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May 2026
Wells Hydroelectric Project FERC License No. 2149

ANCHOR QEA

Annual Report Calendar Year 2025 Activities Under the Aquatic Settlement Agreement

Prepared for Public Utility District No. 1 of Douglas County

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Annual Report Calendar Year 2025 Activities Under the Aquatic Settlement Agreement

Prepared for
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of Douglas County, Washington
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Executive Summary

This *Annual Report Calendar Year 2025 Activities Under the Aquatic Settlement Agreement* (2025 ASA Annual Report) summarizes activities completed from January 1 to December 31, 2025, by Public Utility District No. 1 of Douglas County (Douglas PUD), the Confederated Tribes of the Colville Reservation (CTCR), Washington State Department of Ecology (Ecology), Washington Department of Fish and Wildlife (WDFW), the Yakama Nation, U.S. Fish and Wildlife Service (USFWS), and U.S. Bureau of Land Management (Parties to the Aquatic Settlement Work Group [Aquatic SWG]). The report was produced in accordance with Douglas PUD's Federal Energy Regulatory Commission (FERC) License No. 2149, Clean Water Act (CWA) Section 401 Water Quality Certification, and the Aquatic Settlement Agreement (Agreement) and its six aquatic resource management plans (*White Sturgeon Management Plan* [WSMP], *Bull Trout Management Plan* [BTMP], *Water Quality Management Plan*, *Pacific Lamprey Management Plan*, *Aquatic Nuisance Species Management Plan* [ANSMP], and *Resident Fish Management Plan*).

The goal of the Aquatic SWG is to work collaboratively to implement actions and achieve the goals and objectives set forth under the Wells Dam FERC license, the CWA Section 401 Water Quality Certification, and the Agreement to adequately identify and address Wells Hydroelectric Project (Wells Project) impacts to aquatic resources that are not addressed by the *Anadromous Fish Agreement and Habitat Conservation Plan* (HCP) for the Wells Project (Douglas PUD 2002) or other related agreements. In 2025, Douglas PUD and the Aquatic SWG continued the successful implementation of the Agreement and its six aquatic resource management plans.

In 2025, Douglas PUD and the Aquatic SWG continued efforts to supplement the White Sturgeon (*Acipenser transmontanus*) population in the Wells Reservoir. The release of Brood Year (BY) 2024 larval-origin yearling White Sturgeon into the Wells Reservoir completed the third-year release of the Phase II Wells Project White Sturgeon Supplementation Program. The release of 345 yearling White Sturgeon was consistent with the *Statement of Agreement Regarding Wells Reservoir White Sturgeon Supplementation 2023–2026* (as appended to the 2022 ASA Annual Report). All 345 BY 2024 White Sturgeon were screened and shown to be negative for spontaneous autopolyploidy prior to release. Results identified one fish as 12N,[1] which was removed prior to stocking, consistent with the aforementioned statement of agreement (SOA). All BY 2024 White Sturgeon were also given pretransfer health checks and were approved for release and released on May 15, 2025. Survival of BY 2025 fish early on in hatchery was suboptimal but improved by November 2025, and Douglas PUD took steps to prevent this from happening in future years. Despite the challenging rearing year at Wells Fish Hatchery, it is expected that the stocking target for the Douglas PUD program goal will be achieved in 2026. The Aquatic SWG approved the *White Sturgeon Supplementation and Management*

[1] Twelve copies of each chromosome, or irregular fish

Plan Implementation in the Wells Reservoir, 2023-24, which described the first indexing effort under the Phase II Wells Project White Sturgeon Monitoring and Evaluation Program. The Aquatic SWG also approved the *Adult White Sturgeon Upstream Passage Evaluation* report, which addresses Tasks 2 to 4 of the final *Statement of Agreement Regarding Evaluation and Implementation of White Sturgeon Adult Passage Measures (WSMP Objective 5; Section 4.4)* (as appended to the 2023 ASA Annual Report). Douglas PUD continued hosting annual public outreach events by inviting students from Bridgeport High School to assist Douglas PUD with releasing BY 2024 yearling White Sturgeon into the Wells Reservoir in the spring of 2025. Douglas PUD and the Aquatic SWG discussed a forthcoming Washington Statewide Sturgeon Conservation Plan, potential White Sturgeon harvest rule changes, and monitoring of White Sturgeon mortalities, notably how to support and contribute to these efforts.

In 2025, Douglas PUD continued to identify, monitor, and address impacts, if any, on Bull Trout (*Salvelinus confluentus*) in the Wells Reservoir. Douglas PUD managed the Twisp Weir to facilitate downstream passage of adult Bull Trout. In August, September, and October 2025, modified fishway operations were intermittently implemented at Wells Dam, as needed, to maintain safe fish passage through the fishways per the *Wells Hydroelectric Project Adult Fish Passage Plan*. This was due to higher-than-normal volumes of aquatic vegetation, which impinged on the trash racks of turbine units and fishway auxiliary attraction water screens. No impacts to Bull Trout were observed during these modified operations. Douglas PUD continued to be available to participate in regional and technical meetings specific to Bull Trout recovery. Douglas PUD also implemented additional protection, mitigation, and enhancement measures (PMEs) toward meeting the goals and objectives of the BTMP.

In 2025, Douglas PUD continued efforts to protect the quality of the surface waters throughout the Wells Reservoir. Douglas PUD continued to operate the Wells Dam bypass in compliance with the Aquatic SWG-approved *2025 Total Dissolved Gas Abatement Plan* (and appended *Wells Bypass Operating Plan*; Appendix O) toward meeting Washington State water quality standards for total dissolved gas (TDG) at the Wells Project. Douglas PUD was prepared to implement biological monitoring of juvenile salmonids and native resident fish, but TDG levels remained below the threshold that would require this sampling. Douglas PUD continued providing the Aquatic SWG with updates on Wells Project water forecasts, water quality, and TDG levels. Pursuant to a 10-year compliance schedule established in 2013, Douglas PUD submitted the draft *Total Dissolved Gas Water Quality Attainment Plan Year 10 Report* to Ecology and the Aquatic SWG for review in November 2023, and the final report (Appendix P) was approved by Ecology and the Aquatic SWG on December 2, 2025. Douglas PUD, in coordination with Ecology and the Aquatic SWG, began developing a Total Maximum Daily Load Water Quality Attainment Plan for the Wells Project, and a final plan is expected in 2026.

