Calligan Creek Hydroelectric Project

(FERC No. P-13948)

License Article 407
Terrestrial Resources Management Plan:

2019-2023 5-Year Monitoring Report

SNOHOMISH COUNTY PUD
PUBLIC UTILITY DISTRICT NO. 1

Everett, WA

March 2024

Final – This document is a report prepared by Snohomish PUD and is considered final.

Snohomish PUD. 2024. License Article 407: Terrestrial Resources Management Plan 2019-2023 5-year Report, for the Calligan Creek Hydroelectric Project, FERC No. P-13948.

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List of Acronyms

FERC	Federal Energy Regulatory Commission
Project	Hancock Creek Hydroelectric Project, FERC No. P-13994
ROW	right-of-way
Snohomish PUD	Public Utility District No. 1 of Snohomish County
TRMP	Terrestrial Resources Management Plan

USFWS	U.S. Fish and Wildlife Service
WDFW	Washington Department of Fish and Wildlife

1. INTRODUCTION

Public Utility District No. 1 of Snohomish County (Snohomish PUD) received a license on June 23, 2015 (License), from the Federal Energy Regulatory Commission (FERC) for the Calligan Creek Hydroelectric Project (Project). The License approved the Terrestrial Resources Management Plan (TRMP) filed on February 25, 2014. The TRMP was modified by FERC order on April 20, 2016. Snohomish PUD is to file a report with Washington Department of Fish and Wildlife and U.S. Fish and Wildlife Service by March 31 of each year detailing the monitoring efforts of the previous calendar year, pursuant to License Article 407 and the Terrestrial Resources Management Plan. Per Section 2.3.2 of the TRMP, every five years, this report is also to be provided to FERC along with update of areas of treatment lists and appendices of treatment and prevention practices, prepared in consultation with the agencies.

This Annual Report covers activities conducted during 2019-2023 and is the first 5-year report to be submitted to FERC. A draft of this report is provided to the Washington Department of Fish and Wildlife and U.S. Fish and Wildlife Service for a 30-day review and comment period. Consultation documentation is provided in Appendix A; no comments were received. Appendix B is the Year Four Revegetation Monitoring Report.

2. UPLAND HABITAT PROTECTION, MITIGATION AND ENHANCEMENT

2.1 Vegetation Management and Monitoring

Following consultation with Washington Department of Fish and Wildlife (WDFW), 6.59 acres of preservation buffer area were purchased to mitigate for permanent and temporary impacts to mature forest (small saw and riparian forest) habitat at both the Hancock Creek (FERC No. 13994) and Calligan Creek (FERC No. 13948) hydroelectric projects. The parcel is located near the Calligan Creek Hydroelectric Project powerhouse between a large wetland complex and the North Fork Snoqualmie River. This added buffer preservation area of upland forest habitat benefits wildlife that use wetlands, streams, and upland habitat, and provides a corridor between the North Fork Snoqualmie River, the large wetland complex, and Calligan Creek.

2.1.1 Penstock Right-of-Way Revegetation

Following completion of Project construction activities, the penstock right-of-way (ROW) (Figure 2-1) and portions of the construction access roads and spoils areas were first seeded in the fall of 2017 and then reseeded, where necessary, in the spring of 2018. The seed mixes used were developed by the U.S. Forest Service (USFS) for use in revegetating abandoned roads (Tables 2-1 and 2-2). The grass/clover mix germinated well following the spring 2018 planting and continues to exceed coverage requirements.

In 2019, a total of 4,366 shrubs and trees were planted in buffer mitigation areas, along the penstock ROW and adjacent steep slopes (Table 2-3, Figure 2-2 through 2-4). Beginning in 2020 Snohomish PUD contracted with Wetland Resources to inventory native plantings to ensure that all areas requiring revegetation were completed, to document survival, and to identify areas where additional plants were needed to meet King County revegetation requirements. In 2020, Wetland Resources recommended planting 340 shrubs in the previously revegetated areas, which was completed in the fall of that year. In 2021, additional plantings of 65 shrubs around the intake and 80 plants in the buffer of a small wetland adjacent to the pipeline ROW were planted in the fall, with an identical effort occurring in 2022. No additional plantings were recommended in 2023; field indications are that survival and areal coverage of planted and volunteer shrubs is meeting requirements set forth by King County. Volunteer native plants are already beginning to colonize the ROW, and aside from trees growing within the 30-foot corridor centered over the pipeline, will be allowed to persist. The wetland consultant's year 4 report is included as Appendix B.

Additional plantings, beyond that required by King County, were installed in 2019 on steep portions adjacent to the ROW to establish coarse rooted, spreading shrubs to reduce the likelihood of slope stability problems. Most of the plants have survived since planting, and volunteer trees and plants are also coming in, which will improve local biodiversity.

2.1.1.1 Plans for 2024

The wetland scientists will complete their 5-year review of revegetation efforts in 2024. Any recommendations for additional plantings will be completed in the fall of the year. No changes are proposed to current vegetation management practices.

