

**Youngs Creek Hydroelectric Project  
FERC No. 10359**



**WILDLIFE HABITAT MITIGATION PLAN**  
License Article 403

**2015 ANNUAL REPORT**

Prepared By:



Everett, WA

January 2016

**Final** – This document has been prepared for the District. It has been peer-reviewed by the District for accuracy and formatting based on information known at the time of its preparation and with that understanding is considered complete by the District. The document may be cited as:

Public Utility District No. 1 of Snohomish County (District). 2016. Wildlife Habitat Mitigation Plan (License Article 403) 2015 Annual Report for the Youngs Creek Hydroelectric Project (FERC No. 10359). January 2016.

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## LIST OF ACRONYMS AND ABBREVIATIONS

CAPA	Critical Area Protection Area
FERC	Federal Energy Regulatory Commission
Project	Youngs Creek Hydroelectric Project, FERC No. 10359
ROW	right-of-way
USFWS	U.S. Fish and Wildlife Service
WDFW	Washington Department of Fish and Wildlife
WHMP	Wildlife Habitat Mitigation Plan

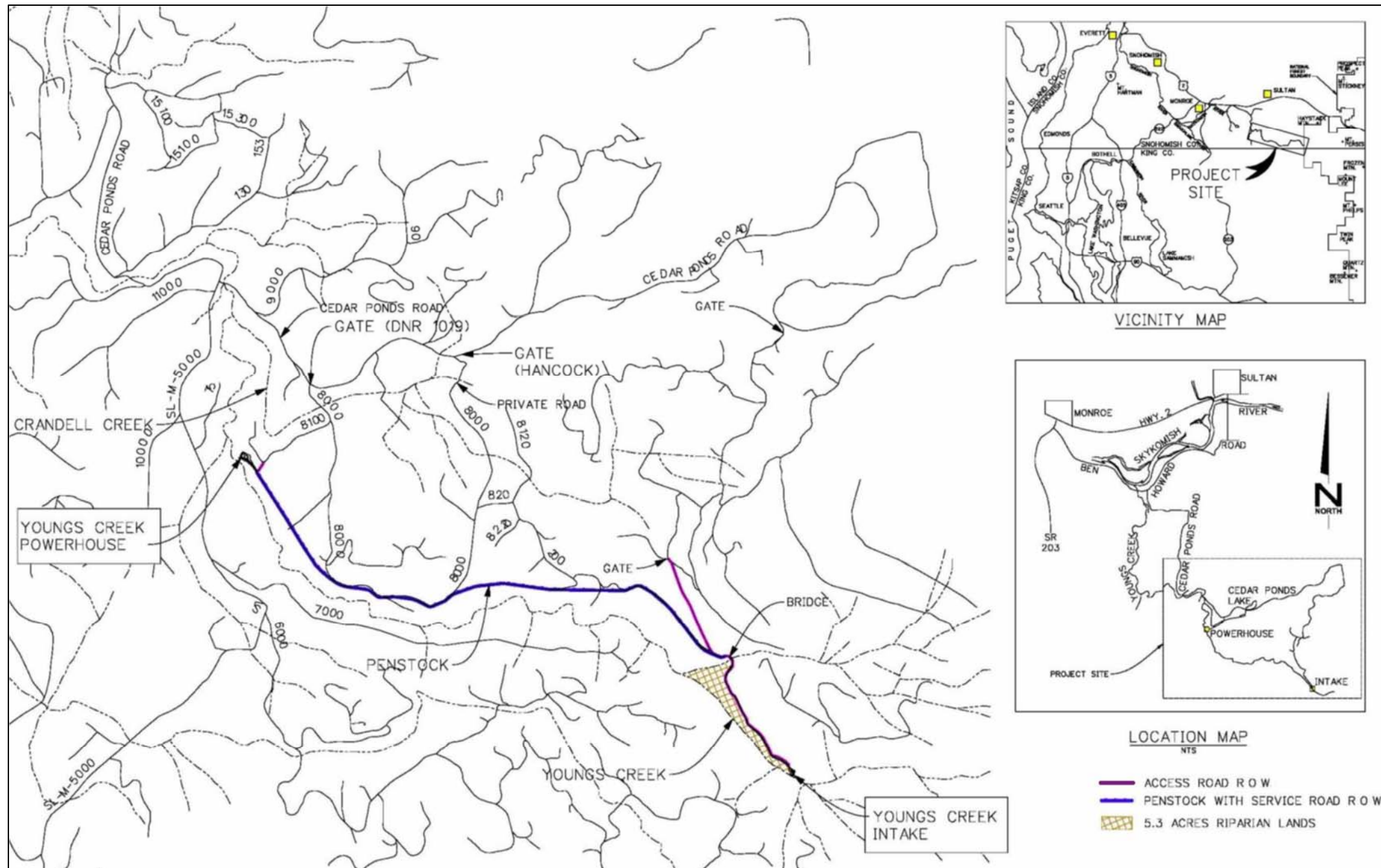
## 1. INTRODUCTION

A license was issued by the Federal Energy Regulatory Commission (FERC) on 5 May 1992 for the Youngs Creek Hydroelectric Project (Project) located south of Sultan, Washington. As part of the Order Issuing License, Article 403 directed that a final wildlife habitat mitigation plan be prepared. In 2011, Public Utility District No. 1 of Snohomish County (the District), current owner and operator of the Project, filed for an amendment to the 1992 Wildlife Habitat Mitigation Plan (WHMP). The amendment was approved by the FERC on 8 September 2011.<sup>1</sup>

The WHMP identifies the elements of habitat protection, revegetation, and enhancement of Project lands and addresses ongoing monitoring and reporting. The District is to provide a written report to the FERC every five years, and a written summary report to the Washington Department of Fish and Wildlife (WDFW) and the U.S. Fish and Wildlife Service (USFWS) annually. These agencies were provided a copy of the draft report on November 23, 2015 for a 30-day review and comment period (Appendix 1); no comments were received. This WHMP Annual Report details activities that were conducted from December 2014 through November 2015.

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<sup>1</sup> (136 FERC ¶ 62,206).



