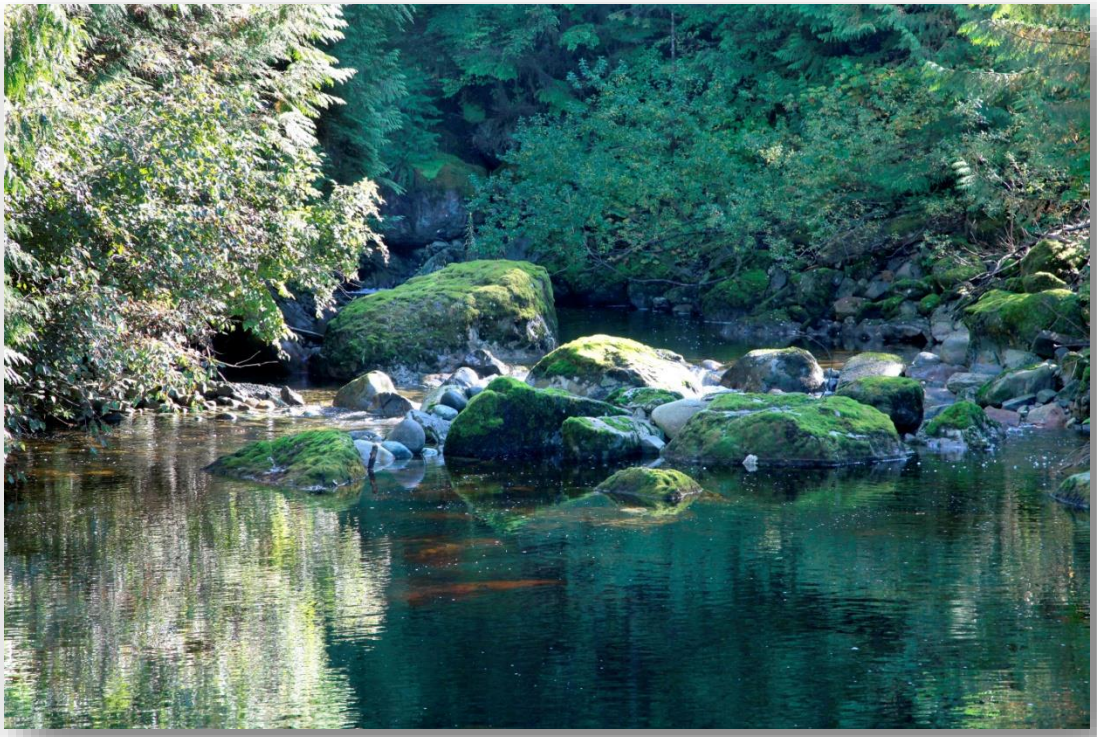
Youngs Creek Hydroelectric Project
FERC No. 10359



WILDLIFE HABITAT MITIGATION PLAN
License Article 403

COMPREHENSIVE REPORT
2012-2017

Prepared By:

SNOHOMISH COUNTY PUD
PUBLIC UTILITY DISTRICT NO. 1

Everett, WA
December 2017

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). 2017. Wildlife Habitat Mitigation Plan (License Article 403) Comprehensive Report 2012-2017 for the Youngs Creek Hydroelectric Project (FERC No. 10359). December 2017.

This document should not be cited or distributed without this disclaimer.

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LIST OF ACRONYMS AND ABBREVIATIONS

CAPA	Critical Area Protection Area
FERC	Federal Energy Regulatory Commission
GIS	Geographic Information System
OMRI	Organic Materials Review Institute
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 May 5, 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 September 8, 2011.[1]

This WHMP identifies the elements of habitat protection, revegetation, and enhancement of Project lands that occurred between October 2012 and October 2017. Yearly and monthly nest box and raptor perch pole results are presented in Appendix A. The District is to provide a written report to the FERC every five years,[2] and a written summary report to the Washington Department of Fish and Wildlife (WDFW) and the U.S. Fish and Wildlife Service (USFWS) annually. The District sent the draft report to WDFW and USFWS on November 9, 2017 for a 30-day review and comment period. Correspondence and comments regarding the draft report are presented in Appendices B and C, respectively. A field meeting between the District and WDFW occurred on November 16, 2017. Minutes from the November 16, 2017 field meeting are presented in Appendix D.

[1] (136 FERC ¶ 62,206).
[2] The next 5-year report will be filed with FERC by December 31, 2022.

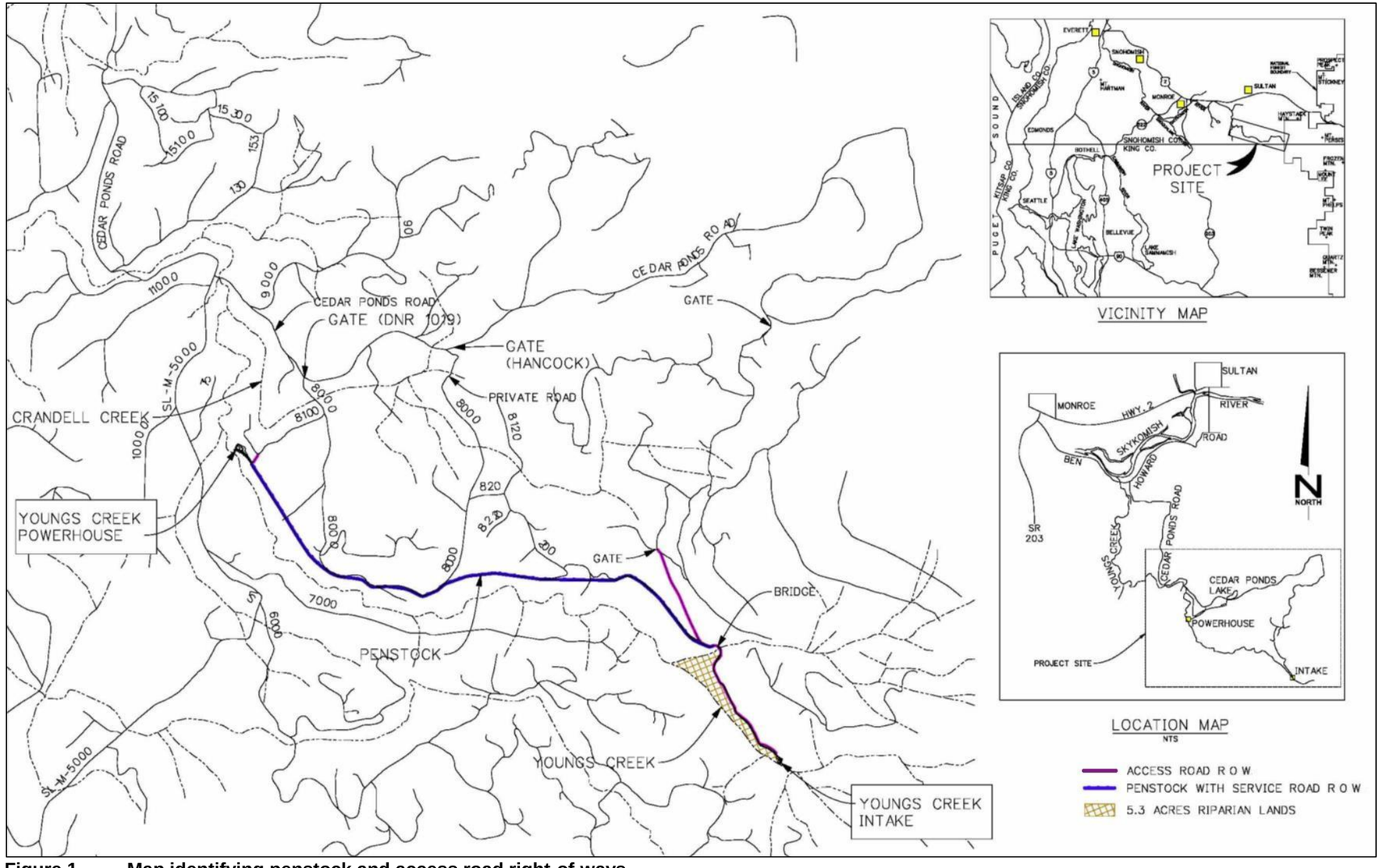

Figure 1. Map identifying penstock and access road right-of-ways.