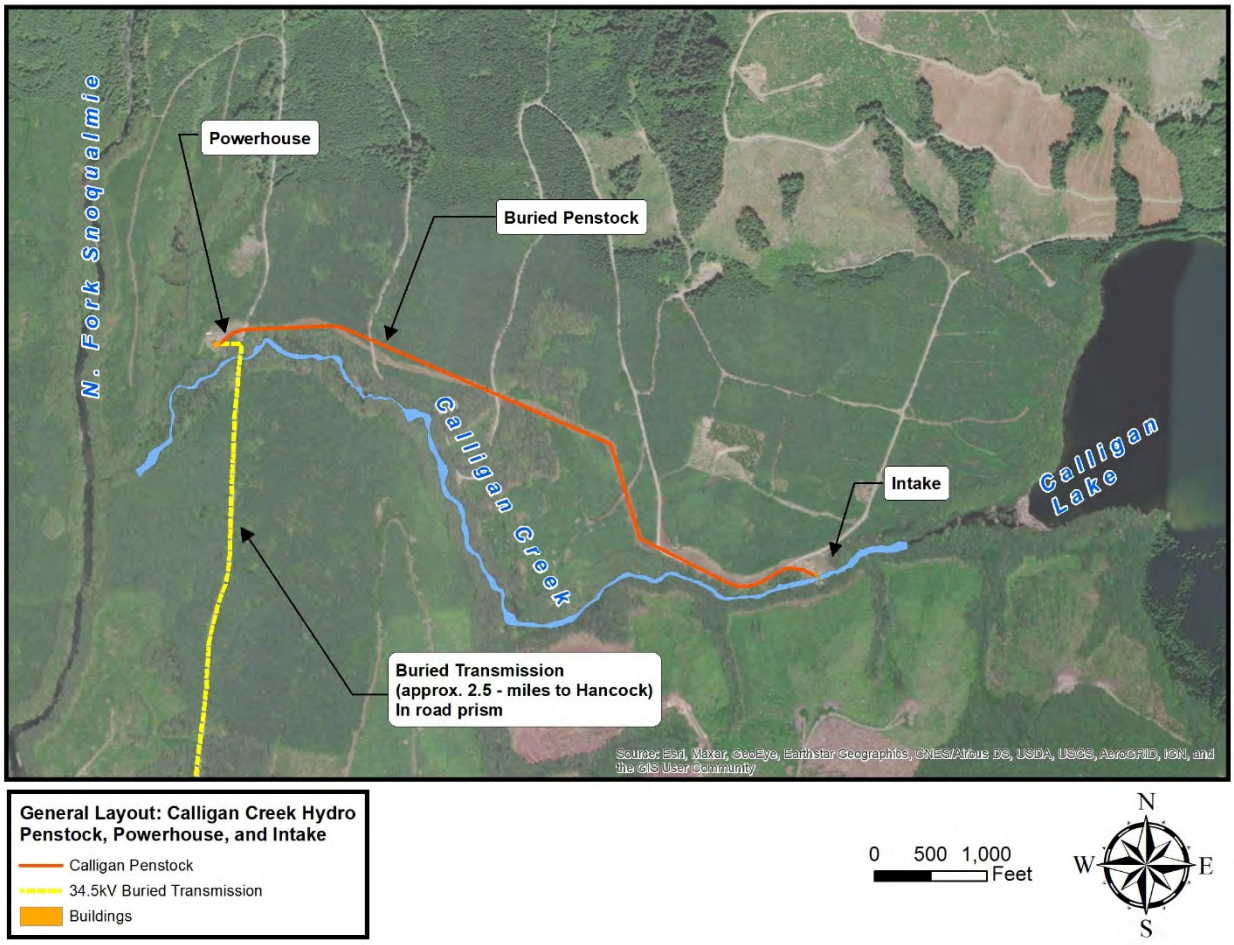

Figure 2-1. General Project layout: penstock, powerhouse and intake.

Table 2-1. Erosion Control Seed Mix – long 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%
Chewing's Fescue	15%
TOTAL	100%
*Apply at a rate of 100 lbs./acre	*Must be certified as "free of noxious weeds"

Table 2-2. 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 95 lbs./acre	*Must be certified as "free of noxious weeds"

Table 2-3. Native shrubs used for revegetation of temporary impact areas and steep slopes along the right-of-way.

Plant	2019	2020	2021	2022	2023
	Quantity	Quantity	Quantity	Quantity	Quantity
Nootka rose (Rosa nutkana)	550	120	50	50	0
Pea fruit rose (Rosa pisocarpa)	500	120	50	50	0
Salmonberry (Rubus parviflora)	400	100	45	45	0
Thimbleberry (Rubus spectabilis)	400				
Rugosa rose (Rosa rugosa)	200				
Woods rosa (Rosa woodsia)	600				
Bald hip rose (Rosa gymnocarpa)	500				
Snowberry (Symphoricarpos albus)	500				
Hooker willow (Salix hookeriana)	200				
Pacific willow (Salix lucida)	200				
Sitka willow (Salix sitchensis)	200				
Red twig dogwood (Cornus sericea)	100				
Big leaf maple (Acer macrophyllum)	3				
Cottonwood (Populus balsamifera)	3				
Quaking aspen (Populus tremuloides)	10				
Total	4,366	340	145	145	0

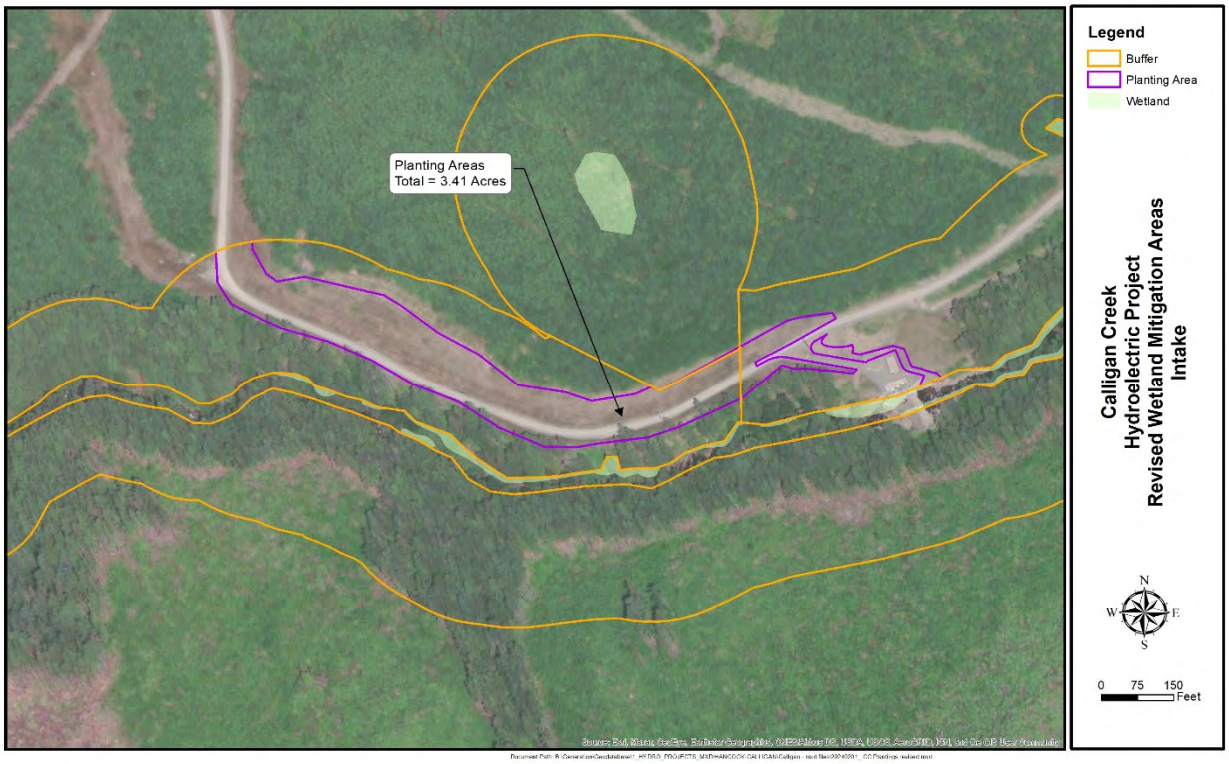

Figure 2-2. Revegetation area (purple polygon): intake and penstock.