## **2. VEGETATION MANAGEMENT AND MONITORING**

As specified in the WHMP Section 3.0 (g) and (h), all mitigation areas were monitored during 2015 to ensure the objectives of the WHMP are being met. Monitoring of Project lands consisted of periodic checks on vegetative conditions and documentation or treatment of occurrences of noxious or invasive species. Revegetated and reseeded areas will continue to be monitored annually for the duration of the License. Coverage of shrubs and grasses will also be visually evaluated on an annual basis. If surveys indicate that coverage by bare ground is estimated to be more than 20 percent, reseeded areas will occur with the appropriate erosion control seed mix, as noted in the WHMP. Noxious weeds will be controlled during the growing season, as necessary. Monitoring of riparian and upland forest mitigation areas will consist of periodic checks of overstory vegetation.

### **2.1. Penstock Right of Way Revegetation**

Following completion of Project construction activities, the penstock right-of-way (ROW) (see Figure 1) was seeded in the fall of 2011 and reseeded, where necessary, in the spring of 2012. Vegetation continues to meet coverage requirements and no construction activities occurred during 2015 that precipitated the need to re-seed any portion of the ROW.

#### **2.1.1 Line of Sight Reduction/Establishment of Hiding Cover**

Growth of native vegetation will continue to be allowed along the penstock ROW to the extent practical without impeding visual monitoring of pipeline integrity. Trees will be allowed to grow in the outer 10 feet on either side of the ROW. To date, native shrubs have begun to re-establish in only a few locations along the ROW margins. Efforts to break up the line of sight and increase hiding cover for wildlife utilizing the ROW will be performed in conjunction with other activities; i.e. when heavy equipment is brought to the site for other work, boulders and/or woody debris may be placed as needed to break up the line of sight.

#### **2.1.2 Noxious Weed Management**

Pursuant to WHMP Section 3.0(a), a Noxious Weed Management Plan was developed for the Project in 2013. Accordingly, noxious and invasive weed control was performed over four days during the 2015 growing season to comply with applicable noxious weed regulations. The primary weeds controlled were Bull and Canada thistle, invasive hawkweeds, Oxeye Daisy and Scotch broom. Under the direction of the District biologist, a broadleaf herbicide was applied by a state-licensed contract herbicide applicator.