2. VEGETATION MANAGEMENT AND MONITORING

As specified in the WHMP Section 3.0 (g) and (h), all mitigation areas were monitored each year 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 were monitored and will continue to be 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, reseeding will occur with the appropriate erosion control seed mix from Tables 1 or 2, as noted in the WHMP. Noxious weeds will continue to be controlled during the growing season, as necessary. Monitoring of riparian and upland forest mitigation areas consisted of periodic checks of overstory vegetation.

2.1. Cumulative Summary – 2012 Through 2017

2.1.1. Penstock Right-of-Way Revegetation

Following completion of Project construction activities, the penstock right-of-way (ROW) (Figure 1) was seeded in the fall of 2011 and reseeded, where necessary, in the spring of 2012.

Table 1. Erosion Control Seed Mix – longer term maintenance areas/no deep rooted vegetation allowed.

Seed variety	% by weight
Annual Ryegrass	25%
Perennial Ryegrass	25%
Creeping Red Fescue	20%
White Clover	15%
Chewings Fescue	15%
TOTAL	100%
*Apply at a rate of 100 lbs/acre	*Must be certified as "free of noxious weeds"

Table 2. Erosion Control Seed Mix – natural revegetation/deep rooted vegetation allowed.

Seed variety	% by weight
Soft white winter wheat	53%
Slender wheatgrass	21%
Annual Ryegrass	21%
Austrian winter peas	5%
TOTAL	100%
*Apply at a rate of 100 lbs/acre	*Must be certified as "free of noxious weeds"

Continued monitoring has occurred annually and no further revegetation or seeding has been necessary since the initial effort.

2.1.2. Line of Sight Reduction/Establishment of Hiding Cover

Growth of native vegetation has been allowed along the penstock ROW to the extent practical without impeding visual monitoring of pipeline integrity. Trees have also been allowed to grow in the outer 10 feet on either side of the ROW (Figure 2). However, in-seeding by native shrubs and trees has been slow to occur, so, although mowing does not occur on the ROW, only a few shrubs or trees are present, primarily along the margins of the forest/ROW edge.

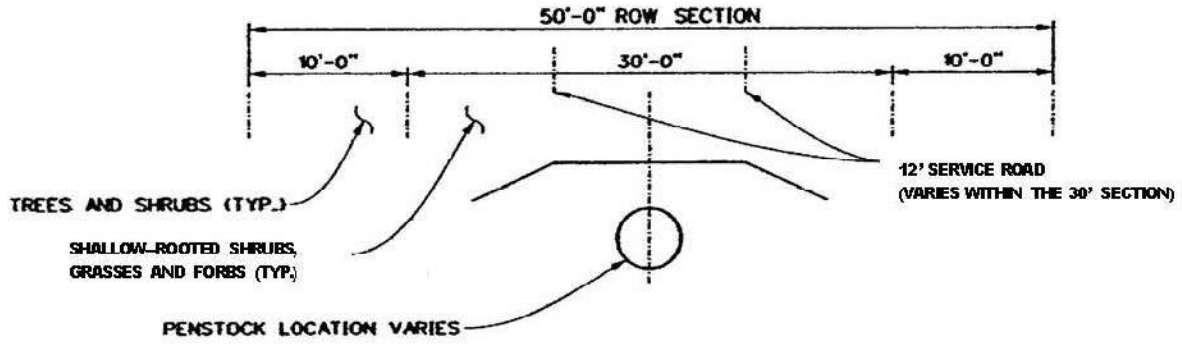

Figure 2. Typical cross section of penstock ROW with service road, per FERC-approved construction drawing YCH-1116.

2.1.3. 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 has been performed each year (2012 – 2017) during the growing season to comply with applicable noxious weed regulations. The primary weeds controlled have been Oxeye Daisy, Bull and Canada thistle, Butterfly bush, Scotch broom and Herb Robert. Bull and Canada thistle, Scotch broom, and Butterfly bush were the most dominant species in the first several years of treatments. By 2016 Butterfly bush and Scotch broom had been mostly controlled and limited spatially to former laydown areas and borrow pits. Thistle populations have been fairly well managed along the ROW as a result of repeated annual treatments. As of 2017, Thistle species continued to be the dominant invasive plant on the landscape. Treatments in years 2012 – 2016 were done using a systemic broadleaf herbicide, while treatment in 2017 was done using a contact broadleaf herbicide. Treatments in all years were made under the direction of a state-licensed contract herbicide applicator. The level of effort spent treating noxious weeds is shown in Table 3.

Table 3. Days spent by year treating noxious weeds at the Young's Creek Project.

Year	Days of Treatment
2012	2
2013	3
2014	2
2015	4
2016	4
2017	8

Since 2015, monitoring of weed populations on Project lands has been incorporated into a Geographical Information Systems (GIS) database. Spatial information was partitioned into three forms of symbology: points (discrete locations along the ROW), intermittent lines (weeds commonly intermixed with native ROW vegetation), and polygons (weeds intermixed with native vegetation confined to specific areas beyond the ROW boundary). Spatial representation of noxious weeds encountered in 2015 – the first year of GIS mapping; and 2017 – the most current year of GIS mapping, are presented in Figures 3, 4, 5[3], and 6.

[3] Symbology for polygons on Figure 5 indicate no change in noted species locations between 2015 and 2017.

