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Public Utility District No. 1 of Douglas County

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September 20, 2001

Mr. David P. Boergers, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street N. E.
Washington, D. C. 20426

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

Dear Mr. Boergers:

In compliance with Article 41, as modified February 24, 1989, enclosed are the original and four (4) copies of the 2000 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 & 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. Ron Wright
Washington Department of Fish & Wildlife - Ephrata
Jeffers, Danielson, Sonn & Aylward, Mr. Garfield R. Jeffers
Colville Confederated Tribes, Mr. Steve Judd

2000 Annual Report
Wells Wildlife Mitigation Program
Federal Energy Regulatory Commission
License Number 2149

By Marc Hallet
Wells Wildlife Area Manager
Washington State Department
of Fish and Wildlife

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A. Expenditures - Fiscal Year 2000

| | Wells Account | Supplemental | Total |
|-------------------------|------------------|-----------------|------------------|
| Salaries | \$62,455 | \$24,987 | \$87,442 |
| Employee Benefits | \$17,284 | \$5,277 | \$22,561 |
| Goods and Services | \$32,372 | \$44,241 | \$76,613 |
| Travel | \$86 | \$47 | \$133 |
| Equipment | \$0 | \$0 | \$0 |
| Property Tax | \$4,884 | | \$4,884 |
| Land Rental (DNR) | \$1,143 | | \$1,143 |
| Fire Protection | \$3,617 | | \$3,617 |
| Weed Assessments | \$397 | | \$397 |
| Administrative Overhead | | \$6,505 | \$6,505 |
| | | | \$0 |
| | | | \$0 |
| TOTAL | \$122,238 | \$81,057 | \$203,295 |

Wells Special Wildlife Account:

July 1, 2000 Balance: \$ 1,092,814
 December 31, 2000 Balance: \$ 1,040,495

B. Game Bird Release:

The Cascade Sportsmen's Association assisted WDFW with trapping 315 California quail, in Chelan. These were released on the Wells Wildlife Area; 191 on the West Foster Creek Unit, 87 in Central Ferry Canyon 28 in Indian Dan Canyon and 9 on Bridgeport Bar.

C. Public Use:

Estimated public use is summarized in Appendix A. This is based on bag checks conducted on the area and discussed in Section E; Wildlife Populations and Surveys.

D. Wildlife Habitat Management:

1) Grain Food Plot Production:

Agricultural crops grown on Bridgeport Bar for wildlife food and cover included 62 acres of wheat, 7 acres of corn, 3.5 acres of milo and 3.5 acres of proso millet. Strips of milo and millet were planted along corn rows at the edge of wheat fields. This and forty five acres of irrigated wheat bordered by a strip of milo and proso millet, planted by the Washburn Island lessee, were left standing for wildlife. Hunters on Washburn Island noted an increase in waterfowl use this year. About 12 acres of land was prepared for planting on the Indian Dan Unit.

Purchased two new irrigation wheel line movers and installed three new irrigation wheel-lines (approx. 2,500 feet) to allow irrigation of 40 acres of crops. Americorps and Washington Conservation Corps (WCC) crews assisted in moving these lines from another wildlife area. This also freed hand-lines to be used elsewhere.

2) Shrub and Tree Planting:

Planted 4,435 shrubs and trees on the area as outlined in Appendix B. Installed about 1,200 feet of permanent irrigation lines (black plastic tubing with mini-sprinklers) to water siouxland cottonwoods along the state highway.

Installed about 2,000 feet of set lines to irrigate new Washburn Island shrub and tree planting. Fertilized shrub rows. Prepared ground near new Indian Dan ponds for future tree and shrub planting. Cultivated, irrigated and applied herbicide to new shrub plantings.

Wired about 15 water birch on the West Foster Cr. Unit for beaver damage.

3) Ponds:

Managed water level of two ponds in Indian Dan Canyon and five on the West Foster Creek Unit. Dryer conditions caused the new Indian Dan ponds to dry up earlier this year. Most of the West Foster Creek ponds were full through most of the summer season.

4) Range Rehabilitation:

Applied herbicide to and cultivated 12 acres of pubescent wheatgrass. This grass has little wildlife value and the area was re-seeded the area with a mixture of grass, forbs and shrubs. Seeded a strip of fourwing saltbrush (Atriplex canescens) at the edge of this new seeding.