In 2025, Douglas PUD continued efforts to monitor and address impacts, if any, to Pacific Lamprey (*Entosphenus tridentatus*) in the Wells Project. The *Wells Dam 2025 Adult Lamprey Approach and Passage Study Plan* (Appendix Q) was approved by the Aquatic SWG on February 12, 2025. However, due to a low adult returns, the *Statement of Agreement to defer the Pacific Lamprey Approach and Passage Study* (Appendix R) was approved on August 13, 2025. In lieu of the study, Douglas PUD conducted another year of translocation to support Pacific Lamprey production above Wells Dam. Douglas PUD and the Aquatic SWG continued discussing juvenile Pacific Lamprey studies in the Upper Columbia River, including participating in another joint meeting of the Priest Rapids Fish Forum and Rocky Reach Fish Forum Pacific Lamprey Subgroups, and a draft Juvenile Lamprey Study Plan Memorandum was distributed to the Aquatic SWG for review on November 14, 2025. Douglas PUD and the Aquatic SWG continued participating in regional conservation efforts, including regional coordination for adult Pacific Lamprey translocation efforts, supporting regional environmental DNA (eDNA) and genetic sampling, and tracking of regional information exchanges. In August, September, and October 2025, modified fishway operations were intermittently implemented at Wells Dam to maintain safe fish passage through the fishways per the *Wells Hydroelectric Project Adult Fish Passage Plan*. No impacts to Pacific Lamprey were observed during these modified operations. Douglas PUD continued maintenance activities to improve Pacific Lamprey passage through the Wells Project, including repairing plating in the Wells Dam fishways to reduce gaps in both ladders. Douglas PUD and the Aquatic SWG continued discussing the Wells Hatchery volunteer channel for possible impacts to lamprey behavior and passage through the area. Douglas PUD hosted a tour of the Wells Hatchery volunteer channel area that included viewing and discussing the monitoring in place for the 2025 Adult Pacific Lamprey Study (now taking place in 2026). The Aquatic SWG once again reviewed and updated the juvenile and adult Pacific Lamprey literature reviews and document libraries.

In 2025, Douglas PUD continued aquatic nuisance species (ANS) monitoring in the Wells Reservoir. Douglas PUD continued annual surveillance for non-native Eurasian Watermilfoil (*Myriophyllum spicatum*); non-native Zebra Mussel (*Dreissena polymorpha*) and Quagga Mussel (*D. bugensis*), collectively called Dreissenid Mussels; and non-native Northern Crayfish (*Orconectes virilis*) throughout the Wells Project. Douglas PUD implemented the eighth year of an eDNA monitoring program for Northern Pike (*Esox lucius*) in the Wells Project and executed the sixth full year of implementation of the *Northern Pike Monitoring and Response Plan*. Douglas PUD also continued coordinating with regional entities (Chelan PUD, Grant PUD, CTCR, WDFW, and USFWS) conducting Northern Pike monitoring and suppression efforts in the Columbia River Basin. Douglas PUD implemented additional PMEs towards meeting the goals and objectives of the ANSMP, including maintaining the *Aquatic Nuisance Species Management Plan Contact List* of parties to notify in case Douglas PUD detects new ANS in the Wells Project.

In 2025, Douglas PUD continued efforts to protect and enhance native resident fish populations and habitat in the Wells Reservoir. Douglas PUD continued implementing the Northern Pikeminnow Removal Program due to concern about predation on out-migrating juvenile salmonids and a related requirement found in the Wells HCP Agreement. The Program through 2025 has captured and removed approximately 397,000 Northern Pikeminnow from the Wells Reservoir and tailrace through removal efforts sponsored by Douglas PUD. Complete results of the 2024 Resident Fish Assemblage Study were summarized in the final *2024 Resident Fish Assemblage Study Report* (Appendix T), which was approved by the Aquatic SWG on November 12, 2025.

In 2025, Douglas PUD and the Aquatic SWG continued administration of the Agreement, including convening monthly meetings, selection of the new Agreement Chair, maintaining two document repositories, hosting and attending a tour of Wells Dam facilities, and review and approval of Agreement-related publications. Douglas PUD and the Aquatic SWG also continued coordination with the Wells HCP Coordinating Committee (HCP-CC), as needed, and as required by the FERC license and CWA Section 401 Water Quality Certification for the Wells Project. This included collaborative development and approval of the *2025 Total Dissolved Gas Abatement Plan* (and appended *Wells Bypass Operating Plan*), as revised (Appendix O), communication of Northern Pikeminnow research and removal efforts at the Wells Project, coordination on modified fishway operations per the *Wells Hydroelectric Project Adult Fish Passage Plan*, and review and approval of two lamprey trap operations and fishway modification SOAs, including *Statement of Agreement to Modify Fishway Operations for a Lamprey Radiotelemetry Study at Wells Dam in 2025* (Appendix U) and *Statement of Agreement to defer until 2026 the Wells Dam operations supporting the Pacific Lamprey study approved by the Statement of Agreement* Modify Fishway Operations for a Lamprey Radiotelemetry Study at Wells Dam in 2025 (Appendix V).

