

**BY ELECTRONIC FILING**

December 10, 2015

Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
Mail Code: DHAC, PJ-12  
888 First Street, N.E.  
Washington, D.C. 20426

**RE: Priest Rapids Hydroelectric Project No. 2114-204 License Compliance Filing – Article 410 – Wildlife Habitat Monitoring, Information, and Education Plan – 2015 Annual Report**

Dear Secretary Bose:

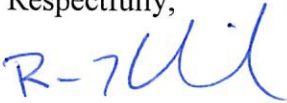
Please find enclosed Public Utility District No. 2 of Grant County, Washington's (Grant PUD's) 2015 Wildlife Habitat Monitoring, Information, and Education annual report consistent with the requirements of Article 410 of the Priest Rapids Hydroelectric Project License.

On October 12, 2009, Grant PUD filed its Wildlife Habitat Monitoring, Information, and Education Plan (Plan) pursuant to Priest Rapids Project (P-2114) License Article 410, which was modified and approved by the Federal Energy Regulatory Commission (FERC) on September 8, 2010. As identified in the Plan, Grant PUD is to: 1) monitor recreation effects on wildlife and sensitive wildlife habitats; 2) provide signage, educational outreach, etc. to educate the public about the potential adverse effects of dispersed recreation on sensitive habitats; and 3) identify and implement corrective actions to control recreation impacts and to rehabilitate wildlife habitats. The Plan also requires Grant PUD to file with FERC an annual report that describes the results of the habitat monitoring efforts and status of the information and education program by December 31 of each year following FERC approval of the Plan.

In 2015, Grant PUD continued web development with enhancement of educational materials regarding wildlife and wildlife habitat within the Priest Rapids Project area. Grant PUD collected imagery of wildlife and wildlife habitat in the project area for use in a calendar (calendar year 2016) and web site that will be published at the end of 2015 and made available to the public in 2016. Grant PUD selected for installation at recreations sites, appropriate I&E Program media to be used, such as signs and kiosks (roadside and at key sites. Wildlife I&E elements were incorporated into designs for the Wanapum Visitor Center, which opened to the public on December 1, 2015. Additional sites are being prioritized for the location of media such as interpretive talks and field trips, clean-up events, and in-school education lectures learning from experience with existing programs like Salmon in the Classroom.

FERC staff with questions or comments, please contact Tom Dresser Grant PUD Fish, Wildlife and Water Quality Manager, at 509-754-5088, ext. 2312.

Respectfully,



Ross R. Hendrick  
License Compliance Manager

Cc: Patrick Verhey – Washington Department of Fish and Wildlife  
Steve Lewis – U.S. Fish and Wildlife Service  
Chris Parsons – Washington State Parks  
Todd Welker - Washington Department of Natural Resources  
Mike Beckwith – U.S. Bureau of Reclamation  
Rex Buck Jr. – Wanapum  
Diane Priebe – U.S. Bureau of Land Management  
Jim Eychner – Washington Recreation and Conservation Office  
LeRoy Adams, Jr. – Yakama Nation

**Priest Rapids Hydroelectric Project (FERC No. 2114)**

**Wildlife Habitat Monitoring and Information and  
Education Program**

**2015 Progress Report**

**License Article 410**

Public Utility District No. 2 of Grant County, Washington  
P.O. Box 878  
Ephrata, WA 98823

**December 2015**

## **Executive Summary**

On October 12, 2009, Public Utility District No. 2 of Grant County, Washington (Grant PUD) filed its Wildlife Habitat Monitoring, Information, and Education Plan (WHMIEP) pursuant to Article 410, which was modified and approved by the Federal Energy Regulatory Commission (FERC) on September 8, 2010. As identified in the WHMIEP, Grant PUD was to implement the WHMIEP over a five year period (beginning in 2011), including: 1) monitoring recreation effects on wildlife and sensitive wildlife habitats; 2) providing signage, educational outreach, etc. to help educate the public about responsible recreation practices to help minimize potentially adverse effects of dispersed recreation on sensitive habitats; and 3) identifying and implementing corrective actions to help reduce recreation impacts and to rehabilitate wildlife habitats. The Plan also requires Grant PUD to file, with FERC, an annual report that describes the results of the habitat monitoring efforts and status of the information and education program by December 31 of each year following FERC approval of the WHMIEP. This document is the annual report for calendar year 2015.

Year 2015 marked the fifth full year of implementation of the WHMIEP. In 2015, five habitat areas within the Priest Rapids Project (Project) were surveyed in both the spring and the fall seeking potential dispersed recreation effects on wildlife and sensitive wildlife habitats. These locations were selected in 2011 because they were identified by the Washington Natural Heritage Program (WNHP 2010) to contain one or more state and/or federally listed plant species or were identified as priority habitat by the Washington Department of Fish and Wildlife Priority Habitats and Species (PHS) database (WDFW 2008). In addition to the condition of the habitat at the site, the proximity of the site to public access, recreation occurring at or near the site, and the potential for recreation impacts at the site in the future was also considered during the selection of the monitoring locations. In total, approximately 12 miles of Wanapum Reservoir shoreline and 3 miles of Priest Rapids shoreline were surveyed in 2015. Further, in response to the emergency drawdown of the Wanapum reservoir in 2014, Grant PUD developed a riparian habitat assessment program using a combination of remote sensing and field based assessment methods to assess whether riparian vegetation was effected by the drawdown. Riparian habitat assessment began in 2015 and will continue through 2016.

Grant PUD is continuing implementation of the Information and Education (I&E) Program with the continued development of a public website, more recent commitment to production of a wildlife calendar, and implementation of interpretive education programs designed to help inform the public about wildlife and wildlife habitat, responsible recreation practices and the potential adverse effects of irresponsible dispersed recreation on sensitive habitats. In 2015, Grant PUD continued web development with enhancement of educational materials regarding wildlife and wildlife habitat within the Priest Rapids Project area. Also in 2015, Grant PUD collected imagery of wildlife and wildlife habitat in the project area for use in a calendar (calendar year 2016) that will be published at the end of 2015 and made available to the public in 2016. In 2015 Grant PUD continued to review, and select for installation at recreations sites, appropriate I&E Program media to be used, such as signs and kiosks (roadside and at key sites), brochures, pamphlets, audio tours, nature trails, newsletters, etc.. During 2015 wildlife I&E elements were incorporated into designs for the Wanapum Visitor's Center (Center), which opened to the public on December 1, 2015. Additional sites are being prioritized for the location of media such as interpretive talks and field trips, clean-up events, and in-school education lectures learning from experience with existing programs like Salmon in the Classroom.

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## **1.0 Introduction**

On October 12, 2009, Public Utility District No. 2 of Grant County, Washington (Grant PUD) filed its Wildlife Habitat Monitoring, Information, and Education Plan (WHMIEP) pursuant to Article 410, which was modified and approved by the Federal Energy Regulatory Commission (FERC) on September 8, 2010. As identified in the WHMIEP, Grant PUD has been implementing the WHMIEP over the five subsequent years (beginning in 2011), which has included:

- 1). monitoring recreation effects on wildlife and sensitive wildlife habitats;
- 2). providing signage, educational outreach, etc. to help potentially avoid adverse effects of dispersed recreation on sensitive habitats; and
- 3). identifying and implementing corrective actions to help reduce recreation impacts and to rehabilitate wildlife habitats.

