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# Public Utility District No. 1 of Douglas County

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September 17, 2007

Honorable Kimberly D. Bose, Secretary  
Mr. Nathaniel J. Davis, Sr. Acting Deputy Secretary  
Federal Energy Regulatory Commission  
888 First Street N.E.  
Washington, D.C. 20426

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

Dear Secretary Bose and Acting Deputy Secretary Davis:

In compliance with Article 41, as modified February 24, 1989, enclosed are the original and four (4) copies of the 2006 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

Enclosure  
Pcd 99826

c: with enclosures  
Mr. Erich Gaedeke - FERC  
FERC - Portland  
Mr. Matt Monda - Washington Department of Fish & Wildlife  
Mr. Garfield R. Jeffers - Jeffers, Danielson, Sonn & Aylward  
Ms. Dinah Demmers - Colville Confederated Tribes

2006 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)

2006 Annual Report – Wells Wildlife Mitigation Program

A. Expenditures

The Wells Special Wildlife Account principal balance totaled \$535,682 at the end of fiscal year 2006 and \$ 495,682 at the end of the calendar year. The table below summarizes expenditures for fiscal year 2006 (July 2005-June 2006).

<u>Expenditures</u>	<u>Wells WA Account</u>	<u>Supplemental Funding</u>	<u>Total</u>
Salaries	54,949	32,084	87,033
Employee Benefits	16,362	11,788	28150
Goods and Services	29,593	32,570	62,163
Property Tax (Okanogan County)	5,072	0	5,072
Land Rental (DNR)	1,459	0	1,459
Fire Protection Contracts (Okanogan and Douglas Counties)	2,688	0	2,688
Weed Assessments (Okanogan Co.)	286	0	286
Travel	1,145	158	1,303
Capital Outlay	677	2,942	3619
Administrative Overhead	12,923	22,705	35,628
<b><u>TOTAL</u></b>	<b><u>125,153</u></b>	<b><u>101,570</u></b>	<b><u>226,723</u></b>

B. Game Bird Release:

- Captured and banded 161 California quail (Callipepla californica) off the wildlife area and relocated these on the Indian Dan Unit.

C. Public Use:

- Upland bird hunting use of the wildlife area is summarized in Appendix A. This 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 126 acres of agricultural crops for wildlife food and cover on the area. This included: 95 acres of irrigated wheat (60 acres on Bridgeport Bar and 35 acres on Washburn Island), 10 acres of corn (5

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acres on Bridgeport Bar and 5 acres on Washburn Island in strips) and 17 acres of dryland wheat (9 acres on Indian Dan Canyon and 8 acres on West Foster Creek). Planted Fava beans and cover crop peas to provide waterfowl feed and attempt to rotate crops. Most of these plantings failed due to competition with weeds and irrigation system failure. Only about 2 acres of Fava beans on Washburn and 2 acres of peas on Bridgeport Bar remained.

- Irrigated about 45 acres of permanent cover on Washburn Island to promote dense nesting and escape cover.
- Riparian Tree and Shrub Planting:
  - Planted shrubs and trees as listed in Appendix B.
  - Mowed, rotovated and/or sprayed vegetation competing with these and older woody plantings.
  - Removed trees (weedy species) encroaching on planted native trees and shrubs and treated stumps with herbicide.
  - Installed wire cages around 150 cottonwoods to protect these from beaver damage.
  - Installed about 3,500 feet of plastic mulch (6 ft wide rolls) on the Washburn Island Unit to accommodate tree and shrub plantings.
- Ponds:
  - Managed flow rates and water levels in five ponds on the West Foster Creek Unit.
  - Excavated one new pond on Bridgeport Bar.
- Shrub-steppe and Herbaceous Habitat Restoration:
  - Disced about 16 acres to be planted to permanent herbaceous cover.
- Wildlife Feeding and Watering:
  - Filled and maintained 24 upland game feeders.
  - Inspected and maintained gallinaceous guzzlers and springs as needed.
- Artificial Nesting Structures:
  - Cleaned and repaired goose, wood duck and kestrel nest structures. Canada goose nesting and nest structure use is summarized in Appendix B.
- Fences:
  - Inspected and repaired livestock and deer fences as needed.

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- Vegetation Control:
  - Released bio-control agents to assist in controlling Dalmatian toadflax (2000 Mecinus janthinus).
  - Treated about 39.5 acres of wild land weeds with herbicide including: diffuse knapweed (29 acres), leafy spurge (1 acre), puncture vine (8 acres), white-top (1 acre), Dalmatian toadflax (2 acres) and other wild land weeds (10.5 acres).
  - Mowed weeds growing on and along approximately 14 miles of road.
  - Mowed 15 acres of weeds on the West Foster Creek Unit, 10 acres on Washburn Island and 20 acres on Bridgeport Bar.
  