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ABBREVIATIONS

[Year] ASA Annual Report	*Annual Report Calendar Year [Year] Activities Under the Aquatic Settlement Agreement*
[Year] Adult Pacific Lamprey Approach and Passage Study	*Wells Dam 2022–2023 Adult Lamprey Approach and Passage Study*
2025 GAP/BOP	*2025 Total Dissolved Gas Abatement Plan* and appended *Wells Bypass Operating Plan*
2024 Wells White Sturgeon M&E Report	*White Sturgeon Supplementation and Management Plan Implementation in the Wells Reservoir, 2023-24*
2025 Adult Pacific Lamprey Study Plan	*Wells Dam 2025 Adult Lamprey Approach and Passage Study Plan*
Agreement	Aquatic Settlement Agreement
ANS	aquatic nuisance species
ANSMP	Aquatic Nuisance Species Management Plan
Aquatic SWG	Aquatic Settlement Work Group
AWS	auxiliary water supply
BTMP	Bull Trout Management Plan
BY	Brood Year
CTCR	Confederated Tribes of the Colville Reservation
COVID-19	coronavirus disease 2019
CV	curriculum vitae
CWA	Clean Water Act
DIDSON	Dual-frequency Identification Sonar
Douglas PUD	Public Utility District No. 1 of Douglas County
Ecology	Washington State Department of Ecology
eDNA	environmental DNA
ELAT	Eel/Lamprey Acoustic Tag
FERC	Federal Energy Regulatory Commission
g	gram
GBT	gas bubble trauma
HCP	Habitat Conservation Plan
HCP-CC	Habitat Conservation Plan Coordinating Committee
M&E	monitoring and evaluation
NCLDV	nucleocytoplasmic large DNA viruses
NMFS	National Marine Fisheries Service
Parties	Aquatic Settlement Agreement signatory entities: CTCR, Ecology, WDFW, YN, USFWS, and Bureau of Land Management

PIT	passive integrated transponder
PLMP	Pacific Lamprey Management Plan
PME	protection, mitigation, and enhancement measure
PNNL	Pacific Northwest National Laboratory
PRFF	Priest Rapids Fish Forum
PUD	Public Utility District
qPCR	quantitative polymerase chain reaction
RFMP	Resident Fish Management Plan
RRFF	Rocky Reach Fish Forum
SAP	spontaneous autopolyploid
SOA	statement of agreement
TDG	total dissolved gas
TDG WQAP 10-Year Report	*Total Dissolved Gas Water Quality Attainment Plan Year 10 Report*
TMDL	Total Maximum Daily Load
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
ViRDCt	Virtual Release/Dead-Fish Correction
WDFW	Washington Department of Fish and Wildlife
Wells Project	Wells Hydroelectric Project
White Sturgeon M&E Plan	*Phase I: White Sturgeon Management Plan Monitoring and Evaluation Study Plan*
White Sturgeon Rearing Plan	White Sturgeon Rearing Plan, BY 2019, Wells Hatchery
WQMP	Water Quality Management Plan
WSIV	White Sturgeon Iridovirus
WSMP	White Sturgeon Management Plan
YN	Yakama Nation

1 Introduction

1.1 Aquatic Settlement Agreement

The Wells Hydroelectric Project (Wells Project) is owned and operated by Public Utility District No. 1 of Douglas County (Douglas PUD). The Aquatic Settlement Agreement (Agreement) for the relicensing of the Wells Project (Federal Energy Regulatory Commission [FERC] License No. 2149) was signed by Douglas PUD's commissioners on January 19, 2009, following the receipt of signatures from the Confederated Tribes of the Colville Reservation (CTCR; November 10, 2008), Washington State Department of Ecology (Ecology; November 18, 2008), and Washington Department of Fish and Wildlife (WDFW; November 20, 2008). The Yakama Nation (YN) signed the Agreement on February 24, 2009, the U.S. Fish and Wildlife Service (USFWS) signed the Agreement on July 23, 2009, and the U.S. Bureau of Land Management signed the Agreement on November 13, 2009. These signatory entities are collectively referred to as the Parties. The Agreement is the culmination of 3 years of collaborative discussions with stakeholders that began in March 2006. The Agreement is intended to resolve all aquatic resource issues related to compliance with federal and state laws applicable to the Wells Project FERC license that are not addressed by the *Anadromous Fish Agreement and Habitat Conservation Plan* (HCP) for the Wells Project (Douglas PUD 2002), or other related agreements.

Designated representatives of the Parties comprise the Aquatic Settlement Work Group (Aquatic SWG), which meets collectively each month to oversee and guide implementation of the Agreement. Minutes from the 2025 meetings are compiled in Appendix A. Aquatic SWG members are listed in Appendix B.

Preparation of this report was funded by Douglas PUD as a requirement of the Agreement and Wells Project License Article 406. It is the 17th annual report to be developed for activities accomplished under the Agreement, covering the period from January 1 to December 31, 2025. This report is due annually to FERC by May 31 of each year (License Article 406). Accordingly, on May 14, 2025, the Aquatic SWG approved the *Annual Report Calendar Year 2024 Activities Under the Aquatic Settlement Agreement* (2024 ASA Annual Report; Anchor QEA 2025), and Douglas PUD filed the report with FERC on May 21, 2025. This 2025 ASA Annual Report will be reviewed and approved by the Aquatic SWG and subsequently filed with FERC on or prior to the May 31, 2026, deadline.

1.2 Wells Project Federal Energy Regulatory Commission License

On November 9, 2012, FERC issued Douglas PUD their current License Order for the Wells Project (FERC 2012). The term of the license is 40 years, retroactive to November 1, 2012. FERC adopted the Wells Project Clean Water Act (CWA) Section 401 Water Quality Certification along with the required measures in the aquatic resource management plans (Section 1.3). Since license issuance, Douglas

PUD has worked collaboratively with the Parties to the Agreement to implement the CWA Section 401 Water Quality Certification and aquatic resource management plan actions.

1.3 Aquatic Resource Management Plans

As of the effective date of the Agreement and pursuant to Section 5 of the Agreement, the Parties agreed that the measures set forth in six aquatic resource management plans are adequate to identify and address Wells Project impacts to aquatic resources not addressed by the HCP. Furthermore, by implementing the management plans, Douglas PUD is expected to achieve the goals and objectives set forth in each of the aquatic resource management plans. The six management plans include the *White Sturgeon Management Plan* (WSMP), *Bull Trout Management Plan* (BTMP), *Water Quality Management Plan* (WQMP), *Pacific Lamprey Management Plan* (PLMP), *Aquatic Nuisance Species Management Plan* (ANSMP), and *Resident Fish Management Plan* (RFMP), which are contained in Attachments B through G, respectively, of the Agreement.

