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# Public Utility District No. 1 of Douglas County

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## Via Electronic Filing

April 23, 2013

Honorable Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 1st Street N.E.  
Washington, D.C. 20426

**Subject: Wells Hydroelectric Project – FERC Project No. 2149  
2012 Annual Wildlife and Botanical Report and 2013 Work Plan**

Dear Secretary Bose:

Public Utility District No. 1 of Douglas County, Washington (Douglas PUD), licensee for the Wells Hydroelectric Project No. 2149 (Wells Project) respectfully submits the enclosed annual report titled: *2012 Wildlife and Botanical Report and 2013 Work Plan*. This report describes the implementation of activities conducted during calendar year 2012 in compliance with Article 409 of the license for the Wells Project, and the terms of the Wildlife and Botanical Management Plan (WBMP), Avian Protection Plan (APP) and Off-License Settlement Agreement. The enclosed report also includes a description of the measures to be implemented during calendar year 2013 in association with these same resource protection plans and agreement.

Article 409 of the new license for the Wells Project requires Douglas PUD to implement the WBMP filed with the Federal Energy Regulatory Commission (FERC) on May 27, 2010 as Appendix E-3 of Exhibit E of the Final License Application. Article 409 also requires the development of an annual report that documents the results of the prior year's measures and describes the upcoming year's proposed measures pursuant to the WBMP. Article 409 further requires Douglas PUD to annually update the list of sensitive plant species found in the WBMP based upon an annual review of the Washington Natural Heritage Program rare plant list, and it requires Douglas PUD to develop the WBMP annual report and work plan in consultation with specific federal and state agencies and the Confederated Tribes of the Colville Reservation.<sup>1</sup> Douglas PUD is required to submit the annual report and work plan to the FERC by May 31<sup>st</sup> of each year following license issuance.

In addition to Article 409, Ordering Paragraph (I) of the license directs Douglas PUD to implement the APP that was included within Appendix E-6 of Exhibit E of the Final License Application filed with the FERC on May 27, 2010.

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<sup>1</sup> The Terrestrial Resources Work Group is composed of representatives from the United States Fish and Wildlife Service, United States Bureau of Land Management, Washington State Department of Fish and Wildlife, Washington State Department of Ecology, Confederated Tribes of the Colville Reservation and Douglas PUD.

The Off-License Settlement Agreement is not a requirement of the FERC license.<sup>2</sup> However, many of the measures funded by Douglas PUD, through this agreement, are also required measures contained within the WBMP. Because of the interrelated nature of all of the wildlife and botanical measures associated with the new license and the Off-License Settlement Agreement, Douglas PUD has elected to report on both actions within one report.

The *2012 Wildlife and Botanical Report and 2013 Work Plan* provides a summary of all of the actions implemented by Douglas PUD in compliance with Article 409 of the license, and in compliance with the terms of the WBMP, APP and Off-License Settlement Agreement. The body of the report provides a summary of all of the actions implemented in compliance with the various plans and agreements. Appendix A of the enclosed report provides two memos documenting adherence to the WBMP requirements to annually plant waterfowl food plots, maintaining riparian habitat within the wildlife area and conducting frequent reservoir inspections toward the protection of existing shoreline habitat. Appendix B of the report contains an updated list of sensitive plant species based upon a review of the Washington Natural Heritage Program rare plant list. Appendix C of the report contains documentation of consultation with the Terrestrial Resource Work Group.

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

Sincerely,



Shane Bickford  
Natural Resources Supervisor

Enclosures:

(1) 2012 Annual Wildlife and Botanical Report and 2013 Work Plan

Cc: Mr. Douglas Johnson – FERC, Portland  
Mr. Erich Gaedeke – FERC, Portland  
Terrestrial Resource Work Group  
Jim McGee – Douglas PUD

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<sup>2</sup> In December 2007, Douglas PUD entered into an Off-License Settlement Agreement with the Washington State Department of Fish and Wildlife (WDFW). The Off-License Settlement Agreement was filed with the FERC on May 27, 2010 as Appendix E-11 of Exhibit E of the Final License Application. The Off-License Settlement Agreement is not a requirement of the FERC license for the Wells Project. Instead, it is a contract between Douglas PUD and WDFW that addresses funding for various wildlife and botanical related projects located both within and adjacent to the Wells Project. The Off-License Agreement also covers the planting of resident fish for the enhancement of recreational fishing opportunities outside the Wells Project Boundary.

**2012 ANNUAL WILDLIFE AND BOTANICAL REPORT  
AND 2013 WORK PLAN**

**WELLS HYDROELECTRIC PROJECT**

**FERC NO. 2149**

April 2013



Prepared for:  
Public Utility District No. 1 of Douglas County  
East Wenatchee, Washington

For copies of this Annual Wildlife and Botanical Report, contact:

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## Table of Contents

<b>1.0</b>	<b>INTRODUCTION.....</b>	<b>1</b>
<b>2.0</b>	<b>BACKGROUND .....</b>	<b>1</b>
<b>3.0</b>	<b>WILDLIFE AND BOTANICAL MAMAGEMENT PLAN .....</b>	<b>3</b>
3.1	Protect RTE Terrestrial Species Habitat on Wells Project Lands.....	3
3.1.1	American White Pelican .....	3
3.1.2	Sharp-tailed Grouse .....	3
3.2	Protect RTE Botanical Species from Land Disturbing Activities and Herbicide Sprays .....	4
3.2.1	Resurvey Thompson’s Clover and Little Bluestem Protected Sites .....	4
3.2.2	Ground Disturbing Activities and Weed Control at RTE Plant Protection Sites .....	5
3.2.3	Weed Control at Thompson Clover Sites .....	5
3.2.4	Washington Natural Heritage Program Rare Plant List.....	5
3.3	Conserve Habitat for Species on Wells Project Lands Protected by the Federal Endangered Species Act, Bald and Golden Eagle Protection Act, and Migratory Bird Treaty Act .....	6
3.3.1	Bald Eagle .....	6
3.3.1.1	Bald Eagle Perches Pole Inspection.....	6
3.3.1.2	Bald Eagle Surveys .....	6
3.3.1.3	Protect Trees from Beaver Damage .....	7
3.3.1.4	Loss of Perch Trees due to Erosion .....	7
3.3.1.5	Protection of Small Trees.....	8
3.3.2	Waterfowl .....	8
3.4	Protect Wildlife Habitat on Wells Project Lands.....	9
3.5	Maintain Productive Wildlife Habitat on the Cassimer Bar Wildlife Management Area .....	10
3.5.1	Weed Control .....	10
3.5.2	Access Management and Habitat Replacement .....	10
3.5.3	Fencing.....	11
3.5.4	Cassimer Bar Dikes.....	11
3.6	Control Noxious Weeds on Project Lands.....	11
3.6.1	Weed Map .....	12
3.6.2	Weed Management Plan .....	12
3.6.3	Preventing Weed Infestations .....	13
3.7	Consultation .....	13
<b>4.0</b>	<b>WELLS 230 KV TRANSMISSION LINE AVIAN PROTECTION PLAN.....</b>	<b>14</b>
4.1	Bird Flight Diverters .....	14
4.2	Record Keeping .....	14
4.3	Nest Management .....	15
4.4	Tree Removal.....	15
4.5	Training.....	16
4.6	Consultation .....	16

<b>5.0</b>	<b>OFF-LICENSE SETTLEMENT AGREEMENT.....</b>	<b>16</b>
5.1	Habitat Restoration Fund .....	17
<b>6.0</b>	<b>NOVEMBER 2012 - 2013 WORK PLAN.....</b>	<b>20</b>
6.1	Protect RTE Terrestrial Species Habitat on Wells Project Lands.....	20
6.1.1	American White Pelican .....	20
6.1.2	Sharp-tailed Grouse .....	20
6.2	Protect RTE Botanical Species from Land Disturbing Activities and Herbicide Sprays .....	21
6.2.1	Resurvey Thompson's Clover and Little Bluestem Protected Sites. ....	21
6.2.2	Ground Disturbing Activities and Weed Control at RTE Plant Protection Sites .....	21
6.2.3	Weed Control at Thompson Clover Sites .....	21
6.2.4	Washington Natural Heritage Program Rare Plant List.....	22
6.3	Conserve Habitat for Species on Wells Project Lands Protected by the Federal Endangered Species Act, Bald and Golden Eagle Protection Act, and Migratory Bird Treaty Act .....	22
6.3.1	Bald Eagle .....	22
6.3.1.1	Bald Eagle Perches Pole Inspection.....	22
6.3.1.2	Bald Eagle Surveys .....	22
6.3.1.3	Protect Trees from Beaver Damage .....	23
6.3.1.4	Loss of Perch Trees due to Erosion .....	23
6.3.1.5	Protection of Small Trees.....	24
6.3.2	Waterfowl .....	24
6.4	Protect Wildlife Habitat on Wells Project Lands.....	24
6.5	Maintain Productive Wildlife Habitat on the Cassimer Bar Wildlife Management Area .....	25
6.5.1	Weed Control .....	25
6.5.2	Access Management and Habitat Replacement .....	25
6.5.3	Fencing.....	25
6.5.4	Cassimer Bar Dikes.....	25
6.6	Control Noxious Weeds on Project Lands.....	26
6.6.1	Weed Map .....	26
6.6.2	Weed Management Plan .....	26
6.6.3	Preventing Weed Infestations .....	27
6.7	Consultation .....	27
<b>7.0</b>	<b>REFERENCES.....</b>	<b>29</b>

**List of Tables**

---

Table 3.3-1	Wells Reservoir Bald Eagle Surveys winter of 2011-2012 and 2012-2013 -----	7
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List of Figures

---

Figure 2.0-1	Wells Project Map-----	2
Figure 5.1-1	Central Ferry Canyon before the August 1, 2012 Crane Road wildland fire. -----	18
Figure 5.1-2	Central Ferry Canyon after the August 1, 2012 Crane Road wildland fire. -----	19



## **List of Appendices**

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**APPENDIX A MEMOS**

**APPENDIX B LIST OF KNOWN OCCURRENCES OF RARE PLANTS IN  
CHELAN, DOUGLAS**

**AND OKANOGAN COUNTIES**

**APPENDIX C CONSULTATION WITH AGENCIES AND COLVILLE  
CONFEDERATED TRIBES**

## 1.0 INTRODUCTION

On November 9, 2012, the Federal Energy Regulatory Commission (FERC or Commission) issued a new license for the Wells Hydroelectric Project (Wells Project, FERC No. 2149-152). This report fulfills the requirement of Section 409 of the license, to file an annual report by May 31 of each year. This report documents the results of measures to fulfill the requirements of the Wildlife and Botanical Management Plan (WBMP) and Wells 230 kV Transmission Line Avian Protection Plan (APP) that were incorporated into the license. This report also includes the proposed work plan for 2013-14 toward compliance with the new license, WBMP and APP. Consultation with the U.S. Fish and Wildlife Service (USFWS), Washington Department of Fish and Wildlife (WDFW), Washington Department of Ecology (Ecology), the Confederated Tribes of the Colville Reservation (CCT), and U.S. Bureau of Land Management (BLM) is also documented in the report.