The WHMIEP requires Grant PUD to file with FERC an annual report that describes the results of the habitat monitoring efforts and status of the information and education program by December 31 of each year following FERC approval of the WHMIEP. This document is the annual Wildlife Monitoring, Information and Education (I&E) report for calendar year 2015.

## **2.0 Monitoring, Information and Education Plan Methods**

### **2.1 Monitoring Recreation Effects on Wildlife and Sensitive Wildlife Habitats**

In 2011, Grant PUD identified five habitat areas to be monitored semi-annually (three on Wanapum Reservoir and two on Priest Rapids Reservoir). The five locations monitored in 2015 included: 1) West Bar (7 miles); 2) Quilomene Bar (2 miles); 3) Babcock Bench (3 miles); 4) North of Lake Geneva (2 miles); and 5) South of Lake Geneva (1 mile). Selected habitat areas monitored in 2015 are illustrated in Figure 1 and Figure 2. Provisions and criteria for identifying and implementing corrective actions to control impacts and to rehabilitate habitats were identified in the WHMIEP.

These sites were selected because they contain one or more state and/or federally listed plant species or were identified as priority habitat by the Washington Department of Fish and Wildlife Priority Habitats and Species (PHS) database (WDFW 2008). In addition to the condition of the habitat at the site, the proximity of the site to public access, evidence of recreation occurring at or near the site, and the potential for recreation impacts at the site in the future was also considered during the selection of the monitoring locations.



**Grant County Public Utility District No. 2**  
**Priest Rapids Hydroelectric Project (FERC No. 2114), Habitat Monitoring Areas**  
*Wanapum Reservoir, Columbia River, WA*



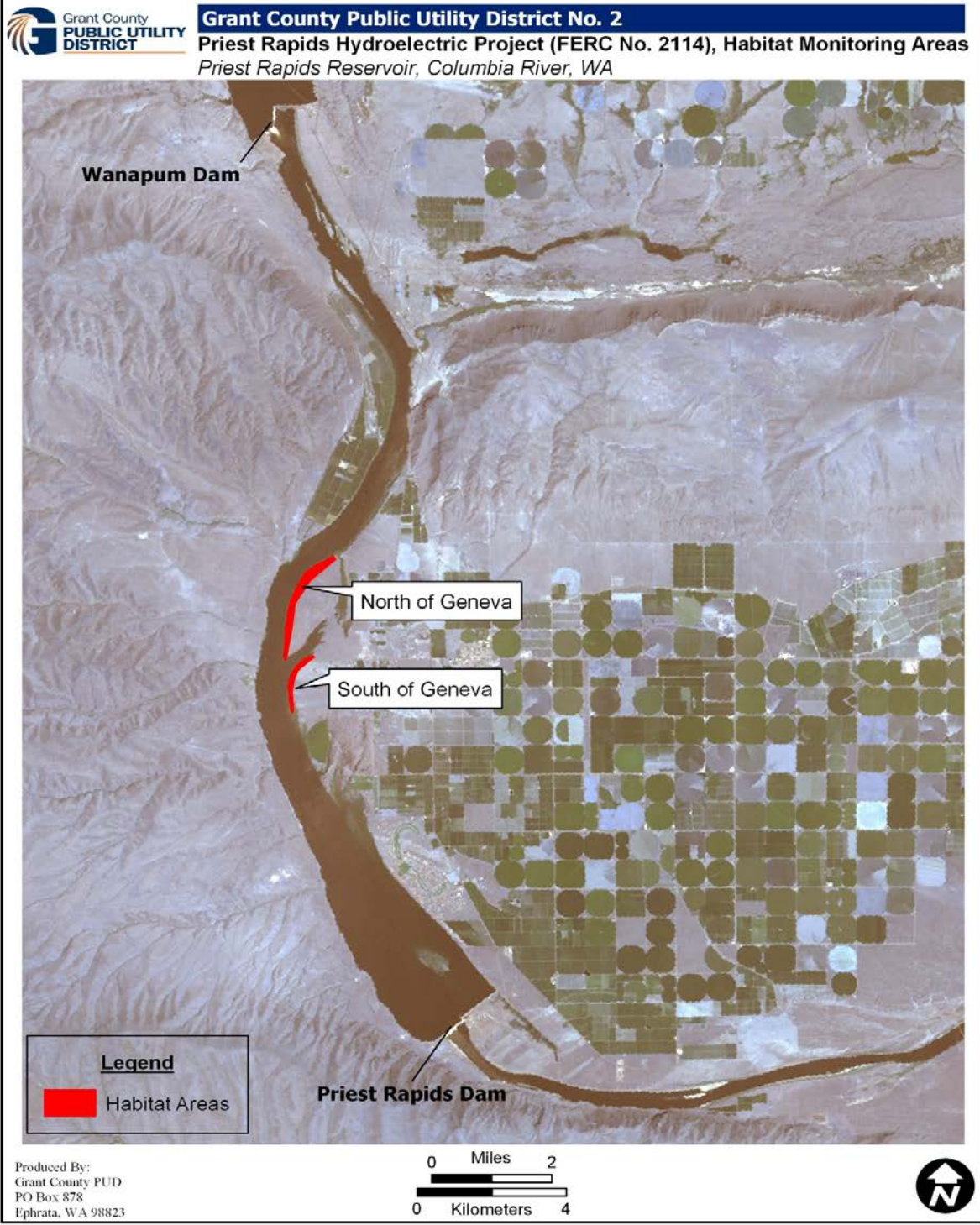
Produced By:  
Grant County PUD  
PO Box 878  
Ephrata, WA 98823

0 Miles 4  
0 Kilometers 8



**Figure 1**      **Habitat monitoring areas for Wanapum Reservoir**





**Figure 2**                      **Habitat monitoring areas for the Priest Rapids Reservoir.**

### **2.1.1 West Bar**

West Bar is located on Wanapum Reservoir directly across the river from Crescent Bar (Figure 1), a popular recreation area. This site was selected for monitoring because (1) it is listed as priority habitat for mule deer and elk in WDFW's PHS database (WDFW 2008), (2) in normal operating conditions it is readily accessible to the public, (3) it is located near Crescent Bar, a known and established recreation site, and (4) the habitat at the site is currently in good condition.

### **2.1.2 Babcock Bench**

Babcock Bench is located on the left bank south of Crescent Bar (Figure 1) and, in normal years, is readily accessible by boat from both Crescent Bar and Sunland boat launches. This site was selected for monitoring because (1) it is listed as priority habitat for chukar in WDFW's PHS database (WDFW 2008), (2) in normal operating years it is readily accessible to the public, (3) it is located near Quilomene Dune, Crescent Bar, and Sunland, all known and established recreation sites, and (4) the habitat at the site is currently in good condition.