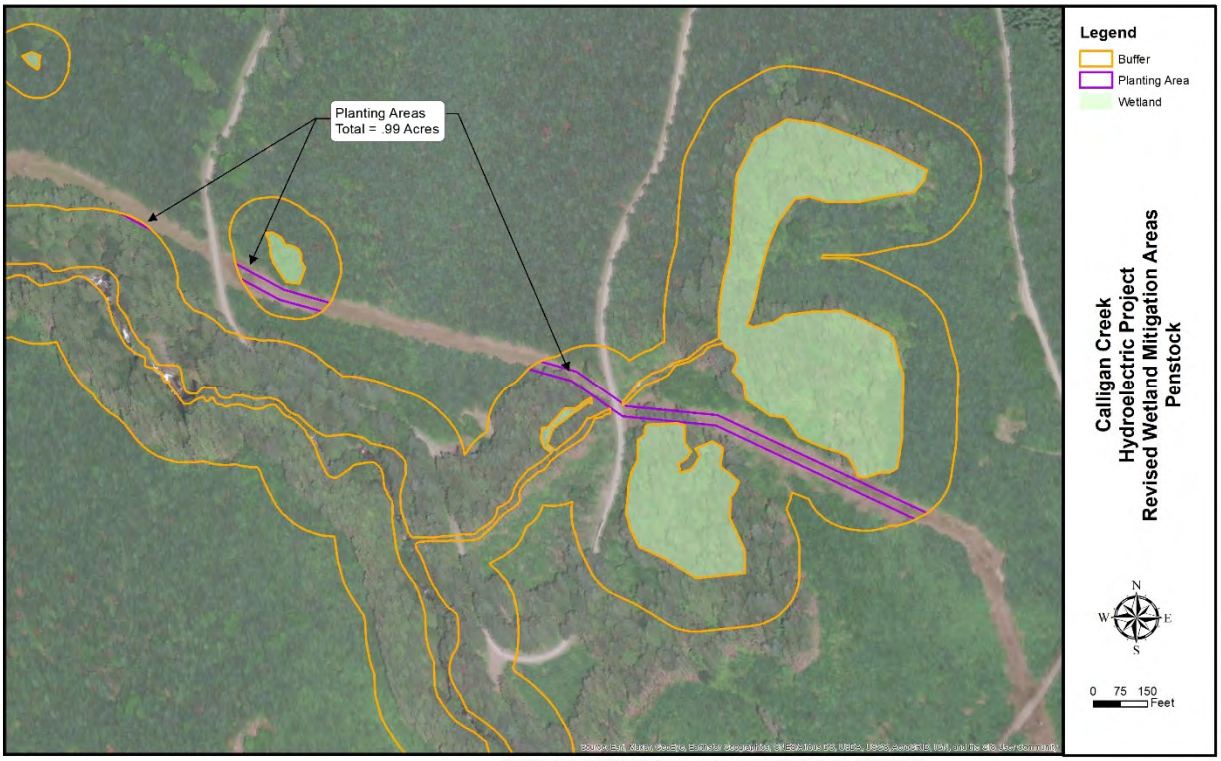

Figure 2-3. Revegetation area (purple polygons): penstock.

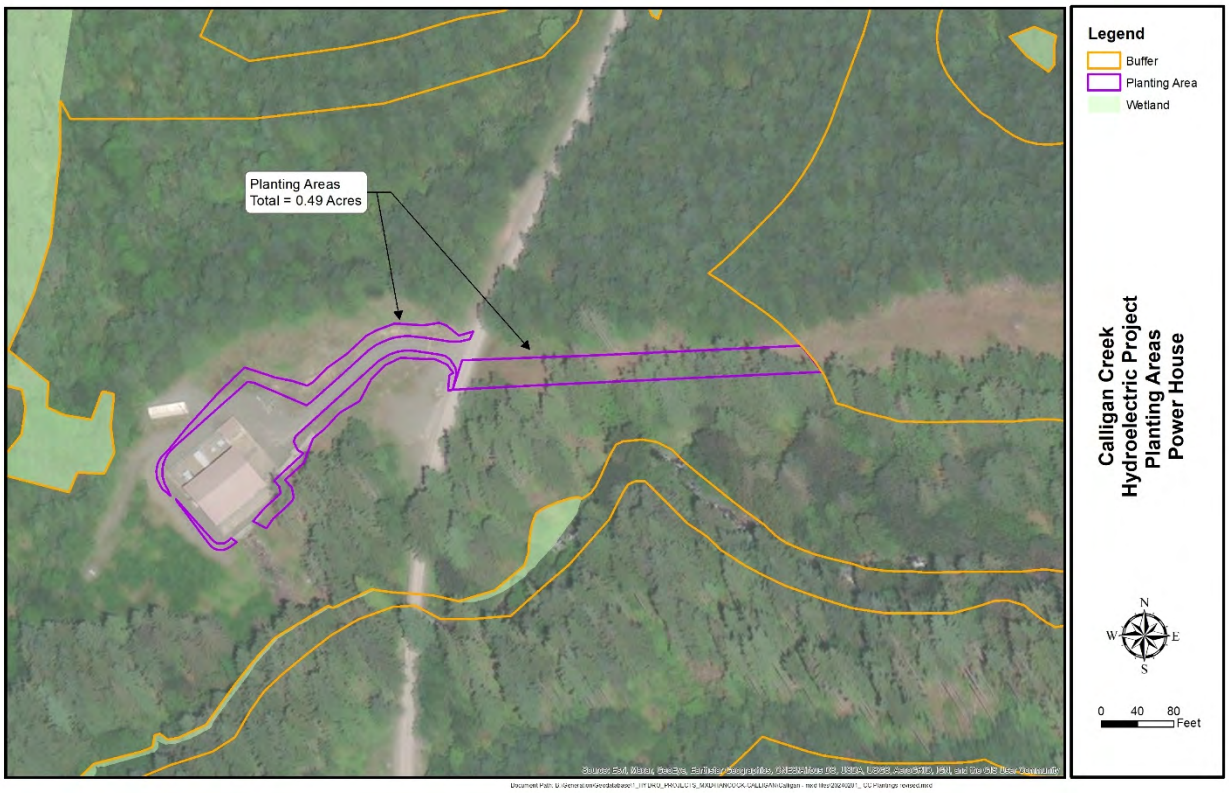

Figure 2-4. Revegetation area (purple polygons): penstock and powerhouse site.