Article 406 of the Wells Project License requires that annual reports be developed for each aquatic resource management plan to document progress made toward the implementation of each respective plan, with a focus on the previous year's progress under each specific management plan objective.

In 2025, all six 2024 aquatic resource management plan annual reports were due to FERC by May 31. Accordingly, on May 14, 2025, the *2024 Annual Report White Sturgeon Management Plan, 2024 Bull Trout Management Plan and Incidental Take Annual Report, 2024 Annual Report Water Quality Management Plan, Pacific Lamprey Management Plan 2024 Annual Report, Aquatic Nuisance Species Management Plan 2024 Annual Report,* and *Resident Fish Management Plan 2024 Annual Report* were approved by the Aquatic SWG, and Douglas PUD filed the reports with FERC as appended to the 2024 ASA Annual Report on May 21, 2025 (Anchor QEA 2025).

The 2025 aquatic resource management plan annual reports (Appendices C, D, E, F, G, and H) were updated in early 2026 in consultation with the Aquatic SWG and will be filed with FERC as appended to this 2025 ASA Annual Report on or prior to the May 31 deadline, per FERC license requirements.

2 Progress Toward Implementing the Agreement and Wells Project License Order

Section 11.7 of the Agreement requires preparation of an annual report that includes all relevant materials associated with Agreement activities during the year. The following subsections describe activities that were implemented during 2025 in accordance with the Agreement and the six aquatic resource management plans, which are also required in the 2012 Wells Project License Order.

2.1 2025 Aquatic Settlement Agreement Decisions, Agreements, and Milestones

In 2025, Douglas PUD completed actions to meet Protection, Mitigation, and Enhancement measures contained within the WSMP, BTMP, WQMP, PLMP, ANSMP, and RFMP. These actions were outlined in the *2025 Aquatic Settlement Agreement and Workgroup Action Plan*, as revised (Appendix I), which was approved by the Aquatic SWG on March 12, 2025.

Decisions, agreements, and milestones reached by the Aquatic SWG during 2025 that are related to the Agreement are shown in Table 1 and are documented in the Aquatic SWG conference call minutes (Appendix A).

Table 1
2025 Summary of Aquatic Settlement Work Group Decisions, Agreements, and Milestones

Aquatic SWG Decisions, Agreements, and Milestones	Date
Approved the *Adult White Sturgeon Upstream Passage Evaluation*, as revised.	January 8, 2025
Approved the 2025 Adult Pacific Lamprey Study Plan, as revised, understanding that minor details under the purview of the Wells HCP-CC may be slightly modified if requested. Ecology abstained.	February 12, 2025
Approved the 2024 TDG Annual Report *(USFWS approved the report via email on February 18, 2025)*.	February 12, 2025
Approved the 2025 GAP/BOP, as revised, understanding that the Wells Dam bypass start date could be sooner than April 9 but no later than April 9, pending guidance from the Wells HCP-CC *(USFWS approved the plan via email on February 18, 2025)*.	February 12, 2025
Approved the *2025 Aquatic Settlement Agreement and Workgroup Action Plan*, as revised.	March 12, 2025

Aquatic SWG Decisions, Agreements, and Milestones	Date
Approved the 2024 ASA Annual Report, as revised, and appended *2024 Annual Report White Sturgeon Management Plan*, as revised; *2024 Bull Trout Management Plan and Incidental Take Annual Report*, as revised; *2024 Annual Report Water Quality Management Plan* and appended 2024 Water Temperature Annual Report, as revised; *Pacific Lamprey Management Plan 2024 Annual Report*, as revised; *Aquatic Nuisance Species Management Plan 2024 Annual Report*; and *Resident Fish Management Plan 2024 Annual Report*, as revised.	May 14, 2025
Approved a 1-year deferment of the 2025 Pacific Lamprey Study, as follows: WDFW approved on July 9; Douglas PUD, USFWS, and the YN approved on July 15; Ecology approved via email on July 15; and the CTCR approved via email on July 16. In lieu of the study, Douglas PUD will conduct translocation consistent with the last SOA (for 8 weeks, up to 1,000 fish, no more than 200 fish per week). This is a 1-year deferment only. If fish counts are low next year, a "Plan B" study will be conducted. Lastly, Douglas PUD will operate radio telemetry arrays in the Wells Reservoir to detect fish from the Rock Island Study (if possible).	July 15, 2025
Approved the 2024 Wells White Sturgeon M&E Report, as revised.	August 13, 2025
Approved the *Statement of Agreement to defer the Pacific Lamprey Approach and Passage Study*, as revised.	August 13, 2025
Approved the *2024 Resident Fish Assemblage Study Report*, contingent on incorporating edits, as discussed.	November 12, 2025
Agreed to move the Aquatic SWG monthly meeting timing from the second Wednesday of each month to the first Tuesday of each month, from 10:00 a.m. to no later than 1:00 p.m., starting on December 2, 2025.	November 12, 2025
Approved the TDG WQAP 10-Year Report.	December 2, 2025

2.1.1 White Sturgeon

In 2025, Douglas PUD continued efforts to supplement the White Sturgeon (*Acipenser transmontanus*) population in the Wells Reservoir, as outlined in the WSMP and as required by the FERC license and CWA Section 401 Water Quality Certification for the Wells Project.

2.1.1.1 Phase I Supplementation Program

The FERC license and CWA Section 401 Water Quality Certification for the Wells Project, issued in 2012, required Douglas PUD to release up to 5,000 White Sturgeon yearlings into the Wells Reservoir annually for 4 consecutive years (up to 20,000 total), starting the first year following issuance of the operating license. This required collection of White Sturgeon broodstock or larvae beginning in 2013 and stocking of juvenile White Sturgeon in the years 2014 through 2017. In the 4 years ending in

2017, a total of 20,473 yearling White Sturgeon were released into the Wells Reservoir, which met the 4-year target.[2,3,4,5]

The FERC license required that additional years and numbers of yearling White Sturgeon be stocked during Phase I (Years 1 to 10), as determined by the Aquatic SWG, but not to exceed an additional 15,000 fish, for a total release of 35,000 yearling White Sturgeon. This included collection of White Sturgeon larvae beginning in 2017 and stocking of 325 (±5%) White Sturgeon greater than or equal to 200 grams (g) in size in the years 2018 to 2022. From 2018 to 2022, a total of 1,578 yearling White Sturgeon were released into the Wells Reservoir, consistent with the Wells Reservoir adult population goals determined by the Aquatic SWG.[6,7]

From 2014 to 2022, a total of 22,051 yearling White Sturgeon were released into the Wells Reservoir, which met the goals of Phase I of the Wells Project White Sturgeon Supplementation Program.