### **2.1.3 Quilomene Bar**

Quilomene Bar is located on the right bank just north of Quilomene Dune (Figure 1). Quilomene Bar, in normal years, is readily accessible by boat from both Crescent Bar and Sunland boat launches. This site was selected for monitoring because (1) it is listed as priority habitat for mule deer and elk in WDFW's PHS database (WDFW 2008), (2) in normal operating years it is readily accessible to the public, (3) it is located near Quilomene Dune, Crescent Bar, and Sunland, all known and established recreation sites, and (4) the habitat at the site is currently in good condition.

### **2.1.4 North of Lake Geneva**

Lake Geneva is a large cove located on the left bank of Priest Rapids Reservoir (Figure 2). North of Lake Geneva is a popular area for hunting and fishing. This site was selected for monitoring because (1) it is listed as priority habitat for urban natural open space in WDFW's PHS database (WDFW 2008), (2) it is readily accessible to the public, (3) it is commonly used by both hunters and fishermen, and (4) the habitat at the site is currently in good condition.

### **2.1.5 South of Lake Geneva**

Lake Geneva is a large cove located on the left bank of Priest Rapids Reservoir (Figure 2). South of Lake Geneva is a popular area for hunting and fishing. This site was selected for monitoring because (1) it is listed as priority habitat for urban natural open space in WDFW's PHS database (WDFW 2008), (2) it is readily accessible to the public, (3) it is commonly used by both hunters and fishermen, and (4) the habitat at the site is currently in good condition.

## **2.2 Monitor Wanapum Reservoir Following the Emergency Drawdown**

On February 27, 2014, a horizontal fracture was discovered in the spillway monolith No. 4 at Wanapum Dam. The fracture opened a crack on the upstream face of the structure, measuring approximately 2 inches high by 65 feet long on the spillway monolith. Grant PUD immediately initiated its Emergency Action Plan (EAP; level B) and began to draw the Wanapum Reservoir down in a steady controlled state.

As of March 4, 2014, the Wanapum Reservoir was lowered from a standard operating range of 560-571.5 feet above mean sea level (MSL) to a safe operating elevation range between 541 and 545 feet (MSL). As a result of the drawdown 38 river miles of shoreline between Wanapum and Rock Island dams was dewatered up to almost 30 vertical feet exposing shoreline areas, formerly submerged aquatic habitat, erosive soils, and unconsolidated streambed materials (sand, silt and organics too thin to support weight). To avoid damage to aquatic and riparian habitat exposed and stressed by the drawdown and to protect the public from hazards associated with the exposed shoreline, access to the reservoir and shorelines was closed to public access through the remainder of calendar year 2014 following discovery of the fracture.

Wanapum reservoir was returned to the standard operating range of 560-571.5 (MSL) in December of 2014, and recreation access was restored in January of 2015. Through a combination of high resolution air photographs and field-based assessments, Grant PUD has been monitoring the potential effects of the reservoir drawdown on riparian vegetation and associated shoreline habitat. Assessments will continue through calendar year 2016.

### **2.3 Wildlife Information and Education Program Approach**

Grant PUD has been developing and implementing an Information and Education (I&E) Program featuring a website used to educate the public about responsible recreation practices and the potential adverse effects of irresponsible dispersed recreation on sensitive habitats. In addition, Grant PUD has produced educational materials shared directly with the public. Educational signage has been developed for installation at access points under construction in 2015. Lastly, Grant PUD has completed construction of a Visitor's Center that includes a section of the Center focused on wildlife species and habitat. The Center is now open to the public with regularly scheduled hours which will be tracked and reported annually.

### **3.0 Monitoring, Information and Education Plan Results**

In total, over 12 miles of Wanapum Reservoir shoreline and 3 miles of Priest Rapids Reservoir shoreline were surveyed in 2015 for potential impacts to sensitive wildlife habitat areas during. Monitoring was completed prior to the recreation season in April and again following the recreation season at the end of September and in early November. Information and education programs were implemented through web-based media, educational signage, a calendar, and the opening of our new visitor's center.

#### **3.1 Monitoring Recreation Effects on Wildlife and Sensitive Wildlife Habitats**

Very limited recreational use or other disturbance of sensitive wildlife areas was found in 2015. Disturbances found were limited to minor trampling, litter or unauthorized fire pit creation which were corrected immediately following discovery. No soil removal, exposure or erosion were found during inspections. Indeed, for most of the sites no disturbance whatsoever was observed. Site specific results follow (see also Appendix A).

##### **3.1.1 West Bar**

Dispersed recreation sites were found during both spring and fall surveys along West Bar in April and November of 2015. In the spring both litter and fire pits were discovered at the site and were removed. Some trampling of grasses and trails were discovered and corrected, but no soil exposure or erosion was discovered. In the fall a fire pit was discovered and removed, but no vegetative disturbance was discovered, suggesting improved conditions at the site.

### **3.1.2 Babcock Bench**

Babcock Bench was surveyed in April and November of 2015, and no dispersed recreation sites or any signs of dispersed recreation impacts were found.

### **3.1.3 Quilomene Bar**

Quilomene Bar was surveyed for dispersed recreational effects in April and November of 2014. No dispersed recreation sites or any signs of dispersed recreation impacts were found in the spring. However, in November of 2015 a fire pit was discovered and removed. Trampling of grasses and shrubs/bushes was discovered, with evidence that damage was associated with prior cattle activity at the site.

### **3.1.4 North of Lake Geneva**

North of Lake Geneva was surveyed for dispersed recreational effects in April and September of 2015, and no dispersed recreation sites or any signs of dispersed recreation impacts were found.

### **3.1.5 South of Lake Geneva**

South of Lake Geneva was surveyed for dispersed recreational effects in April and September of 2015, and no dispersed recreation sites or any signs of dispersed recreation impacts were found.

## **3.2 Information and Education Programs**

In 2015 Grant PUD continued to develop and implement the Information and Education (I&E) Program featuring a combination of website, signage and a new visitor's center to educate the public about responsible recreation, the potential adverse effects of irresponsible dispersed recreation on sensitive habitats, as well as to provide information about wildlife and wildlife habitat, and their importance to the environment in the Project area.

### **3.2.1 Website**

The I&E Program website was activated in 2013 and has been coordinated with I&E provisions of Article 409, 410, and 418. To maintain the I&E Program website over the term of the new license, Grant PUD has been providing long-term internal web development support for the program, and has funded annual operation and updating as new information is collected and wildlife, shoreline, and recreation measures are implemented for the duration of the license. The recreation and wildlife information and education website will be expanded in 2016 to include imagery and text regarding important wildlife species and habitats within the Project area. In addition to this new content, we will continue to explore other ways of improving the website in 2016.

### **3.2.2 Signage**

In addition to the website, the Grant PUD's Fish Wildlife and Water Quality (FWWQ) department, Lands and Recreation department, and the Communications staff collaboratively developed posters and signage to educate the public about the importance of preventing adverse effects of recreation on the river, shorelines and sensitive habitats. In 2015, Grant PUD developed and installed numerous kiosks (Figure 3) and wildlife-specific signage (Figure 4) at recreation sites constructed during the year (see Appendix B). We will continue developing and installing signs in 2016.