2.1.2 Line of Sight Reduction/Establishment of Hiding Cover

Native shrubs were planted in pockets along the ROW to create visual barriers and provide shrub habitat among the low growing grass/forb cover already existing. Native vegetation has been allowed to grow along the penstock ROW in areas where it does not impede the visual monitoring of pipeline integrity. Trees are allowed to grow in the outermost 10 feet on either side of the ROW.

2.1.3 Noxious Weed Management

As specified in TRMP section 2.3.2., all Project lands were monitored multiple times during each growing season to ensure that the objectives of the TRMP are being met. Monitoring of Project lands consisted of periodic checks on vegetative conditions and documentation of occurrences of noxious or invasive species. All revegetated and reseeded areas will continue to be monitored annually for the duration of the License. Coverage of shrubs and grasses/forbs are also visually evaluated on an annual basis. A healthy base of grasses and forbs reduces the likelihood of in-seeding by invasive or noxious weeds. If surveys indicate that coverage by bare ground is estimated to be more than 20 percent, reseeding will occur with the appropriate erosion control mix, as noted in the TRMP.

Table 2-4 shows the 9 species of noxious weeds identified by consultant botanists during project construction as being present in or around the project area. In addition, butterfly bush has been observed on and near the project lands for several years, and although treatment is not required,

an attempt is made to prevent seed production in conjunction with treatment of other weeds. Snohomish PUD staff continually evaluates options for less toxic herbicides. Irrespective of local requirements, which may not require treatment, all noxious weeds found are treated to prevent seed production and to reduce or eliminate the population. Herbicide treatment consists of spot treatment using a broadleaf herbicide, applied by state licensed contractors at the direction of a Snohomish PUD biologist, who is also state licensed in herbicide applications. For annual or biennial species, manual cutting during the driest part of the year is effective at preventing seed production, with the parent plant dying naturally after either one or two years, respectively.

Table 2-4. Noxious weeds occurring in the Calligan Creek Project area and current King County Management Status.

Scientific Name	Common Name	King County Management Status
Senecio jacobaea	tansy ragwort	Regulated Class B
Centaurea stoebe	spotted knapweed	Regulated Class B
Cytisus scoparius	Scotch broom	Non-regulated Class B
**Buddleja davidii*	butterfly bush	Non-regulated Class B
Hypericum perforatum	St. Johnswort	Non-regulated Class C
Tanacetum vulgare	common tansy	Non-regulated Class C
Rubus armeniacus	Himalayan blackberry	Non-regulated Class C
Rubus laciniatus	evergreen blackberry	Non-regulated Class C
Leucanthemum vulgare	oxeye daisy	Non-regulated Class C
Cirsium arvense	creeping thistle (formerly Canada thistle)	Non-regulated Class C

Regulated Class B: Control is required (prevention of all seed production)
Non-regulated Class B: No specific management required, but prevention of seed production is the goal.

* New addition to list

During the past 5 years, the primary weeds controlled on Project lands were Canada thistle and Scotch broom, with occasional Butterfly bush (Figure 2-5). Oxeye daisy and tansy ragwort are also found occasionally. As needed, a broadleaf herbicide was applied by state licensed contractors, at the direction of a Snohomish PUD biologist. Revegetation was not necessary because target weeds were spot sprayed to minimize collateral damage, and the broadleaf-herbicide used does not impact grasses. Figure 2-6 shows a reduction in most weed species during the past 5 years as well as new pockets of weeds found near the intake structure.

