



Public Utility District No. 1 of Douglas County

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Via Electronic Filing

September 27, 2012

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

Subject: Wells Hydroelectric Project - FERC Project No. 2149 2011 Annual Wildlife Mitigation Report

Dear Ms. Bose

In compliance with Article 41 of the Wells Project license, as modified February 24, 1989, please find enclosed the 2011 Annual Wildlife Mitigation Report. This report contains a summary of all activities associated with the implementation of the Wildlife Mitigation Program for the Wells Hydroelectric Project. This report was prepared by Mr. Dan Peterson, Manager of the Wells Wildlife Area for the Washington State Department of Fish and Wildlife. The enclosed report documents the final full year of mitigation activities covered under the original Wells Project license and under the terms of the July 15, 1974 Wildlife Mitigation Agreement between the Washington Department of Fish and Wildlife and the Public Utility District No. 1 of Douglas County.

If you have any questions or require further information, please feel free to contact me at (509) 881-2208 or sbickford@depud.org.

Sincerely,

Shane Bickford
Natural Resources Supervisor

Enclosures (1)

Copy: Mr. Patrick Regan, FERC, Portland
Mr. James Hastreiter, FERC, Portland
Mr. Erich Gaedeke, FERC, Portland
Mr. Matt Monda, Washington Department of Fish and Wildlife
Mr. Garfield R. Jeffers, Jeffers, Danielson, Son & Aylward
Mr. Richard Whitney, - Colville Confederated Tribes

2011 ANNUAL REPORT
Wells Wildlife Mitigation Program
Federal Energy Regulatory Commission
License Number 2149

Submitted by:

Dan Peterson
Manager, Wells Wildlife Area
Washington State Department of Fish and Wildlife

Executive Summary

On July 15, 1974, Douglas PUD entered into an agreement with the Washington Department of Game (WDG, now Washington Department of Fish and Wildlife, WDFW) to address the Wells Hydroelectric Project's construction and operation effects on wildlife. Article 41 of the Wells Project license requires the PUD to take measures to mitigate these effects. The agreement included a one-time cash payment of \$1,250,000 to be used to benefit wildlife resources in Douglas and Okanogan counties in close proximity to the Wells Reservoir. The agreement also transferred properties to the WDG to establish the Wells Wildlife Area (WWA), consisting of the Central Ferry Canyon, West Foster Creek, Indian Dan Canyon, Okanogan River, Washburn Island and Bridgeport Bar Units. Douglas PUD owns the Washburn Island Unit and portions of the Bridgeport Bar Unit and Okanogan Unit, which are within the Wells Project Boundary. WDFW owns portions outside the Wells Project Boundary. The term of this agreement extends for the duration of the Wells Project license ending May 31, 2012.

On June 19, 1995, Douglas PUD entered into a Memorandum of Agreement (MOA) with the WDFW for additional funding for the WWA. This MOA became necessary because the interest income received from the WDFW's investment of the original Douglas PUD \$1,250,000 cash payment (July 15, 1974 Agreement) was no longer adequate to fund the annual operations of the WWA. In order to maintain the present level of operations for the WWA, it was determined by the parties that additional funds were necessary. Under the terms of the MOA, Douglas PUD agreed to provide additional funding required to maintain the WWA through the end of the Wells Project license. The additional funding varies by year but was \$87,776 for the 2011 fiscal year (July 2010-June 2011).

This annual report presents the fiscal year 2011 expenditures and accomplishments and enumeration of certain wildlife and recreational uses of the Wells Wildlife Area through the Wells Wildlife Mitigation Program in 2011.

A. Expenditures

Fiscal year 2011 Operation and Maintenance Budget is summarized in Table 1.

ITEM		
1	MANAGER - WAGES & BENEFITS (7 months)	\$43,900
2	ASSISTANTS AND LABORERS - W & B (20 months)	\$71,550
3	LAND LEASES (DNR-INDIAN DAN)	\$1,670
4	LAND TAXES (OKANOGAN CO.)	\$5,100
5	FOOD PLOTS (MATERIAL)	\$9,100
	A) Corn	\$0
	B) Wheat	\$0
	C) Barley	\$0
	D) Fertilizer	\$0
6	SHRUB PLANTING	\$1,800
7	MISC. SUPPLIES & MATERIAL (TOOLS, SIGNS, FORMS, SHOP AND OFFICE SUPPLIES)	\$7,800
8	MISC. SERVICES (PHONE, UTILITIES, TRAVEL, FREIGHT)	\$6,800
9	WEED CONTROL	\$3,500
10	REPAIRS/OPERATION - FARM AND OTHER EQUIPMENT	\$9,500
11	REPAIRS - BUILDINGS AND STRUCTURES (SIGNS, FENCES, PUMPS, FEEDERS, IRRIGATION SYSTEM, ETC.)	\$3,900
12	VEHICLES OPERATION	\$12,900
13	FIRE PROTECTION CONTRACT	\$2,700
14	SUBTOTAL	\$180,220
14	ADMINISTRATIVE OVERHEAD on Wells Account (12.5%)	\$11,556
TOTAL OPERATIONS AND MAINTENANCE:		\$191,776
WELLS ACCOUNT FUNDS AVAILABLE:		\$104,000
SUPPLEMENTAL FUNDS REQUESTED FROM DISTRICT:		\$87,776

