percent higher respectively than those of 2003.

Non-Game

- The bald eagle (<u>Heliaeetus leucocephalus</u>) surveys of three roosts located in the vicinity of Wells Pool, conducted by the Bureau of Land Management during the 2003-2004 winter, are summarized in Appendix H. The highest count for the Pearl Hill, Azwell and Brewster roosts totaled 49 eagles (85 in 2003). This decrease in use of the roosts surveyed may be due to an increase in feeding activity on carcasses left by trappers in other locations and the resulting use of alternative roosts. Over 40 eagles were observed roosting on the Indian Dan Canyon Unit in the vicinity of such carcasses during the 2004-2005 winter.
- o Made regular counts of white pelicans (<u>Pelecanus erythrorhynchos</u>) and double-crested cormorants (<u>Phalacrororax auritus</u>) using Wells Pool between April 6 and November 24. On September 6, and July 27 a high of 155 pelicans and 165 cormorants respectively were counted. During an October 20 aerial waterfowl survey, observers reported 21 pelicans on Wells Pool(Appendix G). Pelicans are usually absent from this area by the end of October. One, observed during the December flight was likely a wounded bird. The size of the cormorant-nesting colony located at the mouth of the Okanogan River continues to increase and is encroaching on a Great Blue Heron (<u>Ardea herodias</u>) rookery.

Appendix A
Wells Wildlife Area
Estimated Bird Hunting Use and Harvest
2004

Activity	Use Days	Wildlife	Numbers Harvested		
Waterfowl Hunting	852	Ducks Geese Total	1996 60 2056		
Upland Game Hunting	2080	Pheasants Quail Hungarian Chukar Total	67 2790 43 5 2905		
Dove Hunting	144	Dove	413		

Appendix B Wells Wildlife Area Woody Plantings 2004

Common Name	Species	Bridgeport Bar	Washburn Island	Total
Blue Spruce	Picea pungens glauca	110	0	110
Wood Rose	Rosa woodsii	100	2700	2800
Multiflora Rose	Rosa multiflora		1000	1000
Blackberry	Rubus sp.		865	865
Total		210	4565	4775

Appendix C
WELLS POOL
CANAGA GOOSE NESTING SURVEY
2004

	NATURAL SITES	ARTIFICIAL STRUCTURES	TOTAL
TOTAL NESTS VISITED	117	40	157
NESTS WITH KNOWN CLUTCH TOTAL EGGS AVERAGE CLUTCH NEST LOSS	56 275 4.91 33.00	126 4.85	82 401 4.89 36.00
NESTS WITH KNOWN FATE AND CLUTCH TOTAL EGGS TOTAL HATCH PERCENT HATCH HATCHED EGGS PER NEST ABANDONED PREDATED UNKNOWN TOTAL LOSS	49 241 230 95.4 4.69 4	100 88 88.0 4.40 0	69 341 318 93.3 4.61 4 0 19 23
KNOWN PRODUCTION HATCHED NESTS: UNKNOWN CLUTCH *ESTIMATED HATCHLINGS NESTS: UNKNOWN FATE *ESTIMATED HATCHLINGS NESTS: ACTIVE/NOT VISITED *ESTIMATED HATCHLINGS TOTAL ESTIMATED PRODUCTION PERCENT OF TOTAL PRODUCTION	230 18 84 10 47 0 361 68.9	9 40 8 35 0 163	318 27 124 18 83 0 0 524

Wells Wildlife Area Hunter Bag Check Summary 2004 Hunting Season

	Indian Dan	Bridgeport Bar	West Foster	Central Ferry	Washburn Island	Total
UPLAND GAME BIRDS				,		
Hunters	230	603	151	169	94	1247
Pheasant	0	25	8	0	1	34
Pheasant per hunter	0.00	0.04	0.05	0.00	0.01	0.03
California Quail	317	936	82	169	111	1615
Quail per hunter	1.38	1.55	0.54	1.00	1.18	1.30
Gray Partridge	12	0	0	15	0	27
Gray partridge per hunter	0.05	0.00	0.00	0.09	0.00	0.02
Chukar	4	0	0	0	0	4
Chukar per hunter	0.02	0.00	0.00	0.00	0.00	0.00
Total upland game	333	961	90	184	112	1680
Upland Game per hunter	1.45	1.59	0.60	1.09	1.19	1.35
WATERFOWL						
Hunters		340			94	434
Ducks		862			159	1021
Duck per hunter		2.54			1.69	2.35
Canada Geese		22			12	34
Goose per hunter		0.06			0.13	0.08
Total Waterfowl		884			171	1055
Waterfowl per hunter		2.60			1.82	2.43
MOURNING DOVE						
Dove Hunters	17	67	8	27	8	127
Dove Taken	10	215	35	79	36	375
Dove per hunter	0.59	3.21	4.38	2.93	4.50	2.95
MULE DEER						
Deer Hunters	39	2	24	82		147
Deer Taken	8	0	2	5		15
Deer per hunter	0.21	0.00	0.08	0.06		0.10

Note: Waterfowl hunter incidental take of upland game is included in the upland game figures and upland game hunter incidental take of waterfowl is included in the waterfowl figures.

Appendix E.