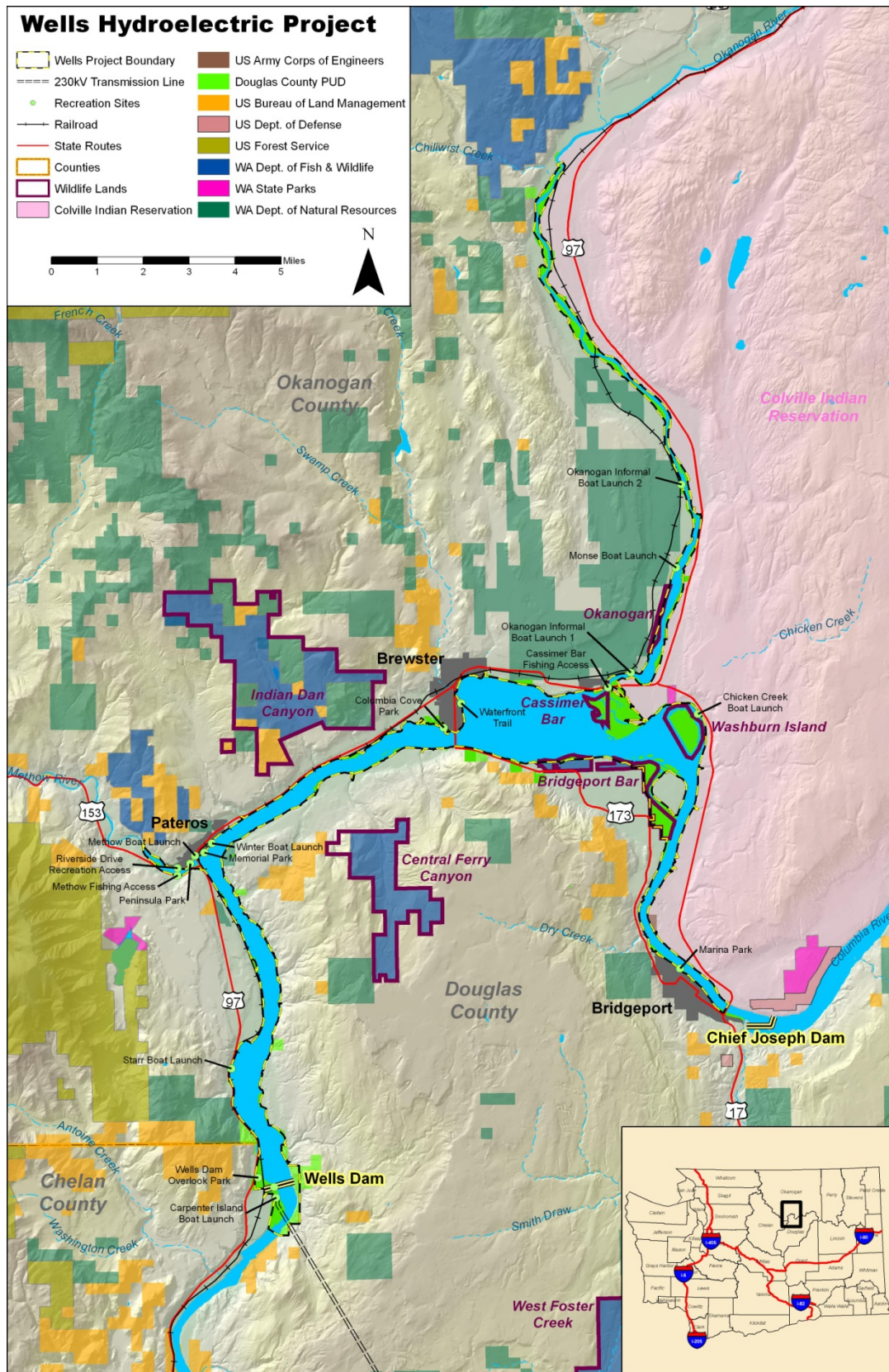
## 2.0 BACKGROUND

There are approximately 108 miles of reservoir shoreline in the Wells Project. Also within the Project boundary are approximately 15 miles of shoreline around isolated ponds, the largest being Washburn Pond. Public Utility District No. 1 of Douglas County (Douglas PUD) owns over 99 percent of the shoreline within the Wells Project boundary. Lands within the Wells Project boundary include shrub steppe; irrigated agriculture; wildlife habitat, such as the Wells Wildlife Area (WWA); and recreation lands, including parks in Pateros, Brewster, and Bridgeport.

Douglas PUD owns approximately 2, 649 acres of the 2,664 acres of land adjacent to the Wells Reservoir within the Project boundary. There is no private land ownership below the Project boundary around Wells Reservoir. There are also 1,117 acres within the 235 feet wide, 41 mile transmission line right of way (ROW), the majority of which are privately owned. There is no federal land ownership within the transmission line ROW.

The WWA, managed by WDFW, is located in Douglas and Okanogan counties in Washington State and consists of six units: three shoreline/riparian units and three upland units. Bridgeport Bar (502 acres), Okanogan (91 acres) and Washburn Island (300 acres) are located along the shoreline of the Wells Reservoir and a portion of each unit lies within the Project boundary. West Foster Creek (1,025 acres), Central Ferry (1,602 acres) and Indian Dan Canyon (4,716 acres) are upland units and are entirely outside the Wells Project boundary (Figure 2.0-1). As of June 2012, Douglas PUD funds the operation of the WWA under the requirements of the Off-License Settlement Agreement (OLSA) Resident Fish Stock and Wells Wildlife Area Funding with WDFW.

The Cassimer Bar Wildlife Management Area (CBWMA; 116 acres) is located in Okanogan County, and is a shoreline/riparian and wetlands unit at the Okanogan River confluence on the Colville Indian Reservation (Figure 2.0-1). The CBWMA is managed by Douglas PUD in cooperation with the CCT.



**Figure 2.0-1 Wells Project Map**

### 3.0 WILDLIFE AND BOTANICAL MANAGEMENT PLAN

The Wildlife and Botanical Management Plan (WBMP), in conjunction with Douglas PUD Land Use Policy directs implementation of resource protection measures for wildlife and botanical resources during the term of the FERC license for the Wells Project. Douglas PUD developed this management plan in consultation with agency and tribal natural resource managers (Terrestrial Resource Work Group or Terrestrial RWG). During the development of the WBMP, the Terrestrial RWG focused on developing management priorities for resources potentially impacted by ongoing Project operations. The plan is also intended to guide wildlife management activities and to protect rare, threatened and endangered (RTE) wildlife and plant species on Project lands during the term of the new license for the Wells Project.

#### 3.1 Protect RTE Terrestrial Species Habitat on Wells Project Lands

The WDFW maintains a list of endangered, threatened and sensitive fish and wildlife species (Washington Administrative Codes (WAC) 232-12-014 and 232-12-011). Listing procedures were developed by a group of citizens, interest groups, and state agencies and adopted by the Washington Fish and Wildlife Commission in 1990 (WAC 232-12-297).

State-listed wildlife species known to use the Wells Project include the American white pelican (*Pelecanus erythrorhynchos*) and Columbia sharp-tailed grouse (*Tympanuchus phasianellus*).

##### 3.1.1 American White Pelican

The American white pelican is listed as a state endangered species in Washington State; white pelicans are not federally-listed. White pelicans usually arrive on the reservoir in June and remain on the reservoir until October or mid-November. There is no evidence of sexually mature birds being present within the Project; all white pelicans observed appear to be immature. Consequently, there does not appear to be any nesting taking place within the Project. The white pelicans are feeding on the abundant resident fish found within the reservoir.

- Beginning in year 2 of the new license, Douglas PUD will provide educational material (signs) at Douglas PUD boat launches and local visitor centers. Educational materials will advise boaters to avoid pelicans while boating, fishing and hunting. Signs will be inspected during other duties and repaired as soon as practicable after damage is discovered.

*Douglas PUD has developed a preliminary draft for an educational sign to educate boater and fisherman to avoid pelicans when on the Wells Reservoir. The preliminary sign design is being provided to the Terrestrial RWG toward establishing a final format for the signs.*

##### 3.1.2 Sharp-tailed Grouse

Columbian sharp-tailed grouse are federal species of concern and a threatened species in Washington State. Sharp-tailed grouse are found in shrub steppe and riparian areas at higher elevations, except during hard winters when snow depth and crusting snow force them to lower elevations. Sharp-tailed grouse have been found on Project lands (Bridgeport Bar Unit of the

WWA) in the past but they have not been observed there in the past twenty years (M. Hallet, WDFW, pers. comm.). Within the Wells Project, the irrigated riparian vegetation on the Bridgeport Bar Unit provides food items that could be used by sharp-tailed grouse during harsh winter conditions. There is no known Project effect on sharp-tailed grouse.

- Beginning in year one of the new license, as an enhancement, Douglas PUD will continue to water irrigation-dependent riparian trees, shrubs and associated vegetation located below Project boundary within the confines of the Bridgeport Bar Unit of the WWA. Continued management of this habitat will benefit a wide range of wildlife species, including sharp-tailed grouse.

*Through the OLSA, WDFW waters the irrigation-dependent riparian trees, shrubs and associated vegetation located below Project boundary within the confines of the Bridgeport Bar Unit of the WWA. Dan Peterson, manager of the WWA, states in his memo of January 10, 2013 that the riparian plantings were irrigated weekly between April and October 2012. A copy of Dan Petersen's memo can be found in Appendix A.*

### **3.2 Protect RTE Botanical Species from Land Disturbing Activities and Herbicide Sprays**

The Washington Natural Heritage Program (WNHP), which is administered by the Washington Department of Natural Resources, has developed a list of plant species considered endangered, threatened, sensitive, possibly extirpated, and under review (lists 1 and 2) for conservation purposes.

EDAW, Inc. (2006) conducted a baseline botanical survey of Wells Project lands and Parametrix, Inc. (2009) conducted baseline botanical studies on the Wells 230 kV transmission line corridor. Studies included cover type mapping, RTE plant surveys and weed surveys. The four RTE plant species that were documented include two state-threatened species, Thompson's clover (*Trifolium thompsonii*) and little bluestem (*Schizachyrium scoparium*); and two WNHP Review 1 Species: chaffweed (*Anagallis minima*) and northern sweetgrass (*Hierochloe hirta*). All RTE plant locations were documented using a handheld Global Positioning System (GPS) unit.

#### **3.2.1 Resurvey Thompson's Clover and Little Bluestem Protected Sites**

- Beginning in year five (2017) of the new license, and every 10 years thereafter, Douglas PUD will survey and revise site boundaries for populations of little bluestem and Thompson's clover found within the Wells Project boundary.

*Not required until 2017.*

### **3.2.2 Ground Disturbing Activities and Weed Control at RTE Plant Protection Sites**

- Beginning in year one of the new license, for lands owned by Douglas PUD within the Wells Project boundary, no new ground disturbing activities will be allowed within a 500 foot buffer zone surrounding the RTE plant locations and no land use permits will be issued for these buffer areas. Any weed control needed within the buffer zone will utilize the following methods in descending order of preference: biological control, hand pulling, and hand wiping of individual weeds with herbicide. Details of the Weed Control Plan can be found in Section 4.6 of the WBMP.

*Douglas PUD did not allow any ground disturbing activities to happen below Project boundary within five hundred feet of the RTE plant locations identified in the EDAW (2006) RTE plant surveys. The Douglas PUD vegetation management employees have been informed of the RTE plant sites and no weed control was needed in any of the RTE plant locations during 2012. Bi-monthly reservoir surveys will continue as a deterrent to future ground disturbing activities within the Project boundary.*

### **3.2.3 Weed Control at Thompson Clover Sites**

- Beginning in year one of the new license, Douglas PUD will control weeds within a 500 foot buffer of Thompson's clover occurrences within the transmission line right of way. Weed control work will utilize the following methods in descending order of preference: biological control, hand pulling, and hand wiping of individual weeds with herbicide.

*No ground disturbing activities happened within 500 feet of the Thompson's clover site identified by Parametrix (2009) in the Wells 230 kV transmission corridor. The Douglas PUD vegetation management employees have been informed of the Thompson's clover sites and no weed control was needed in any of the RTE plant locations during 2012. Weed control at the site will be initiated in the spring and summer of 2013.*

### **3.2.4 Washington Natural Heritage Program Rare Plant List**

Douglas PUD is required by Article 409 of the license for the Wells Project to annually consult the WNHP to review their rare plant list and include an updated copy in the annual Terrestrial Report to the FERC.

*A current copy of the WNHP rare plant list can be found in Appendix B of this report. The list was compiled from WNHP rare plant lists for Chelan, Douglas and Okanogan counties. The lists were observed on February 7, 2012 at the three web addresses listed below.*

<http://www1.dnr.wa.gov/nhp/refdesk/lists/plantsxco/chelan.html>

<http://www1.dnr.wa.gov/nhp/refdesk/lists/plantsxco/douglas.html>

<http://www1.dnr.wa.gov/nhp/refdesk/lists/plantsxco/okanogan.html>



### **3.3 Conserve Habitat for Species on Wells Project Lands Protected by the Federal Endangered Species Act, Bald and Golden Eagle Protection Act, and Migratory Bird Treaty Act**

#### **3.3.1 Bald Eagle**

Bald eagles (*Haliaeetus leucocephalus*) were delisted from the federal Endangered Species Act on August 8, 2007 (72 FR 37345) and were listed as sensitive on the Washington State list of wildlife classified as protected under WAC 232-12-011, in 2008. USFWS has published guidelines for protecting bald eagle habitat under the authority of the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act (USFWS 2007). In the 1980s, Douglas PUD installed 25 shoreline bald eagle perch poles to provide the eagles elevated perches for hunting, sunning and resting. The eagles also perch on ponderosa pine and black cottonwood (*Populus balsamifera ssp trichocarpa*) trees and old snags. The abundant waterfowl and American coots (*Fulica americana*), found within the Wells Reservoir, provide the majority of prey eaten by bald eagles during the winter (Fielder, 1982).