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4) Other Projects, Developments and Activities:

a) Wildlife Feeding and Watering:

Filled and maintained 24 upland game feeders for winter use and maintained 11 gallinaceous guzzlers. Constructed and installed two new feeders on the West Foster Creek and Indian Dan Canyon Units.

b) Nesting Structures:

Serviced Canada goose, wood duck and kestrel nesting structures. Canada goose and kestrel structure use is summarized in Appendices C and D.

c) Fences:

Repaired pheasant pens damaged by ice during the winter. Maintained and repaired fences as needed. Removed 1,000 feet of fence along the Columbia on Washburn Island to facilitate shrub and tree planting. Constructed 1.5 miles of fence and salvaged about 1 mile of fence on the Okanogan Unit with the assistance of a Americorps crew.

d) Vegetation Control:

Mowed about 15 acres of weeds on the Indian Dan Unit and 25 acres on the West Foster Cr. Unit (primarily Canada thistle and Russian knapweed). Applied herbicide to 61.2 acres of weeds and treated about 28 miles of road as outlined below.

Wells Wildlife Area - Herbicide treatment:

| Weed Species | Acres | Miles |
|--------------------|-------|-------|
| Diffuse Knapweed | 3.7 | 15 |
| Russian Knapweed | 13 | |
| Dalmatian Toadflax | 2 | 13 |
| Leafy Spurge | .5 | |
| Morning Glory | 10 | |
| Quackgrass | 20 | |
| Purple Loosestrife | 7 | |
| Miscellaneous | 5 | |
| Total | 61.2 | 28 |

WDFW crews sprayed about 7 acres of purple loosestrife on Washburn Island. Beetles (Galerucella californiensis), were also released on the island to help control loosestrife.

e) Firebreaks and Fire Control:

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

f) Buildings:

Maintained and repaired buildings as needed. Salvaged roofing and other material from a Bridgeport Barn with the help of an Americorp crew.

g) Public Use Facilities:

Cleaned out and mowed parking areas. Maintained 12 hunter registration booths.

E. Wildlife Populations and Surveys:

1) Upland Game Birds:

Overall upland game bird harvest (hunter registration program) was 19.8 percent higher than in 1999 (Appendices E and F). California quail harvest was 21.8 percent higher and pheasant harvest was 21.6 percent lower than in 1999. Although partridge harvest was still relatively low, the Hungarian partridge harvest for all the units increased by 48 percent from 52 in 1999 to 77. Hunters recorded a record Hungarian partridge harvest on the Indian Dan Unit. Eleven chukar partridges were reported in the harvest. Although low, this number is an increase from the two harvested in 1999. Upland bird hunter numbers were one percent higher than in 1999 and averaged 1.2 bird per day (1 in 1999). Additionally, hunters reported taking 7 grouse (blue and ruffed) and 2 coyotes in Indian Dan and Central Ferry Canyons.

Fall wildlife population surveys were conducted on the Indian Dan and Bridgeport Bar Units (appendix G). These surveys yielded record California quail numbers; 220 and 460 respectfully.

2) Waterfowl:

A drop in hunting pressure from 1999 (25.7%), lead to a 19% lower duck harvest and a 23% lower goose harvest. Waterfowl harvest rate, increased by 8.4% (8.7% for ducks and 3.7% for geese).

3) Big Game:

Conservative seasons including a three point or better requirement have lead to higher deer population on and adjacent to the wildlife area. Deer browsing of planted trees and shrubs, especially on the West Foster Creek and Central Ferry Canyon Units, remains severe.

4) Non-game:

The Bald eagle roost survey conducted by the Bureau of Land Management is enclosed (Appendix H). The highest eagle roost count; 27, was made on February 7, 2000 (12 in 1999).

Osprey nesting was not surveyed this year. An electrical pole fire destroyed one nest on Washburn Island and killed two young birds.

A small flock of white pelicans continue to use Wells Pool regularly from May to early October.

Surveyed thirty six (36) kestrel nests in three areas (Appendix C). Thirty three (33) nests with known production produced 149 young (4.52/nest). A volunteer banded 111 chicks and 1 adult on the area. One adult female was recaptured.