Table 1. 2011 Operation and Maintenance Budget

B. Game Bird Release:

In spite of relatively mild weather conditions following hunting season, wildlife area staff were more successful trapping quail than the previous winter. A total of 159 California quail (*Callipepla californica*) were captured off the wildlife area and released. Staff released 107 quail on the Indian Dan Canyon Unit, and 52 on the Central Ferry Canyon Unit. As in past years all birds captured were sexed, aged and banded.

C. Wildlife Habitat Management and Related Activities:

- Grain Food Plot and Waterfowl Habitat Development:
 - Produced 108 acres of grain crops on the wildlife area in 2011. This included 73 acres of irrigated wheat and 15 acres of corn on the Washburn Island and Bridgeport Bar Units, and 20 acres of dryland wheat on the Indian Dan and West Foster Creek Units. To accomplish the required field work staff used a variety of PUD and non-PUD owned equipment. DPUD equipment included the John Deere 7810 tractor (150hp) to mow and disk the fields, the Kubota 6030 tractor (70hp) to spray herbicides and seed, the International Harvester 510 grain drill to seed wheat, a two-row corn planter and a 3-point sprayer. Non-DPUD owned equipment included a John Deere 7730 tractor (150hp) and Schulte S-150 mower both owned by the Sagebrush Flat Wildlife Area (SBF) and a 22-foot wide Krause disk purchased by the Chelan Wildlife Area.

- Riparian Tree and Shrub Planting:
 - Mowed, rotovated and/or sprayed vegetation competing with woody plantings.
 - Removed Siberian elm trees (*Ulmus parvifolia*, an undesirable exotic species) encroaching on about 5 acres of desirable trees and shrubs, and treated stumps with herbicide.

- Restoration of Perennial Herbaceous Cover:
 - Mowed 7 acres of perennial herbaceous plantings on the Bridgeport Bar Unit and 11 acres on Washburn Island to disperse seed and increase the density of cover.
 - Cultivated 40 acres on the West Foster Creek Unit and 25 acres on the Bridgeport Bar Unit to prepare these for shrub steppe habitat restoration. The Bridgeport Bar fields were seeded in the spring of 2011 while the West Foster fields, will be seeded in the fall of 2011. The seed mix used at Bridgeport Bar is listed in Table 1. Equipment used to complete this task included: a John Deere 7810 tractor (DPUD); a John Deere 7730 tractor (SBF), two Truax Flex II grass drills (1 SBF, 1 Chelan Wildlife Area) and the Krause disk. A Washington State Recreation and Conservation Office (RCO) grant provides about \$45,000 to revegetate 65 acres on the two units.

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	LBS/ ACRE	ACRES	TOTAL LBS
SPECIES/VARIETY	PLS		
Duffy Creek Sandberg Bluegrass	0.4	25	10
Wahluke Bluebunch Wheatgrass	4	25	100
Duffy Creek Idaho Fescue	0.75	25	19
Jim Creek Basin Wildrye	0.75	25	19
Sagebrush	0.1	25	2
Ladak Alfalfa	0.5	25	13
White Native Yarrow	0.05	25	1
Arrowleaf Balsamroot	1	25	25
Delar’s Small Burnett	1	25	25
TOTAL SEED	8.55	25	214
Rice hulls	3	25	75
TOTAL	11.55	25	289

Table 1. Bridgeport Bar seed mix

- Ponds:
 - Intake flow rates and water levels of five ponds on the West Foster Creek Unit were regulated to ensure adequate water distribution between ponds, to maintain aquatic habitat and adjacent riparian plantings and to prevent flooding.
 - Maintained water control structures on the West Foster and Indian Dan Units as needed.
- Wildlife Feeding and Watering:
 - Filled and maintained 24 upland game bird feeders.
 - Inspected and maintained gallinaceous guzzlers and springs as needed.
- Artificial Nesting Structures:
 - Inspected and maintained goose, wood duck and kestrel nest structures. Canada goose (*Branta canadensis*) nesting structures produced about 31 percent of the hatch on Wells Pool (Appendix A). Volunteer Richard Hendrick checked, cleaned and repaired as needed more than 60 wood duck boxes. The boxes are located on the Indian Dan Canyon, Bridgeport Bar, Washburn Island and Okanogan River units.