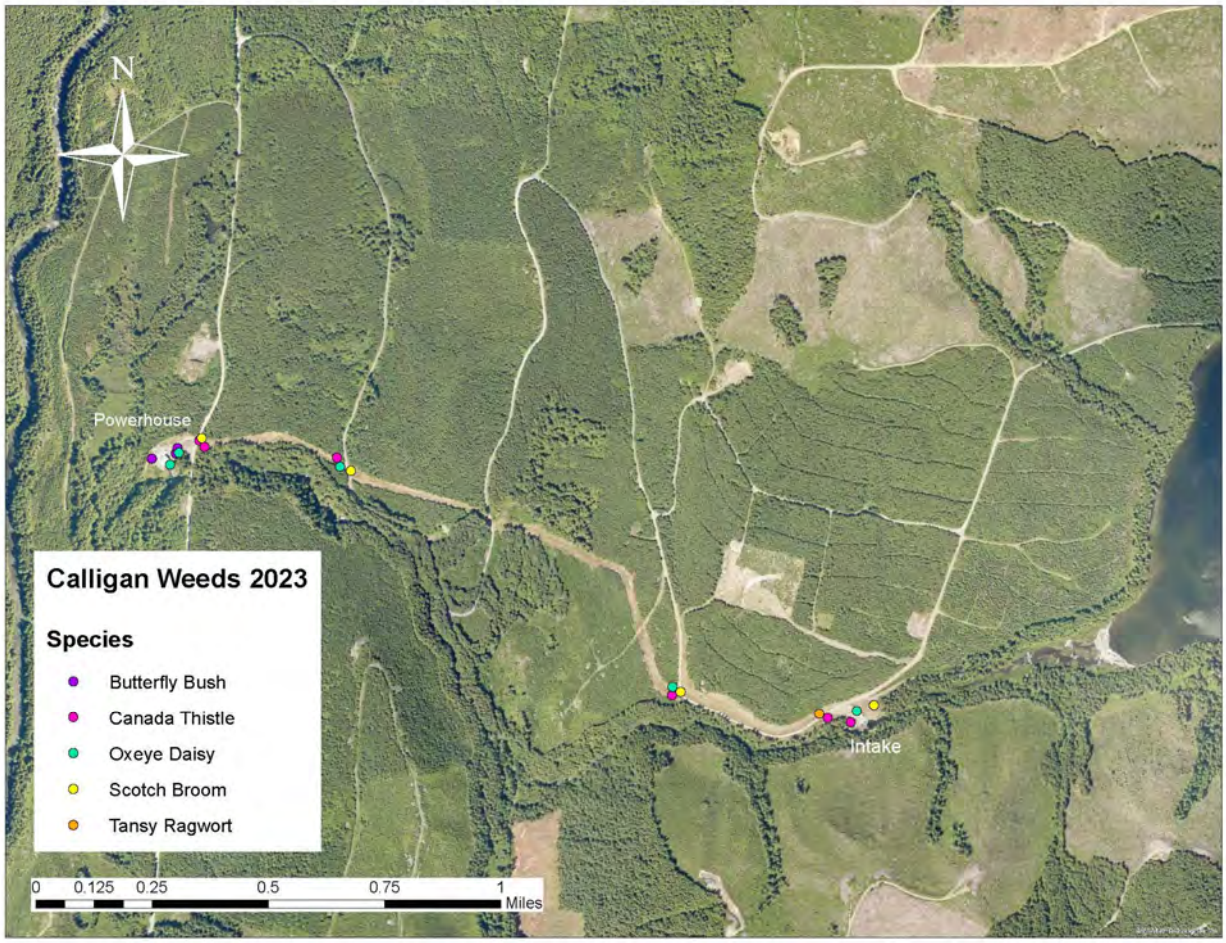

Figure 2-5. Map identifying discrete noxious weed locations by species observed in 2023.

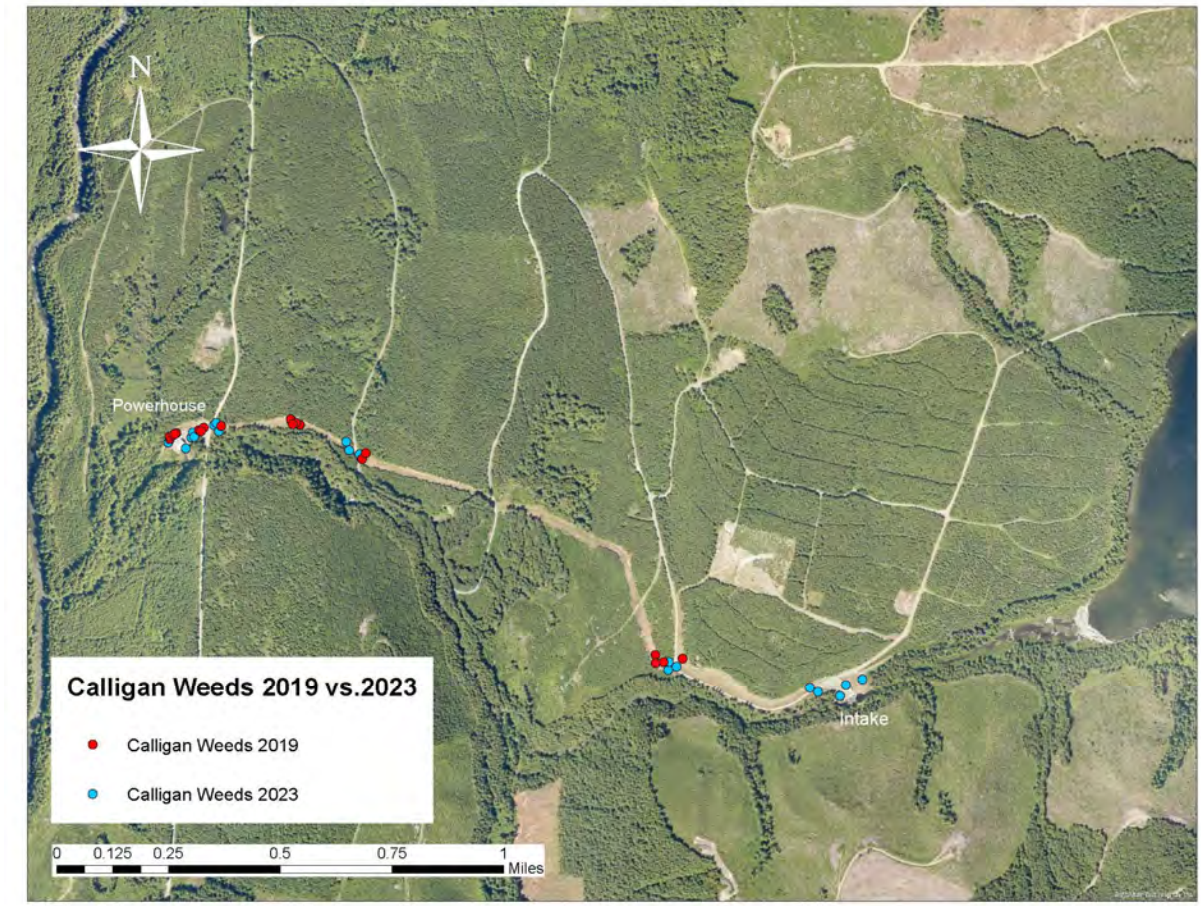

Figure 2-6. Map identifying discrete noxious weed locations observed in 2019 and in 2023.

2.1.3.1 Planned Activities in 2024

Noxious and invasive weeds will continue to be mapped and treated during the growing season. Utilizing maps created during prior years' control efforts will ensure that known weed locations are visited and treated as appropriate. Additionally, the entire ROW is walked at least once per growing season to observe locations that cannot be seen from the road and treated as needed.

3. CONCLUSION

All measures prescribed in the TRMP are being administered. Weed treatment has occurred on all Project lands as needed, with locations and treatments mapped and recorded into the Geographic Information System database. One additional species of noxious weed has been found on site and added to the list of weeds controlled. Locations of temporary disturbance within stream and wetland buffers were revegetated and will continue to be monitored for survival of planted shrubs, as well as to document natural in-seeding.

APPENDIX A

Consultation Documentation Regarding Draft Report

Presler, Dawn

From: Schutt, Mike
Sent: Monday, February 12, 2024 10:00 AM
To: Applegate, Brock A (DFW); jeffrey_garnett@fws.gov
Cc: Binkley, Keith; Presler, Dawn; Tengs, Hayley
Subject: Snohomish County PUD - Calligan TRMP Draft 5-Year Report - for your review
Attachments: 2023 CCH_TRMP_5_Year_Report_Draft.pdf; 19291 Calligan Year 4 Monitoring Report.pdf

Good morning,

Attached is the draft 5-year report detailing activities at the Calligan Hydroelectric Project from 2019-2023. Please review and provide comments by March 13th. This year's report will be sent to FERC as well.