Appendix A

Wells Wildlife Area
 Estimated Hunting Use
 and Wildlife Harvest -
 2000

| Activity | Use Days | Wildlife | Numbers Harvested |
|---------------------|--------------|-----------|-------------------|
| Waterfowl Hunting | <u>921</u> | Ducks | 1,685 |
| | | Geese | 101 |
| | | Sub Total | <u>1,786</u> |
| Upland Game Hunting | <u>1,574</u> | Pheasants | 105 |
| | | Quail | 1,546 |
| | | Hungarian | 121 |
| | | Chukar | 13 |
| | | Sub Total | <u>1,785</u> |
| Dove Hunting | <u>469</u> | Dove | <u>642</u> |

Appendix A is based on hunter bag checks (Appendix E). It is also corrected for hunter registration cards not returned and includes estimated hunting numbers for lands without a hunter registration program (PUD project lands and the Okanogan Unit).

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Appendix B

Wells Wildlife Area

Woody Plantings

2000

| Common Name | Species | Bridgeport Bar | Washburn Island | West Foster | Indian Dan | Total |
|--------------------|--------------------------------|-------------------|--------------------|----------------|---------------|-------------|
| Water Birch | <u>Betula occidentalis</u> | | 400 | | | 400 |
| Black Cottonwood | <u>Populus trichocarpa</u> | | 200 | | | 200 |
| Siouxland Cot. | <u>Populus sp.</u> | 250 | | | | 250 |
| Black Locust | <u>Robinia pseudoacacia</u> | | 150 | 50 | 50 | 250 |
| Austrian Pine | <u>Pinus nigra</u> | 50 | 100 | | | 150 |
| Ponderosa Pine | <u>Pinus ponderosa</u> | | 200 | | | 200 |
| R.M. Juniper | <u>Juniperus scopulorum</u> | 50 | 150 | 50 | 50 | 300 |
| Wood Rose | <u>Rosa woodsii</u> | | 300 | 200 | | 500 |
| Multiflora Rose | <u>Rosa multiflora</u> | 100 | 400 | | | 500 |
| Caragana | <u>Caragana arborescens</u> | | 350 | 50 | | 400 |
| R.O. Dogwood | <u>Cornus stolonifera</u> | | 350 | 50 | | 400 |
| Serviceberry | <u>Amelanchier alnifolia</u> | | 85 | | | 85 |
| Chokecherry | <u>Prunus virginiana</u> | | 200 | | | 200 |
| Hawthorn | <u>Craetagus douglassi</u> | | 50 | | | 50 |
| Elderberry | <u>Sambucus glauca</u> | | 200 | | | 200 |
| Clematis | <u>Clematis ligusticifolia</u> | | 100 | 50 | | 150 |
| Willows (cuttings) | <u>Salix sp.</u> | | | 200 | | 200 |
| Total | | 450 | 3235 | 650 | 100 | 4435 |

Appendix C

Wells Wildlife Area
Kestrel Production - 2000

| AREA | WEST FOSTER | CENTRAL FERRY | INDIAN DAN | TOTAL |
|-------------------------------|----------------|------------------|---------------|-------|
| ADULTS BANDED | 0 | 1 | 0 | 1 |
| JUVENILES BANDED | 29 | 60 | 22 | 111 |
| TOTAL BANDED - 1999 | 29 | 61 | 22 | 112 |
| RECAPTURED | 1 | 0 | 0 | 1 |
| NESTS UNKNOWN PRODUCTION | 1 | 0 | 2 | 3 |
| NESTS WITH KNOWN PRODUCTION * | 13 | 14 | 6 | 33 |
| TOTAL NESTS | 14 | 14 | 8 | 36 |
| * YOUNG PRODUCED | 61 | 61 | 27 | 149 |
| YOUNG/NEST W/KNOWN PRODUCTION | 4.69 | 4.36 | 4.50 | 4.52 |