2.1.1.2 Phase II Supplementation Program

Section 4.3.1 of the WSMP stipulates that during Phase II of the Wells Project White Sturgeon Supplementation Program (after Year 10 of the FERC license), stocking will range from 0 to 5,000 fish. Stocking rates will be based on results of White Sturgeon monitoring and evaluation (M&E), conducted to determine carrying capacity of the Wells Reservoir, and consistent with WSMP goals and objectives. In March 2022, the statement of agreement (SOA) *Wells Reservoir White Sturgeon Supplementation 2023–2026* (as appended to the 2022 ASA Annual Report) was approved by the Aquatic SWG. This SOA stipulates that the collection of White Sturgeon larvae be sourced from Lake Roosevelt beginning in 2022, and the stocking of 325 (±10%) White Sturgeon greater than or equal to 350 g in size each year from 2023 to 2026. Throughout 2022, Douglas PUD and the Aquatic SWG discussed spontaneous autopolyploidy (SAP) screening of all White Sturgeon being reared at Wells Hatchery for stocking in Wells Reservoir (Section 2.1.1.4.1). In August 2022, the *Statement of Agreement Regarding Wells Reservoir White Sturgeon Supplementation 2023–2026* (as appended to the 2022 ASA Annual Report) was approved by the Aquatic SWG. This SOA stipulates that in addition to the SOA approved in March 2022, fish will also be blood sampled and tested for SAP, and fish identified having anything other than 8N[8] chromosome types will be euthanized.

In 2025, Douglas PUD, in coordination with the Aquatic SWG, stocked 345 Brood Year (BY) 2024 larval-origin White Sturgeon in the Wells Reservoir, which was the third-year release of the 2023 to

[2] Per the *White Sturgeon Broodstock Collection and Breeding Plan* (filed with FERC in 2013).
[3] Per the *Wells White Sturgeon Offspring Collection Plan Statement of Agreement* (as appended to the 2012 ASA Annual Report).
[4] Per the *White Sturgeon Collection Plan SOA* (as appended to the 2013 ASA Annual Report).
[5] Per the *White Sturgeon Collection and Stocking SOA: Brood Years 2014 to 2016* (as appended to the 2015 ASA Annual Report).
[6] Per the *White Sturgeon Broodstock Collection and Breeding Plan* (revised as the *2018 White Sturgeon Supplementation Plan*, as appended to the 2018 ASA Annual Report).
[7] Per the SOA, *Wells Reservoir White Sturgeon Supplementation 2018–2022* (as appended to the 2017 ASA Annual Report).
[8] White Sturgeon are normally evolutionary octoploids and have eight copies of each chromosome (8N).

2026, Phase II releases (Section 2.1.1.2 to Section 2.1.1.4). Additionally, Douglas PUD, in coordination with the Aquatic SWG, collected BY 2025 fish for the fourth- and final-year release of the 2023 to 2026, Phase II releases, in 2026. It is expected that the stocking target for the Douglas PUD program goal will be achieved in 2026.

In 2025, Douglas PUD, in coordination with the Aquatic SWG, also began discussing collection and stocking plans for the next Phase II releases (Section 2.1.1.2.2).

2.1.1.2.1 Brood Years 2022 to 2025

In May 2023, a total of 328 BY 2022 larval-origin (Lake Roosevelt) White Sturgeon were stocked in the Wells Reservoir. This met the 325-fish target plus an additional 3 fish allowed by the current SOA (Section 2.1.1.2). The 328-fish release included fish averaging 541 g each, with only two fish below the 350-g target size. On May 30, 2024, a total of 330 BY 2023 larval-origin (Lake Roosevelt) White Sturgeon were stocked in the Wells Reservoir, per the current SOA (Section 2.1.1.2). The 330-fish release included most fish averaging 375 g each, although some fish were below the 350-g target size but could be stocked consistent with past agreements (Section 2.1.1.3.2). On May 15, 2025, a total of 345 BY 2024 larval-origin (Lake Roosevelt) White Sturgeon were stocked in the Wells Reservoir. This 345-fish release included 178 fish that were 400 g or greater and 57 fish that were less than the 350-g target size (43 of which were within 10% of the target size [315 g or greater]). All fish were stocked consistent with past agreements (Section 2.1.1.3.2).

2.1.1.2.2 Brood Year 2026 and Beyond

In 2025, the Aquatic SWG began discussing collection and stocking plans for 2026, when the current Phase II collection and stocking SOA will expire (Section 2.1.1.2). Two types of information needed to inform stocking number discussions are currently unavailable: 1) better precision on abundance and survival rates in the Wells Reservoir (Section 2.1.1.6); and 2) a potential WDFW rule change to open a fishery above Wells Dam (Section 2.1.1.10). LGL Limited has been working on rerunning abundance and survival models to tighten up the precision around the estimates. These results will be incorporated into growth rate and density dependence analyses to evaluate whether White Sturgeon are approaching carrying capacity in the reservoir. Douglas PUD is also developing a population model to evaluate different management scenarios. WDFW is working on the proposed rule-making proposal through the winter months. Douglas PUD and the Aquatic SWG are targeting a final SOA on collections and stocking plans by April 2026, ahead of planned White Sturgeon larvae collection.

2.1.1.3 Collection and Stocking Considerations

2.1.1.3.1 Release Target

In January 2019, the Aquatic SWG approved stocking additional BY 2019 White Sturgeon in the Wells Reservoir in 2020, beyond the stocking target stipulated in the current SOA, to cover the shortfall in

the BY 2018 program in 2019. Similarly, any additional or future shortfalls to stocking targets will be addressed in subsequent years, as necessary.