Mike Schutt
Sr. Wildlife Biologist
Generation Dept. – Natural Resources
Snohomish County PUD
Office) 425-783-1712
Cell) 425-210-5816
He/Him

APPENDIX B

Wetland Resources Environmental Inc. Year Four Revegetation Monitoring Report

YEAR FOUR MONITORING REPORT

FOR

CALLIGAN CREEK HYDROELECTRIC PROJECT

KING COUNTY, WA

Wetland Resources, Inc. Project #19291

Prepared By
Wetland Resources, Inc.
9505 19th Avenue SE, Suite 106
Everett, WA 98208
(425) 337-3174

Prepared For
Public Utility District No. 1 of Snohomish County
2320 California Street
Everett, WA 98201

October 9, 2023

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1.0 INTRODUCTION

Wetland Resources, Inc. (WRI) was contracted by Public Utility District No.1 of Snohomish County to perform annual monitoring for the Calligan Creek Hydroelectric Project mitigation plan. The fourth-annual monitoring visit was completed on September 20, 2023. The project site is located in the western foothills of the Cascade Mountains along Calligan Creek, approximately nine miles northeast of North Bend on Campbell Global Forest Management land. The site is accessible by public roads through the city of Snoqualmie and Hancock Forest Management logging roads. Current access to the area is restricted by locked gates. Calligan Creek and the Snoqualmie River are located within the Snohomish River watershed or Watershed Resource Inventory Area 7 (WRIA 7). The proposed project site is further located in Sections 31 and 32, Township 24 North, Range 09 East, WM.

2.0 PROJECT DESCRIPTION

This project is part of a plan that connects three hydropower projects: Black Creek, Hancock Creek, and Calligan Creek projects. The Calligan Creek Hydroelectric Project area is primarily north of Calligan Creek and generally parallel to the creek. The intake structure/diversion weir is west of Calligan Lake and the powerhouse is near the confluence of Calligan Creek and North Fork Snoqualmie River.

2.1 PROJECT IMPACTS AND MITIGATION

Construction of the Calligan Creek Hydroelectric Project resulted in permanent and temporary impacts to the stream, wetlands, and associated buffer areas.

Permanent impacts included: the intake and powerhouse facilities, roads, and the tailrace at the powerhouse. Temporary impacts included: clearing for construction, penstock area excavation and the laydown and spoils areas. The total area of temporary impacts to wetlands, streams and their buffers is 8.42 acres. The total area of permanent impacts is 0.85 acres. The project impacts and approved mitigation measures are listed in the tables below.

Table 1 - Buffer Impacts

Buffer Impacts	Area (acres)	Mitigation Ratio	Mitigation Area (acres)	Type of Mitigation
Temporary	8.33	1:1	8.33	Restoration
Permanent	0.83	>2:1	1.66	Buffer Preservation

Table 2 - Wetland Impacts

Wetland Impacts	Area (acres)	Mitigation Ratio	Mitigation Area (acres)	Type of Mitigation
Temporary	0.05	2:1	0.10*	Restoration/ Preservation
Permanent	<0.01	195:1	1.95	Preservation

*0.05 Restoration/0.05 Preservation

Table 3 - Stream Impacts

Stream Impacts	Area (acres)	Mitigation Ratio	Mitigation Area (acres)	Type of Mitigation
Temporary	0.04	2:1	0.08	Restoration/Buffer Preservation
Permanent	0.01	5:1	0.2	Buffer Preservation

For additional details of the approved mitigation measures, please refer to the *Final Mitigation Plan for Calligan Creek Hydroelectric Project*, Revision 3: January 29, 2015, prepared by WRI.

The entirety of wetland C7 (0.2 acres), C11 (0.36 acres), and R1 (1.44 acres) have been preserved for a total of 2 acres of wetland preservation. In addition, 1.94 acres of buffer preservation is located adjacent to Wetland C10. No plantings were installed within the preservation areas.

The restoration plantings in the temporary impact areas were installed as designed in the fall of 2019.

2.2 MITIGATION PLAN GOALS AND OBJECTIVES

Goals

1. Restore 8.42 acres of temporarily impacted wetland, stream, and buffer areas to their pre impact functions and values.
2. Preserve 2 acres of wetland area.
3. Preserve 1.94 acres of buffer area.

Objectives

1. Establish a functioning native vegetation community within the temporary impact areas similar to the surrounding undisturbed portions of the site.
2. To maintain and eventually increase hydrologic, water quality, and habitat functions and values within the surrounding basin over post-harvest conditions.

3.0 PROJECT MONITORING PROGRAM

This monitoring program applies to the restoration areas. The wetland and buffer preservation areas are not required to be monitored.

Requirements for monitoring project:

1. Initial compliance report/As-Built report
2. Yearly site inspections (once per year in the fall) for five years
3. Annual reports (one report submitted in the fall of each monitored year)

3.1 PURPOSE OF MONITORING

The purpose for monitoring this mitigation project will be to evaluate its success. Success will be determined if monitoring shows that at the end of five years, the definitions of success stated below are being met. The District will grant access to the mitigation area for inspection and maintenance to the qualified biologist and the King County biologist during the period of the bond or until the mitigation project is evaluated as successful.

3.2 VEGETATION SAMPLING AND PHOTO POINTS

Four sampling points have been established for vegetation monitoring. Permanent Photo points were established at the sampling points. The locations of the sampling and photo points are identified on the Wetland and Buffer Restoration and Monitoring Point Map in Appendix B of this report. Vegetation sampling will occur annually between May 15 and September 30 (prior to leaf drop), unless otherwise specified. Photos will be taken annually during the same time period.

3.3 PERFORMANCE STANDARDS

- The wetland and buffer mitigation areas will support at least 80 percent of the native plants set forth in the approved mitigation plan by the end of five years. The species mix should resemble that proposed in the planting plans, but strict adherence to obtaining all of the species will not be a criterion for success.

- By the end of the fifth growing season, the percent areal coverage of native plants will be 80 percent in the mitigation areas.

- No more than 10 percent invasive species, including Class A noxious weeds shall be present within the restoration areas by the end of five years.

3.4 MAINTENANCE

The District will have the mitigation area maintained for the duration of the monitoring period (five years). Maintenance will be required in accordance with King County Sensitive Areas Restoration Guidelines (2012) and approved plans. Maintenance may include, but is not limited to, watering, removal of competing grasses (by hand if necessary), replacement of plant mortality, re-staking, removal of all classes of noxious weeds (see Washington State Noxious Weeds List, WAC 16-750-005) and Himalayan blackberry, fertilization (if necessary), replacement of mulch and any other measures needed to insure plant survival. Chemical control, only if approved by DDES staff, will be applied by a licensed applicator following all label instructions.