Monitoring of weed populations on Project lands was conducted by District biologists with locations of weed infestations noted and treatment measures implemented. Spatial information was partitioned into three forms of symbology: points (discrete locations along the ROW and spur roads), intermittent lines (weeds commonly intermixed with native ROW vegetation), and polygons (weeds intermixed with native vegetation confined to specific areas beyond the ROW boundary) (Figures 2 and 3). Road and penstock ROWs were patrolled multiple times during the growing season to identify areas where weed control was required.



# YOUNGS CREEK NOXIOUS WEEDS: POINT LOCATIONS

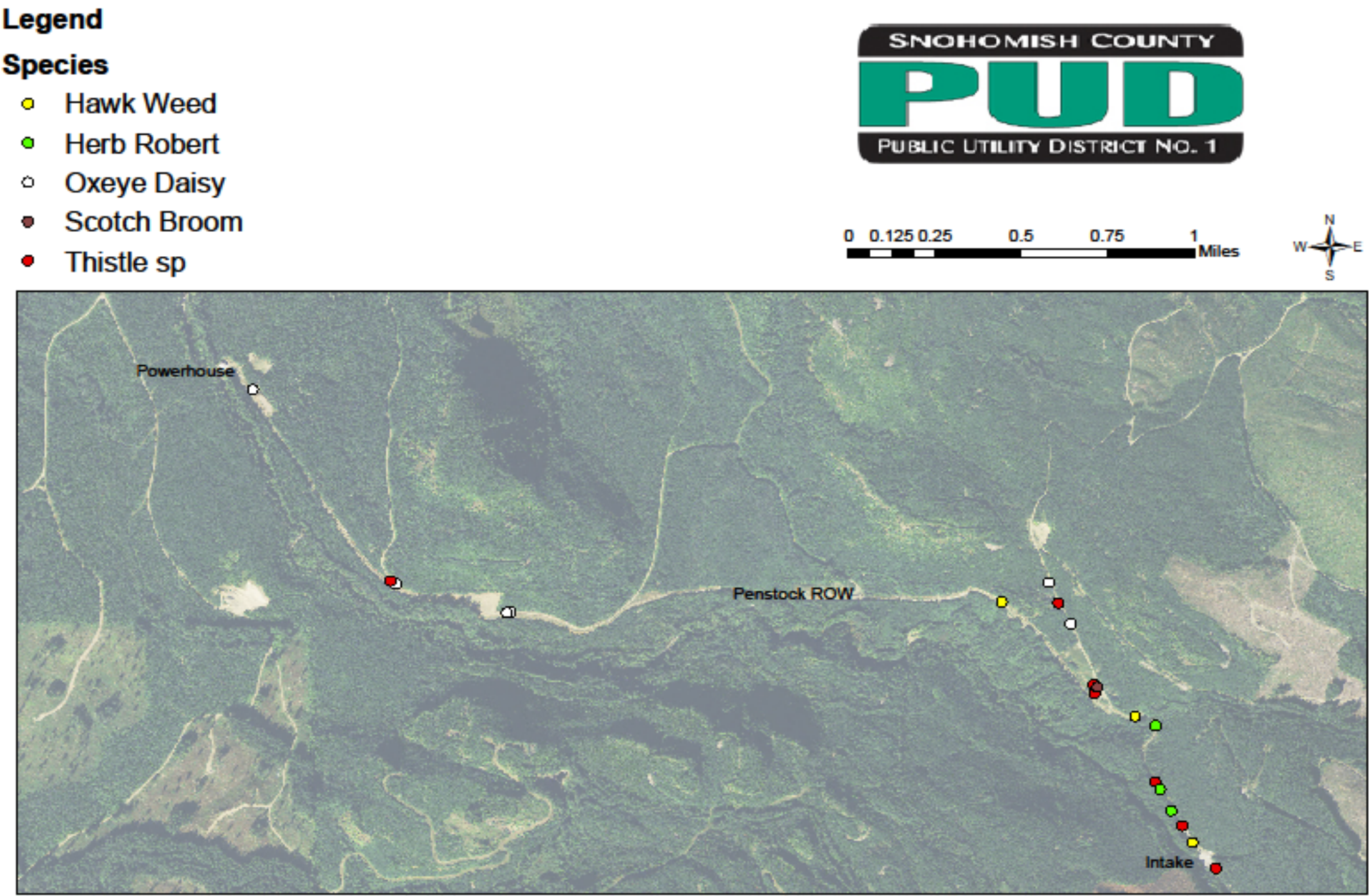


Figure 2. Map identifying discrete noxious weed locations.