**Figure 3** Public education kiosk at the Sand Hollow Recreation Area featuring the golden eagle.

# Welcome to Sand Hollow Recreation Area



**Look up and look around! You may see a bald eagle perched in a tree nearby or soaring high in the sky. Sand Hollow is a likely place to spot this large raptor, especially during winter months.**

A lofty perch on an upper tree branch provides a good vantage point for hunting prey. With its keen eyesight, a bald eagle can spot fish in the Columbia River or detect ducks on the water's surface.



- A bald eagle's diet varies between fish, rodents, birds and carrion (decaying carcasses).
- The bald eagle nests in tree tops near the river. Their nests can be as large as 8 feet across and weigh up to 1 ton.
- Eagles often use the same nest year after year.
- Paired eagles mate for life.
- A female's eggs, about the size of a baseball, incubate for about 35 days.
- The head of a bald eagle doesn't turn white until it is four to five years old.
- Bald eagles can live well into their 30s.
- Successful conservation efforts, which began in the early 1970s, saved eagles from the brink of extinction.

The scientific name for the bald eagle is *Haliaeetus leucocephalus*. The translation is descriptive: from Greek hali- = sea, aieos = eagle, leuco- = white, cephalos = head.

*Enjoy your visit!*

**Figure 4 Wildlife public education sign at the Sand Hollow Recreation area featuring the bald eagle.**

### 3.2.3 Public Education and Outreach

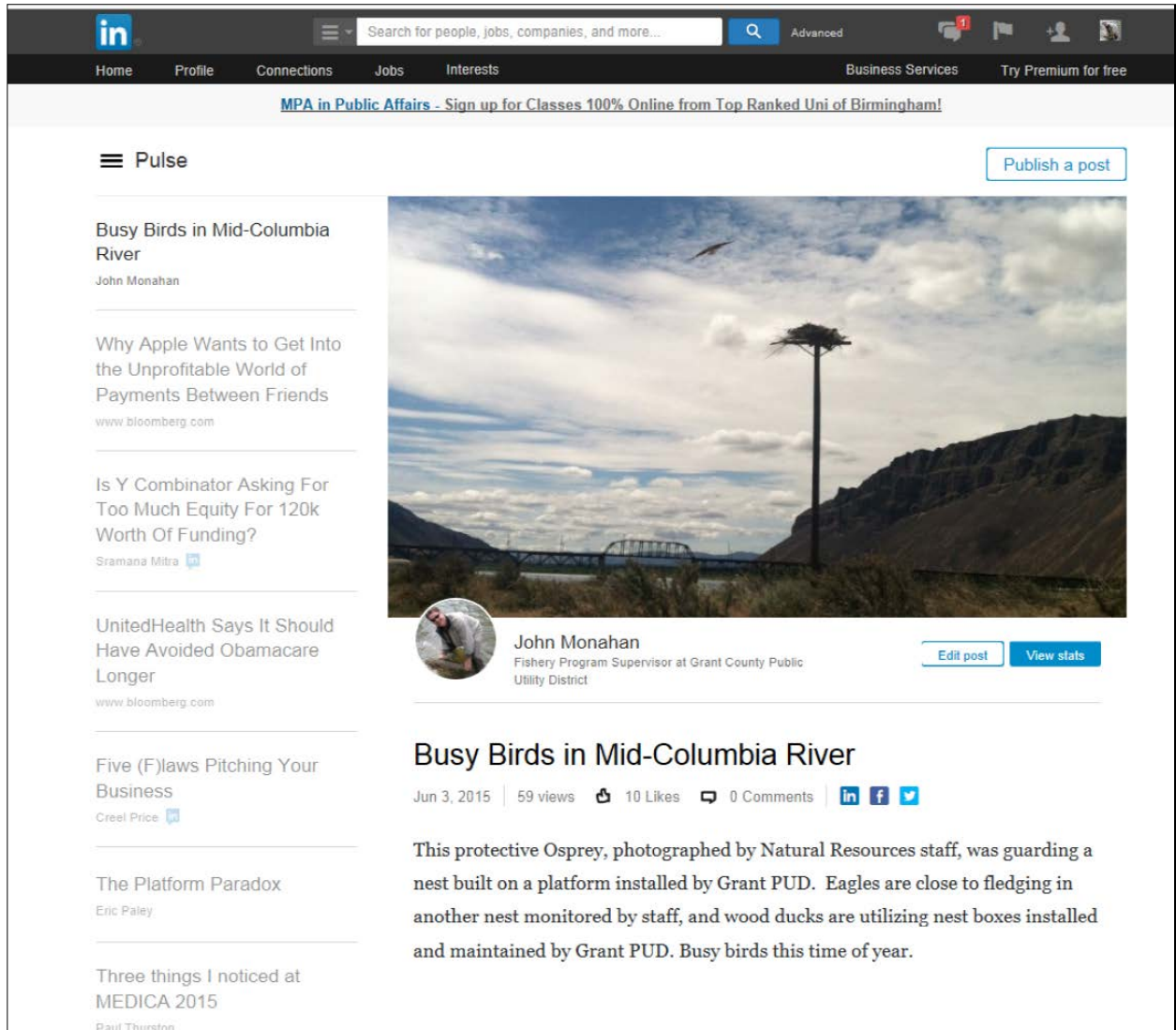
In 2015 Grant PUD introduced two new approaches to wildlife and wildlife habitat public education and outreach. The first approach utilizes a traditional paper calendar format. In 2015 photographs were collected of wildlife and wildlife habitat within the project area. Images are being utilized for the website (see section 3.2.1) as well as a monthly calendar which will be published for the 2016 calendar year which will be made available to the public free of charge (Figure 5).



March 2016						
Sun	Mon	Tues	Weds	Thurs	Fri	Sat
		1 Waterfowl Spring Migration	2	3 Canada Goose Nesting Begins	4	5
6	7	8	9	10	11	12
13 Daylight Savings Time Begins	14	15 End of Bald Eagle Winter Migration	16	17 Owl Pairing Ends, Breeding Begins	18	19
20	21	22	23	24	25	26
27	28	29	30	31 Amphibian Breeding Season Begins		

**Figure 5 Wildlife public education calendar excerpt.**

The second new approach to wildlife and wildlife habitat public education and outreach involves the use of social media through a LinkedIn post (Figure 6). In June, Grant PUD staff collected this image of an osprey guarding an active nest (fledgling present). The nest was built on a nesting platform installed by Grant PUD along the left bank of the Columbia River just downstream from Wanapum Dam and just upstream from the Beverly railroad bridge. This post served two purposes. First, it documented use of a wildlife structure installed by Grant PUD. Second, it demonstrated that social media could be used to reach the public, with evidence of 59 views and 10 likes. Grant PUD will continue to explore the use of social media as a public education and outreach tool in 2016 seeking to expand views by the public.