3.5 CONTINGENCY PLAN

If there is a significant problem with the mitigation achieving its performance standards, the District will notify and work with King County to develop a Contingency Plan. Contingency plans

can include, but are not limited to: additional plant installation, erosion control, modifications to hydrology, and plant substitutions of type, size, quantity, and location. Such Contingency Plan will be submitted to King County by December 31 of any year when deficiencies are discovered.

4.0 CURRENT CONDITIONS – SEPTEMBER 2023

WRI conducted the third monitoring visit on September 20, 2023. Between fall 2022 and September 2023, invasive species maintenance was performed, and the supplemental plantings were installed, as recommended in the Year Three Monitoring Report.

4.1 VEGETATION SAMPLING PLOTS

Vegetation sampling plots are 5-meter circles marked in the center with a wooden stake, except for C5, which is a half-circle. The total number of plants and areal cover within each plot were recorded. The areal cover includes native volunteer species. The sampling plot data is listed below.

Table 4 - Plant Survival

Sampling Plot	Plant Quantity Year 1	Plant Quantity Year 2	Plant Quantity Year 3	Plant Quantity Year 4
C1	8	39*	53*	55*
C2	16	16	17*	17*
C3	4	7*	15*	16*
C4	0	2*	1*	6*
C5	4	11*	6*	9*

*Plant quantity recorded reflects installed/supplemental plantings and volunteer plants

Table 5 - Areal Cover

Sampling Plot	Native Species Areal Cover Year 3	Native Species Areal Cover Year 3	Invasive Species Areal Cover Year 4
C1	70%	80%	0%
C2	7%	15%	1%
C3	10%	15%	0%
C4	>1%	>5%	5%
C5	3%	10%	5%
Average	18.2%	25%	2.2%

Note: Native areal cover reflects installed/supplemental plantings, and native volunteer plants

Plant species observed include red flowering currant (*Ribes sanguineum*), snowberry (*Symphoricarpos albus*), thimbleberry (*Rubus parviflorus*), rose (*Rosa* sp.), salmonberry (*Rubus spectabilis*), red twig dogwood (*Cornus sericea*), and willow (*Salix* sp.). In addition to installed plants, regeneration of several native species including red alder (*Alnus rubra*), black cottonwood (*Populus balsamifera*), thimbleberry (*Rubus parviflorus*), and Douglas fir (*Pseudotsuga menziesii*) were observed across the planting areas.

4.2 SURVIVAL RATE

The conditions documented at Sampling Plot C4 are not representative of the overall survival rate observed across the mitigation planting areas. Roses and other thicket-forming species have spread such that it is not possible to distinguish each individual plant. With supplemental planting installation, survival within the buffer restoration zones ranges from 50 to 100 percent. Given the conditions observed this September, the mitigation plantings are currently meeting the required 80 percent survival rate.

4.3 NATIVE SPECIES AREAL COVER

Areal cover by native plant species ranges from 5 to 80 percent across the sampling plots, as listed in Table 5 above, and the average areal cover is 25 percent. The average areal cover increased 7 percent since the Year 3 monitoring assessment, with coverage in four of the sampling plots increasing by 1.5 to three times the previous year's assessment. As there was an increase in areal cover between Year 3 and Year 4 and the volunteer species continue to spread, the native species cover after the next growing season will likely increase substantially from current conditions.

4.4 INVASIVE SPECIES AREAL COVER

Minimal invasive species cover is present across the majority of the mitigation planting areas. Scotch broom, Himalayan blackberry, and evergreen blackberry were removed from the vicinity of the planting areas. The total areal cover of invasive species is currently low, and on-going maintenance specifications are included in the recommendations in Section 5 below.

5.0 MAINTENANCE RECOMMENDATIONS

In order to meet the required performance standards, the following maintenance tasks are recommended:

- Monitor planting areas for blackberry, Scotch broom, butterfly bush, and other invasive plants. Blackberry, Scotch broom, and butterfly bush root balls should be dug out to limit the chance of reoccurrence.

- Review mitigation planting zones in the spring of 2024 to assess the to assess the plantings and identify any additional maintenance tasks necessary.

6.0 CONCLUSION

This mitigation project is currently meeting the 80 percent survival performance standard and native species areal cover increased substantially this year. With implementation of the maintenance recommendations above, it is anticipated that areal cover will continue to increase in the 2024 growing season.

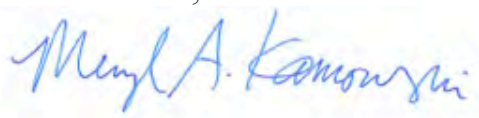
7.0 USE OF THIS REPORT

This Year Four Monitoring Report is supplied to Public Utility District No. 1 of Snohomish County as a means of determining mitigation site conditions, as required by King County. This report is based largely on readily observable conditions and, to a lesser extent, on readily ascertainable conditions. No attempt has been made to determine hidden or concealed conditions. Reports may be adversely affected due to the physical condition of the site and the difficulty of access, which may lead to observation or probing difficulties.

The laws applicable to wetlands are subject to varying interpretations and may be changed at any time by the courts or legislative bodies. This report is intended to provide information deemed relevant in the applicant's attempt to comply with the laws now in effect.

The work for this report has conformed to the standard of care employed by wetland ecologists. No other representation or warranty is made concerning the work or this report, and any implied representation or warranty is disclaimed.

Wetland Resources, Inc.



Meryl Kamowski, PWS
Senior Ecologist

Appendix A:
Year Four Photographs

Calligan Creek Hydroelectric Project
YEAR FOUR MONITORING PHOTOS
September 20, 2023

PHOTO 1: SAMPLING POINT C1. SEVERAL NATIVE VOLUNTEER SPECIES PRESENT.

PHOTO 2: PLANTINGS IN BUFFER RESTORATION ZONE A, BETWEEN SAMPLING POINT C1 AND C2.

Calligan Creek Hydroelectric Project
YEAR FOUR MONITORING PHOTOS
September 20, 2023

PHOTO 3: SAMPLING POINT C2.

PHOTO 4: SAMPLING POINT C3.