##### **3.3.1.1 Bald Eagle Perches Pole Inspection**

- Beginning in year one of the new license, Douglas PUD will inspect raptor perch poles annually and repair or replace perch poles as warranted. The perch poles near the Starr Boat Launch will be removed to reduce avian predation on downstream migrating salmonids.

*The Starr Boat Launch perch poles were removed in 2011 to prevent double-crested cormorants (Phalacrocorax auritus) from using the perch poles as hunting perches to catch salmonids migrating past the perch poles during the spring and summer. The Starr Boat launch perch poles will not be replaced. No perch pole inspection was completed during the winter of 2012-13. Perch poles will be inspected during the spring-summer of 2013. Damaged poles will be repaired or replaced.*

##### **3.3.1.2 Bald Eagle Surveys**

- Beginning in year one of the new license, Douglas PUD will perform monthly boat surveys during the months of November through March to inventory wintering bald eagle numbers and to identify large perch trees regularly used by bald eagles. Douglas PUD will determine if the perch trees need immediate protection from beavers or if they are likely to fall down in the near future due to bank erosion.

Wells Reservoir is an important waterfowl wintering area in eastern Washington. Bald eagles from Canada and Alaska migrate to the reservoir in October and November to feed on the abundant American Coots and other waterfowl. The eagles begin their migration to northern breeding areas in late February or March.

*Wells Reservoir is an important waterfowl wintering area in eastern Washington. Bald eagles from Canada and Alaska migrate to the reservoir in October and November to feed on the*

*abundant American Coots (Fulica americana) and other waterfowl. The eagles begin their migration to northern breeding areas in late February and early March.*

*Douglas PUD conducted bald eagle surveys on Wells Reservoir during the winter of 2011-2012 and 2012-2013. Eagles were counted from a boat. All perched and flying eagles were identified as either immature or adult. Table 3.3-1 shows the bald eagle counts for the winter of 2011-2012 and 2012-2013. During the spring and summer of 2013 Douglas PUD staff will determine which of the regularly used large perch trees should be protected from beavers. Once identified, these critical perch trees will be wrapping with protective wire to discourage beavers during the fall of 2013.*

**Table 3.3-1 Wells Reservoir Bald Eagle Surveys winter of 2011-2012 and 2012-2013**

Winter	November		December		January		February		March	
	Adult	Juv*	Adult	Juv	Adult	Juv	Adult	Juv	Adult	Juv
2012-13	9	10	15	19	43	74	21	69	13	17
2011-12	8	7	12	22	19	53	4	13	No	Survey

\*Juv – Juvenile

#### 3.3.1.3 Protect Trees from Beaver Damage

- Beginning in year two of the new license, Douglas PUD will begin, and then continue as necessary, protecting large living trees within the Project boundary that are used by eagles as perches and which are likely to be lost from beaver (*Castor canadensis*) damage. Protection measures will be completed by year five of the new license for those trees identified within the first four years of the new license. To prevent beaver damage to eagle perch trees, each tree will be wrapped with galvanized welded wire. Wire wrapped trees will be inspected annually and the wire repaired or replaced, as needed.

*Douglas PUD wrapped forty two total trees on the Wells Reservoir shoreline during the winters of 2011 and 2012. The trees were wrapped with chicken wire that is three feet tall and wraps the entire circumference of each tree. An additional forty trees will be wrapped during 2013-2014.*

#### 3.3.1.4 Loss of Perch Trees due to Erosion

- At any time during the implementation of the new license, as site specific issues arise regarding potential losses of large eagle perches due to bank erosion, Douglas PUD will consult with the Terrestrial RWG to determine if any reasonable measures are available to address the issue.

*Douglas PUD had two columnar Lombardy poplar trees (Populus nigra 'Italica') fall into the Columbia River during the winter of 2012-13. The trees were located in an area of the Wells Reservoir that has a long open fetch that generated higher waves than other parts of the reservoir. Lombardy poplars have a vertical growth form with no horizontal branches. The trees that fell due to erosion were not trees utilized by eagles for perching. No eagle perch trees were lost due to shoreline erosion during the 2012 reporting period.*



*The Wildlife and Botanical Management Plan developed by the Terrestrial RWG calls for protecting eagle perch trees from beaver damage and encouraging recruitment of trees on the reservoir, through both natural reproduction and planting trees in suitable habitat. The group decided against using shoreline armoring to protect areas threatened with erosion. Measures to control shoreline erosion, such as placing hardened surfaces, can be detrimental to habitat utilized by ESA-listed salmon, steelhead and bull trout, and are generally not supported by fish and wildlife management agencies. Douglas PUD will consult with the Terrestrial RWG if any large perch trees are threatened by erosion and will ensure that new trees are planted to replace any trees lost due to erosion.*

### 3.3.1.5 Protection of Small Trees

- Beginning in year one of the new license, Douglas PUD will ensure establishment and protection of sufficient smaller trees of appropriate age classes to ensure future abundance of potential perch trees is at least equal to the baseline abundance documented in year one of the new license.

*Beaver residing on the Wells Reservoir feed on the shoreline on native cottonwoods, willows and trees in fruit orchards near the water. Douglas PUD hired a Nuisance Wildlife Control Operator (NWCO) to reduce the population of beaver that reside on the Wells Reservoir. The NWCO removed 24 and 18 beaver from the Wells Reservoir during the winters of 2011-2012 and 2012-13, respectively. The removal of beaver is one way that Douglas PUD is helping to ensure that sufficient small trees have an opportunity to recruit into appropriate age classes to ensure future abundance of potential eagle perch trees.*

### 3.3.2 Waterfowl

Wells Reservoir is an important waterfowl wintering area in eastern Washington.

Waterfowl (ducks, geese and swans) are protected as migratory game birds under the Migratory Bird Treaty Act. Wells Reservoir is an important waterfowl wintering area in eastern Washington. Aerial survey data from fall 2001 to spring 2005 show a maximum of 33,912 ducks and geese during the fall migration, and a maximum of 38,909 ducks and geese wintering on the Wells Reservoir. The native pond weeds found growing in the Wells Reservoir, along with grain crops grown on the WWA, provide food for wintering and migrating waterfowl. Spring and summer resident waterfowl, mostly Canada geese (*Branta canadensis*) Brant, utilize the islands, wetlands and open areas of grass for breeding habitat and food.

Douglas PUD conducted an aquatic macrophyte study in the Wells Reservoir (Le and Kreiter, 2006). The results indicated the macrophyte community found within the Wells Project is healthy and dominated by native species. Project operations, including reservoir fluctuations, do not appear to be encouraging the growth of non-native macrophytes, including Eurasian watermilfoil (*Myriophyllum spicatum*). Daily reservoir fluctuations do have an effect on the growth of macrophytes in the upper 2-4 feet of the reservoir but the overall community types and species composition are not affected by reservoir operations (DTA, 2006).

Shoreline wetlands have developed under the daily fluctuations of the reservoir. Wells Reservoir provides the water that supports a variety of wetland cover types that were less abundant or did not occur in the former Columbia and Okanogan river basins. These wetlands are composed of species requiring high and relatively consistent soil moisture during the growing season and that can also withstand frequent water level fluctuations (EDAW, 2006a).

- Beginning in year one of the new license, Douglas PUD will plant at least 50 acres of annual grain crops within the Bridgeport Bar Unit of the WWA below Project boundary, to provide food for wintering Canada geese and dabbling ducks

*Dan Peterson, manager of the WWA, states in his memo of January 10, 2013 that grain crops were planted on the WWA. In 2012 WDFW produced 142 acres of irrigated grain crops on the Bridgeport Bar and Washburn Island units, 104 acres of grain were planted below Project Boundary.. Of this total, 104 acres (73%) were grown on Douglas PUD project lands. Species planted included spring wheat (97 acres), barley (18 acres) and corn (27 acres). WDFW planted 18 fields with wheat or barley; field size ranged from 2 to 22 acres. Fifteen (15) corn rows were established and averaged 1.8 acres each. Dabbling ducks and wintering geese were observed utilizing these fields during the reporting period. A copy of Dan Petersen's memo can be found in Appendix A.*

### **3.4 Protect Wildlife Habitat on Wells Project Lands**

The Wells Reservoir and wetlands provide habitat for a variety of waterfowl, shorebirds and aquatic furbearers. Riparian plant communities within the Wells Project support more wildlife species than any other vegetation type and include important habitat for migratory and nesting birds, mammals, reptiles and amphibians. Shrub steppe plant communities provide habitat for birds, reptiles and mammals adapted to thrive in this dry open habitat. Wildlife surveys detected 120 avian, 3 amphibian, 6 reptile, and 12 small mammal species within the Wells Project. The results of the wildlife surveys indicate that the Wells Project supports an abundance of healthy, native wildlife species (EDAW 2006b).

Douglas PUD has planted riparian shrubs and trees on the shoreline of the Wells Reservoir as mitigation for various construction projects and in areas where erosion was occurring to help stabilize the shoreline. Riparian shrubs and trees have been replanted where livestock disturbance has damaged the shoreline. Fencing has been installed to exclude livestock from shoreline riparian areas.

Land use permits are a tool Douglas PUD uses to balance private use of Wells Project lands with fish, wildlife, cultural resources and public recreation demands. Project lands have been monitored twice a month by boat to detect unauthorized encroachments from adjoining properties including vegetation removal and livestock trespass. Douglas PUD staff also monitors activities on Project land while performing normal land maintenance duties.

Douglas PUD has worked cooperatively with the CCT concerning land use issues within Project boundary on the Colville Indian Reservation. WDFW and Douglas PUD have worked closely on land use issues within Project boundary outside of the Reservation. In an effort to continue these

important relationships, Douglas PUD will request an annual meeting with the CCT and WDFW to discuss land use and wildlife management issues related to implementation of this WBMP.

- Beginning in year one of the new license, Douglas PUD will continue twice a month boat monitoring of Project lands for unauthorized encroachment and damage caused by recreational activities and adjacent land owners. Wildlife habitat damage caused by unauthorized encroachment activities will be repaired or replaced with in-kind habitat within 12 months of identifying unauthorized activity.

*Douglas PUD conducts twice monthly boat monitoring of Project lands for unauthorized encroachment and damage caused by recreational activities and adjacent land owners. In January 2013 Douglas PUD personnel conducted one boat survey of the Columbia River between Wells Dam and Chief Joseph Dam. The Methow and Okanogan rivers were frozen and a truck survey was completed the next day to observe Project Lands along these rivers. Please see memo from John Brown in Appendix A.*

### **3.5 Maintain Productive Wildlife Habitat on the Cassimer Bar Wildlife Management Area**

The CBWMA protects and enhances wildlife habitat on 116 acres of land near the mouth of the Okanogan River. Since 1970 Douglas PUD, in cooperation with the CCT, has managed the land for wildlife habitat.

The three sloughs on Cassimer Bar were diked in the 1980s to provide furbearer and waterfowl habitat. After more than 25 years, the tide gates and culverts through the dikes, used to regulate the water elevation, have failed.

#### **3.5.1 Weed Control**

- Beginning in year one of the new license, Douglas PUD will implement weed management annually to control new occurrences of noxious weeds and to reduce existing weed occurrences.

*Douglas PUD annually controls all State Classified A and B weeds known to occur on project lands. No Class A or B weeds are known to occur on Cassimer Bar. No weed control was necessary on Cassimer Bar or within the CBWMA.*

#### **3.5.2 Access Management and Habitat Replacement**

- Beginning in year one of the new license, Douglas PUD will manage access and replace damaged habitat to reduce adverse effects of recreation on wildlife habitat.

*Access to the CBWMA is controlled by a fence with locked gates. All access to the area by the public is on foot. No wildlife habitat was found damaged due to public recreation during 2012.*

### 3.5.3 Fencing

- Beginning in year one of the new license, Douglas PUD will install and maintain perimeter fencing to protect Cassimer Bar wildlife habitat from livestock.

*The CBWMA is protected by a fence that runs along the east boundary of the area. The fence prevents livestock from gaining access to the area. The fence is inspected annually and repaired when damage is found. The CBWMA is monitored by Douglas PUD staff as they travel past the area on other assignments. Livestock were observed in the CBWMA once during the summer of 2012 and were removed. The fence was inspected and repaired after the livestock trespass.*

### 3.5.4 Cassimer Bar Dikes

- Beginning in year one of the new license, Douglas PUD will evaluate the dikes on Cassimer Bar and determine an appropriate method to fix the dikes. In year two, Douglas PUD will apply for permits from appropriate agencies. Contingent on receiving the necessary permits, Douglas PUD will repair the dikes to enhance waterfowl and other aquatic habitats on Cassimer Bar. In year four and every year thereafter, the dikes will be inspected and repaired as soon as the design work and permitting allow.