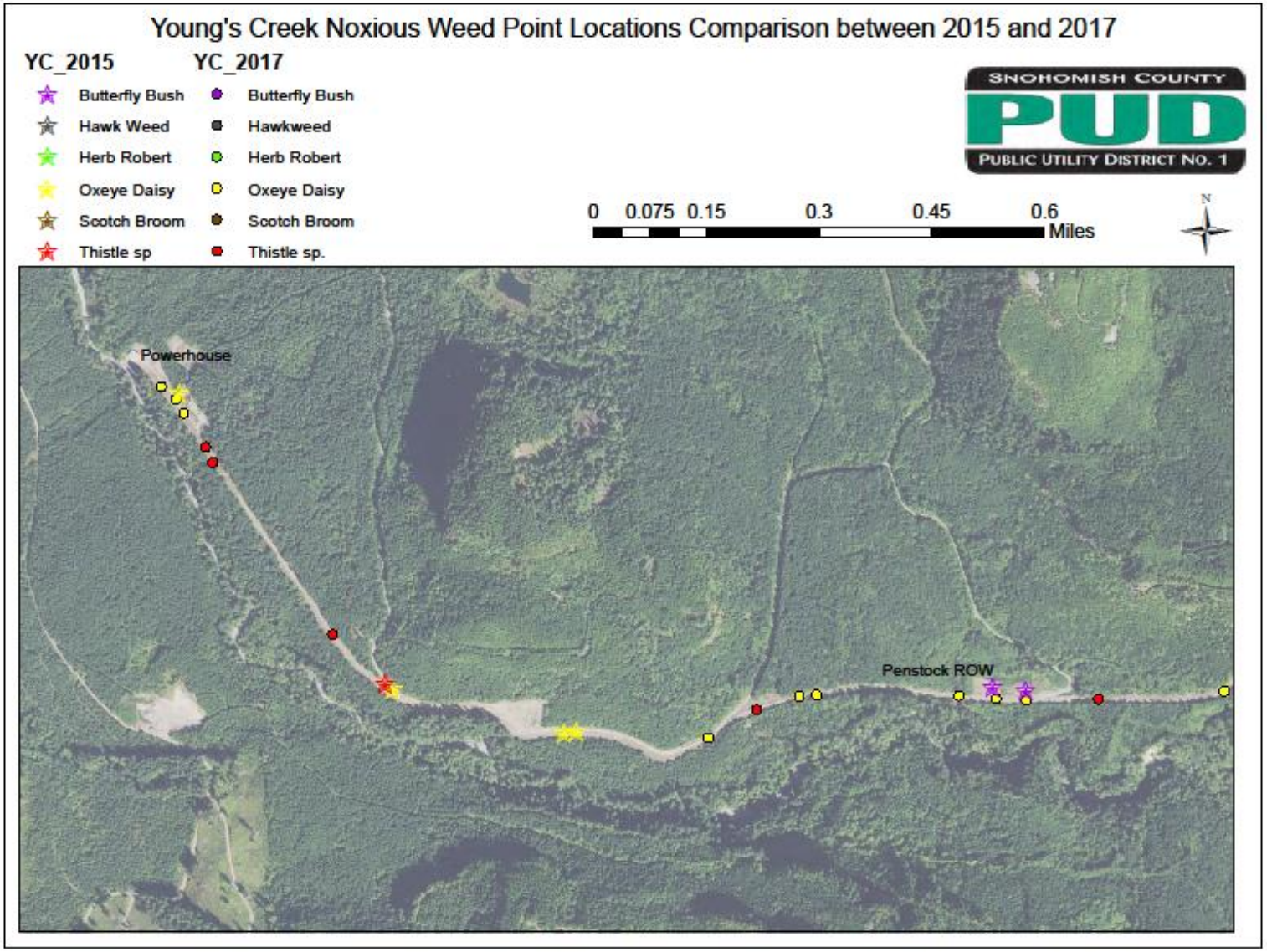

Figure 3. Map comparing noxious weed locations in proximity to the powerhouse between 2015 and 2017.

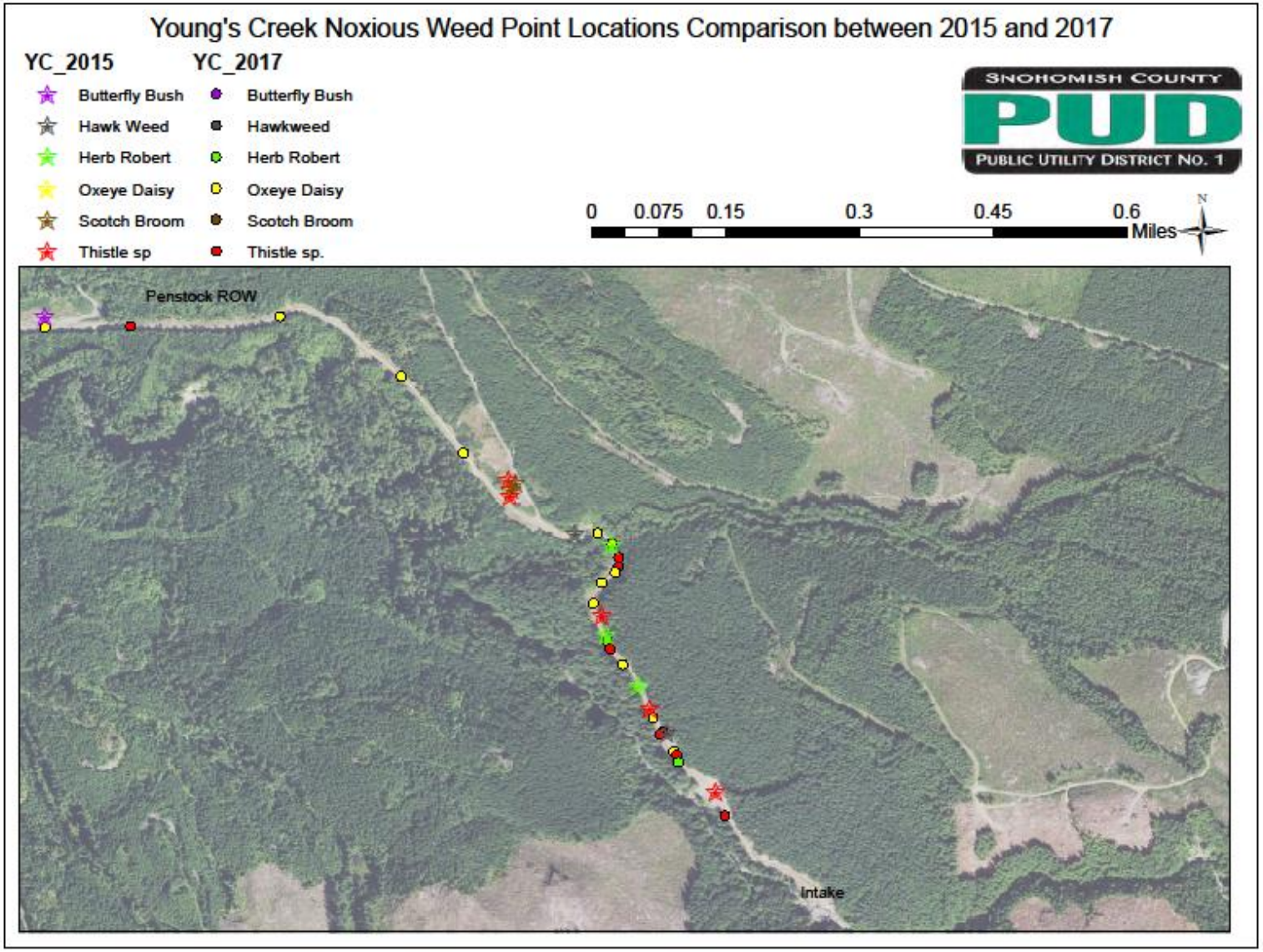

Figure 4. Map comparing noxious weed locations in proximity to the intake between 2015 and 2017.