- Firebreaks and Fire Control:
  - Maintained one mile of firebreak on the West Foster Creek Unit and two miles on the Bridgeport Bar Unit.
  
- Buildings and Public Use Facilities:
  - Maintained and repaired buildings as needed. Cleaned out and mowed parking areas. Cleared snow and replaced signs as needed.
  - Painted one building.
  
- Other:
  - Repaired circle irrigation system and replaced a suction line for one of the Bridgeport Bar pump.
  - Installed a 30-foot pipe extension on the Washburn Island circle.

### E. Wildlife Populations and Surveys

- Upland Game Birds:
  - Upland bird hunters who registered reported harvesting a total of 1,029 birds on all units of the wildlife area (see Appendices D and E). California quail made up 91 percent of the upland game take on the area in 2006. Gray partridge harvest recorded through the registration program on all units except Washburn Island was 17.4 percent higher than in 2005 while the pheasant and California quail harvest were 50 and 27.9 percent lower respectively than in 2005 (the pheasant and gray partridge samples were low; 11 and 54). Only 12 chukar partridges were reported being taken. The overall decrease in upland game take is primarily attributable to the decrease in hunting pressure (760 hunters registered on the area in 2006 compared to 1010 in 2005).

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Upland bird harvest rate varied only slightly (1.8%) from 1.31 to 1.28 bird per hunter.

- Washburn Island upland bird harvest was not included in Appendix E. Upland game harvest registration figures for Washburn Island in 2006 totaled 54 birds including 11 pheasants (10 in 2005) and 41 quail (132 in 2005).
- The Indian Dan and Bridgeport Bar Units fall wildlife surveys (Appendix F) yielded a count of 335 California quail, 17 gray partridges (Perdix perdix) and 8 ring-necked pheasants (Phasianus colchinus).
- Waterfowl:
  - Conducted a Canada goose (Branta canadensis) nesting survey on Wells Pool. The second of two surveys normally conducted that yields most of the hatching data was not conducted; thus, considerably reducing the accuracy of the hatching estimate. The estimated gosling production in 2006 was 574 (Appendix C). Ground nest predation primarily by raccoon continues to be a serious problem on the Bridgeport Bar Islands. Only three ground nests were found on these islands, which previously produced approximately 50 nests annually. Of these, one hatched and predators destroyed 2.
  - The US Fish and Wildlife Service in Cooperation with WDFW conducted an aerial waterfowl survey of Wells Pool on November 15, 2006 and on January 8, 2007 (Appendix F).
- Non-Game:
  - The Bureau of Land Management conducted bald eagle (Haliaeetus leucocephalus) surveys of 3 roosts located in the vicinity of Wells Pool during the 2005-2006 winter (summarized in Appendix H). This included the first surveys of the Indian Dan roost, discovered in 2004. The highest count for the Pearl Hill/Upper Wells, Indian Dan and Azwell roosts totaled 61 eagles (the highest count for three roosts in the 2004-2005 survey was 59).
  - Volunteers made regular counts of white pelicans (Pelecanus erythrorhynchos) on Wells Pool between April 11 and November 1 and recorded a high count of 103 pelicans on September 18.
  - Double-crested cormorants (Phalacrocorax auritus) continue to encroach on a Great Blue Heron (Ardea herodias) rookery near the mouth of the Okanogan River. A high count of 120 cormorants on Wells Pool was recorded on August 15 and 18.

**Appendix A**

**WELLS WILDLIFE AREA  
ESTIMATED BIRD HUNTING USE AND HARVEST  
2006**

<u>Activity</u>	<u>Use Days</u>	<u>Wildlife</u>	<u>Numbers Harvested</u>
<u>Waterfowl Hunting</u>	1151	Ducks	3096
		Geese	121
		Total	3217
<u>Upland Game Hunting</u>	1433	Pheasants	40
		Quail	1741
		Gray Partridge	91
		Chukar	15
		Total	1887
<u>Dove Hunting</u>	166	Dove	357

**Appendix B**

**WELLS WILDLIFE AREA  
WOODY PLANTINGS  
2006**

<u>Common Name</u>	<u>Species</u>	<u>Bridgeport Bar</u>	<u>Washburn Island</u>	<u>Total</u>
Water Birch	<u>Betula occidentalis</u>	50	50	100
Black Cottonwood	<u>Populus trichocarpa</u>	300	200	500
Blue Elderberry	<u>Sambucus cerulea</u>	100	100	200
Wood Rose	<u>Rosa woodsii</u>	200	442	642
Nutkana Rose	<u>Rosa nutkana</u>	100	100	200
Serviceberry	<u>Amelanchier alnifolia</u>	100	200	300
Chokecherry	<u>Prunus virginiana</u>	100	200	300
Hawthorn	<u>Craetagus douglassi</u>	100	150	250
Total		1050	1442	2492