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- Fences:
 - Inspected and repaired livestock and deer fences as needed.
 - Removed approximately one mile of barbed-wire fence from the Indian Dan Unit.
 - Repaired several gates and checked several miles of fence following a cattle trespass incident on the Indian Dan Unit.
 - Repaired fencing on the Okanogan Unit damaged by an automobile accident.
- Vegetation Control (approximately 205 acres):
 - Treated a variety of weeds with herbicide including: diffuse knapweed (*Centaurea diffusa*) 4.5 acres, Puncture vine (*Tribulus terrestris*) 5 acres, quackgrass (*Elytrigia repens*) 10 acres, cheatgrass (*Bromus tectorum*) 20 acres, Dalmatian toadflax (*Linaria dalmatica*) 30 acres, hoary cress (*Cardaria draba*) 7.5 acres, Canada thistle (*Cirsium arvense*) 40 acres and a variety of annual weeds within the food plot fields – 88 acres.
 - Mowed and treated with herbicide weeds growing on and along wildlife area roads (26 miles).
 - Mowed about 7 acres of diffuse knapweed.
- 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 buildings and parking areas. Cleared snow from roads, parking areas and headquarter area and replaced signs as needed.
 - Constructed an additional 360 square foot storage room in the open bays of the headquarter shop.
- Other:
 - Volunteers created two informational brochures for the area.

E. Wildlife Populations and Surveys

- Upland Game Bird:

- WDFW recorded 763 upland bird hunters registering (hunter days) on the wildlife area with a harvest of 617 birds during the 2011 -2012 season (see Appendix B). This represents a harvest rate of 0.81 birds per hunter day. Compared with 2010-2011, the number of hunters in the field increased by 9.4% (636 vs. 763). This increase, however, was not reflected in the overall harvest which declined by 6%. California quail comprised 94 percent of the upland birds harvested on the area. Pheasant, chukar and gray partridge harvest numbers reported were: 6, 2 and 30 respectively.

Table 2 summarizes California quail and total upland game harvest information collected on the wildlife area between 1983 and 2012 excluding Washburn Island and the Okanogan Units where hunting registration information is lacking. Quail hunting success during this reporting period was below average.

	Hunters	Quail	Quail/ Hunter	Upland Birds	Upland Bird/Hunter
Average	861	763	0.86	860	0.97
Minimum	496	320	0.44	397	0.55
Maximum	1,284	1,659	1.65	1,721	1.71
2011 - 2012	763	579	0.76	617	0.81
2010 - 2011	571	562	0.97	636	1.02

- Waterfowl:

- Surveyed a total of 78 Canada goose nests on Wells Reservoir (Appendix A). Each nest was surveyed twice. Complete clutches were documented in 63 of the 78 nests. 54 ground nests and 9 nests in artificial structure averaged 5.6 and 6.1 eggs respectively. 4 ground nests were lost to predators. No nests were found on the Bridgeport Bar Islands. The lack of nesting on these islands was due to raccoon activity. Production of 356 goslings was documented in 2011 (227 in 2010).
- Waterfowl hunters reported hunting 527 days on the Bridgeport Bar Islands, the Bridgeport Unit and the Washburn Island Unit and harvesting 69 geese and 1276 ducks (Appendix B). This represents an average of 2.42 waterfowl per hunter day. When compared to the previous hunting season, hunter participation and success increased by 16% and 15% respectively. Waterfowl hunting data for Bridgeport

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Bar (1978 – 2012 and for Washburn Island (1981 to 2012), the two principal waterfowl hunting units, is summarized in tables 3 and 4. As shown, waterfowl hunting success continues to be above average for both locations.

	Hunters	Ducks	Ducks \Hunter	Geese	Geese \Hunter	Total	Total Waterfowl \Hunter
Mean	439	668	1.57	60	0.15	729	1.72
Minimum	51	81	0.67	10	0.05	91	0.72
Maximum	851	1391	3.02	183	0.40	1422	3.09
2011 - 2012	413	1109	2.69	36	0.09	1145	2.77
2010 - 2011	380	998	2.63	42	0.11	1040	2.74

	Hunters	Ducks	Ducks \Hunter	Geese	Geese \Hunter	Total	Total Waterfowl \Hunter
Mean	78	66	0.72	34	0.58	100	1.30
Minimum	5	0	0.00	11	0.08	15	0.54
Maximum	207	242	1.99	94	3.00	258	3.00
2011 - 2012	113	166	1.47	33	0.29	199	1.76
2010 - 2011	74	112	1.51	40	0.54	152	2.05

- Morning Doves

- Mourning Dove hunters reported hunting 108 days on the Wells Wildlife Area and harvested a total of 163 doves with a harvest of 1.5 doves per hunter. There was a 7 percent decrease in hunters in 2011 compared to 2010 with 116 hunters. Harvest during the 2011 season was only 54 percent of the precious season harvest of 300 doves.