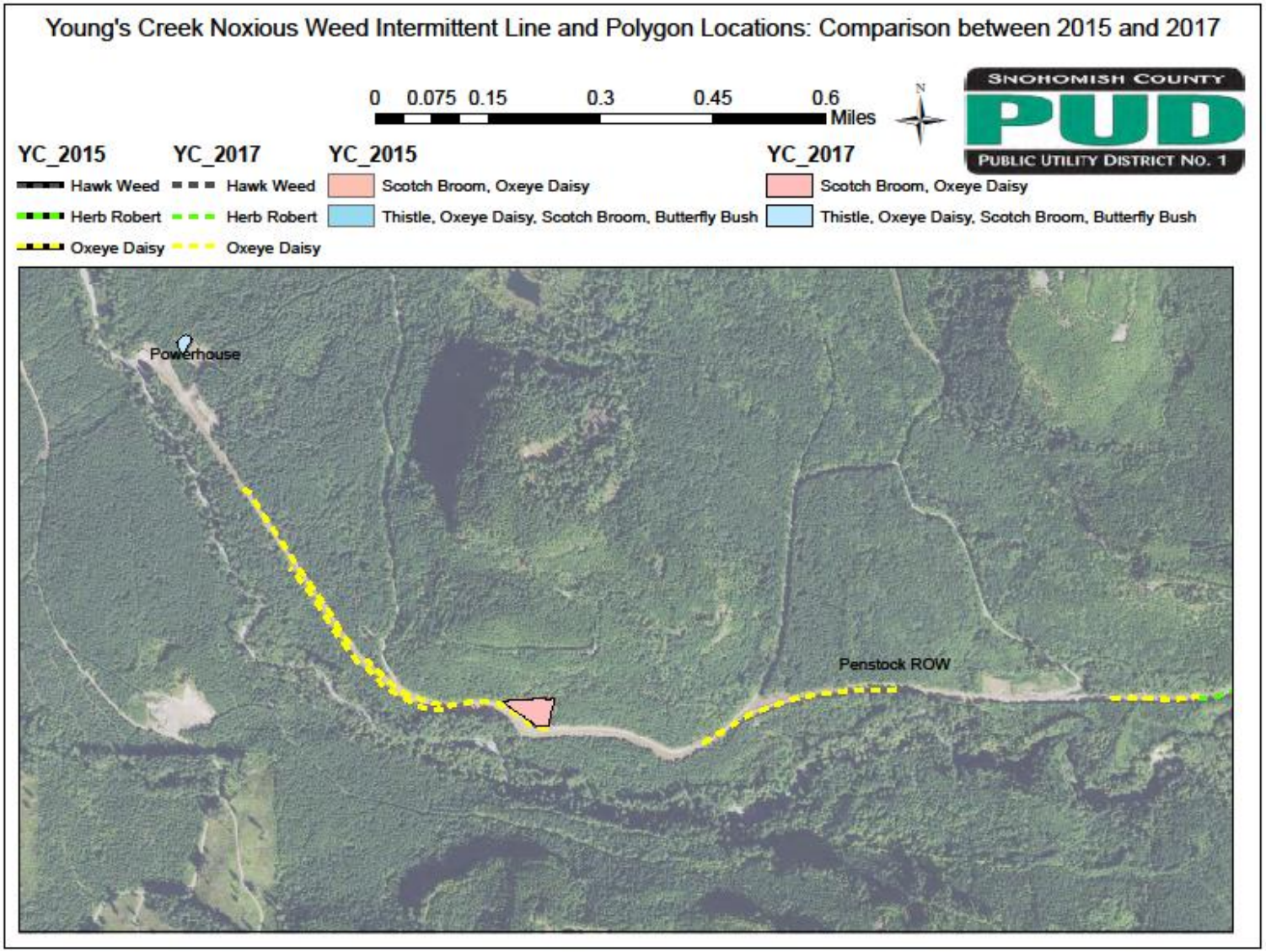

Figure 5. Map comparing noxious weed intermittent lines and polygons in proximity to the powerhouse between 2015 and 2017.

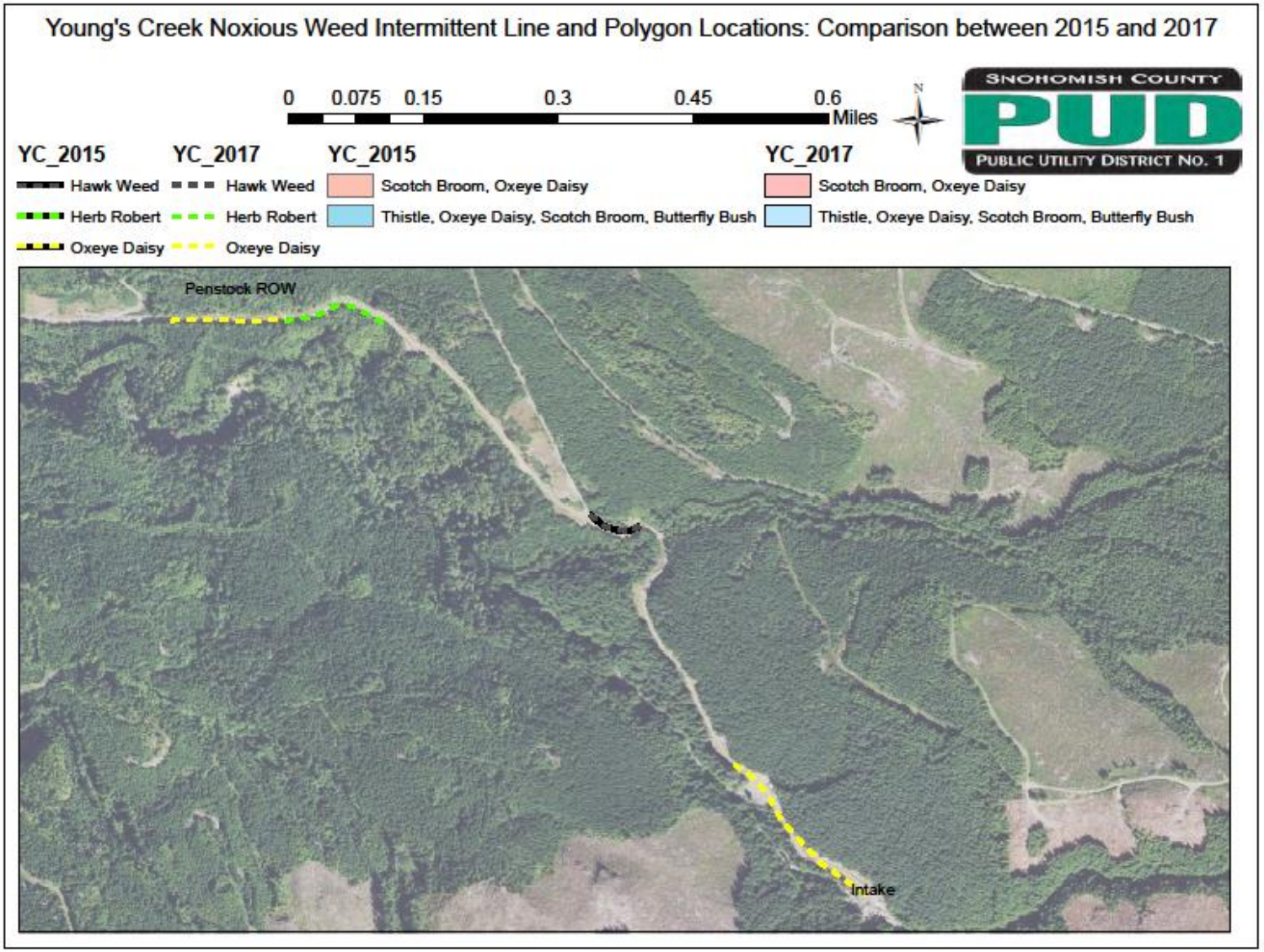

Figure 6. Map comparing noxious weed intermittent lines and polygons in proximity to the intake between 2015 and 2017.

2.1.4. Access Road ROW Revegetation

The ROW along the Project access roads (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.

2.2. Work Completed in 2017

2.2.1. Penstock ROW Revegetation

Vegetation in 2017 continued to meet coverage requirements and no activities have occurred post-construction that have warranted the need to re-seed any portion of the ROW.

2.2.2. Line of Sight Reduction/Establishment of Hiding Cover

To date, native shrubs have begun to re-establish along the ROW margins. Efforts to break up the line of sight and increase hiding cover for wildlife was determined necessary during a site visit with WDFW on November 16, 2017. While this work was not tasked for 2017, future plans are described in more detail in Section 2.3.