## YOUNGS CREEK NOXIOUS WEEDS: INTERMITTENT LINES AND POLYGONS

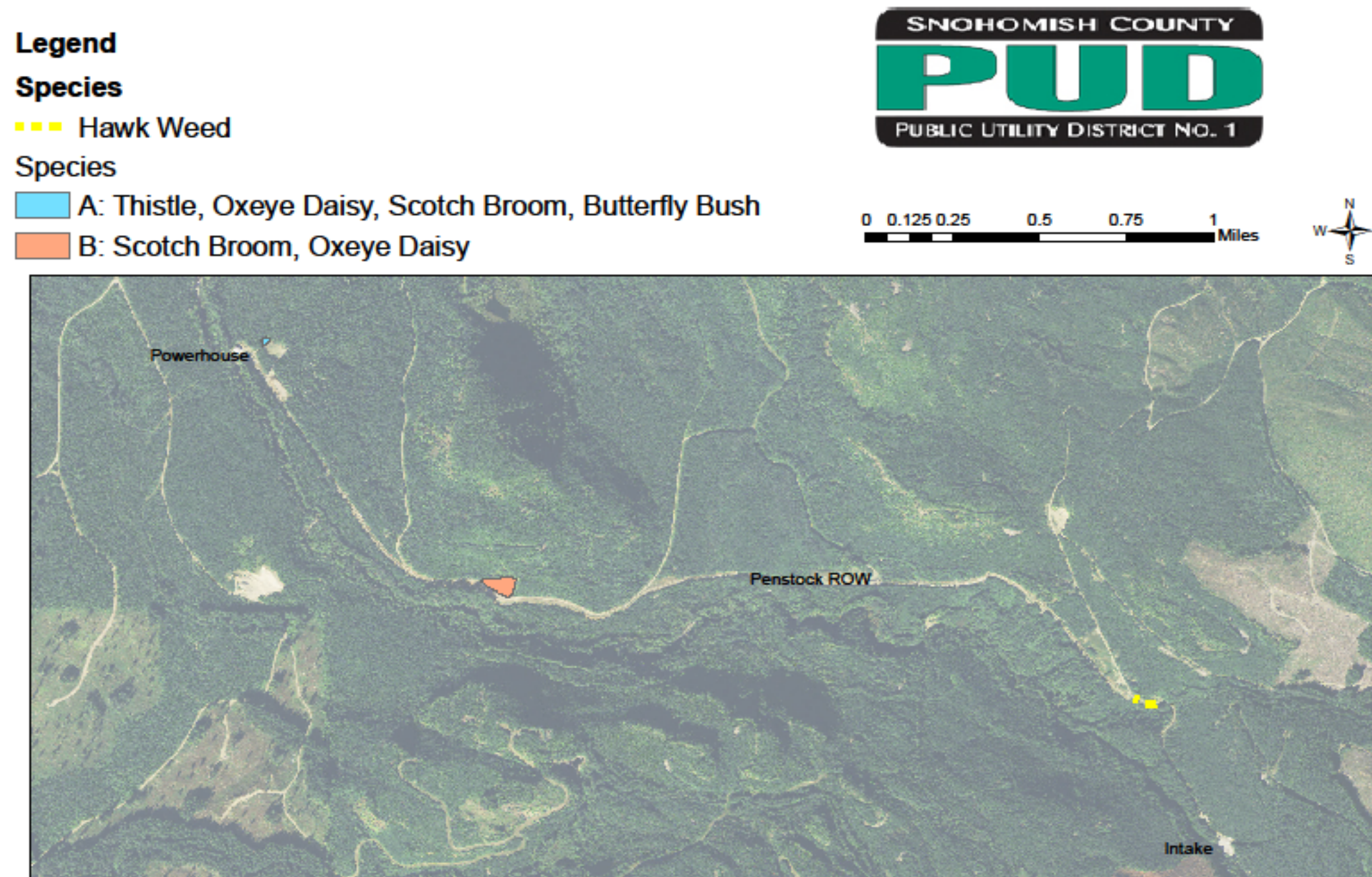


Figure 3. Map identifying noxious weed infestations in intermittent lines and polygons.