**Figure 6 Wildlife public education LinkedIn post published in June 2015.**

### 3.2.4 Visitor Center

December 1, 2015 was the grand opening of Grant PUD’s Visitor Center, located at the recently constructed Wanapum Hydro Office Building (HOB). Interpretive elements included in displays at the Center have been in development for three years. Wildlife and wildlife habitat elements are prominently displayed, including waterfowl and shrub-steppe habitat (Figure 7).





**Figure 7 Wildlife and wildlife habitat section of the new visitor center.**

Appendix C provides excerpts of design details pertaining to wildlife and wildlife habitat in the Visitor Center.

#### **4.0 Summary**

Grant PUD completed its fifth full year of wildlife monitoring, information and education efforts as documented in this WHMIEP, which included:

- 1). surveying five habitat areas for dispersed recreational effects on sensitive wildlife habitat areas,
- 2). monitoring and responding to emergency drawdown of Wanapum Reservoir,
- 3). website development and usage,
- 4). signage development and installation,
- 5). public education and outreach, and
- 1) visitor's center

Grant PUD will continue with to monitor the five habitat areas bi-annually for dispersed recreational effects on sensitive habitat areas, once prior to recreation season and once following recreation season. We will continue to monitor the potential effects of the drawdown on shoreline and riparian habitats and respond to any adverse effects accordingly. Grant PUD will continue to develop our web presence, interpretive signage and education and outreach programs in 2016. Finally, we will track visitation at the recently opened Visitor's Center and report accordingly.

An annual report will be submitted in December of 2016 with results of the above described programs.

## **Literature Cited**

FERC (Federal Energy Regulatory Commission). 2008. Order Issuing New License for Public Utility District No. 2 of Grant County, 123 FERC ¶ 61,049, Washington D.C.

Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 172 pp.

Washington Natural Heritage Program (WNHP). 2010. Geographical Information Systems Data Set. Olympia, Washington. Updated 2010.

# **Appendix A**

## **Monitoring Reports**

# Recreation Impact Monitoring

Date West BAR 5

Site 4/28/15

Recorders Bronstead / Keeler

Litter (circle) Yes  No  If yes, Action Remove Did you remove?  Yes/No

Fire Pits (circle) Yes  No  If yes, Action Remove Did you remove?  Yes/No

Record the highest level of disturbance for each (see key)

Grasses	<u>2</u>	Picture # <u>West bar 4/28/15</u>
Shrubs/Bushes	<u>1</u>	Picture # _____
Trees	<u>1</u>	Picture # _____
Trails	<u>2</u>	Picture # _____

KEY	Level of Disturbance			
	1	2	3	4
Grasses/Shrubs/Trees	Undisturbed	Trampled	Removal/Soil Exposure	Erosion
Trails	None	Trampling	Soil Exposure	Erosion

# Recreation Impact Monitoring

Date 11/3/15

Site West Bar

Recorders JL

Litter (circle) Yes  No  If yes, Action Remove Did you remove? Yes/No

Fire Pits (circle) Yes  No  If yes, Action Remove Did you remove?  Yes/No

Record the highest level of disturbance for each (see key)

Grasses	<u>1</u>	Picture # _____
Shrubs/Bushes	<u>1</u>	Picture # _____
Trees	<u>1</u>	Picture # _____
Trails	<u>1</u>	Picture # _____

KEY	Level of Disturbance			
	<u>1</u>	2	3	4
Grasses/Shrubs/Trees	Undisturbed	Trampled	Removal/Soil Exposure	Erosion
Trails	None	Trampling	Soil Exposure	Erosion

# Recreation Impact Monitoring

Date 4/28/15

Site Quilomene Bar

Recorders Bronsted/Kepner

Litter (circle) Yes  No      If yes,,Action Remove      Did you remove?      Yes/No

Fire Pits (circle) Yes  No      If yes,,Action Remove      Did you remove?      Yes/No

Record the highest level of disturbance for each (see key)

Grasses	<u>1</u>	Picture # _____
Shrubs/Bushes	<u>1</u>	Picture # _____
Trees	<u>1</u>	Picture # _____
Trails	<u>1</u>	Picture # _____

KEY	Level of Disturbance			
	1	2	3	4
Grasses/Shrubs/Trees	Undisturbed	Trampled	Removal/Soil Exposure	Erosion
Trails	None	Trampling	Soil Exposure	Erosion

- Evidence of historic disturbance, but no new activity

# Recreation Impact Monitoring

Date 11/3/15

Site Quilamine Bar

Recorders JL

Litter (circle) Yes  No      If yes,,Action Remove      Did you remove?      Yes/No

Fire Pits (circle) Yes  No      If yes,,Action Remove      Did you remove?       Yes/No

Record the highest level of disturbance for each (see key)

Grasses	<u>2</u>	Picture # _____
Shrubs/Bushes	<u>2</u>	Picture # _____
Trees	<u>1</u>	Picture # _____
Trails	<u>2</u>	Picture # _____

KEY	Level of Disturbance			
	1	<u>2</u>	3	4
Grasses/Shrubs/Trees	Undisturbed	Trampled	Removal/Soil Exposure	Erosion
Trails	None	Trampling	Soil Exposure	Erosion

- Trampling is mostly from cattle

## Recreation Impact Monitoring

Date 4/28/15

Site Babcock Bench

Recorders Bronstead / Weber

Litter (circle) Yes  No  If yes,,Action Remove Did you remove? Yes/No  
 Fire Pits (circle) Yes  No  If yes,,Action Remove Did you remove? Yes/No

Record the highest level of disturbance for each (see key)

Grasses	1	Picture # _____
Shrubs/Bushes	1	Picture # _____
Trees	1	Picture # _____
Trails	1	Picture # _____

KEY	Level of Disturbance			
	1	2	3	4
Grasses/Shrubs/Trees	Undisturbed	Trampled	Removal/Soil Exposure	Erosion
Trails	None	Trampling	Soil Exposure	Erosion

## Recreation Impact Monitoring

Date 11/3/15

Site Babcock Bench

Recorders JL

Litter (circle) Yes  No  If yes,,Action Remove Did you remove? Yes/No  
 Fire Pits (circle) Yes  No  If yes,,Action Remove Did you remove? Yes/No

Record the highest level of disturbance for each (see key)

Grasses	1	Picture # _____
Shrubs/Bushes	1	Picture # _____
Trees	1	Picture # _____
Trails	1	Picture # _____

KEY	Level of Disturbance			
	1	2	3	4
Grasses/Shrubs/Trees	Undisturbed	Trampled	Removal/Soil Exposure	Erosion
Trails	None	Trampling	Soil Exposure	Erosion

# Recreation Impact Monitoring

Date 4/28/15

Site Lake Geneva - North

Recorders Craig Broadhead / Carson Keeler

Litter (circle) Yes  No      If yes,,Action Remove      Did you remove?      Yes/No

Fire Pits (circle) Yes  No      If yes,,Action Remove      Did you remove?      Yes/No

Record the highest level of disturbance for each (see key)

Grasses	N/A	Picture #	
Shrubs/Bushes	N/A	Picture #	
Trees	N/A	Picture #	
Trails	N/A	Picture #	