*Douglas PUD is working with the Terrestrial RWG to evaluate the Cassimer Bar dikes. The Terrestrial RWG discussed both repairing the dikes which would maintain habitat for warm water invasive fish and amphibian species or removing the dikes to reconnect the sloughs to the Okanogan River. Removal of the dikes and restoration of the natural flood plain function will improve water exchange, cooling the water in the sloughs, to provide conditions better suited for native species. WDFW has indicated a preference for removing the dikes*

### 3.5.5 Control Noxious Weeds on Project Lands

Invasive weeds are introduced either deliberately (e.g., free seeding garden plants) or accidentally through human activity. Because of their aggressive growth and lack of natural enemies, these plants can be highly destructive, competitive, or difficult to control. These exotic species can harm the economy and natural resources by reducing crop yields, destroying native plant and animal habitat, reducing recreational opportunities, decreasing land value and in some cases poisoning humans and livestock.

Invasive non-native plants under Washington State law (17.10 RCW) are considered noxious weeds. The Washington State Noxious Weed Control Board annually develops a list of noxious weed species of statewide importance. The Chelan and Okanogan Noxious Weed Control Boards maintain a noxious weed list which includes those weed species found in their counties that must be controlled by landowners. Douglas County has not established a noxious weed control board, but still must follow Washington State noxious weed mandates. On each weed board list, noxious weeds are classified according to their current distribution and degree of concerns; control efforts are required of landowners for some weed classes.

### 3.5.6 Weed Map

EDAW, Inc. (2006a) and Parametrix (2009) conducted noxious weed surveys on Project lands and the transmission corridor, respectively. The noxious weed map was developed in ArcView Geographic Information Systems (GIS) to identify weed infestation on Project lands.

- Beginning in year one of the new license, Douglas PUD will annually control identified Class A and B designated weed occurrences on Wells Project lands.

*Douglas PUD has two employees that control Class A and Class B weeds during the spring, summer and fall of 2012. Weeds were controlled on Wells Project land and the Wells 230 kV Transmission Line corridor. Douglas PUD works with the Okanogan County Weed Control board to identify any new infestation of weeds on Wells Project lands within Okanogan County.*

- Beginning in year five of the new license, Douglas PUD will survey Wells Project lands for new terrestrial weed infestations every five years throughout the term of the new license. Douglas PUD will use weed maps to identify problem areas and will update the maps as new weed populations are discovered.

*Not required until 2017.*

### 3.5.7 Weed Management Plan

- Within one year of receipt of a new license, Douglas PUD will implement the following steps to control weeds on Project lands:
  1. Consider the species of noxious weeds, density and size of the sites and surrounding vegetation when determining control measures.
  2. Consider the land use of the site.
  3. Acquire all environmental permits required (e.g., wetlands).
  4. Consult the Washington State Department of Agriculture, pesticide-sensitive individual lists for properties adjacent to the control site.
  5. Determine the effectiveness of various control options: burning, tilling, digging, herbicide application by wicking, spot spraying or broadcast spraying, or biological control agent.
  6. Determine the most effective physiological growth stages of the target weed to obtain maximum control with least impact to surrounding vegetation.
  7. Control weeds using method(s) selected for the site.
  8. Monitor all application sites to determine the effectiveness of the weed control.
  9. Control sites denuded by herbicide treatment will be replanted with native plant species appropriate to the site.

*In 2012, Douglas PUD employees used appropriate weed control methods specific to the species of weed to be controlled and the location of the weeds in the landscape. The lowest concentration of herbicide was used that was effective at eradicating the target weeds. All weed control sites were revisited to determine the effectiveness of the herbicide application and herbicides were reapplied if needed. Douglas PUD has been using biological control agent*

*(insects) specific to the Class B noxious weeds purple loose strife (*Lythrum salicaria*) and Dalmatian toadflax (*Linaria dalmatica*) rather than applying herbicides to kill these weeds. Douglas PUD chose biological control for purple loose strife since it is a wetland plant and herbicides would harm other wetland plants. Biological control was picked for Dalmatian toadflax since it has a waxy leaf that prevents adequate control with herbicides.*

### **3.5.8 Preventing Weed Infestations**

Within one year of receipt of a new license, Douglas PUD will implement the following practices and protocols intended to minimize new weed infestations:

- Use certified weed free straw and mulch and seed for habitat restoration projects.
- Limit public vehicle traffic to designated roads on Project lands.
- Douglas PUD employees and contractors will be instructed to check their vehicle undercarriage for weeds before driving on undeveloped Project lands.
- Minimize earth disturbing activities by vehicles, machinery, and water runoff on undeveloped land.
- Manage healthy native vegetation and replant native vegetation disturbed by Douglas PUD's management activities.

*In 2012, District employees maintained adherence to the above practices and protocols toward minimizing new weed infestations on Project lands.*

### **3.6 Consultation**

Douglas PUD will meet with resource agencies and/or tribes when requested to discuss management of wildlife and botanical species on Project lands. All changes to the plan must be in writing and made by unanimous consent by all Parties. Any agreed-upon changes to the WBMP will be submitted to the FERC for review and approval.

Douglas PUD shall annually file, by May 31 of each year, a report that documents the result of the prior year's measures and the upcoming year's proposed work plan to implement the license required measures. Douglas PUD shall include with the report an updated list of sensitive species, based upon an annual review of the WNHP rare plant list.

Douglas PUD shall also include with the report documentation of consultation with the USFWS, WDFW, Ecology, the CCT, and BLM; copies of comments and recommendations on the completed report after it has been prepared and provided to the consulted entities; and specific descriptions of how the consulted entities' comments are accommodated by the report. Douglas PUD shall allow a minimum of 30 days for the consulted entities to comment and make recommendations before filing the report with the Commission. If the licensee does not adopt a recommendation, the filing shall include Douglas PUD's reasons based on project-specific information. The Commission reserves the right to require changes to project operations or facilities based on all available information and information included in the annual reports.

*Douglas PUD consulted with the resource agencies and CCT during the writing of the annual WBMP report and included comments received into the report. A copy of the consultation record can be found in Appendix C.*

## **4.0 WELLS 230 KV TRANSMISSION LINE AVIAN PROTECTION PLAN**

The Wells 230kV Transmission Line Corridor Avian Protection Plan (APP) was developed to reduce the potential for bird collisions with the Wells 230kV transmission lines and structures. Douglas PUD is committed to maintaining the reliability of the transmission lines in a cost effective manner while meeting the regulatory requirements to conserve migratory species; rare, threatened and endangered species; and raptors. The APP considers both avian migrants interacting with the transmission lines crossing the Columbia River and nesting on the transmission line structures. Douglas PUD prepared the APP in consultation with the USFWS and WDFW.

### **4.1 Bird Flight Diverters**

- Bird flight diverters (BD) will be installed on the Wells transmission line river crossing in the event that the transmission line is reconductored, or if the static wire or aviation markers are replaced. BDs will be spaced between the aerial marker balls to increase visibility of the shield wire. If available, light emitting BDs will be installed to improve low light visibility; Puget Sound Energy is working with Tyco Electronics to develop BDs that store solar energy and emit visible light during low light conditions.

*The steep sag of the conductor cables at the Douglas County shoreline tower of the Wells transmission line river crossing prevents safe use of a lineman's hand car to install bird flight diverters. Douglas PUD does not anticipate replacing the conductors or ground wires on the Wells 230 kV transmission line river crossing any time in the near future. Bird flight diverters are not required to be placed on the Wells transmission line river crossing until the conductor or ground wires are replaced.*

### **4.2 Record Keeping**

- Douglas PUD will maintain records of all avian mortalities detected on the Wells 230 kV transmission line right of way.

*Douglas PUD has instructed all employees working on or near transmission and distribution lines to report all dead birds found to Douglas PUD's Wildlife Biologist. The entire length of the transmission lines are inspected twice per year and structures near the north and south path of the line are inspected multiple times a year. During these inspections, Douglas PUD crews are actively looking for carcasses incidental to their normal transmission and distribution reliability inspections.*

- Douglas PUD will report all avian mortalities caused by the Wells 230 kV transmission lines to USFWS through the online USFWS Bird Fatality/Injury Reporting Program (<https://birdreport.fws.gov>).

*No avian mortality, of any cause, was found in the Wells 230 kV transmission line right of way during 2012 or the winter of 2013.*

### **4.3 Nest Management**

Power line structures in open habitat provide perch, roost and nest substrate for some avian species. This is especially true of raptors and ravens in open habitat where natural substrates are limited. Nests built on transmission line structures can cause outages and possibly fire when long sticks fall and cause phase to ground faults. A raptor incubating or brooding young will defecate over the side of the nest, potentially causing a streamer outage if the nest is above an energized phase.

- All nest management will be performed in compliance with federal and state laws.

*No nest management was required this year.*

- Douglas PUD's Wildlife Biologist will be consulted before any nest is removed and will secure permits from USFWS and WDFW, if necessary, before nest removal proceeds.
- 

*No nest management was required this year.*

- Active nests will not be removed from the Wells 230 kV transmission line between February 1 and August 31 without prior approval from USFWS and WDFW.

*No nests were removed from the Wells 230 kV transmission line during 2012.*

### **4.4 Tree Removal**

The transmission line corridor passes through 64 acres of Douglas fir (*Pseudotsuga menziesii*) and ponderosa pine (Parametrix, 2009). The conifer canopy closure varies from sparse open canopy to closed canopy. When vegetation grows in close proximity to transmission line conductors, the vegetation can provide a path for electricity to travel to ground. An electrical flash over to ground can disrupt the delivery of energy to both customers in Douglas County and to other utilities purchasing power. Douglas PUD must maintain North America Electric Reliability Corporation (NERC) standards of 25 feet separation between conductors and vegetation to insure the transmission lines' reliability.

Removal of trees during the nesting season can have a negative impact on migratory bird species.

- To protect nesting birds, Douglas PUD will only perform tree clearing on the transmission line corridor between August 31 and January 31. Clearing of the conifer trees on the transmission line corridor is anticipated to happen once every ten years beginning in 2018.

*No tree removal was required on the Wells 230 kV transmission line during 2012.*



## 4.5 Training

All appropriate utility personnel will be trained annually to understand avian issues on the Wells 230 kV transmission line. This training will include background information, protocols and procedures, by which employees are required to report an avian mortality, implement a nest removal action, disposal of carcasses, perform vegetation management and comply with applicable regulations and the consequences of non-compliance.

- Douglas PUD will train (as described above) all appropriate utility personnel to understand avian issues on the Wells 230 kV transmission lines.

*No training of utility personnel to understand avian issues on the Wells 230 kV transmission lines was conducted in 2012. Training is scheduled to take place during the first full year of the new license (2013).*

## 4.6 Consultation

Douglas PUD will meet with resource agencies or tribes, when requested, to discuss management of wildlife and botanical species on the transmission line corridor. All changes to the APP must be agreed to by the WDFW, USFWS and Douglas PUD. Any agreed-upon changes to the APP will be reported to FERC for review and approval.

*Douglas PUD discussed the Wells 230 kV Transmission Line APP when meeting with resource personnel during the Terrestrial RWG on February 5, 2013. Douglas PUD will consult with the Terrestrial RWG if any changes to the Wells 230 kV Transmission Line APP are needed. Any changes to the plan will be reported to FERC for review and approval. See Appendix C.*

## 5.0 OFF-LICENSE SETTLEMENT AGREEMENT

On July 15, 1974, Douglas PUD entered into an agreement with the Washington Department of Game (WDG, now Washington Department of Fish and Wildlife) to address the Wells Project's construction and operation effects on wildlife. Douglas PUD transferred properties to the WDG to establish the WWA and provided funds for the operation of the wildlife area. The term of this agreement ended May 31, 2012 with Douglas PUD's FERC license (P-2149).

On December 17, 2007, Douglas PUD entered into the OLSA Resident Fish Stocking and Wells Wildlife Area Funding with WDFW. The OLSA provides funds (\$200,000 in 2007 dollars) for the operation and maintenance (O&M) of the WWA. Douglas PUD began funding the wildlife area on June 1, 2012, the day after the original FERC license expired. Douglas PUD provided \$53,000 between June 1 and the beginning of Douglas PUD fiscal year on September 1, 2012 to cover WDFW's O&M cost for the summer. WDFW will receive \$217,000 (adjusted for inflation) from Douglas PUD during the September 1, 2012 through August 31, 2013 fiscal year.