2.2.3. Noxious Weed Management

Noxious weed treatment was performed over eight days during the 2017 growing season. Methods of control consisted of manual removal of Scotch broom and Butterfly bush, and use of a non-selective, post-emergent Organic Materials Review Institute (OMRI) listed herbicide for all other weeds. All treatments were made by a state-licensed contract herbicide applicator. Thistle populations decreased slightly along the ROW as a result of previous treatments, however, Oxeye Daisy increased and is presently abundant along much of the ROW. At this juncture, the dominant noxious weeds on Project lands are: Oxeye Daisy and Bull and Canada Thistle. Locations of noxious weeds encountered and treated in 2017 are presented in Figures 7 and 8. Increased effort was made in 2017 to map noxious weeds, and as such, figures 7 and 8 appear to show an increase in weed species. This is an artifact of an increased level of surveying, and although weeds are not numerically quantified during the mapping process, the actual populations of nearly all species is declining. Future identification and mapping efforts will be similar to 2017 efforts, allowing for more direct year to year comparisons.

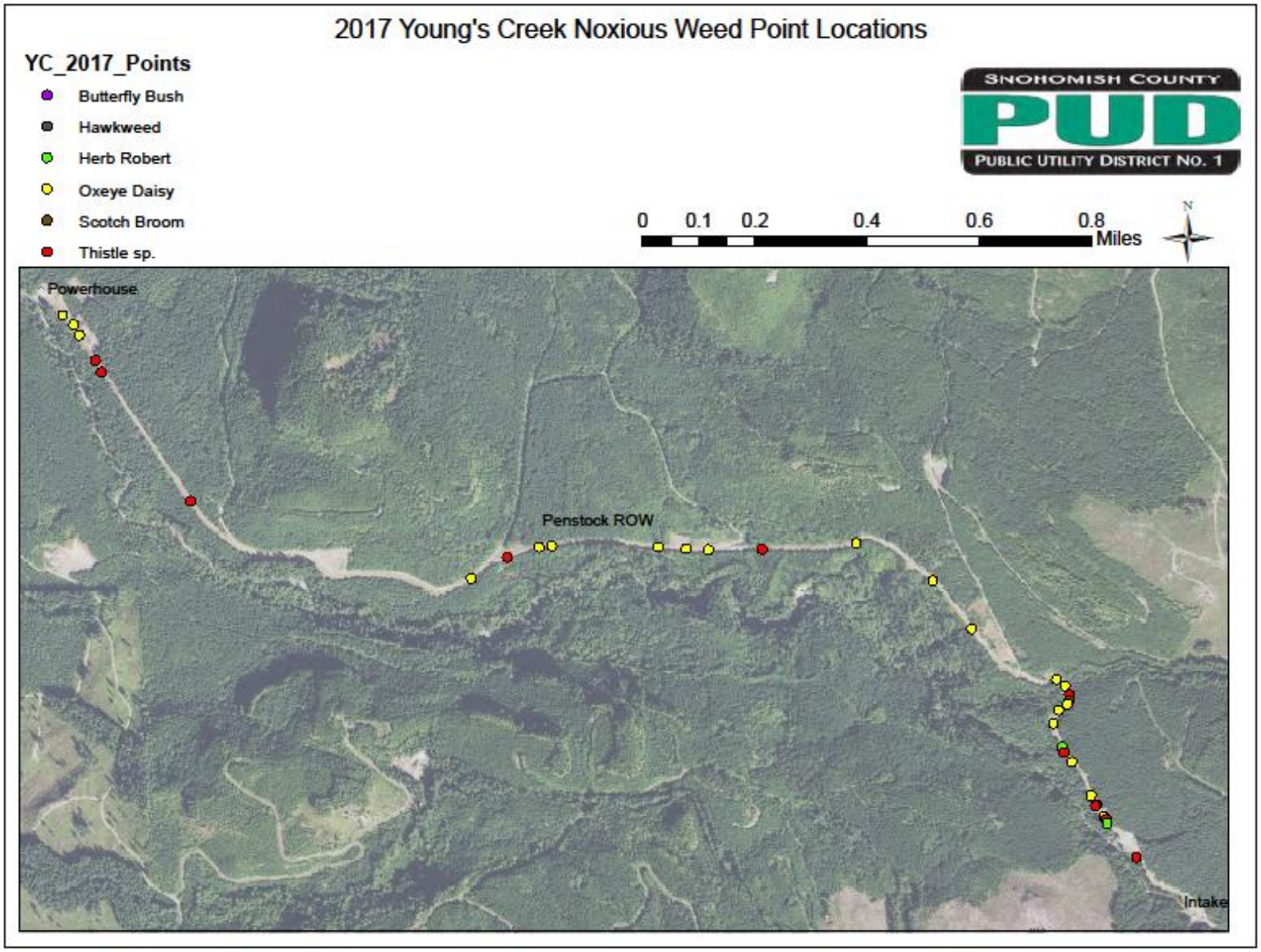

Figure 7. Map identifying discrete noxious weed locations in 2017.