Calligan Creek Hydroelectric Project
YEAR FOUR MONITORING PHOTOS
September 20, 2023

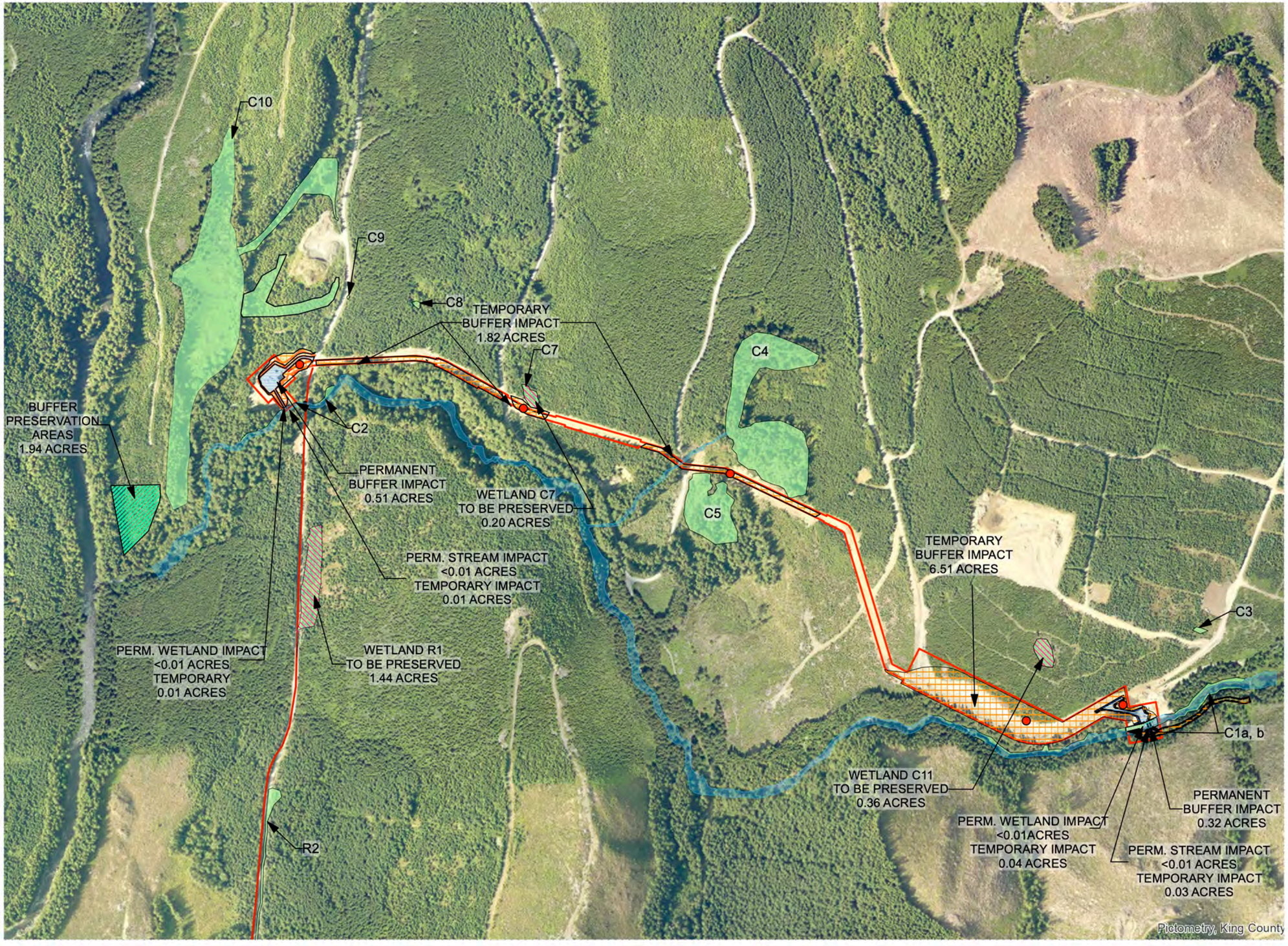
PHOTO 5: NATIVE REGENERATION SOUTH/SOUTHWEST OF POWERHOUSE.

PHOTO 6: SAMPLING POINT C5.

Appendix B:
Figures and Maps

CALLIGAN CREEK HYDROELECTRICAL PROJECT

MITIGATION PLAN MAP
KING COUNTY
WRI #19192



LEGEND

- WETLAND
- STREAM
- TEMPORARY BUFFER IMPACT
- PERMANTENT BUFFER IMPACT
- WETLAND IMPACT
- BUFFER PRESERVATION
- WETLAND PRESERVATION
- PROJECT BOUNDARY

Scale 1" = 600'

0 300 600 900 1200

SNOHOMISH COUNTY PUD
PUBLIC UTILITY DISTRICT NO. 1

DATE: 10/09/23

CALLIGAN CREEK HYDROELECTRICAL PROJECT

WETLAND AND BUFFER RESTORATION AND MONITORING POINT MAP

KING COUNTY
WRI #19192

LEGEND

- WETLAND
- STREAM
- BUFFER RESTORATION
- WETLAND RESTORATION
- SAMPLING PLOT/ PHOTO POINT

Scale 1" = 600'

0 300 600 900 1200

SNOHOMISH COUNTY PUD
PUBLIC UTILITY DISTRICT NO. 1

DATE: 10/09/23

CERTIFICATE OF SERVICE

I hereby certify that on this I have day served via e-mail a copy of the foregoing filing upon each person or entity specified in the order to be consulted on matters relating to the filing.

Dated at Everett, WA, this March 28, 2024.

/s/ Dawn J. Presler

Dawn J. Presler
Lead – Licensing & Compliance
Public Utility District No. 1 of Snohomish County
2320 California Street
PO Box 1107
Everett, WA 98206-1107
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Presler, Dawn

From: Presler, Dawn
Sent: Thursday, March 28, 2024 12:30 PM
To: Jeff Garnett; Brock Applegate
Cc: Schutt, Mike; Binkley, Keith
Subject: Calligan Creek (FERC No. P-13994) - cc of TRMP Report efiling with FERC
Attachments: 20240328 to FERC CCH_TRMP_5_Year_Report 2023.pdf

Dear Jeff and Brock –
Attached is your cc: of the Calligan Creek Hydro Project's Terrestrial Resource Management Plan 5-Year (2019-2023) Report being e-filed with FERC shortly.

Enjoy your weekend.

Cheers,

Dawn Presler, MSIM MSSM *(she/her)*
Lead – Environmental & Licensing Compliance
Natural Resources, Generation | Snohomish PUD

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