WDFW will use the funds provided by Douglas PUD to create, protect and maintain habitat on the WWA. The WWA program includes the following tasks:

- Grow annual food crops on Bridgeport Bar and Washburn Island Units to benefit waterfowl and other wildlife;
- Grow annual food crops and maintain feeders and water catchments on all units for upland game birds and other wildlife species;
- Protect and maintain the riparian vegetation on all units to benefit riparian obligate species and maintain nesting habitat and cover for upland game birds, raptors and passerines;
- Protect and maintain the ponds and wetland habitats on all units as habitat for amphibians and other wetland obligate species;
- Protect and maintain riparian habitat on Indian Dan Canyon Unit used by bald eagles as a night roost to benefit wintering bald eagles;
- Protect and maintain shrub steppe habitat on all units for upland game species, shrub steppe obligate species including sharp-tailed grouse, greater sage grouse (*Centrocercus urophasianus*) and mule deer (*Odocoileus hemionus*);
- Provide wildlife related recreation opportunities including hunting and wildlife observation on the wildlife area;
- Control invasive weeds to protect and maintain habitat;
- Maintain all boundary fencing to prevent livestock trespass. Build and replace boundary fences as needed;
- WDFW will not lease any unit for livestock grazing or allow camping outside of parking areas on the wildlife area, in order to protect wildlife habitat; and
- Promote native vegetation where it is consistent with the goals of the program.

## 5.1 Habitat Restoration Fund

On August 1, 2012, a human ignited wildland fire swept through the Central Ferry Canyon unit of the WWA. The fires started in an organic fruit orchard where weeds were being burned. Over 12,000 acres of land owned by the State of Washington and private owners was burned including ninety percent (1,709 acres) of the Central Ferry Canyon unit. Habitat damages include complete removal of the shrub/grass component including mature stands of sagebrush and bitterbrush and extensive damage to all the riparian areas. Infrastructure losses include 15 miles of boundary fence, 7 upland bird feeders and numerous bluebird nest boxes. Estimated rehabilitation cost for habitat restoration and repair of infrastructure are approximately \$300,000.



**Figure 5.1-1**      **Central Ferry Canyon before the August 1, 2012 Crane Road wildland fire.**



**Figure 5.1-2 Central Ferry Canyon after the August 1, 2012 Crane Road wildland fire.**

Dan Peterson, manager of the WWA, by letter August 15, 2012, requested that Douglas PUD make available the Habitat Restoration Fund described in Section 5.1.3 of the OLSA. Douglas PUD released the \$50,000 Restoration Fund to WDFW on August 20, 2012. WDFW used approximately \$48,465 to purchase seed that was drilled and applied aurally over approximately 200 acres. Additional seed will be purchased in the spring, exhausting the Habitat Restoration Fund for the duration of the OLSA.

## **6.0 NOVEMBER 2012 - 2013 WORK PLAN**

Article 409 of the new FERC License for the Wells Project requires Douglas PUD to report on proposed measures to implement the WBMP in the coming year. All of the items in Section 6 will be part of the work plan that will be completed by November 2013 and reported in the May 31, 2014 annual Terrestrial Report.

### **6.1 Protect RTE Terrestrial Species Habitat on Wells Project Lands**

#### **6.1.1 American White Pelican**

- Beginning in year 2 of the new license, Douglas PUD will provide educational material (signs) at Douglas PUD boat launches and local visitor centers. Educational materials will advise boaters to avoid pelicans while boating, fishing and hunting. Signs will be inspected during other duties and repaired as soon as practicable after damage is discovered.

*Douglas PUD has developed a preliminary draft for an educational sign to encourage boaters and fisherman to avoid pelicans when on the Wells Reservoir. The sign will be provided to the Terrestrial RWG for review and any comments will be addressed before the sign design is finalized.*

*Douglas PUD plans to have the signs printed on a durable material and the sign post constructed before the spring 2014. The pelican signs will be installed at all boat launches on Wells Reservoir by October 2014. They will be installed at the Wells visitor display area when it is completed. Pelican signs will be inspected by Douglas PUD each spring and replaced as needed.*

#### **6.1.2 Sharp-tailed Grouse**

- Beginning in year one of the new license, as an enhancement, Douglas PUD will continue to water irrigation-dependent riparian trees, shrubs and associated vegetation located below Project boundary within the confines of the Bridgeport Bar Unit of the WWA. Continued management of this habitat will benefit a wide range of wildlife species, including sharp-tailed grouse.

*As in 2012, Douglas PUD will rely on WDFW to water irrigation-dependent riparian trees, shrubs and associated vegetation located below Project boundary within the confines of the Bridgeport Bar Unit of the WWA. WDFW will receive funding for the manpower to weekly maintain the irrigation and pumped water through the OLSA.*



## **6.2 Protect RTE Botanical Species from Land Disturbing Activities and Herbicide Sprays**

### **6.2.1 Resurvey Thompson's Clover and Little Bluestem Protected Sites.**

- Beginning in year five (2017) of the new license, and every 10 years thereafter, Douglas PUD will survey and revise site boundaries for populations of little bluestem and Thompson's clover found within the Wells Project boundary.

*Douglas PUD is not required to resurvey Thompson's clover and little blue stem until spring/summer of 2017. Douglas PUD will conduct an ocular inspection of the Thompson's clover and little blue stem in May or June 2013 to insure that the sites haven't been disturbed.*

### **6.2.2 Ground Disturbing Activities and Weed Control at RTE Plant Protection Sites**

- Beginning in year one of the new license, for lands owned by Douglas PUD within the Wells Project boundary, no new ground disturbing activities will be allowed within a 500 foot buffer zone surrounding the RTE plant locations and no land use permits will be issued for these buffer areas. Any weed control needed within the buffer zone will utilize the following methods in descending order of preference: biological control, hand pulling, and hand wiping of individual weeds with herbicide. Details of the Weed Control Plan can be found in Section 4.6 of the WBMP.

*The five hundred foot "No Ground Disturbance" buffer is established around all of the RTE plant sites in Douglas PUD's GIS. Douglas PUD's Land Services personnel will be provided with copies of the maps showing the location of the RTE plant sites with the buffer. Douglas PUD conducts twice monthly inspections of Wells Reservoir by boat to look for disturbances on Project land. They will conduct ocular surveys of the sites looking for any ground disturbance.*

*The District's vegetation management employees have been informed of the RTE plant sites and will be provided with copies of the RTE plant maps. Any weed control needed within the buffer zone will utilize the following methods in descending order of preference: biological control, hand pulling, and hand wiping of individual weeds with herbicide during the spring through fall of 2013.*

### **6.2.3 Weed Control at Thompson Clover Sites**

- Beginning in year one of the new license, Douglas PUD will control weeds within a 500 foot buffer of Thompson's clover occurrences within the transmission line right of way. Weed control work will utilize the following methods in descending order of preference: biological control, hand pulling, and hand wiping of individual weeds with herbicide.

*Douglas PUD's vegetation management employees have been informed of the Thompson's clover site in the Wells 230 kV transmission line corridor. Any weed control needed within the buffer zone for Thompson's clover will utilize the following methods in descending order of*

*preference: biological control, hand pulling, and hand wiping of individual weeds with herbicide during the spring through fall of 2013.*

#### **6.2.4 Washington Natural Heritage Program Rare Plant List**

- Douglas PUD is required by Article 409 of the license for the Wells Hydroelectric Project FERC No. 2149-152 to annually consult the WNHP to review their rare plant list and include an updated copy in the annual Terrestrial Report to FERC.

*Douglas PUD will consult with the WNHP while compiling the 2013 Annual Wildlife and Botanical Report to develop a current RTE plant list for the annual Wildlife and Botanical Management Plan. The list will be compiled from WNHP's rare plant lists for Chelan, Douglas and Okanogan counties. Douglas PUD will consult the WNHP web site to compile the list and consult with WNHP botanist to determine the reason for any changes to the list. An updated copy of the lists will be included into the 2013 Wildlife and Botanical report.*

### **6.3 Conserve Habitat for Species on Wells Project Lands Protected by the Federal Endangered Species Act, Bald and Golden Eagle Protection Act, and Migratory Bird Treaty Act**

#### **6.3.1 Bald Eagle**

##### **6.3.1.1 Bald Eagle Perches Pole Inspection**

- Beginning in year one of the new license, Douglas PUD will inspect raptor perch poles annually and repair or replace perch poles as warranted. The perch poles near the Starr Boat Launch will be removed to reduce avian predation on downstream migrating salmonids.

*In 1013, Douglas PUD will inventory raptor perch poles installed in the 1980's. The poles will be examined for rot and a numbered tag will be attached for future surveys. A GPS location for each pole will be recorded so each pole can be mapped and relocated.*

*Douglas PUD will purchase six Class 7 untreated utility poles and store them at Wells Dam for perch pole replacement. These poles will be used to replace poles that need to be replaced.*

##### **6.3.1.2 Bald Eagle Surveys**

- Beginning in year one of the new license, Douglas PUD will perform monthly boat surveys during the months of November through March to inventory wintering bald eagle numbers and to identify large perch trees regularly used by bald eagles. Douglas PUD will determine if the perch trees need immediate protection from beavers or if they are likely to fall down in the near future due to bank erosion.

*Douglas PUD will conduct bald eagle surveys on Wells Reservoir during the winter of 2013-2014. Surveys will be conducted once a month between November and March. Eagles will be*

*counted from a boat. All perched and flying eagles will be identified as either juvenile or adult and recorded. The data will be provided in the annual report.*

#### 6.3.1.3 Protect Trees from Beaver Damage

- Beginning in year two of the new license, Douglas PUD will begin, and then continue as necessary, protecting large living trees within the Project boundary that are used by eagles as perches and which are likely to be lost from beaver damage. Protection measures will be completed by year five of the new license for those trees identified within the first four years of the new license. To prevent beaver damage to eagle perch trees, each tree will be wrapped with galvanized welded wire. Wire wrapped trees will be inspected annually and the wire repaired or replaced, as needed.

*Douglas PUD will inventory the forty two trees on the reservoir that have been wrapped with chicken wire to prevent beaver damage. . All mesh wrapped trees will receive a consecutively numbered tag and a GPS location will be recorded for each tree. Douglas PUD will evaluate how well the wire wraps protected the trees and increase the level of protection, if needed.*

*After discussions with the Terrestrial RWG in February 2013, Douglas PUD will use stronger wire mesh to wrap new trees and monitor the trees wrapped with chicken wire for beaver damage. The chicken wire will be replaced if damage is experience. An additional forty bald eagle perch trees will be wrapped with wire mesh to protect them from beaver during the 2012-2013 work plan. These trees will also be tagged with consecutively numbered tags and the GPS location recorded. A GIS map of all the wrapped trees will be created to assist with future inventories of the wrapped trees.*

#### 6.3.1.4 Loss of Perch Trees due to Erosion

- At any time during the implementation of the new license, as site specific issues arise regarding potential losses of large eagle perches due to bank erosion, Douglas PUD will consult with the Terrestrial RWG to determine if any reasonable measures are available to address the issue.

*The Wildlife and Botanical Management Plan developed by the Terrestrial RWG calls for protecting eagle perch trees from beaver damage and encouraging recruitment of trees on the reservoir, from both natural reproduction and planting trees in suitable habitat. The group decided against using shoreline armoring to protect areas threatened with erosion. Measures to control shoreline erosion, such as placing hardened surfaces, can be detrimental to habitat utilized by ESA-listed salmon, steelhead and bull trout, and are generally not supported by fish and wildlife management agencies. Fortunately there are very few trees currently susceptible to erosion along the Wells Reservoir. Douglas PUD will continue to monitor these trees and consult with the Terrestrial RWG if any large perch trees are lost due to erosion.*



#### 6.3.1.5 Protection of Small Trees

- Beginning in year one of the new license, Douglas PUD will ensure establishment and protection of sufficient smaller trees of appropriate age classes to ensure future abundance of potential perch trees is at least equal to the baseline abundance documented in year one of the new license.

*Douglas PUD is planning to plant shoreline cottonwood trees to provide future perch trees for raptors. Cottonwood trees were lost on Buena Flats across from Starr Boat Launch due to the Crane Road Wildland Fire. Cutting of riparian species have been more successful than rooted seedlings when planting shoreline areas without irrigation. In the spring of 2013, cottonwood cuttings will be planted on Buena Flats to replace the trees lost to the fire and to enhance eagle perch tree opportunities along the lower Wells Reservoir.*

#### 6.3.2 Waterfowl

- Beginning in year one of the new license, Douglas PUD will plant at least 50 acres of annual grain crops within the Bridgeport Bar Unit of the WWA below Project boundary, to provide food for wintering Canada geese and dabbling ducks.