KEY	Level of Disturbance			
	1	2	3	4
Grasses/Shrubs/Trees	Undisturbed	Trampled	Removal/Soil Exposure	Erosion
Trails	None	Trampling	Soil Exposure	Erosion

# Recreation Impact Monitoring

Date 9/30/15

Site North of Lake Geneva

Recorders JL

Litter (circle) Yes  No      If yes,,Action Remove      Did you remove?      Yes/No

Fire Pits (circle) Yes  No      If yes,,Action Remove      Did you remove?      Yes/No

Record the highest level of disturbance for each (see key)

Grasses	1	Picture #	
Shrubs/Bushes	1	Picture #	
Trees	1	Picture #	
Trails	1	Picture #	

KEY	Level of Disturbance			
	1	2	3	4
Grasses/Shrubs/Trees	Undisturbed	Trampled	Removal/Soil Exposure	Erosion
Trails	None	Trampling	Soil Exposure	Erosion



# Recreation Impact Monitoring

Date 4/28/15  
 Site Lake Geneva - South  
 Recorders Broadhead / Keeler

Litter (circle) Yes  No  If yes,,,Action Remove Did you remove? Yes/No  
 Fire Pits (circle) Yes  No  If yes,,,Action Remove Did you remove? Yes/No

Record the highest level of disturbance for each (see key)

Grasses	N/A	Picture #	N/A
Shrubs/Bushes		Picture #	
Trees		Picture #	
Trails	✓	Picture #	✓

KEY	Level of Disturbance			
	1	2	3	4
Grasses/Shrubs/Trees	Undisturbed	Trampled	Removal/Soil Exposure	Erosion
Trails	None	Trampling	Soil Exposure	Erosion

# Recreation Impact Monitoring

Date 9/30/15  
 Site South of Lake Geneva  
 Recorders JL

Litter (circle) Yes  No  If yes,,,Action Remove Did you remove? Yes/No  
 Fire Pits (circle) Yes  No  If yes,,,Action Remove Did you remove? Yes/No

Record the highest level of disturbance for each (see key)

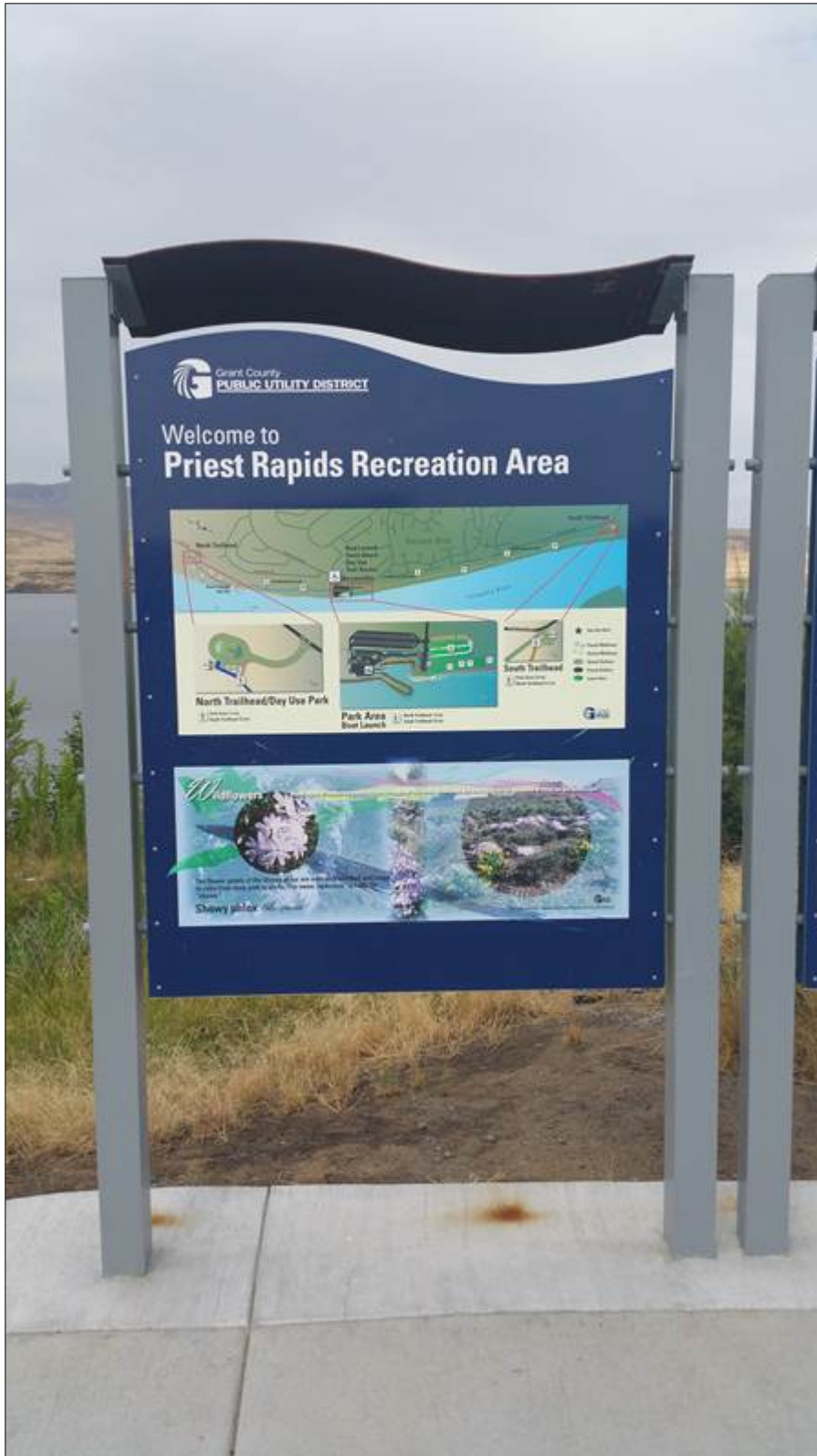
Grasses	1	Picture #	
Shrubs/Bushes	1	Picture #	
Trees	1	Picture #	
Trails	1	Picture #	

KEY	Level of Disturbance			
	1	2	3	4
Grasses/Shrubs/Trees	Undisturbed	Trampled	Removal/Soil Exposure	Erosion
Trails	None	Trampling	Soil Exposure	Erosion