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Appendix C

**WELLS POOL  
CANADA GOOSE NESTING SURVEY  
2006**

	<u>NATURAL SITES</u>	<u>ARTIFICIAL STRUCTURES</u>	<u>TOTAL</u>
<u>TOTAL NESTS VISITED</u>	71	22	93
<u>NESTS WITH KNOWN CLUTCH</u>	45	11	56
TOTAL EGGS	303	67	370
AVERAGE CLUTCH	6.73	6.09	6.61
<u>NEST LOSS - PREDATED (UNKNOWN CLUTCH)</u>	10	0	10
<u>NESTS WITH KNOWN FATE AND CLUTCH</u>	3	12	15
TOTAL EGGS	17	78	95
TOTAL HATCH	17	77	94
PERCENT HATCH	100.0	98.7	98.9
HATCHED EGGS PER NEST	5.67	6.42	6.27
ABANDONED	0	0	0
PREDATED	0	0	0
UNKNOWN	0	1	1
TOTAL LOSS	0	1	1
KNOWN PRODUCTION	17	77	94
HATCHED NESTS: UNKNOWN CLUTCH	15	8	23
*ESTIMATED HATCHLINGS	85	51	131
NESTS: UNKNOWN FATE	47	12	59
*ESTIMATED HATCHLINGS	266	77	53
NESTS: ACTIVE/NOT VISITED	0		0
*ESTIMATED HATCHLINGS	0	0	0
<u>TOTAL ESTIMATED PRODUCTION</u>	<u>368</u>	<u>205</u>	<u>574</u>
PERCENT OF TOTAL PRODUCTION	64.2	35.8	

\*Production based on average hatched eggs per nest with known production.

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**Appendix D.**

**WELLS WILDLIFE AREA  
HUNTER BAG CHECK SUMMARY  
2006 HUNTING SEASON**

	<u>Indian</u> <u>Dan</u>	<u>Bridgeport</u> <u>Bar</u>	<u>West</u> <u>Foster</u>	<u>Central</u> <u>Ferry</u>	<u>Washburn</u> <u>Island</u>	<u>Total</u>
<b>UPLAND GAME BIRDS</b>						
Hunters	197	303	125	135	50	810
Pheasant	0	7	4	0	11	22
Pheasant per hunter	0.00	0.02	0.03	0.00	0.22	0.03
California Quail	240	485	51	122	41	939
Quail per hunter	1.22	1.60	0.41	0.90	0.82	1.16
Gray Partridge	38	7	0	9	2	56
Gray partridge per hunter	0.19	0.02	0.00	0.07	0.04	0.07
Chukar	4	6	2	0	0	12
Chukar per hunter	0.02	0.02	0.02	0.00	0.00	0.01
Total upland game	282	505	57	131	54	1029
Upland Game per hunter	1.43	1.67	0.46	0.97	1.08	1.27
<b>WATERFOWL</b>						
Hunters		407			139	546
Ducks		1230			191	1421
Duck per hunter		3.02			1.37	2.60
Canada Geese		27			43	70
Goose per hunter		0.07			0.31	0.13
Total Waterfowl		1257			234	1491
Waterfowl per hunter						2.73
<b>MOURNING DOVE</b>						
Dove Hunters	10	93	18	22	18	161
Dove Taken	9	219	20	68	31	347
Dove per hunter	0.90	2.35	1.11	3.09	1.72	2.16
<b>MULE DEER</b>						
Deer Hunters	64		26	27		117
Deer Taken	5		3	2		10
Deer per hunter	0.08		0.12	0.07		0.09

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  
2005-2006 HUNTING SEASON**

<b>UPLAND GAME BIRDS*</b>	<u>Hunters</u>	<u>Pheasant</u>	<u>California Quail</u>	<u>Gray Partridge</u>	<u>Chukar Partridge</u>	<u>Total Upland Game</u>
Harvest 2006	760	11	898	54	12	975
Harvest 2005	1010	22	1245	46	6	1319
Number Variance	-250	-11	-347	8	6	-344
Percent Variance	-24.8%	-50.0%	-27.9%	17.4%	100.0%	-26.1%
Harvest Rate 2006		0.01	1.18	0.07	0.02	1.28
Harvest Rate 2005		0.02	1.23	0.05	0.01	1.31
Percent Variance		-33.6%	-4.1%	56.0%	165.8%	-1.8%

\* Upland game bird figures above do not include those for Washburn Island.