*Douglas PUD will rely on WDFW to plant and irrigate fifty acres of grain crops on both Bridgeport Bar and Washburn Island Units of the WWA below Project Boundary. WDFW will receive funding for the manpower and material needed to plant and daily maintain the irrigation throughout the growing season through the OLSA.*

### 6.4 Protect Wildlife Habitat on Wells Project Lands

- Beginning in year one of the new license, Douglas PUD will continue twice a month boat monitoring of Project lands for unauthorized encroachment and damage caused by recreational activities and adjacent land owners. Wildlife habitat damage caused by unauthorized encroachment activities will be repaired or replaced with in-kind habitat within 12 months of identifying unauthorized activity.

*Douglas PUD will conduct twice monthly boat surveys of the Wells Reservoir in 2012-13 to identify unauthorized encroachment and damage caused by recreational activities and adjacent land owners. During the winter when ice prevents boat travel on the Methow or Okanogan rivers, Douglas PUD will conduct surveys of the shoreline of the two rivers by car.*

## **6.5 Maintain Productive Wildlife Habitat on the Cassimer Bar Wildlife Management Area**

### **6.5.1 Weed Control**

- Beginning in year one of the new license, Douglas PUD will implement weed management annually to control new occurrences of noxious weeds and to reduce existing weed occurrences.

*Douglas PUD annually controls all State Classified A and B weeds known to occur on Project lands. The CBWMA will be inspected for Class A and B weeds and the Douglas PUD weed management staff will be informed if any weeds need controlling during the summer of 2013.*

### **6.5.2 Access Management and Habitat Replacement**

- Beginning in year one of the new license, Douglas PUD will manage access and replace damaged habitat to reduce adverse effects of recreation on wildlife habitat.

*Douglas PUD will inspect the CBWMA, during the fall 2013, for habitat damage caused by recreation. Any habitat damage will be repaired during the spring 2014. Native trees, shrubs and grasses will be used to repair any damaged habitat.*

### **6.5.3 Fencing**

- Beginning in year one of the new license, Douglas PUD will install and maintain perimeter fencing to protect Cassimer Bar wildlife habitat from livestock.

*The CBWMA is protected by a fence that runs along the east boundary of the area. The fence prevents livestock from gaining access to the area. The fence is inspected annually and repaired when damage is found. The CBWMA is observed by Douglas PUD staff as they travel past the area on other assignments. If livestock are observed in the CBWMA during the summer of 2013, they will be removed. The fence will be inspected and repaired after the livestock trespass.*

### **6.5.4 Cassimer Bar Dikes**

- Beginning in year one of the new license, Douglas PUD will evaluate the dikes on Cassimer Bar and determine an appropriate method to fix the dikes. In year two, Douglas PUD will apply for permits from appropriate agencies. Contingent on receiving the necessary permits, Douglas PUD will repair the dikes to enhance waterfowl and other aquatic habitats on Cassimer Bar. In year four and every year thereafter, the dikes will be inspected and repaired as soon as the design work and permitting allow.

*Douglas PUD is working with the Terrestrial RWG to evaluate the Cassimer Bar dikes the Terrestrial RWG discussed both repairing the dikes which would maintain habitat for warm*

*water invasive fish and amphibian species or removing the dikes to reconnect the sloughs to the Okanogan River. Removal of the dikes and restoration of the natural flood plain function will improve water exchange, cooling the water in the sloughs, to provide conditions better suited for native species. WDFW has indicated a preference for removing the dikes.*

## **6.6 Control Noxious Weeds on Project Lands**

### **6.6.1 Weed Map**

- Beginning in year one of the new license, Douglas PUD will annually control identified Class A and B designated weed occurrences on Wells Project lands.

*Douglas PUD has two employees that will control Class A and Class B weeds during spring, summer and fall 2013 on the Wells Project lands and the Wells 230 kV Transmission Line corridor. Douglas PUD hires a weed control firm to control weeds around the Wells Dam facilities. Douglas PUD works with the Okanogan County Weed Control Board to identify any new infestation of weeds on Wells Project lands within Okanogan County.*

- Beginning in year five of the new license, Douglas PUD will survey Wells Project lands for new terrestrial weed infestations every five years throughout the term of the new license. Douglas PUD will use weed maps to identify problem areas and will update the maps as new weed populations are discovered.

*Not required this year.*

### **6.6.2 Weed Management Plan**

- Within one year of receipt of a new license, Douglas PUD will implement the following steps to control weeds on Project lands:
  1. Consider the species of noxious weeds, density and size of the sites and surrounding vegetation when determining control measures.
  2. Consider the land use of the site.
  3. Acquire all environmental permits required (e.g., wetlands).
  4. Consult the Washington State Department of Agriculture, pesticide-sensitive individuals list for properties adjacent to the control site.
  5. Determine the effectiveness of various control options: burning, tilling, digging, herbicide application by wicking, spot spraying or broadcast spraying, or biological control agent.
  6. Determine the most effective physiological growth stages of the target weed to obtain maximum control with least impact to surrounding vegetation.
  7. Control weeds using method(s) selected for the site.
  8. Monitor all application sites to determine the effectiveness of the weed control.
  9. Control sites denuded by herbicide treatment will be replanted with native plant species appropriate to the site.

*In 2013, Douglas PUD employees will use appropriate weed control methods specific to the species of weed to be controlled and the location of the weeds in the landscape. The lowest concentration of herbicide will be used that is effective at eradicating the target weeds. All weed control sites from 2012 will be revisited to determine the effectiveness of the herbicide application and herbicides will be reapplied, if needed. Douglas PUD has been using biological control agent (insects) specific to the Class B noxious weeds purple loose strife and Dalmatian toadflax rather than applying herbicides to kill these weeds and will do so in 2013. Douglas PUD chose biological control for purple loose strife since it is a wetland plant and herbicides would harm other wetland plants. Biological control was picked for Dalmatian toadflax since it has a waxy leaf that prevents adequate control with herbicides. Douglas PUD will use other biological control organisms as they become available from the U.S. Department of Agriculture.*

### **6.6.3 Preventing Weed Infestations**

Within one year of receipt of a new license, Douglas PUD will implement the following practices and protocols intended to minimize new weed infestations:

- Use certified weed free straw and mulch and seed for habitat restoration projects.
- Limit public vehicle traffic to designated roads on Project lands.
- Douglas PUD employees and contractors will be instructed to check their vehicle undercarriage for weeds before driving on undeveloped Project lands.
- Minimize earth disturbing activities by vehicles, machinery, and water runoff on undeveloped land.
- Manage healthy native vegetation and replant native vegetation disturbed by Douglas PUD's management activities.

*In 2013, Douglas PUD will require all employees and contractors to follow the weed prevention guidelines when working on Project lands. Contraction activities on Project land will require vehicles and equipment be cleaned before coming on the job site. Any vehicle used at more than one construction site should be checked regularly for weeds on the undercarriage.*

*Douglas PUD will also utilize certified weed free straw, mulch and seed when restoring habitat disturbed by Douglas PUD's activities, by public over use and runoff caused by adjacent properties.*

### **6.7 Consultation**

Douglas PUD will meet with resource agencies and/or tribes when requested to discuss management of wildlife and botanical species on Project lands. All changes to the plan must be in writing and made by unanimous consent by all Parties. Any agreed-upon changes to the WBMP will be submitted to FERC for review and approval.

Douglas PUD shall annually file, by May 31 of each year, a report that documents the result of the prior year's measures and the upcoming year's proposed measures to implement the plan. Douglas PUD shall include with the report an updated list of sensitive species, based upon an annual review of the WNHP rare plant list.

Douglas PUD shall also include with the report documentation of consultation with the USFWS, WDFW, Ecology, the CCT, and BLM; copies of comments and recommendations on the completed report after it has been prepared and provided to the consulted entities; and specific descriptions of how the consulted entities' comments are accommodated by the report. Douglas PUD shall allow a minimum of 30 days for the consulted entities to comment and make recommendations before filing the report with the Commission. If the licensee does not adopt a recommendation, the filing shall include Douglas PUD's reasons based on project-specific information. The Commission reserves the right to require changes to project operations or facilities based on all available information and information included in the annual reports.

*Douglas PUD met with the Terrestrial RWG on February 5, 2013 to discuss the annual Wildlife and Botanical Report. Douglas PUD consulted with the resource agencies and CCT during the writing of the annual WBMP report and work plan and included comments from the resource agencies and CCT in the report. A copy of the consultation record can be found in Appendix C. Douglas PUD will continue to consult with the resource agencies and CCT to address how to repair the Cassimer Bar dikes and any of other wildlife or botanical issues that may arise on Project lands.*

## 7.0 REFERENCES

- Devine, Tarbell & Associates (DTA). 2006. Effects of Water Level Fluctuations on Natural Resources within the Wells Project: A Review of Existing Information. Wells Hydroelectric Project FERC No. 2149. Prepared by DTA for Public Utility District No. 1 of Douglas County, East Wenatchee, Washington.
- EDAW, Inc. 2006a. Botanical Resources Final Study Report: Cover Type Mapping, Rare Threatened and Endangered Plant Surveys and Invasive Plant Surveys. Wells Hydroelectric Project, FERC No. 2149. Report by EDAW, Inc. Consultants for Public Utility District No. 1 of Douglas County, East Wenatchee, Washington.
- \_\_\_\_\_. 2006b. Wildlife Resources Study Report: Avian, Amphibian, Reptile and Small Mammal Surveys. Wells Hydroelectric Project, FERC No. 2149. Report by EDAW, Inc. Consultants for Public Utility District No. 1 of Douglas County, East Wenatchee, Washington.
- Fielder, P.C. 1982. Food habits of bald eagles along the mid-Columbia River, Washington. *Murrelet* 63:46-50.
- Lê, B. and S. Kreiter. 2006. Wells Project Aquatic Macrophyte Identification and Distribution Study, 2005. Public Utility District No. 1 of Douglas County, East Wenatchee, Washington. 71 pgs.
- U.S. Fish and Wildlife Service. (USFWS). 2007b. Draft post-delisting monitoring plan for the bald eagle, (*Haliaeetus leucocephalus*). U.S. Fish and Wildlife Service. [Online] URL: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BaldEagle/PostDelistingMonPlan.pdf>. (Accessed September 29, 2009)
- Parametrix, Inc., 2009. Plant and Wildlife Surveys and Cover Type Mapping of the Wells Hydroelectric Project 230 kV Transmission Corridor. Report by Parametrix, Inc. Consultants for Public Utility District No. 1 of Douglas County, East Wenatchee, Washington.

## **Appendix A**

### **Memos**



Wells Wildlife Area  
Washington Department of Fish and Wildlife  
54 Moe Road  
Brewster, WA 98812  
Tel: 509-686-4305, Fax: 509-686-7604

TO: Jim McGee

FROM: Dan Peterson

DATE: 10 January 2013

SUBJECT: Summary of 2012 food plot establishment and riparian irrigation

Grain Food Plot and Waterfowl Habitat Development:

This year we produced 142 acres of irrigated grain crops on the Bridgeport Bar and Washburn Island units. Of this total, 104 acres (73%) were grown on DPUD project lands. Species planted included spring wheat (97 acres), barley (18 acres) and corn (27 acres). We planted 18 fields with wheat or barley; field size ranged from 2 to 22 acres. Fifteen (15) corn rows were established and averaged 1.8 acres each.

To accomplish the required field work we used a variety of DPUD and non-DPUD owned equipment. DPUD equipment included the John Deere 7810 tractor (150hp) to mow and disk the fields, the Kubota 6030 tractor (70hp) to seed and spray herbicides, the International Harvester 510 grain drill to seed wheat and barley, 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.

Maintenance of Riparian Habitat:

We maintained 90 acres of irrigated riparian plantings on the Bridgeport Bar and Washburn Island units. About 50 acres of this total are located on DPUD project lands: 14 acres on Washburn Island and 36 acres on Bridgeport Bar. These plantings are distributed across 50 individual sites and irrigated via 6 miles of sprinkler lines. Each site is irrigated at least once per week during the April – October irrigation season.



## MEMORANDUM

TO: Jim McGee

C: Ken Pflueger  
Shane Bickford

FROM: John Brown

DATE: February 13, 2013

SUBJECT: Wells Project; License Compliance; Sections 4.2 and 4.4; Wells Wildlife and Botanical Management Plan

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Upon your request, the Land Services Department has reviewed the Wells Wildlife and Botanical Management Plan (Plan) and more specifically sections 4.2 and 4.4 of the Plan to confirm continued adherence to these sections of the Plan.

Upon review of the Plan and in discussing the Plan with Department personnel, I find that adherence to these sections of the plan have occurred in 2012 and will continue to occur.