**Appendix B**  
**Educational Kiosks and Signage**

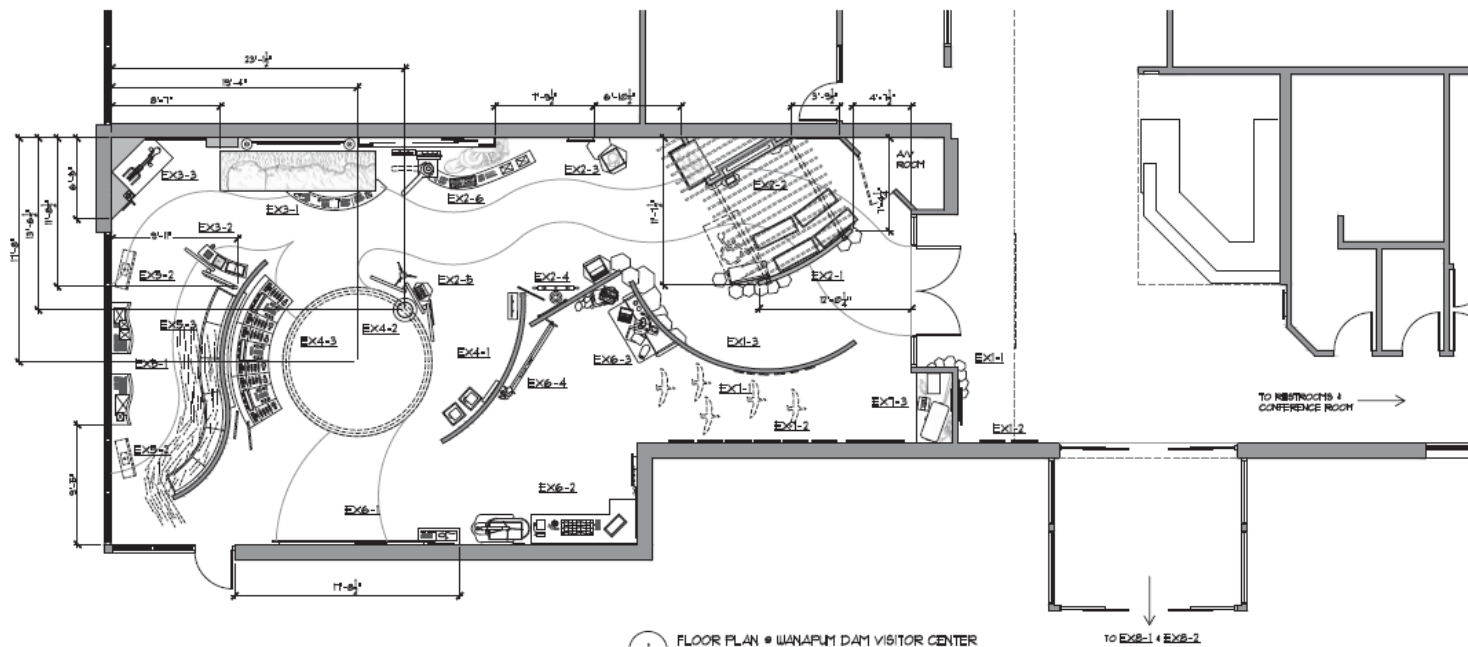


Buckshot wildlife area kiosk with avian/waterfowl wildlife interpretive information.



Priest Rapid Recreation Area kiosk with botanical/wildlife interpretive information.

**Appendix C**  
**Visitor Center Designs**



1 FLOOR PLAN - WANAPUM DAM VISITOR CENTER  
SCALE: 1/4" = 1'-0" (SCALE A)

LEGEND

**EX3: ENTRY & RECEPTION**  
EX3-1 VISITOR CENTER ENTRY  
EX3-2 TRIMMED LOGS PHOTO  
EX3-3 THEMATIC ENTRY WALL

**EX4: A RIVER THROUGH TIME**  
EX4-1 VIDEO THEATER ENTRY  
EX4-2 "CREATING A LANDSCAPE" VIDEO THEATER  
EX4-3 THE FIRST PEOPLE  
EX4-4 SETTLING THE REGION  
EX4-5 WATER FOR AN ARID LAND  
EX4-6 BUILDING THE DAMS - HYDROPOWER COMES TO GRANT COUNTY

**EX5: THE POWER OF THE COLUMBIA RIVER**  
EX5-1 THE FISH RAPIDS PROJECT TODAY  
EX5-2 GRANT COUNTY FISH - PROVIDING LOW-COST RELIABLE ENERGY  
EX5-3 GENERATING ELECTRICITY

**EX4: FINDING A BALANCE**  
EX4-1 WANAPUM DAM - GENERATING POWER AND HELPING FISH  
EX4-2 TURBINE UPGRADE  
EX4-3 OPERATING WANAPUM DAM

**EX5: DAM OVERLOOK VIEWING AREA**  
EX5-1 OVERLOOK  
EX5-2 VIDEO MONITORS  
EX5-3 FISH MODELS

**EX6: FISH STORIES**  
EX6-1 FISH OF THE COLUMBIA RIVER  
EX6-2 A HELPING HAND  
EX6-3 FISH SCIENCE  
EX6-4 ADAPTIVE MANAGEMENT

**EX7: GET OUT THERE**  
EX7-1 NATIVE PLANTS & ANIMALS  
EX7-2 RECREATION MAP & PHOTOS  
EX7-3 GET OUT THERE

**EX8: OUTDOOR EXHIBITS**  
EX8-1 TURBINE DISPLAY  
EX8-2 WANAPUM FISH BYPASS



**FORMATIONS**  
DESIGN • GRAPHICS • TECHNOLOGY  
621 SE 203rd Avenue  
Portland, OR 97233  
503 645 7110  
www.formationinc.com