In 2025, there were no shortfalls in the BY 2024 program.

2.1.1.3.2 Size Target

In February 2020, the Aquatic SWG discussed and agreed to stock BY 2019 White Sturgeon that weigh less than the 200 g threshold, so long as: 1) the majority of BY 2019 White Sturgeon released weigh more than 200 g; and 2) any BY 2019 White Sturgeon weighing less than 200 g are large enough to receive a passive integrated transponder (PIT) tag. This approach was consistent with how smaller fish were stocked in 2018 and 2019 (under the current SOA), even though it had not been memorialized as a formal agreement.

In 2025, the 345 BY 2024 White Sturgeon released included 57 fish below the 350-g target size (Section 2.1.1.2.1). Most fish for release exceeded the target size, and fish below the target size were large enough to receive PIT tags; therefore, all fish were released, which met the stocking obligations in the current SOA (Section 2.1.1.2).

2.1.1.3.3 Multiple Release Groups

In September 2020, exceptional survival and fish growth of BY 2020 White Sturgeon on station at Wells Hatchery prompted a discussion within the Aquatic SWG about whether there was any value in holding back some number of fish, in addition to the BY 2020 stocking target of 325 fish in 2021, to meet the 325-fish stocking target in 2022. Although there seemed to be not much risk of collecting numbers short of program targets in future years, the Aquatic SWG discussed the pros and cons associated with this concept. The topics discussed included genetics research that would support this approach, the potential for consequential competition, goals of the supplementation program, effects of slowing down fish growth, and benefits to survivability and recruitment to adult life stages. Ultimately, no agreements or decisions were made, and sending any surplus fish above program needs to the CTCR Resident Fish Hatchery continued.

In 2025, optimal survival of BY 2024 White Sturgeon while on station at Wells Hatchery resulted in approximately 600 surplus yearling juveniles being transferred to the CTCR Resident Fish Hatchery, approximately 500 surplus yearling juveniles being transferred to Pacific Northwest National Laboratory (PNNL), and approximately 200 surplus yearling juveniles being transferred to WDFW.

2.1.1.4 Fish Health

2.1.1.4.1 Autopolyploidy

Since 2019, the Aquatic SWG has discussed the potential presence of spontaneous autopolyploid White Sturgeon (i.e., White Sturgeon with 12 chromosome copies, or 12N fish) and spontaneous

autopolyploid White Sturgeon progeny (i.e., White Sturgeon with 10 chromosome copies, or 10N fish) in the Wells Project (as described in respective ASA annual reports). In August 2022, the *Statement of Agreement Regarding Wells Reservoir White Sturgeon Supplementation 2023–2026* (as appended to the 2022 ASA Annual Report) was approved by the Aquatic SWG, which includes guidelines for SAP screening of all BY 2022 to 2025 White Sturgeon being reared at Wells Hatchery for stocking in Wells Reservoir (Section 2.1.1.2).

Consistent with this SOA, in 2023, SAP sampling of BY 2022 White Sturgeon being reared at Wells Hatchery for stocking in Wells Reservoir was completed in house by Dr. Betsy Bamberger (Douglas PUD Fish Veterinarian). Following the blood sampling, there were no mortalities or injuries. All ploidy test results were negative, and all fish were stocked as planned. In 2024, SAP sampling of BY 2023 White Sturgeon being reared at Wells Hatchery for stocking in Wells Reservoir was completed in house by Dr. Bamberger. There were no mortalities or injuries. All ploidy test results were negative, and all fish were stocked as planned. In 2025, SAP sampling of BY 2024 White Sturgeon being reared at Wells Hatchery for stocking in Wells Reservoir was completed in house by Dr. Bamberger. Results identified 1 of 346 fish as 12N.[9] This fish was removed prior to stocking and was not included in the 345 BY 2024 yearling White Sturgeon released into the Wells Reservoir. All ploidy test results are described in the memorandum "Results of 2025 White Sturgeon Autopolyploidy Testing" (Appendix J).

2.1.1.4.2 White Sturgeon Iridovirus

Prior to 2019, White Sturgeon at Wells Hatchery were sampled for White Sturgeon Iridovirus (WSIV) via tissue sampling in advance of stocking. In 2019, WDFW suspended sampling for what was formerly called WSIV (now, tentatively referred to as nucleocytoplasmic large DNA viruses [NCLDV]) histopathology. Researchers discovered that histopathology is not effective in determining presence or absence of this virus. In March 2021, Dr. Jed Varney (retired), WDFW Senior Veterinarian, updated the Aquatic SWG on sampling for NCLDV. Canadian researchers have developed and are using a quantitative polymerase chain reaction (qPCR) test to screen for NCLDV and would like the qPCR test to be used in Washington State; however, the use of this qPCR test has not been approved or validated among wild populations in the state. The Aquatic SWG will continue reviewing NCLDV information in future years, as needed.

In 2025, all BY 2024 White Sturgeon being reared at Wells Hatchery for stocking in Wells Reservoir were given pretransfer checks by Dr. Bamberger in coordination with WDFW and were approved for release, as described in the memorandum "Notification of Fish Pre-Release/Transfer Health Inspection" (Appendix K).

[9] Twelve copies of each chromosome, or irregular fish

2.1.1.4.3 White Sturgeon Rearing Plan

In late 2018, to address the issues experienced with BY 2018 White Sturgeon and to obtain higher survival in subsequent BYs of White Sturgeon, Douglas PUD drafted the *White Sturgeon Rearing Plan, BY 2019, Wells Hatchery* (White Sturgeon Rearing Plan) for review and discussion, which focused on modifications to White Sturgeon rearing at Wells Hatchery. In early 2019, Douglas PUD hosted an in-person meeting inviting the Aquatic SWG, Douglas PUD, Wells Hatchery staff, and CTCR staff to discuss Wells Hatchery BY 2019 White Sturgeon rearing practices, review the draft rearing plan, and discuss White Sturgeon rearing, culture, and experiences in general. Based on these discussions, a revised rearing plan was distributed, and on March 13, 2019, the Aquatic SWG-approved the final White Sturgeon Rearing Plan (as appended to the 2019 ASA Annual Report).