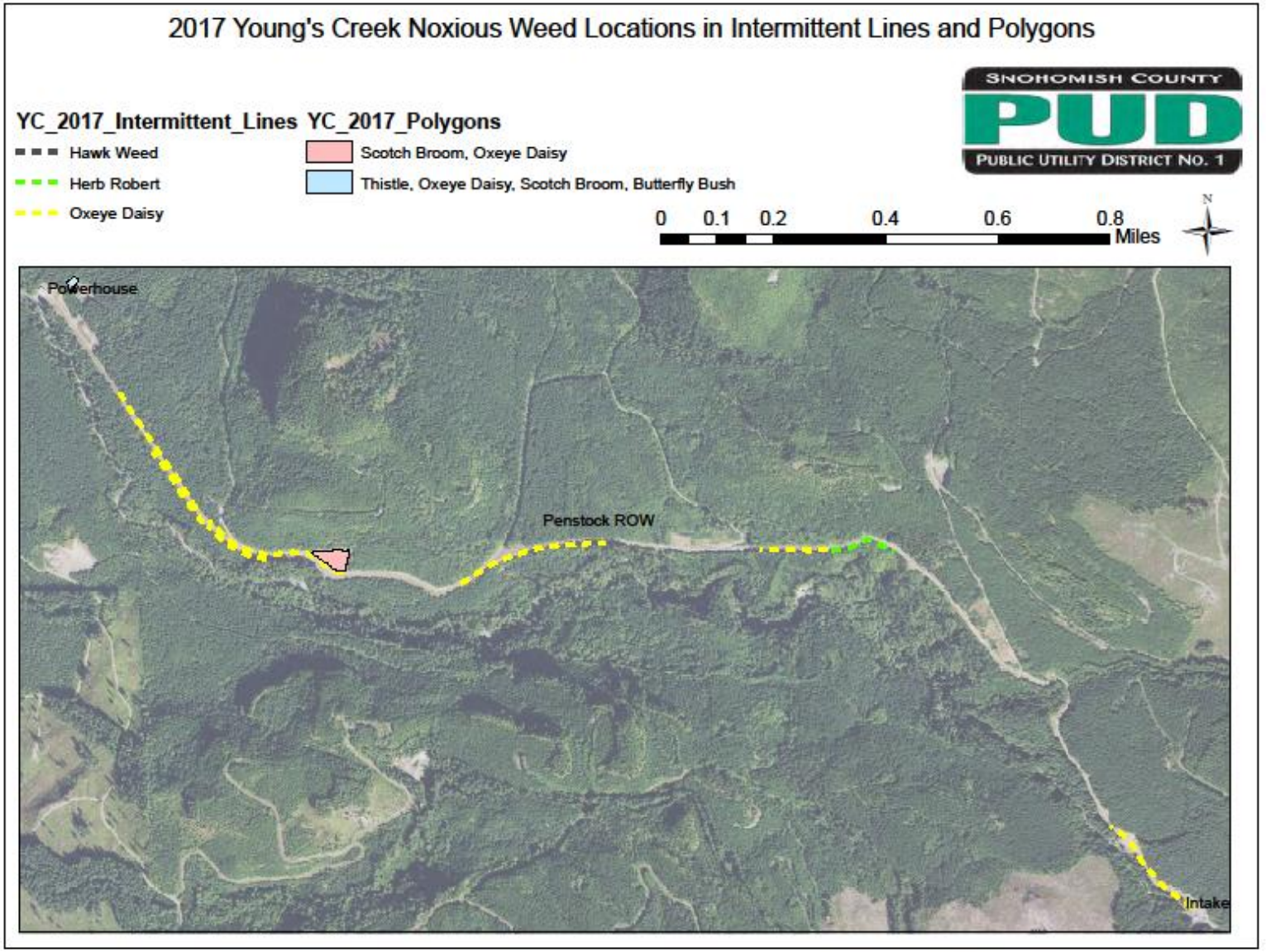

Figure 8. Map identifying noxious weed infestations in intermittent lines and polygons in 2017.

2.2.4. Access Road ROW Revegetation

No revegetation work occurred along access roads during 2017. Vegetation continues to mature following the initial post-construction revegetation effort along both the access road ROW margins and former laydown areas.

2.3. Work Planned for 2018 – 2022

The District will plant native shrubs in selected areas of the ROW in Spring 2018 to break up the line-of-sight and to provide forage for wildlife. Future plantings will occur in collaboration with WDFW pending the results of the 2018 effort. This work will be performed in conjunction with other activities; i.e. when heavy equipment is brought to the site for other work, and may include placing boulders and/or woody debris as needed to break up the line-of-sight.

Current management objectives for noxious weed treatments are similar to the last six years. The District will continue ongoing treatment along the Project ROW, facilities, and mitigation sites. Increased effort to control Oxeye Daisy and Bull and Canada Thistle will be a priority. Remaining weed species such as Herb Robert, Butterfly bush, and Scotch broom will continue to be monitored and treated annually.

3. GATES

As required under WHMP Section 3.0(c), gates restricting access to the powerhouse and intake areas have been installed (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. Prior Years' Summary – 2012 Through 2017

4.1.1. Nest Boxes

Twelve avian nest boxes were installed in advance of the 2012 nesting season (Figure 9). Prior to and following each nesting season, nest boxes were maintained by removing any debris and/or old nesting material from within the cavity of the boxes. Since the female gathers nesting materials in preparation for egg-laying, boxes are not provided with any supplemental nesting materials in advance of the nesting season. Nests were checked by the District biologist as required by the WHMP schedule. Between 2012 and 2017, an estimated 83 tree swallow chicks fledged from 21 successful nest boxes (Appendix A). Eight boxes between 2012 and 2017 had either partial nests built with no egg laying activity documented thereafter, or, predation resulted in failed nesting attempts.

Tree swallows preferred - and had the most reproductive success - nesting in Coveside slant front nest boxes (Table 4). Box type selection appears to be an important factor for nesting success. Audubon, Woodlink, Bluebird Trailbox, and Coveside slant front style boxes, resulted in success 50, 50, 83, and 85% of nesting attempts, respectively. Further, 100% of usage (either partial or successful nests) have come from pole mounted boxes. Boxes mounted on trees, regardless of box style (Audubon, Woodlink, and Bluebird Trailbox), have not experienced any usage whereas, success from the same style boxes has been demonstrated when mounted on poles.

Table 4. Selection and use of nest boxes by type between 2012 and 2017.

2012-2017			
Box Type	Partial	Success	Total usage
Audubon	1	1	2
Bluebird Trailbox	1	5	6
Woodlink	4	4	8
Coveside slant front	2	11	13

4.1.2. 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. Between 2012 and 2017, no usage was documented by raptors on any of the seven perch poles. Yearly perch pole monitoring results are located in Table 5.

Table 5. Perch pole monitoring results from 2012 through 2017.

Pole #	Results
RP1	2012 - 2017: No use.
RP2	2012 - 2017: No use.
RP3	2012 - 2017: No use.
RP4	2012 - 2017: No use.
RP5	2012 - 2017: No use.
RP6	2012 - 2017: No use.
RP7	2012 - 2017: No use.

4.2. Work Completed in 2017

4.2.1. Nest Boxes

Tree swallows nested in three of the pole-mounted nest boxes, and began nest construction in an additional two boxes. Box 8 (Coveside slant front) has received use five years in a row and Box 11 (Coveside slant front) has been used three years in a row (Figure 9). 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 minimum estimates. One box contained a nest on 6/5/17 and during a subsequent survey (6/19/17), eggshell fragments were observed, possibly a result of predation. In total, at least 12 chicks were observed in the nest boxes and it is therefore presumed that a minimum of 12 tree swallows fledged from the 3 boxes. Box selection was similar to previous years with Coveside slant front boxes being selected most frequently (Table 5). Nest box monitoring results for 2017 are located in Appendix A.

Table 6. Selection and use of nest boxes by type in 2017.

2017			
Box Type	Partial	Success	Total usage
Audubon			0
Bluebird Trailbox		1	1
Woodlink	1		1
Coveside slant front	1	2	3

4.2.2. Raptor Perch Poles

Locations of perch poles can be viewed on Figure 9. During site visits in 2017, 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 2017.

4.3. Work Planned for 2018 – 2022

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). The only occurrence of this threshold being met was in 2016 when 58 percent usage was attained. After discussing with WDFW, the District will be installing an additional 2 or 3 nesting boxes in 2018 specifically targeting Northern Saw-Whet or Western Screech Owls. Beyond 2018, the District will collaborate with WDFW if it is decided to re-locate the 4 interior forest dwelling boxes that have received no use since inception of the project, but no additional swallow box installations are expected at this point.