PROJECT  
GRANT COUNTY P.U.  
VISITOR CENTER

BEVERLY,  
WASHINGTON

EXHIBIT PLAN -  
GRANT COUNTY  
VISITOR CENTER

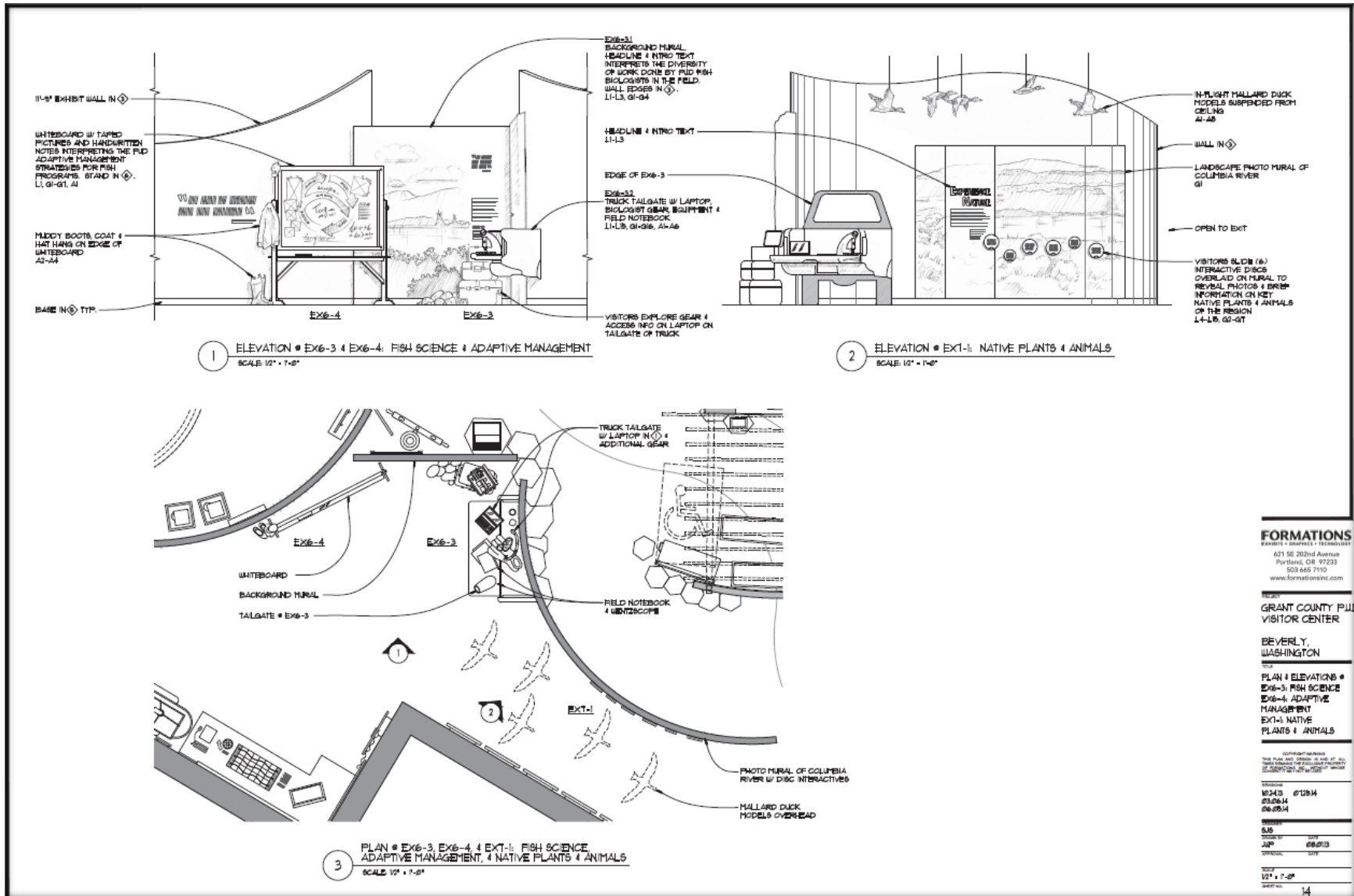
DATE  
2015.06.04  
2015.06.04

REVISED  
06.06.14  
07.08.14

DATE  
06.06.14  
03.06.14

SCALE  
1/4" = 1'-0"  
DATE

D01



**FORMATIONS**  
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431 SE 202nd Avenue  
Portland, OR 97233  
503.665.7110  
www.formationinc.com

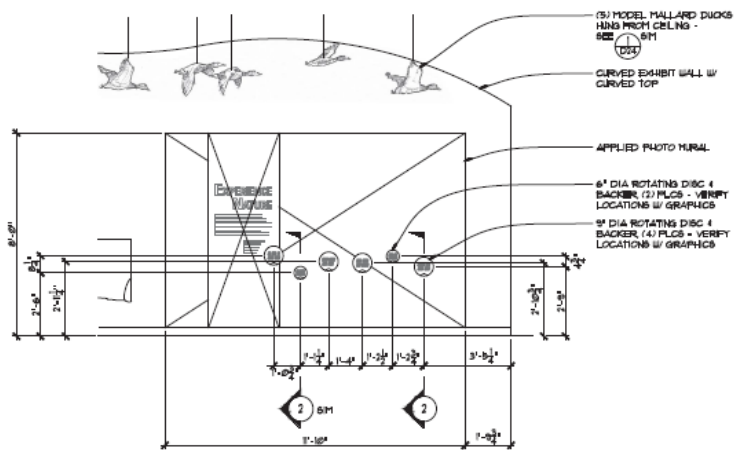
PROJECT  
**GRANT COUNTY PUD VISITOR CENTER**

**BEVERLY, WASHINGTON**

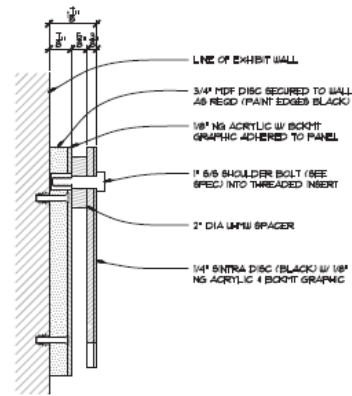
PLAN & ELEVATIONS #  
EX6-3: FISH SCIENCE  
EX6-4: ADAPTIVE MANAGEMENT  
EX1-1: NATIVE PLANTS & ANIMALS

DATE: 08/07/14  
THIS PLAN AND DESIGN IS AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

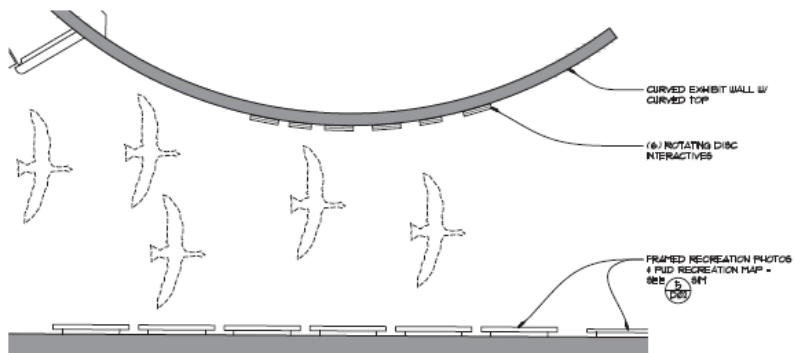
PROJECT NO.	02403	DATE	07/29/14
CLIENT	GRANT COUNTY PUD	DESIGNED BY	08/05/14
SCALE	AS SHOWN	CHECKED BY	
DATE	JUN 08/07/13	APPROVED BY	
SCALE	1/2" = 1'-0"	DATE	
PROJECT NO.	02403	DATE	08/07/14



1 FLATTENED ELEVATION # EX1-1: NATIVE PLANTS & ANIMALS  
SCALE: 1/2" = 1'-0"



2 SECTION # EX 1-1: ROTATING GRAPHIC DISC  
SCALE: 6" = 1'-0"



3 PLAN # EX1-2: RECREATION MAP & PHOTOS  
SCALE: 1/2" = 1'-0"

**FORMATIONS**  
RANGERS • GRAPHICS • TECHNOLOGY  
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Portland, OR 97233  
503 665 7150  
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PROJECT  
GRANT COUNTY P.U.D.  
VISITOR CENTER

BEVERLY,  
WASHINGTON

DETAILS #  
EX1-1: NATIVE PLANTS &  
ANIMALS  
EX1-2: RECREATION MAP  
& PHOTOS

CONTRACT NUMBER  
TOTAL EST. PRICE & PAYMENT  
BY MONTHLY PAYMENTS WITH 5% RETAINAGE  
(SUBJECT TO PERMITS AND CHANGES)

DATE  
07/28/14

ISSUED BY  
SJS  
CHECKED BY  
TEA/1 06/29/14  
APPROVAL DATE  
AS BACH  
D28