## 2.2 Access Road ROW Revegetation

The rights-of-way along the Project access roads (see Figure 1) have been revegetated with the grass/forb mix noted in the WHMP. The former laydown areas have been planted with Douglas-fir seedlings.

## 3. GATES

As required under WHMP Section 3.0(c), gates restricting access to the powerhouse and intake areas have been installed (see Figure 1). Access has been provided to the District and its contractors for normal Project maintenance and to surrounding landowners for forest management activities.

## 4. AVIAN NESTING AND PERCHING HABITAT

### 4.1. Nest Boxes

Nests were checked by the District biologist as required by the WHMP schedule (see Table 1). Tree swallows nested in five of the pole-mounted nest boxes, and began nest construction in a sixth. One box has received use three years in a row and two boxes have been used two years in a row (see Figure 2). To avoid excessive disturbance, eggs and chicks discovered in the nests were not moved during the counting process; as a result, numbers of eggs or fledglings are only estimates. A minimum of 23 chicks were observed in the nest boxes. No dead eggs or chicks were found during subsequent checks; it is therefore presumed that a minimum of 23 tree swallows fledged from the 5 boxes. Monitoring associated with other nest box programs suggests that the installation of additional boxes should not be considered until a threshold of 50 to 80 percent successful usage is attained (Bellrose & Holm, 1994). As such, no additional box installations are planned at this point.

**Table 1. Nest box monitoring results.**

Nest Box Details			
Box #	Style	Location	Monitoring Notes
Box1	Audubon	Tree mount in CAPA	5/15/15 – No use. 5/29/15 – No use. 6/11/15 – No use. 6/26/15 – No use. 7/24/15 – No use. 8/07/15 – No use. 9/29/15 – No use. 10/16/15 – No use.
Box2	Bluebird Trailbox	Tree mount in CAPA	5/15/15 – No use. 5/29/15 – No use. 6/11/15 – No use. 6/26/15 – No use. 7/24/15 – No use. 8/07/15 – No use. 9/29/15 – No use. 10/16/15 – No use.

Box3	Audubon	Tree mount in CAPA	5/15/15 – No use. 5/29/15 – No use. 6/11/15 – No use. 6/26/15 – No use. 7/24/15 – No use. 8/07/15 – No use. 9/29/15 – No use. 10/16/15 – No use.
Box4	Woodlink	Co -mounted on perch pole	5/15/15 – No use. 5/29/15 – No use. 6/11/15 – No use. 6/26/15 – No use. 7/24/15 – No use. 8/07/15 – No use. 9/29/15 – No use. 10/16/15 – No use.
Box5	Bluebird Trailbox	Solo mounted on pole	5/15/15 – No use. 5/29/15 – No use. 6/11/15 – No use. 6/26/15 – No Use. 7/24/15 – No Use. 8/07/15 – No use. 9/29/15 – No use. 10/16/15 – No use.
Box6	Bluebird Trailbox	Co-mounted on perch pole	5/15/15 – No use. Remnants of old nest, removed. 5/29/15 – 4 eggs unattended. 6/11/15 – Movement within nest, however, too many feathers to decipher number hatched. 6/26/15 – 4 feathered chicks. 7/24/15 – Chicks fledged; nest remnants. 8/07/15 – Empty. 9/29/15 – Empty. 10/16/15 – Empty. <b>Result: Successful tree swallow nest.</b>
Box7	Audubon	Solo mounted on pole	5/15/15 – No use. Tennis ball-sized yellow jacket nest removed. 5/29/15 – No use. 6/11/15 – Marginal nest; 5 eggs. 6/26/15 – 2 eggs; 2 non-feathered chicks. 7/24/15 – Fledged; nest remnants. 8/07/15 – Empty. 9/29/15 – Empty. 10/16/15 – Empty. <b>Result: Successful tree swallow nest.</b>