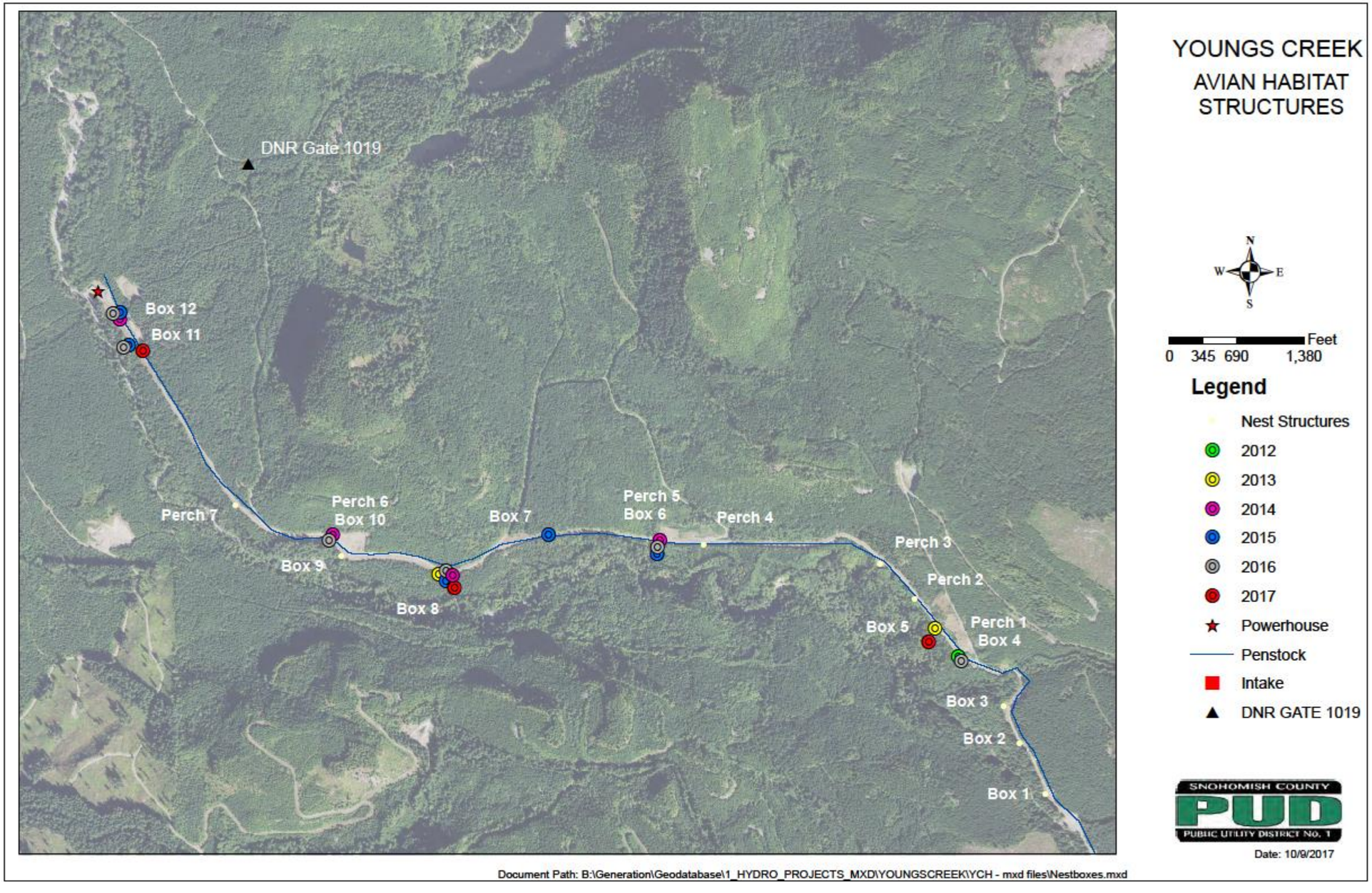

Figure 9. Map showing locations of nest boxes and perch poles.

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 (Figure 1).[4] 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 75 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. At this point, habitat is of good quality with natural conditions allowing for development into mature forests.

6. LITERATURE CITED

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

[4] 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 A

Nest Box and Perch Pole Monitoring Results

2012-2017 Nest Box Details			
Box #	**Style**	**Location**	**2012-2017 Monitoring Results**
Box 1	Audubon	Tree Mount in CAPA	2012: No use. 2013: No use. 2014: No use. 2015: No use. 2016: No use. 2017: No use.
Box 2	Bluebird Trailbox	Tree Mount in CAPA	2012: No use. 2013: No use. 2014: No use. 2015: No use. 2016: No use. 2017: No use.
Box 3	Audubon	Tree Mount in CAPA	2012: No use. 2013: No use. 2014: No use. 2015: No use. 2016: No use. 2017: No use.
Box 4	Woodlink	Co-mounted on perch pole	2012: Sucessful tree swallow nest. 2013: Parital nest built. 2014: Partial nest built. 2015: No use. 2016: Successful tree swallow nest. 2017: No use.
Box 5	Bluebird Trailbox	Solo mounted on pole	2012: No use. 2013: Successful tree swallow nest. 2014: No use. 2015: No use. 2016: No use. 2017: Successful tree swallow nest.

Box 6	Bluebird Trailbox	Co-mounted on perch pole	2012: Failed nesting attempt. 2013: No use. 2014: Successful tree swallow nest. 2015: Successful tree swallow nest. 2016: Successful tree swallow nest. 2017: No use.
Box 7	Audubon	Solo mounted on pole	2012: No use. 2013: No use. 2014: No use. 2015: Successful tree swallow nest. 2016: Partial nest built. 2017: No use.
Box 8	Coveside Slant front	Solo mounted on pole	2012: Failed nesting attempt. 2013: Successful tree swallow nest. 2014: Successful tree swallow nest. 2015: Successful tree swallow nest. 2016: Successful tree swallow nest. 2017: Successful tree swallow nest.
Box 9	Woodlink	Mounted on mature riparian tree	2012: No use. 2013: No use. 2014: No use. 2015: No use. 2016: No use. 2017: No use.
Box 10	Woodlink	Co-mounted on perch pole	2012: No use. 2013: No use. 2014: Successful tree swallow nest. 2015: Partial nest built. 2016: Successful tree swallow nest. 2017: Failed nesting attempt.

Box 11	Coveside Slant front	Solo mounted on pole	2012: No use. 2013: No use. 2014: No use. 2015: Successful tree swallow nest. 2016: Successful tree swallow nest. 2017: Successful tree swallow nest.
Box 12	Coveside Slant front	Solo mounted on pole	2012: No use. 2013: No use. 2014: Successful tree swallow nest. 2015: Successful tree swallow nest. 2016: Successful tree swallow nest. 2017: Partial nest built.
TOTAL: At least 83 tree swallows fledged from 21 successful nest boxes. An additional 8 boxes had nesting activity that did not result in reproductive success.			

2017 Nest Box Details			
Box #	**Style**	**Location**	**2017 Monitoring Results**
Box 1	Audubon	Tree Mount in CAPA	5/22/17: No use. 6/05/17: No use. 6/19/17: No use. 7/03/17: No use. 7/31/17: No use. 8/30/17: No use. 9/28/17: No use.
Box 2	Bluebird Trailbox	Tree Mount in CAPA	5/22/17: No use. 6/05/17: No use. 6/19/17: No use. 7/03/17: No use. 7/31/17: No use. 8/30/17: No use. 9/28/17: No use.
Box 3	Audubon	Tree Mount in CAPA	5/22/17: No use. 6/05/17: No use. 6/19/17: No use. 7/03/17: No use. 7/31/17: No use. 8/30/17: No use. 9/28/17: No use.
Box 4	Woodlink	Co-mounted on perch pole	5/22/17: No use. 6/05/17: No use. 6/19/17: No use. 7/03/17: No use. 7/31/17: No use. 8/30/17: No use. 9/28/17: No use.
Box 5	Bluebird Trailbox	Solo mounted on pole	5/22/17: Complete nest with 7 eggs. 6/05/17: At least 3 chicks nestled in a lot of bedding material. 6/19/17: At least 4 feathered chicks. 7/03/17: Empty, all previously feathered chicks fledged. 7/31/17: No use. 8/30/17: No use. 9/28/17: No use. **Result: Successful tree swallow nest.**