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Appendix D

WELLS POOL
GOOSE NESTING SURVEY - 2000

| | <u>NATURAL SITES</u> | <u>ARTIFICIAL STRUCTURES</u> | <u>TOTAL</u> |
|---|--------------------------|----------------------------------|--------------|
| <u>TOTAL NESTS VISITED</u> | 105 | 25 | 130 |
| <u>NESTS WITH KNOWN CLUTCH</u> | 49 | 9 | 58 |
| TOTAL EGGS | 272 | 56 | 328 |
| AVERAGE CLUTCH | 5.55 | 6.22 | 5.66 |
| <u>NESTS WITH KNOWN FATE AND CLUTCH</u> | 44 | 9 | 53 |
| TOTAL EGGS | 267 | 56 | 323 |
| TOTAL HATCH | 243 | 55 | 298 |
| PERCENT HATCH | 91.01% | 98.21% | 92.26% |
| HATCHED EGGS PER NEST | 5.52 | 6.11 | 5.62 |
| ABANDONED | 14 | 0 | 14 |
| DEAD GOSLINGS | 0 | 0 | 0 |
| PREDATED | 9 | 0 | 9 |
| UNKNOWN | 0 | 0 | 0 |
| INFERTILE | 1 | 1 | 2 |
| TOTAL LOSS | 24 | 1 | 25 |
| <u>NEST LOSS - PREDATED</u> | 9 | 0 | 9 |
| - ABANDONED | 1 | 0 | 1 |
| - TOTAL | 10 | 0 | 10 |
| | | | |
| KNOWN PRODUCTION | 243 | 55 | 298 |
| HATCHED NESTS: UNKNOWN CLUTCH | 42 | 14 | 56 |
| *ESTIMATED HATCHLINGS | 232 | 86 | 318 |
| NESTS: UNKNOWN FATE | 4 | 2 | 6 |
| *ESTIMATED HATCHLINGS | 22 | 12 | 34 |
| NESTS: ACTIVE/NOT VISITED | 0 | 5 | 5 |
| *ESTIMATED HATCHLINGS | 0 | 31 | 31 |
| TOTAL ESTIMATED PRODUCTION | 497 | 183 | 680 |
| PERCENT OF TOTAL PRODUCTION | 73.05% | 26.95% | |

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

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Appendix E
 Wells Wildlife Area
 Hunter Bag Check Summary
 2000-2001 Hunting Season

| Unit: | Indian Dan | Bridgeport Bar | West Foster | Central Ferry | Washburn Island | Total |
|------------------------------|---------------|-------------------|----------------|------------------|--------------------|-------------|
| Hunters: | | | | | | |
| Waterfowl | 7 | 421 | 0 | 0 | 31 | 459 |
| Upland Game | 266 | 364 | 171 | 111 | 46 | 958 |
| TOTAL | 273 | 785 | 171 | 111 | 77 | 1417 |
| Game Taken | | | | | | |
| <u>/Success Rate:</u> | | | | | | |
| Pheasant | 0 | 31 | 15 | 6 | 5 | 57 |
| per hunter | 0.00 | 0.09 | 0.09 | 0.05 | 0.11 | 0.06 |
| Quail | 321 | 332 | 182 | 113 | 46 | 994 |
| per hunter | 1.21 | 0.91 | 1.06 | 1.02 | 1.00 | 1.04 |
| Hun | 36 | 19 | 12 | 8 | 2 | 77 |
| per hunter | 0.14 | 0.05 | 0.07 | 0.07 | 0.04 | 0.08 |
| Chukar | 2 | 5 | 4 | | | 11 |
| per hunter | 0.01 | 0.01 | 0.02 | 0.00 | 0.00 | 0.01 |
| Ducks | 21 | 807 | 10 | | 27 | 865 |
| per hunter | 3.00 | 1.92 | | | 0.87 | 1.88 |
| Geese | | 38 | | | 19 | 57 |
| per hunter | | 0.09 | | | 0.61 | 0.61 |
| TOTAL | 378 | 1227 | 219 | 127 | 99 | 2050 |
| Dove Hunters | 7 | 94 | 0 | 56 | | 157 |
| Dove Taken | 20 | 241 | 0 | 208 | | 469 |
| per hunter | 2.86 | 2.56 | | 3.71 | | 2.99 |
| Deer Hunters | 31 | | 4 | 25 | | 60 |
| Deer Taken | 2 | | 1 | 6 | | 9 |