Box8	Coveside Slant front	Solo mounted on pole	5/15/15 – Nest built, adult peeking out. No eggs. 5/29/15 – 5 eggs. 6/11/15 – 5 non-feathered chicks. 6/26/15 – 5 feathered chicks. 7/24/15 – Fledged; nest remnants. 8/07/15 – Empty. 9/29/15 – Empty. 10/16/15 – Empty. <b>Result: Successful tree swallow nest.</b>
Box9	Woodlink	Mounted on mature riparian tree	5/15/15 – No use. 5/29/15 – No use. 6/11/15 – No use. 6/26/15 – No use. 7/24/15 – No use. 8/07/15 – No use. 9/29/15 – No use. 10/16/15 – No use.
Box10	Woodlink	Co-mounted on perch pole	5/15/15 – Nest built with grass and feathers. No eggs. 5/29/15 – Nest built. 6/11/15 – Nest built. 6/26/15 – Nest built. 7/24/15 – Nest built. 8/07/15 – Nest built. No eggs. 9/29/15 – Empty. 10/16/15 – Empty. <b>Partial nest constructed; no evidence of egg laying activity.</b>
Box11	Coveside Slant front	Solo mounted on pole	5/15/15 – Nest built; 0 eggs. 5/29/15 – Nest built, 6 eggs, a lot of feathers. 6/11/15 – 6 non-feathered chicks. 6/26/15 – 6 feathered chicks. 7/24/15 – Fledged; nest remnants. 8/07/15 – Empty. 9/29/15 – Empty. 10/16/15 – Empty. <b>Result: Successful tree swallow nest.</b>
Box12	Coveside Slant front	Solo mounted on pole	5/15/15 – Nest built; 0 eggs. 5/29/15 – Nest built; 0 eggs. 6/11/15 – 6 eggs. 6/26/15 – 6 non-feathered chicks. 7/24/15 – Fledged; nest remnants. 8/07/15 – Empty. 9/29/15 – Empty. 10/16/15 – Empty. <b>Result: Successful tree swallow nest.</b>

TOTAL: 5 of 12 nest boxes were successfully used, 1 additional nest box had a partially constructed nest; minimum estimate of 23 fledglings produced.





Figure 4. Map showing locations of nest boxes and perch poles.

#### **4.2.Raptor Perch Poles**

Seven raptor perch poles were erected on the penstock ROW in late 2011, based on field consultation between WDFW and District biologists. Perch poles were monitored concurrent with monitoring of nest boxes. During site visits in 2015, the immediate vicinity of each perch pole was inspected for signs of raptor use, including whitewash or owl pellets. No use of the perch poles was documented in 2015.

### **5. MITIGATION LANDS**

As required under WHMP Section 3.0(e), 5.3 acres of mitigation lands were put into Critical Area Protection Area (CAPA) status in fall 2009 (see Figure 1).<sup>2</sup> Visual observations of the overstory were conducted concurrent with nest box and raptor perch pole checks. The site consists of mature second growth forest, approximately 70 years old, on a steep hillside above Youngs Creek. Tree diameter ranges between approximately 13 inches and 25 inches. Snags and coarse woody debris are present within the site. Understory exists primarily as sword fern and local patches of Devil's club. Little change has occurred since the initial purchase, therefore no intervention is deemed necessary at this time.

### **6. LITERATURE CITED**

Bellrose, F.C. and D.J. Holm (eds.) 1994. Ecology and Management of the Wood Duck. Stackpole Books, Mechanicsburg, PA. 588p.

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<sup>2</sup> The 5.3 acres are recorded as CAPA under Snohomish County number 200910160192. The Snohomish County Assessor's property tax parcel/account number is 27083300100200 for this land.

## **Appendix 1**

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### *Consultation Documentation Regarding Draft Report*



## Presler, Dawn

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**From:** Presler, Dawn  
**Sent:** Monday, November 23, 2015 8:11 AM  
**To:** 'Tim\_Romanski@fws.gov' (Tim\_Romanski@fws.gov); 'brock.applegate@dfw.wa.gov' (brock.applegate@dfw.wa.gov)  
**Cc:** Schutt, Mike; Binkley, Keith  
**Subject:** Youngs Creek (FERC No. 10359) - WHMP Draft 2015 Annual Report for your 30day review and comment  
**Attachments:** 2015 YC WHMP AnnRpt Draft.pdf

Dear Tim and Brock,  
Attached is the Wildlife Habitat Mitigation Plan Draft 2015 Annual Report for the Youngs Creek Project. Please take the next 30 days to review and provide comments, if any, back to me (with a cc: to Mike Schutt) by December 23, 2015. Thanks!

Wishing you a great Thanksgiving this Thursday!

Sincerely,  
*Dawn Presler*  
*Sr. Environmental Coordinator*  
Generation Resources  
(425) 783-1709

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