In 2025, White Sturgeon rearing practices at Wells Hatchery were performed consistent with recommendations outlined in this plan. Unexpectedly high mortality in the early stages of rearing BY 2025 White Sturgeon while on station at Wells Hatchery prompted Douglas PUD to revisit these standard operating procedures, including further discussions with the CTCR, other hatchery managers in the basin, Dr. Bamberger, and Wells Hatchery staff. An updated plan is expected in 2026.

2.1.1.4.4 Brood Year 2024

The overall condition of BY 2024 White Sturgeon while on station at Wells Hatchery was optimal, and mortalities were as expected and negligible. Survival was so high, approximately 1,700 fish were surplused for use in other programs, including approximately 400 fish to the CTCR in late 2024, and approximately 600 fish to the CTCR, approximately 500 fish to PNNL, and approximately 200 fish to WDFW in 2025.

2.1.1.4.5 Brood Year 2025

Suboptimal survival in the early rearing stages of BY 2025 White Sturgeon was observed while these fish were on station at Wells Hatchery. Dr. Bamberger sampled the fish and found nothing pathologically wrong, which was also confirmed by the Washington Animal Disease Diagnostic Laboratory. Dr. Bamberger diagnosed the likely cause to be stress related, and Douglas PUD is taking steps to prevent this from happening in future years (Section 2.1.1.4.3). As of December 2025, approximately 800 BY 2025 White Sturgeon remained on station at Wells Hatchery toward meeting the 325 fish needed for the Douglas PUD program (Section 2.1.1.2), with the remaining 475 fish going towards the Chelan PUD program as part of an interlocal agreement that ends with BY 2025. All fish were in good condition, and fish growth was on track to tag and mark fish in early 2025.

2.1.1.5 Phase I Monitoring and Evaluation Program

Section 4.2 of the WSMP stipulates that during Phase I of the Wells Project White Sturgeon M&E Program (Years 1 to 10), Douglas PUD will conduct an M&E program within the Wells Reservoir for the purpose of assessing the effectiveness of the supplementation activities described in Section 4.1

of the WSMP (Section 2.1.1.1). In January 2014, the Aquatic SWG approved the *Phase I: White Sturgeon Management Plan Monitoring and Evaluation Study Plan* (White Sturgeon M&E Plan; as appended to the 2013 ASA Annual Report), which outlined implementation of the three M&E programs required by Section 4.2 of the WSMP.

Consistent with the White Sturgeon M&E Plan and Section 4.2.1 of the WSMP, Douglas PUD implemented an index monitoring program for juvenile and adult White Sturgeon in the Wells Reservoir from 2015 to 2019 and in 2021 and 2022 (as described in these respective ASA annual reports). Consistent with the White Sturgeon M&E Plan and Section 4.2.2 of the WSMP, Douglas PUD implemented a marked fish tracking program in the Wells Reservoir from 2015 to 2022 (as described in these respective ASA annual reports). Consistent with the White Sturgeon M&E Plan and Section 4.2.3 of the WSMP, Douglas PUD implemented an adult reproductive assessment in the Wells Reservoir in 2022 (as described in the 2022 ASA Annual Report).

2.1.1.6 Phase II Monitoring and Evaluation Program

Section 4.3.3 of the WSMP stipulates that during Phase II of the Wells Project White Sturgeon M&E Program (after Year 10 of the FERC license), Douglas PUD will continue implementation of long-term index monitoring activities every 3 to 5 years. To avoid long gaps in these data, Douglas PUD elected to switch to sampling every other year.

In 2024, Douglas PUD completed the first indexing effort under the Phase II M&E Program (as described in the 2024 ASA Annual Report). This included collecting more than 300 tissue samples, which will also inform the evaluation of adult passage at Wells Dam (Section 2.1.1.7). On May 20, 2025, the draft *White Sturgeon Supplementation and Management Plan Implementation in the Wells Reservoir, 2023-24* (2024 Wells White Sturgeon M&E Report), which described the 2024 White Sturgeon M&E sampling effort, was distributed for review. The Aquatic SWG discussed key findings, including the current abundance estimate, population composition by BY, weight-based initial survival, and population structure. These results are important considerations regarding the next White Sturgeon stocking SOA (Section 2.1.1.2.2), and the WDFW rule-making proposal for opening a White Sturgeon fishery above Wells Dam (Section 2.1.1.10). Edits and comments received on the draft report were incorporated into a revised report, and on August 13, 2025, the Aquatic SWG approved the 2024 Wells White Sturgeon M&E Report, as revised (Appendix L).

Douglas PUD will complete the second indexing effort under the Phase II M&E Program in 2026.

2.1.1.7 Evaluation of Adult Passage

Per Section 4.4 of the WSMP (Objective 5), in Year 11 of the FERC license and every 10 years thereafter for the duration of the license unless otherwise determined by the Aquatic SWG, the Aquatic SWG shall evaluate the biological merit to providing upstream passage for adult White Sturgeon. The assessment of biological merit shall be determined by the following means: (i) evaluating information gathered from

M&E activities and determining whether there is significant biological benefit and need for upstream passage; (ii) the availability of reasonable and appropriate means to provide upstream passage; and (iii) consensus from all other operators of the Mid-Columbia Projects to implement adult upstream passage measures.[10]

In November 2023, after months of discussing how to research these questions in a reasonable way, the final *Statement of Agreement Regarding Evaluation and Implementation of White Sturgeon Adult Passage Measures (WSMP Objective 5; Section 4.4)* (as appended to the 2023 ASA Annual Report) was approved by the Aquatic SWG, which identifies five tasks needed to meet the requirements for Year 11: 1) identify the biological benefits of providing upstream passage for White Sturgeon at Wells Dam; 2) document the status of sturgeon passage measures and plans at Columbia and Snake River dams; 3) complete a literature review on sturgeon passage at hydroelectric and dam facilities prior to the end of 2024; 4) acquire and summarize White Sturgeon PIT-tag and interrogation data at Mid-Columbia PUD projects; and 5) collect and archive tissue samples from White Sturgeon encountered in the Wells Project during M&E activities for genetic analysis, with an emphasis on sampling fish released from Wells Hatchery from 2014 to 2023.