Appendix F

Wells Wildlife Area

Bag Check Summary - Comparative Success and Harvest Rates

1999 and 2000 Hunting Seasons

UPLAND GAME BIRDS*

| | Hunters | Pheasant | California Quail | Hungarian Partridge | Chukar Partridge | Total Upland Game |
|-------------------|---------|----------|------------------|---------------------|------------------|-------------------|
| Harvest 2000 | 958 | 57 | 994 | 77 | 11 | 1139 |
| 1999 | 949 | 72 | 816 | 52 | 2 | 942 |
| Number Variance | 9 | -15 | 178 | 25 | 9 | 197 |
| Percent Variance | 0.95 | -20.83 | 21.81 | 48.08 | | 20.91 |
| Harvest Rate 2000 | | 0.06 | 1.04 | 0.08 | | 1.19 |
| 1999 | | 0.08 | 0.86 | 0.05 | | 0.99 |
| Percent Variance | | -21.58 | 20.67 | 46.69 | | 19.78 |

WATERFOWL**

| | Hunters | Ducks | Geese | Total Waterfowl |
|-------------------|---------|--------|--------|-----------------|
| Harvest 2000 | 459 | 855 | 57 | 912 |
| 1999 | 618 | 1059 | 74 | 1133 |
| Number Variance | -159 | -204 | -17 | -221 |
| Percent Variance | -25.73 | -19.26 | -22.97 | -19.51 |
| Harvest Rate 2000 | | 1.86 | 0.12 | 1.99 |
| 1999 | | 1.71 | 0.12 | 1.83 |
| Percent Variance | | 8.70 | 3.71 | 8.38 |

* Upland game data for all units

**Waterfowl data for Washburn Island and Bridgeport Bar

Appendix G

Fall Wildlife Surveys

October 3, 2000

| SPECIES | Indian Dan Canyon | Bridgeport Bar | TOTAL |
|----------------------------------|-------------------------|-------------------|-------|
| <u>UPLAND GAME BIRDS:</u> | | | |
| Pheasant - Male | 0 | 18 | 18 |
| - Female | 1 | 18 | 19 |
| - Total | 1 | 36 | 37 |
| California Quail | 220 | 460 | 680 |
| <u>MAMMALS:</u> | | | |
| Mule Deer | 2 | 0 | 2 |
| Cottontail Rabbit | 0 | 4 | 4 |
| <u>WATERFOWL:</u> | | | |
| Mallard | 6 | 21 | 27 |
| Ruddy Duck | 6 | 0 | 6 |
| <u>DIVERSITY SPECIES:</u> | | | |
| Great Horned Owl | 1 | 0 | 1 |
| Red Tailed Hawk | 0 | 2 | 2 |
| Northern Harrier | 1 | 3 | 4 |
| Prairie Falcon | 1 | 0 | 1 |
| Great Blue Heron | 0 | 1 | 1 |
| Raven | 2 | 0 | 2 |
| Kestrel | 1 | 0 | 1 |

Appendix H

Bureau of Land Management
 Bald Eagle Roost Monitoring Summary
 Winter 1999-2000

| Date | Brewster Roost | | | Pearl Hill Roost | | | Total for Both Roosts | | | |
|----------|----------------|----------|---------|------------------|----------|---------|-----------------------|----------|---------|-------|
| | Adult | Immature | Unknown | Adult | Immature | Unknown | Adult | Immature | Unknown | Total |
| 12/13/99 | 1 | 0 | 1 | 2 | 0 | 0 | 3 | 0 | 1 | 4 |
| 12/28/99 | 1 | 2 | 5 | 4 | 6 | 0 | 5 | 8 | 5 | 18 |
| 01/10/00 | 1 | 0 | 0 | 4 | 1 | 0 | 5 | 1 | 0 | 6 |
| 01/24/00 | 1 | 0 | 1 | 12 | 12 | 0 | 13 | 12 | 1 | 26 |
| 02/07/00 | 0 | 1 | 0 | 7 | 19 | 0 | 7 | 20 | 0 | 27 |
| 02/22/00 | 0 | 0 | 0 | 8 | 16 | 0 | 8 | 16 | 0 | 24 |
| 3/06/00 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 13 | 0 | 3 |