- Mule Deer

- Mule deer hunters reported a total of 135 days hunting on the Wildlife Area with a harvest of 8 deer. Deer hunters expended 10 fewer days hunting in the 2011 season compared to 2010 and harvested 2/3 the number of deer.

- Non-Game:

- Volunteers recorded white pelican (*Pelecanus erythrorhynchos*) and Double-crested cormorants (*Phalacrocorax auritus*) numbers, on Wells Pool between July 3 and September 30, 2011. They observed a high of 93 pelicans on September 23 (128 in 2010) and a high of 170 cormorants (144 in 2010) on August 6. Cormorants continue to nest in a great blue heron (*Ardea herodias*) rookery located at the mouth of the Okanogan River.

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- Surveyed the Central Ferry Unit for sharp-tailed grouse (*Tympanuchus phasianellus*) leks. No birds were observed at the traditional lek sites or elsewhere on the unit.
- Between late November, 2011 and mid-February 2012 wildlife area staff and volunteers recorded 7 sightings of sharp-tailed grouse on the West Foster Creek Unit. Numbers of grouse observed ranged from 2 to 16. In recent years the number and frequency of observations on this unit has increased.
- Sightings of non-native Eurasian collared-dove (*Streptopelia decaocto*) and fox squirrels (*Sciurus niger*) are increasing on parts of the wildlife area.

Appendix A

WELLS POOL CANADA GOOSE NESTING SURVEY			
2011			
	NATURAL	ARTIFICIAL	TOTAL
	SITES	STRUCTURES	
TOTAL NESTS VISITED	67	11	78
NESTS WITH KNOWN CLUTCH	54	9	63
TOTAL EGGS	304	55	359
AVERAGE CLUTCH	5.63	6.11	5.70
NEST LOSS - PREDATED	4	0	4
NESTS WITH UNKNOWN TOTAL CLUTCH SIZE, DUE TO LAYING AT TIME OF VISIT	13	2	15
NESTS WITH KNOWN FATE AND CLUTCH	54	11	65
TOTAL EGGS	318	69	387
TOTAL HATCH	304	52	356
PERCENT HATCH	95.6	75.4	92.0
HATCHED EGGS PER NEST	5.6	4.7	5.48
ABANDONED		11	11
DEPREDATED	4	0	4
UNKNOWN		0	0
TOTAL LOSS	4	11	15
KNOWN PRODUCTION	304	52	356
HATCHED NESTS: UNKNOWN CLUTCH	13	1	14
*ESTIMATED HATCHLINGS	73	5	78
NESTS: UNKNOWN FATE		1	1
*ESTIMATED HATCHLINGS	0	5	5
NESTS: ACTIVE/NOT VISITED	0	0	0
*ESTIMATED HATCHLINGS	0	0	0
TOTAL ESTIMATED PRODUCTION	377	61	439
PERCENT OF TOTAL PRODUCTION	86.0	14.0	100

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

Appendix B.

**Wells Wildlife Area
Hunter Bag Check Summary
2011-2012 Hunting Season**

	Indian Dan	Bridgeport Bar	West Foster	Central Ferry	Washburn Island	Total
UPLAND GAME BIRDS						
Hunters	173	347	135	78	30	763
Pheasant	0	2	1	0	3	6
Pheasant per hunter	0.00	0.01	0.01	0.00	0.10	0.01
California Quail	150	289	56	64	20	579
Quail per hunter	0.87	0.83	0.41	0.82	0.67	0.76
Gray Partridge	9	3	5	13	0	30
Gray partridge per hunter	0.05	0.01	0.04	0.17	0.00	0.04
Chukar	1	1	0	0	0	2
Chukar per hunter	0.01	0.00	0.00	0.00	0.00	0.00
Grouse		0	0	0	0	0
Grouse per hunter	0.00	0.00	0.00	0.00	0.00	0.00
Total upland game	160	295	62	77	23	617
Upland Game per hunter	0.92	0.85	0.46	0.99	0.77	0.81
WATERFOWL						
Hunters		413	1		113	527
Ducks		1109	1		166	1276
Duck per hunter		2.69	1.00		1.47	2.42
Canada Geese		36	0		33	69
Goose per hunter		0.09	0.00		0.29	0.13
Total Waterfowl		1145	1		199	1345
Waterfowl per hunter		2.77	1.00		1.76	2.55
MOURNING DOVE						
Dove Hunters	3	60	5	40	0	108
Dove Taken	0	105	0	58	0	163
Dove per hunter	0.00	1.75	0.00	1.45	0.00	1.51
MULE DEER						
Deer Hunters	62		34	39		135
Deer Taken	4		1	3		8
Deer per hunter	0.06		0.03	0.08		0.06

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.