<b>WATERFOWL**</b>	<u>Hunters</u>	<u>Ducks</u>	<u>Geese</u>	<u>Total Waterfowl</u>
Harvest 2006	546	1421	70	1491
2005	628	1369	38	1407
Number Variance	-82	52	32	84
Percent Variance	-13.1%	3.8%	84.2%	6.0%
Harvest Rate 2006		2.60	0.13	2.73
2005		2.18	0.06	2.43
Percent Variance		19.4%	111.9%	12.4%

\* 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  
2006**

	<u>Indian</u> <u>Dan</u> <u>Canyon</u>	<u>Bridgeport</u> <u>Bar</u>	<u>Total</u>
<b><u>UPLAND GAME BIRDS:</u></b>			
Pheasant - Male	0	4	4
- Female	0	4	4
- Total	0	8	8
California Quail	184	151	335
Gray Partridge	17	0	17
Mourning Dove	0	1	1
Ruffed Grouse	1	0	1
<b><u>MAMMALS:</u></b>			
Mule Deer	0	0	0
Coyote	0	0	0
White-tailed Deer	0	0	0
Cottontail Rabbit	0	0	0
Black Bear	0	0	0
<b><u>DIVERSITY SPECIES:</u></b>			
Red Tailed Hawk	1	2	3
Rough-legged Hawk	0	1	1
Bald Eagle	0	2	2
Northern Harrier	0	1	1
Great Horned Owl	0	1	1
Sharp-shinned Hawk	0	2	2
Great Blue Heron	0	2	2
Western Grebe	0	1	1

Appendix G.

**WELLS POOL - WATERFOWL SURVEY  
2006-2007**

Survey Region NORTH COLUMBIA BASIN

Observer/Affiliation: Randy Hill (FWS), Elizabeth Huggins (FWS/pilot)

<u>SURVEY DATES:</u>	<u>11/15-16/06</u>	<u>1/8-9/07</u>
<u>SPECIES:</u>		
Tundra Swan	0	0
Trumpeter Swan	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>
Western Canada Goose	0	0
Lesser Canada Goose	0	0
Undifferentiated Canada Goose	178	17
Other Goose	0	0
<b>TOTAL GEESE</b>	<b>178</b>	<b>17</b>
Mallard	2245	2392
Gadwall	72	156
American Wigeon	3429	2602
Green-winged Teal	0	0
Blue-winged Teal	0	0
Cinnamon Teal	0	0
Unidentified Teal	0	0
Northern Shoveler	0	10
Northern Pintail	0	0
Wood Duck	0	0
Eurasian Wigeon	0	0
<b>SUBTOTAL PUDDLE DUCKS</b>	<b>5746</b>	<b>5160</b>
Redhead	1520	155
Canvasback	709	423
Scaup	1983	1002
Ringneck	1826	1142
Goldeneye	710	909
Bufflehead	493	145
Ruddy	152	232
Scoter sp.	0	0
<b>SUBTOTAL DIVING DUCKS</b>	<b>7393</b>	<b>4008</b>
Common Merganser	0	18
Hooded Merganser	32	0
<b>TOTAL DUCKS</b>	<b>13171</b>	<b>9186</b>
<b>TOTAL WATERFOWL</b>	<b>13349</b>	<b>9203</b>
Coots	20725	14855
<b>SURVEY TOTAL</b>	<b>34074</b>	<b>24058</b>
Bald Eagle	0	1 ad., 1 imm.
White Pelican	0	0
Sandhill Crane	0	0
Loon	2	3
Grebe	0	0
Cormorant	6	0
Egret	0	0
Heron	1	0

**Appendix H.**

**BUREAU OF LAND MANAGEMENT  
BALD EAGLE ROOST MONITORING SUMMARY  
WINTER 2005-2006**

(Modified from Bureau of Land Management Report)

Date	<u>Indian Dan Roost</u>				<u>Pearl-Upper Wells Roost</u>				<u>Azwell Roost</u>				<u>Total</u>			
	Ad	Imm	Unk	Total	Ad	Imm	Unk	Total	Ad	Imm	Unk	Total	Ad	Imm	Unk	Total
12/19/05	0	0	0	0	2	18	0	20	2	7	0	9	4	25	0	29
01/09/06	11	10	0	21	9	13	0	22	0	0	0	0	20	23	0	43
01/23/06	10	23	0	33	9	16	1	26	0	0	0	0	19	39	1	59
02/06/06	16	18	0	34	2	9	0	11	0	0	0	0	18	27	0	45
02/21/06	9	8	0	17	11	28	0	39	0	0	0	0	20	36	0	56
03/06/06	12	34	0	46	3	12	0	15	0	0	0	0	15	46	0	61