In speaking with Department personnel it was noted that only one Project Lands boat inspection was done in January 2013, due to the Methow and Okanogan Rivers being frozen. The second monthly Project Lands "boat" inspection was conducted via pick-up truck to allow for inspection of District lands along the above frozen river segments.

## **Appendix B**

### **List of Known Occurrences of Rare Plants in Chelan, Douglas and Okanogan Counties**

## Washington Natural Heritage Program

### List of Known Occurrences of Rare Plants in Chelan, Douglas and Okanogan Counties

Viewed 2/7/13

<http://www1.dnr.wa.gov/nhp/refdesk/lists/plantsxco/chelan.html>

<http://www1.dnr.wa.gov/nhp/refdesk/lists/plantsxco/douglas.html>

<http://www1.dnr.wa.gov/nhp/refdesk/lists/plantsxco/okanogan.html>

Scientific Name	Common Name	State Status	Federal Status	Historic Record
<a href="#">Agoseris elata</a>	tall agoseris	S		
Agoseris lackschewitzii	pink agoseris	S		
<a href="#">Agrostis mertensii</a>	northern bentgrass	T		
<a href="#">Allium constrictum</a>	constricted Douglas' onion	S		
<a href="#">Anagallis minima</a>	chaffweed	S		
<a href="#">Anemone patens var. multifida</a>	pasqueflower	T		
<a href="#">Antennaria parvifolia</a>	Nuttall's pussy-toes	S		H
<a href="#">Anthoxanthum hirtum</a>	common northern sweet grass	R1		
<a href="#">Astragalus arrectus</a>	Palouse milk-vetch	T		
<a href="#">Astragalus misellus var. pauper</a>	Pauper milk-vetch	S		
<a href="#">Astragalus multiflorus</a>	loose-flower milk-vetch	T		
<a href="#">Astragalus sinuatus</a>	Whited's milk-vetch	E	SC	
<a href="#">Botrychium ascendens</a>	triangular-lobed moonwort	S	SC	
<a href="#">Botrychium crenulatum</a>	crenulate moonwort	S	SC	
<a href="#">Botrychium paradoxum</a>	two-spiked moonwort	T	SC	
<a href="#">Camissonia pygmaea</a>	dwarf evening-primrose	S		
Carex atosquama	blackened sedge	R1		
<a href="#">Carex capillaris</a>	hair-like sedge	T		
Carex capitata	capitate sedge	R1		H
<a href="#">Carex chordorrhiza</a>	cordroot sedge	S		
<a href="#">Carex comosa</a>	bristly sedge	S		
<a href="#">Carex gynocrates</a>	yellow bog sedge	S		
Carex heteroneura var. epapillosa	smooth-fruit sedge	S		
<a href="#">Carex magellanica ssp. irrigua</a>	poor sedge	S		
<a href="#">Carex media</a>	intermediate sedge	S		
<a href="#">Carex praeceptorum</a>	Teacher's sedge	R1		
<a href="#">Carex proposita</a>	Smoky Mountain sedge	T		
<a href="#">Carex scirpoidea ssp. scirpoidea</a>	Canadian single-spike sedge	S		

<a href="#"><u>Carex sychnocephala</u></a>	many-headed sedge	S		
Carex tenera var. tenera	quill sedge	T		
<a href="#"><u>Carex tenuiflora</u></a>	sparse-flowered sedge	T		
<a href="#"><u>Carex vallicola</u></a>	valley sedge	S		
Carex vernacula	foetid sedge	R1		
<a href="#"><u>Chaenactis thompsonii</u></a>	Thompson's chaenactis	S		
<a href="#"><u>Chrysosplenium tetrandrum</u></a>	northern golden-carpet	S		
<a href="#"><u>Cicuta bulbifera</u></a>	bulb-bearing water-hemlock	S		
Cirsium flodmanii	Flodman's thistle	R1		
<a href="#"><u>Coeloglossum viride</u></a>	long-bract frog orchid	T		
<a href="#"><u>Crataegus phippsii</u></a>	Phipps' hawthorn	R1		
<a href="#"><u>Cryptantha gracilis</u></a>	narrow-stem cryptantha	S		
<a href="#"><u>Cryptantha leucophaea</u></a>	gray cryptantha	S	SC	
Cryptantha simulans	pine woods cryptantha	R1		H
<a href="#"><u>Cryptantha spiculifera</u></a>	Snake River cryptantha	S		
<a href="#"><u>Cryptogramma stelleri</u></a>	Steller's rockbrake	S		
<a href="#"><u>Cypripedium fasciculatum</u></a>	clustered lady's-slipper	S	SC	
<a href="#"><u>Cypripedium parviflorum</u></a>	yellow lady's-slipper	T		
<a href="#"><u>Delphinium viridescens</u></a>	Wenatchee larkspur	T	SC	
<a href="#"><u>Draba aurea</u></a>	golden draba	S		
<a href="#"><u>Draba cana</u></a>	lance-leaved draba	S		
<a href="#"><u>Eleocharis rostellata</u></a>	beaked spike-rush	S		
Elodea nuttallii	Nuttall's waterweed	R1		
<a href="#"><u>Erigeron elatus</u></a>	tall bitter fleabane	E		
<a href="#"><u>Erigeron piperianus</u></a>	Piper's daisy	S		
<a href="#"><u>Erigeron salishii</u></a>	Salish fleabane	S		
<a href="#"><u>Eriophorum viridicarinatum</u></a>	green keeled cotton-grass	S		
<a href="#"><u>Eritrichium nanum var. elongatum</u></a>	pale alpine-forget-me-not	S		
<a href="#"><u>Eurybia merita</u></a>	Arctic aster	S		
<a href="#"><u>Gentiana glauca</u></a>	glaucous gentian	S		
<a href="#"><u>Gentianella tenella ssp. tenella</u></a>	slender gentian	S		
<a href="#"><u>Geum rivale</u></a>	water avens	S		
<a href="#"><u>Geum rossii var. depressum</u></a>	Ross' avens	E		
<a href="#"><u>Githopsis specularioides</u></a>	common blue-cup	S		
<a href="#"><u>Hackelia cinerea</u></a>	gray stickseed	S		H
<a href="#"><u>Hackelia hispida var. disjuncta</u></a>	sagebrush stickseed	S		H
Hackelia sp. 2	Taylor's Stickseed	T		
<a href="#"><u>Hackelia venusta</u></a>	showy stickseed	E	LE	
<a href="#"><u>Halimolobos perplexus var. perplexus</u></a>	puzzling rockcress	T		
<a href="#"><u>Iliamna longisepala</u></a>	longsepal globemallow	S		

<a href="#">Juncus tiehmii</a>	Tiehm's rush	T	
<a href="#">Juncus uncialis</a>	inch-high rush	S	
Lathrocasis tenerrima	delicate gilia	R1	
<a href="#">Loiseleuria procumbens</a>	alpine azalea	T	H
<a href="#">Luzula arcuata ssp. unalaschkensis</a>	curved woodrush	S	
Lycopodium lagopus	one-cone ground-pine	R1	
<a href="#">Micromonolepis pusilla</a>	red poverty-weed	T	
<a href="#">Mimulus patulus</a>	stalk-leaved monkeyflower	T	
<a href="#">Mimulus pulsiferae</a>	Pulsifer's monkey-flower	S	
<a href="#">Mimulus suksdorfii</a>	Suksdorf's monkey-flower	S	
Mimulus washingtonensis	Washington monkey-flower	X	H
Monolepis spatulata	prostrate poverty-weed	S	
<a href="#">Nicotiana attenuata</a>	coyote tobacco	S	H
<a href="#">Ophioglossum pusillum</a>	Adder's-tongue	T	
<a href="#">Oxytropis campestris var. columbiana</a>	Columbia crazyweed	E	
Oxytropis campestris var. cusickii	slender crazyweed	R1	H
<a href="#">Oxytropis campestris var. gracilis</a>	slender crazyweed	S	
Packera bolanderi var. harfordii	Harford's ragwort	S	H
<a href="#">Parnassia kotzebuei</a>	Kotzebue's grass-of-parnassus	T	
<a href="#">Pediocactus nigrispinus</a>	snowball cactus	S	
<a href="#">Pellaea brachyptera</a>	Sierra cliff-brake	S	
<a href="#">Pellaea breweri</a>	Brewer's cliff-brake	S	
Pellaea glabella ssp. simplex	smooth cliff-brake	R2	
<a href="#">Penstemon eriantherus var. whitedii</a>	fuzzytongue penstemon	S	
<a href="#">Petrophyton cinerascens</a>	Chelan rockmat	E	SC
<a href="#">Phacelia lenta</a>	sticky phacelia	T	SC
<a href="#">Phacelia tetramera</a>	dwarf phacelia	S	
Platanthera aquilonis	Sheviak's bog orchid	R1	H
<a href="#">Platanthera obtusata</a>	small northern bog-orchid	S	
<a href="#">Platanthera sparsiflora</a>	canyon bog-orchid	T	H
<a href="#">Polemonium viscosum</a>	skunk polemonium	S	
<a href="#">Potamogeton obtusifolius</a>	blunt-leaved pondweed	S	
<a href="#">Potentilla glaucophylla var. perdissecta</a>	diverse-leaved cinquefoil	S	H
<a href="#">Potentilla nivea</a>	snow cinquefoil	S	
<a href="#">Potentilla rubricaulis</a>	five-leaved cinquefoil	T	
Ranunculus pygmaeus	dwarf buttercup	R1	
<a href="#">Rotala ramosior</a>	lowland toothcup	T	
<a href="#">Rubus arcticus ssp. acaulis</a>	nagoonberry	T	
<a href="#">Salix glauca var. villosa</a>	glaucous willow	S	
<a href="#">Salix maccalliana</a>	Maccall's willow	S	

<i>Salix pseudomonticola</i>	false mountain willow	S		
<a href="#"><i>Salix tweedyi</i></a>	Tweedy's willow	S		
<a href="#"><i>Salix vestita</i> var. <i>erecta</i></a>	rock willow	X		H
<a href="#"><i>Sanicula marilandica</i></a>	black snake-root	S		
<a href="#"><i>Saxifraga cernua</i></a>	nodding saxifrage	S		
<a href="#"><i>Saxifraga hyperborea</i></a>	pygmy saxifrage	S		
<a href="#"><i>Saxifragopsis fragarioides</i></a>	strawberry saxifrage	T		
<a href="#"><i>Schizachyrium scoparium</i> var. <i>scoparium</i></a>	little bluestem	T		
<a href="#"><i>Scutellaria angustifolia</i> ssp. <i>micrantha</i></a>	narrowleaf skullcap	R1		
<a href="#"><i>Sidalcea oregana</i> var. <i>calva</i></a>	Wenatchee Mountain checker-mallow	E	LE	
<a href="#"><i>Silene sargentii</i></a>	Sargent's catchfly	R1		H
<i>Silene scouleri</i> ssp. <i>scouleri</i>	Scouler's catchfly	S		H
<a href="#"><i>Silene seelyi</i></a>	Seely's silene	S	SC	
<a href="#"><i>Sisyrinchium montanum</i></a>	strict blue-eyed-grass	T		
<a href="#"><i>Sisyrinchium septentrionale</i></a>	blue-eyed grass	S		
<a href="#"><i>Spiranthes diluvialis</i></a>	Ute ladies' tresses	E	LT	
<a href="#"><i>Spiranthes porrifolia</i></a>	western ladies-tresses	S		
<a href="#"><i>Stuckenia filiformis</i> ssp. <i>occidentalis</i></a>	western fineleaf pondweed	R1		
<a href="#"><i>Subularia aquatica</i> var. <i>americana</i></a>	water awlwort	R1		
<a href="#"><i>Swertia perennis</i></a>	swertia	R1		
<a href="#"><i>Thelypodium sagittatum</i> ssp. <i>sagittatum</i></a>	arrow thelypody	S		H
<a href="#"><i>Trichostema oblongum</i></a>	oblong bluecurls	R1		
<a href="#"><i>Trifolium thompsonii</i></a>	Thompson's clover	T	SC	
<i>Triglochin palustris</i>	marsh arrowgrass	R1		H
<a href="#"><i>Utricularia minor</i></a>	lesser bladderwort	R1		
<a href="#"><i>Vaccinium myrtilloides</i></a>	velvet-leaf blueberry	S		
<a href="#"><i>Viola renifolia</i></a>	kidney-leaved violet	S		

### Description of Codes

#### Historic Record:

H indicates most recent sighting in the county is before 1977.

#### State Status

**State Status** of plant species is determined by the Washington Natural Heritage Program.

E = Endangered. In danger of becoming extinct or extirpated from Washington.

T = Threatened. Likely to become Endangered in Washington.