Box 6	Bluebird Trailbox	Co-mounted on perch pole	5/22/17: No use. 6/05/17: No use. 6/19/17: No use. 7/03/17: No use. 7/31/17: No use. 8/30/17: No use. 9/28/17: No use.
Box 7	Audubon	Solo mounted on pole	5/22/17: No use. 6/05/17: No use. 6/19/17: No use. 7/03/17: No use. 7/31/17: No use. 8/30/17: No use. 9/28/17: No use.
Box 8	Coveside Slant front	Solo mounted on pole	5/22/17: Complete nest with 1 egg. 6/05/17: At least 5 eggs with adult incubating. 6/19/17: 3-4 feathered chicks visible. 7/03/17: Empty, all previously feathered chicks fledged. 7/31/17: No use. 8/30/17: No use. 9/28/17: No use. **Result: Successful tree swallow nest.**
Box 9	Woodlink	Mounted on mature riparian tree	5/22/17: No use. 6/05/17: No use. 6/19/17: No use. 7/03/17: No use. 7/31/17: No use. 8/30/17: No use. 9/28/17: No use.
Box 10	Woodlink	Co-mounted on perch pole	5/22/17: Partial nest built. 6/05/17: Nest built. Potential egg fragments amongst nesting material. 6/19/17: Nest with feathers and eggshell fragments. Likely predation, natural mortality, or abandoment. Cleaned out box. 7/03/17: Empty. 7/31/17: No use. 8/30/17: No use. 9/28/17: No use. **Result: Non-successful tree swallow nest; predation probable.**

Box 11	Coveside Slant front	Solo mounted on pole	5/22/17: Partial nest built. 6/05/17: Nest built, with at least 3 eggs. Adult incubating. 6/19/17: At least 5 feathered chicks. 7/03/17: Empty, all previously feathered chicks fledged. 7/31/17: No use. 8/30/17: No use. 9/28/17: No use. **Result: Successful tree swallow nest.**
Box 12	Coveside Slant front	Solo mounted on pole	5/22/17: Partial nest built. 6/05/17: Partial nest built. 6/19/17: Partial nest built. 7/03/17: Partial nest built. 7/31/17: No use. 8/30/17: No use. 9/28/17: No use. **Result: Partial nest built.**

TOTAL: 3 of 12 nest boxes successfully used, a fourth had a constructed nest with egg shell fragments likely a result of predation and; a fifth box had a partially constructed nest. Minimum estimate of fledglings produced during 2017 was 12.

Perch pole monitoring results.

Pole #	2017 Results
RP1	No use.
RP2	No use.
RP3	No use.
RP4	No use.
RP5	No use.
RP6	No use.
RP7	No use.
TOTAL:	No use.

APPENDIX B

Consultation Documentation Regarding Draft Report

APPENDIX C

Comments Regarding Draft Report

No.	Stakeholder Comments	District Response
B. Applegate, WDFW, email dated 12/11/17		
1.	Snohomish County Public Utility District No. 1 (SnoPUD) mentioned and the annual report reads that shrubs and trees have grown in slowly in the outer margins of the Right-Of-Way (ROW). SnoPUD also has an objective to break up the line-of-sight in the ROW to create hiding cover. WDFW recommends that SnoPUD create vegetation and hiding cover on the margins of the ROW by planting native shrubs, preferred by black-tailed deer. We recommend the use of shrubs, instead of other methods of creating hiding cover, because the shrubs also provide other forms of habitat such as nesting and foraging for birds and browse for deer. WDFW recommends that the SnoPUD improve their line-of-sight and hiding cover, as mentioned in 2.3 Work Planned for 2018-2022, with the planting of shrubs.	The District will investigate planting native shrubs in selected areas of the ROW in Spring 2018 to break up the line-of-sight and provide forage for wildlife. Small group plantings will be installed in either Spring or Fall 2018, in selected areas, with future plantings occurring pending results of the initial effort.
2.	SnoPUD has consulted with WDFW on the forest interior nest boxes. We will continue to work with SnoPUD on the opportunistic movement of these boxes over the next five years, since the boxes received no use from birds. WDFW has recommended the creation of additional small owl boxes, for owls like western screech, within the Critical Area Protection Area. SnoPUD has indicated that they have literature with owl box designs.	The District will install 2 or 3 boxes suitable for Western Screech Owls in the CAPA, although some literature indicates that this species is uncommon in the western Cascades and Puget trough. Additionally, it prefers mixed or deciduous forest, which is absent in the area. The Northern Saw-whet owl appears more suited to the habitat types on and around the project, including dense evergreens and open space. Conveniently, both owl species utilize nest boxes of the same dimensions, so boxes provided will be suitable for either species. Nest boxes will be monitored concurrently with the swallow boxes and raptor perch poles already in place.
3.	WDFW would like to compliment SnoPUD on their tree swallow production on the pole-mounted boxes. They have also done a great job with noxious weed control and treatment as well. WDFW appreciates the good work that SnoPUD has done on all wildlife mitigation objectives.	Thank you. The District appreciates the great working relationship with WDFW.

APPENDIX D

Minutes from November 16, 2017 Field Meeting

WILDLIFE HABITAT MITIGATION PLAN ANNUAL REPORT MEETING
16 November 2017

Snohomish County PUD Young's Creek Hydroelectric Intake and Right-of-Way

MEETING NOTES

PURPOSE OF MEETING: To discuss the Wildlife Habitat Mitigation Plan (WHMP) Cumulative Report which summarizes work achieved in years 2011 through 2017, and to address concerns and/or answer questions related to implementation measures outlined in the WHMP.

ATTENDEES:
Washington Department of Fish and Wildlife (WDFW): Brock Applegate
Public Utility District No. 1 of Snohomish County (District): Mike Schutt, Andrew McDonnell

1. INTRODUCTION AND MEETING PLAN

This meeting represented the first site visit with WDFW since implementation of the WHMP in 2011. Elements of the mitigation plan are summarized within this Cumulative Report which cover implementation activities from years 2011 through 2017. Sections of the plan include: (a) revegetating all portions of the penstock right-of-way (ROW) not contained within an access road ROW; (b) revegetating the margins of the project access road ROW with herbaceous plants and shrubs that are palatable to black-tailed deer and other species common in the vicinity; (c) installing and maintaining gates at the entrance to the project access road; (d) installing and maintaining nest boxes and perch poles along the project access roads and the penstock ROW; (e) enhancing at least 3.3 acres of existing riparian areas in the project vicinity to replace the wildlife values lost as the result of project construction; (f) acquiring and preserving a stand of at least 2 acres of mature coniferous forest in the project vicinity; (g) monitoring the effectiveness of the measures described in (a), (b), and (e) above, including steps to be taken in the event these measures are not effective, such as, but not necessarily limited to, modifying the measures or establishing or enhancing additional riparian forest areas; (h) provide recommendations to the agencies and the Commission for alternative wildlife mitigation measures, if monitoring indicates that the revegetation measures or the riparian forest establishment or enhancement is not successful; (i) schedules for implementing the measures proposed in (a) through (f) above, for filing the results of the monitoring program, and for filing recommendations for alternative Wildlife mitigation. A Draft of this Cumulative Report was sent to WDFW and U.S. Fish and Wildlife Service (USFWS) on 9 November 2017 for a 30-day comment period. Comments received will be incorporated into the Final version of this Cumulative Report.

2. FIELD VISIT TO WHMP LANDS

Intake and Penstock ROW

PUD and WDFW representatives visited the intake site and drove the length of the penstock ROW to discuss success of the nest box program, line-of-sight measures, and noxious

weed treatment efficacy. The group discussed how best to move forward with the four forest dwelling nest boxes that have not had use since inception of the project. WDFW suggested PUD consider moving boxes to existing poles, move boxes to new poles along the ROW, or leave boxes and install additional boxes to attract Western Bluebirds. Additionally WDFW requested PUD research habitat and nest box requirements for Western Screech and Northern Saw-Whet owls and install up to 2 boxes if suitable habitat exists within project lands.

WDFW noted that vegetation management actions have been mostly successful relating to noxious weed treatments, but line-of-sight measure could be improved if additional shrubs were planted along the ROW. Additionally, WDFW noted that trees planted in former laydown areas have been slow to grow.