Wells Wildlife Area Game Bird Bag Check Summary Comparative Hunting Success and Harvest Rate 2003-2004 Hunting Season

UPLAND GAME BIRDS*			California Quail	Gray Partridge	Chukar Partridge	Total Upland Game
Harvest 2004	1153	20	1504	27	4	1555
Harvest 2003	1006	21	1659	34	. 7	1721
Number Variance	147	-1	-155	-7	· -3	-166
Percent Variance	14.61	-4.76	-9.34	-20.59	-42.86	-9.65
Harvest Rate 2004		0.02	1.30	0.02	0.00	1.35
Harvest Rate 2003		0.02	1.65	0.03	0.01	1.71
Percent Variance		-16.90	-20.90	-30.71		-21.17

WATERFOWL**	Hunters	Ducks	Geese	Total Waterfowl
Harvest 2004	434	1021	34	1055
Harvest 2003	538	1108	91	1199
Number Variance	-104	-87	-57	-144
Percent Variance	-19.33	-7.85	-62.64	-12.01
Harvest Rate 2004		2.35	0.08	2.43
Harvest Rate 2003		2.06	0.17	2.48
Percent Variance		14.23	-53.68	-1.98

^{*} Upland game data for Indian Dan, Bridgeport Bar, West Foster and Central Ferry Units

^{**} Waterfowl data for Washburn Island and Bridgeport Bar

Appendix F.
Fall Wildlife Surveys 2004

	Indian Dan Canyon	Bridgeport Bar	Total
UPLAND GAME BIRDS:			
Pheasant - Male	0	5	5
- Female	0	9	9
- Total	0	14	14
California Quail	270	169	439
Gray Partridge	33	0	33
Mourning Dove	14	31	45
Ruffed Grouse	1	0	1
MAMMALS:			
Mule Deer	7	1	8
Coyote	0	1	1
White-tailed Deer	16	0	16
Cottontail Rabbit	0	1	1
Black Bear	1	0	1
WATERFOWL:			
Canada Geese	17	0	17
DIVERSITY SPECIES:			
Red Tailed Hawk	2	0	2
Bald Eagle	0	1	1
Osprey	0	1	1

Appendix G.

WELLS POOL - AERIAL WATERFOWL SURVEY

2004-2005

Observer / Affiliation: Randy Hill (FWS), Jim Tabor (WDFW)

FLIGHT DATE

	FLIGHT DAT				
SPECIES	10/20/2004	11/18/2004	12/14/2004	01/11/2005	
True des Course	0	0			TOTAL
Tundra Swan	0	0	0	0	0
Trumpeter Swan		0	0	0	0
TOTAL	0	0	0	0	0
Western Canada Goose	340	660	510	1095	2605
Lesser Canada Goose	50	80		40	170
Undifferentiated Canada Goose	50	27	0	100	177
Other Goose					0
TOTAL GEESE	440	767	510	1235	2952
Mallard	355	840	4410	1715	7320
Gadwall	1120	920	590	980	3610
American Wigeon	13980	10150	6330	1810	32270
Green-winged Teal	0	0	0	0	0
Blue-winged Teal	0	0	0	0	0
CinnamonTeal	0	0	0	0	0
Unidentified Teal	0	0	0	0	0
Northern Shoveler	0	0	0	0	0
Northern Pintail	0	0	0	0	0
Wood Duck	0	0	0	0	0
					0
SUBTOTAL PUDDLE DUCKS	15455	11910	11330	4505	43200
Redhead	1440	1350	850	2020	5660
Canvasback	50	1550	640	1100	3340
Scaup	3870	5500	6110	980	16460
Ringneck	4150	5540	1350	1240	12280
Goldeneye		1080	920	500	2500
Bufflehead	100	150	320	90	660
Ruddy	400	150	0	60	610
					0
SUBTOTAL DIVING DUCKS	10010	15320	10190	5990	41510
Common Merganser	4	30	34	70	138
Hooded Merganser	5	30	3	10	48
TOTAL DUCKS	25474	27290	21557	10575	84896
TOTAL WATERFOWL	25914	28057	22067	11810	87848
Coots	21700	19450	25700	24200	91050
SURVEY TOTAL	47614	47507	47767	36010	178898
Bald Eagle	0	3A	2A,3i,3u	2A,5i	18
White Pelican	21	0	1	0	22
Sandhill Crane	0	0	0	0	0
Loon	15	2		9	
Grebe	0	3		0	
Cormorant	7	0	0	0	7
Egret	0	0		0	1
Heron	0	0		0	
Bonaparte's Gull	25	0	0	0	
T			·	ů	

Appendix H.

Bureau of Land Management Bald Eagle Roost Monitoring Summary Winter 2003-2004 Modified from Bureau of Land Management Report

	Brewste	r Roost	Pearl-Upper Wells Roost			Azwell Roost				Total *						
Date	Ad	lmm	Unk	Total	Ad	lmm	Unk	Total	Ad	lmm	Unk	Total	Ad	lmm	Unk	Total
12/15/03		4		4	1	7		8	2	7		9	3	18	0	21
12/29/03					4	18		22	5	8		13	9	26	0	35
01/12/04					2	20		22	3	8		11	5	28	0	33
01/26/04					3	19		22	2	7		9	5	26	0	31
02/09/04					10	39		49				0	10	39	0	49
02/23/04					6	23		29	4	16		20	10	39	0	49
03/08/04					2	3		5	2	5		7	4	8	0	12

^{*} Totals are most meaningful when all known roosts were counted on the same day.