S = Sensitive. Vulnerable or declining and could become Endangered or Threatened in the state.

X = Possibly extinct or Extirpated from Washington.

R1 = Review group 1. Of potential concern but needs more field work to assign another rank.

R2 = Review group 2. Of potential concern but with unresolved taxonomic questions.

### **Federal Status**

**Federal Status** under the U.S. Endangered Species Act(USES A) as published in the Federal Register:

LE = Listed Endangered. In danger of extinction.

LT = Listed Threatened. Likely to become endangered.

PE = Proposed Endangered.

PT = Proposed Threatened.

C = Candidate species. Sufficient information exists to support listing as Endangered or Threatened.

SC = Species of Concern. An unofficial status, the species appears to be in jeopardy,  
but insufficient information to support listing.

## **Appendix C**

### **Consultation with Agencies and Colville Confederated Tribes**



**Terrestrial Resource Working Group  
Meeting Minutes  
February 5, 2013  
9 AM – Noon**

These are the meeting minutes for the February 5<sup>th</sup> coordination meeting of the Terrestrial Resource Working Group (TRWG) convened under license requirement for the Wells Hydroelectric Project FERC No. 2149-152.

Section 409 of license for the Wells Project requires Douglas PUD to annually file a report with FERC. The report will document the result of the prior year's measures to comply with the Wildlife and Botanical Management Plan (WBMP) and Wells 230 kV Transmission Line Avian Protection Plan (APP). Measures required by the plans that will be completed by October 30, 2013 will also be included in the report. Douglas PUD is required to document consultation with USFWS, BLM, WDFW, Ecology, and Colville Tribes and incorporate comments from the agencies and tribe into the report. Douglas PUD outlined the timeline for completion of the report:

- Douglas PUD emails draft WBMP report to TRWG for review - March 1, 2013
- TRWG comment on the plan due by April 1, 2013
- TRWG meeting to review comments – Mid-April
- Douglas PUD incorporates TRWG comments into the plan April 15, 2013
- Douglas PUD files final report by May 31, 2013

The requirements of the Wildlife and Botanical Management Plan and Wells 230 kV Transmission Line Avian Protection Plan were reviewed by the TRWG.

Douglas PUD asked the TRWG how to proceed on the requirement in the WBMP to repair the dikes on Cassimer Bar that close three sloughs off from the Okanogan and Columbia rivers (Section 4.5). The group decided that they would like to see the Cassimer Bar and the dikes before developing a recommendation.

**Action Item:**

- Douglas PUD will arrange a tour of the Wells Reservoir including the Cassimer Bar dikes in April or early May depending on availability of TRWG members.



## Terrestrial Resource Work Group

DATE: February 5, 2013

LOCATION: Douglas PUD Office

Initials	Name	Affiliation Name	Email
<u>SB</u>	Shane Bickford	Douglas PUD	sbickford@dcputd.org
<u>JM</u>	Jim McGee	Douglas PUD	jmcgee@dcputd.org
_____	Steve Lewis	USFWS	Stephen_Lewis@fws.gov
<u>DP</u>	Dan Peterson	WDFW	daniel.petersen@dfw.wa.gov
_____	Matt Monda	WDFW	mondamjm@dfw.wa.gov
<u>By Phone</u>	Pat Irle	Ecology	pir461@ecy.wa.gov
<u>JAV</u>	<sup>J.A.</sup> Jay Vacca	BLM	jvacca@blm.gov
_____	Richard Whitney	CCT	richard.whitney@colvilletribes.com

### Additional Attendees

Initials	Name	Affiliation Name	Email
<u>pmv</u>	<u>Patrick Verhey</u>	<u>WDFW</u>	<u>Patrick.Verhey@dfw.wa.gov</u>
<u>EE</u>	<u>Erik Ellis</u>	<u>BLM</u>	<u>edellis@blm.gov</u>
<u>S</u>	<u>S. Lewis</u>	<u>FWS</u>	<u>Stephen_Lewis@fws.gov</u>
<u>JP</u>	_____	_____	_____
_____	_____	_____	_____
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_____	_____	_____	_____

Annual Wildlife and Botanical Report  
Comments by Steve Lewis, USFWS

USFWS Comment

Section 3.3.1.1      A little clarity may be required here. Will the Starr Boat Launch poles be replaced in the future? 2013?

Douglas PUD

Reply      *The Starr Boat launch perch poles will not be replaced. These poles have been attracting large numbers of cormorants that are consuming ESA listed fish in the forebay of the dam.*

USFWS Comment

Section 3.3.1.2      We recommend some discussion of eagle behavior in order to decipher how these birds are utilizing the project reservoir. For example, are these birds mainly transitory individuals passing through the area, feeding, or perching?

Douglas PUD

Reply      *Wells Reservoir is an important waterfowl wintering area in eastern Washington. Bald eagles from Canada and Alaska migrate to the reservoir in October and November to feed on the abundant American Coots (*Fulica americana*) and other waterfowl. The eagles begin their migration to northern breeding areas in late February and early March.*

USFWS Comment

Section 3.3.1.3      Based on our discussion during the last Terrestrial RWG meeting, I thought heavier gauge wrapping was to be utilized to increase effectiveness. Clarifying this point would be useful.

Douglas PUD

Reply      *See Douglas PUD Reply Section 6.3.1.2*

USFWS Comment

Section 3.3.1.4      Are there any perch trees that warrant consideration for erosion control? This discussion currently does not contemplate this issue.

Douglas PUD

Reply      *The Wildlife and Botanical Management Plan developed by the Terrestrial RWG calls for protecting eagle perch trees from beaver damage and encouraging recruitment of trees on the reservoir, through both natural reproduction and planting trees in suitable habitat. The group decided against using shoreline armoring to protect areas threatened with erosion. Measures to control shoreline erosion, such as placing hardened surfaces, can be detrimental to habitat utilized by ESA-listed salmon, steelhead and bull trout, and are generally not supported by fish and wildlife*

*management agencies. Douglas PUD will consult with the Terrestrial RWG if any large perch trees are threatened by erosion and will ensure that new trees are planted to replace any trees lost due to erosion.*

Section 3.5.4      This discussion implies the dikes will be fixed versus removing them to improve the associated aquatic ecosystem. We discussed a couple of options during the last Terrestrial RWG meeting and these options need to be summarized here

Douglas PUD  
Reply

*Douglas PUD is working with the Terrestrial RWG to evaluate the Cassimer Bar dikes. The Terrestrial RWG discussed both repairing the dikes which would maintain habitat for warm water invasive fish and amphibian species and removing the dikes to reconnect the sloughs to the Okanogan River. Removal of the dikes and restoration of the natural flood plain function will improve water exchange, cooling the water in the sloughs, to provide conditions better suited for native species. WDFW has indicated a preference for removing the dikes.*

Section 4.1      Is there a timeframe associated with this installation?

Douglas PUD  
Reply

*The steep sag of the conductor cables at the Douglas County shoreline tower prevents safe use of a lineman's hand car to install bird flight diverters. Douglas PUD does not anticipate replacing the conductors or ground wires on the Wells 230 kV transmission line river crossing for many years. Bird flight diverters are not required to be placed on the Wells transmission line river crossing until the conductor or ground wires are replaced.*

Section 4.2      Were these employees actually looking for carcasses? This discussion is not clear in that regard. Please clarify.

Douglas PUD  
Reply

*Yes, employees are looking for carcasses. Douglas PUD has instructed all employees working on or near transmission and distribution lines to report all dead birds found to Douglas PUD's Wildlife Biologist. The entire length of the transmission lines are inspected twice per year and structures near the north and south path of the line are inspected multiple times a year. During these inspections, Douglas PUD crews are actively looking for carcasses incidental to their normal transmission and distribution reliability inspections.*

Section 6.3.1.2      Refer to comment #2 in relation to this discussion.

Douglas PUD

Reply *After discussions with the Terrestrial RWG in February 2013, Douglas PUD will use stronger wire mesh to wrap new trees and monitor the trees wrapped with chicken wire for beaver damage. The chicken wire will be replaced if damage is experience.*

Section 6.3.1.4 Do any of these perch trees warrant erosion protection measures at this time? Clarifying this would be helpful.

Douglas PUD  
Reply *The Wildlife and Botanical Management Plan developed by the Terrestrial RWG calls for protecting eagle perch trees from beaver damage and encouraging recruitment of trees on the reservoir, from both natural reproduction and planting trees in suitable habitat. The group decided against using shoreline armoring to protect areas threatened with erosion. Measures to control shoreline erosion, such as placing hardened surfaces, can be detrimental to habitat utilized by ESA-listed salmon, steelhead and bull trout, and are generally not supported by fish and wildlife management agencies. Fortunately there are very few trees currently susceptible to erosion along the Wells Reservoir. Douglas PUD will continue to monitor these trees and consult with the Terrestrial RWG if any large perch trees are lost due to erosion.*

Section 6.5.4 Again, this implies that only one option exists for this project. Please refer to previous comment...

Douglas PUD  
Reply *Douglas PUD is working with the Terrestrial RWG to evaluate the Cassimer Bar dikes the Terrestrial RWG discussed both repairing the dikes which would maintain habitat for warm water invasive fish and amphibian species or removing the dikes to reconnect the sloughs to the Okanogan River. Removal of the dikes and restoration of the natural flood plain function will improve water exchange, cooling the water in the sloughs, to provide conditions better suited for native species. WDFW has indicated a preference for removing the dikes.*

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**From:** Jim McGee [<mailto:JimM@dcputd.org>]

**Sent:** Monday, February 25, 2013 4:24 PM

**To:** Peterson, Daniel J (DFW); Erick Ellis; J A Vacca ([jvacca@blm.gov](mailto:jvacca@blm.gov)); Monda, Matthew J (DFW); Irle, Pat (ECY); Verhey, Patrick M (DFW); Richard Whitney ([richard.whitney@colvilletribes.com](mailto:richard.whitney@colvilletribes.com)); Steve Lewis ([Stephen.Lewis@fws.gov](mailto:Stephen.Lewis@fws.gov))

**Cc:** Shane Bickford

**Subject:** Annual Terrestrial Report

To: Terrestrial Resource Working Group

Thank you all for attending the meeting on February 5<sup>th</sup>. Attached are draft minutes of the February 5<sup>th</sup> meeting of the Wells Terrestrial Resource Working Group and a draft copy of the Annual Terrestrial Report that will be sent to FERC before May 31, 2013

Please review both documents and if you have any comments please email them to me before April 1, 2013.

I will contact you all later this month to set up a meeting to review comments the report.

Thank you all for your help reviewing these documents.

Jim McGee  
Wildlife Biologist  
Public Utility District No. 1 of Douglas County  
1151 Valley Mall Parkway  
East Wenatchee, WA 98802  
Bus Phone: 509-884-7191

**Jim McGee**

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**From:** Irie, Pat (ECY) <PIRL461@ECY.WA.GOV>  
**Sent:** Monday, April 01, 2013 2:39 PM  
**To:** Jim McGee  
**Subject:** Terrestrial report

Thanks for your call.  
I do not have any comments.

**Jim McGee**

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**From:** Vacca, J <jvacca@blm.gov>  
**Sent:** Thursday, April 04, 2013 10:48 AM  
**To:** Jim McGee  
**Subject:** Re: Meeting to Review Annual Wildlife and Boataical Report

Jim,

No comments. Thanks for keeping us informed though.

J.A. Vacca  
Wildlife Biologist  
BLM, Wenatchee Field Office  
915 Walla Walla Ave  
Wenatchee, WA 98801  
(509) 665-2135  
[jvacca@blm.gov](mailto:jvacca@blm.gov)



**Jim McGee**

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**From:** Verhey, Patrick M (DFW) <Patrick.Verhey@dfw.wa.gov>  
**Sent:** Wednesday, April 17, 2013 3:04 PM  
**To:** Jim McGee  
**Subject:** RE: Annual Terrestrial Report

Jim, I coordinated with Dan in regards to WDFW comments on the Annual Wildlife Botanical Report for the Wells Hydroelectric Project. We do not have additional edits or comments. I think we are all on the same page and on track. Thanks again.



**Patrick Verhey**  
Renewable Energy Biologist  
WDFW Habitat Program  
Renewable Energy Section  
1550 Alder St N.W.  
Ephrata, WA 98823  
(509) 754-4624 ex. 213  
[Patrick.Verhey@dfw.wa.gov](mailto:Patrick.Verhey@dfw.wa.gov)  
Work schedule is M-Th

Document Content(s)

Transmittal for 2012 Wildlife Report.PDF.....1-2

FINAL 2012 Annual Wildlife Report.PDF.....3-57