In November 2024, the draft *Adult White Sturgeon Upstream Passage Evaluation* report was distributed for Aquatic SWG review. This document was compiled by Douglas PUD, LGL Limited, and Blue Leaf Environmental and addresses Tasks 2 to 4 in the SOA discussed in the preceding paragraph that was approved in November 2023. Edits and comments received on the draft report were incorporated into a revised report, and on January 8, 2025, the Aquatic SWG approved the *Adult White Sturgeon Upstream Passage Evaluation* report, as revised (Appendix M).

To address Task 5, in 2024, Douglas PUD collected tissue samples in the Wells Reservoir as part of the first indexing effort under the Phase II M&E Program (Section 2.1.1.6). Next steps include discussing what the Aquatic SWG wants to do with these samples and evaluating a timeline for analysis. Once this information is in hand, Task 1 (addressing biological benefits) will need to be revisited. These discussions will continue in 2026.

2.1.1.8 Outreach

Since 2014, Douglas PUD has hosted public outreach events as a part of the WSMP and *Douglas PUD White Sturgeon Outreach Plan* (as appended to the 2014 ASA Annual Report). This entails inviting students from Bridgeport High School (Bridgeport, Washington) to participate in the release of yearling White Sturgeon into the Wells Reservoir. Students interrogate the fish to obtain PIT tag ID and record lengths and weights and have an opportunity to learn about White Sturgeon life history and biology.

[10] The intent is to provide connectivity to the Hanford Reach White Sturgeon population.

On May 15, 2025, students from Bridgeport High School assisted Douglas PUD with releasing 345 BY 2024 yearling White Sturgeon into the Wells Reservoir. These students also toured the hatchery earlier this year.

2.1.1.9 Washington's Statewide Sturgeon Conservation Plan

On January 8, 2025, WDFW briefed the Aquatic SWG on a forthcoming Washington Statewide Sturgeon Conservation Plan. The impetus for this plan is there is currently no unifying statewide sturgeon plan, and WDFW believes this is an important step in guiding the conservation of sturgeon in Washington. The goals of this plan include the following: 1) engaging with Tribes, bordering states, federal agencies, and the public on sturgeon conservation concerns and management needs across the state of Washington; and 2) working with these entities to develop consistent and transparent strategies and policies to support mitigation and recovery efforts, sustainable harvest opportunities, and research to fill critical information gaps.

The Aquatic SWG discussed plan development and regional engagement. Capacity is limited to facilitate a large process for engagement, but one purpose of this briefing was to get this information out and request that interested parties contact WDFW. WDFW is targeting issuing a final plan by summer 2026.

2.1.1.10 Potential White Sturgeon Rule Change

In the mid-to-late 2010s, the Aquatic SWG and other regional fish forums evaluated White Sturgeon stocking levels, and established stocking targets to achieve adult abundance goals. At that time, there were questions about the initial 4 to 6 years of stocking being high and possibly using harvest to reduce abundance resulting from each stocking event as fish recruit into the adult population so there is a more equalized representation across all brood years being stocked. The time to potentially use harvest in some reservoirs is now or the next years.

On April 9, 2025, WDFW announced current considerations about opening fisheries in regional reservoirs, including Wells Reservoir. WDFW is using M&E data provided by the PUDs to make these determinations (Section 2.1.1.6). On October 22, 2025, Douglas PUD met with WDFW to discuss WDFW's considerations for opening a White Sturgeon retention fishery in the Wells Reservoir and discussed the available data, M&E collection approaches and other important topics that would contribute to WDFW decision making around this topic. This will be further discussed in 2026.

2.1.1.11 White Sturgeon Mortalities

On October 2, 2025, WDFW prompted a discussion about adult White Sturgeon mortalities after receiving reports of high numbers of mortalities throughout the Columbia River, likely due to high water temperatures and related stressors such as elevated oxygen and metabolic demand. Douglas PUD and the Aquatic SWG discussed further investigating this in the Wells Reservoir, possibly using

submersible data loggers or a YSI meter during White Sturgeon M&E field efforts. Douglas PUD and WDFW plan to further discuss this to formulate a plan for next summer.

2.1.1.12 Planned Monitoring, Studies, and Activities in 2026

In 2026, implementation of the WSMP and White Sturgeon measures outlined in the FERC license and CWA Section 401 Water Quality Certification for the Wells Project will continue. This includes continuing implementation of the Phase II Supplementation Program in the Wells Reservoir, the Phase II M&E Program, the evaluation of adult passage (Objective 5), continuing public outreach events, and supporting regional White Sturgeon efforts. The *2025 Annual Report White Sturgeon Management Plan* (Appendix C) summarizing White Sturgeon activities and results from 2025 will be reviewed by the Aquatic SWG in early 2026 and submitted to FERC as appended to this 2025 ASA Annual Report by the May 31, 2026, deadline.

2.1.2 Bull Trout

In 2025, Douglas PUD continued to identify, monitor, and address impacts, if any, on Bull Trout (*Salvelinus confluentus*) in the Wells Reservoir, as outlined in the BTMP and as required by the FERC license and CWA Section 401 Water Quality Certification for the Wells Project. Measures outlined in the BTMP and FERC License Order are consistent with the USFWS's Section 18 Fishway Prescription, Douglas PUD's Biological Opinion for Bull Trout, and Ecology's CWA Section 401 Water Quality Certification for the Wells Project.

2.1.2.1 Twisp Weir Removal

Each year around August 1, Douglas PUD begins removing the Twisp Weir trap boxes from the weir footings. Removing the trap boxes improves weir openness, particularly during low flow periods, and therefore provides a less confined downstream passage route for adult Bull Trout migrating downstream after spawning.

In 2025, removal of the Twisp Weir was completed as scheduled with no observed impacts on Bull Trout. All terms and conditions were consistent with the requirements in Douglas PUD's Biological Opinion for Bull Trout, and incidental take remained below set limits. Bull Trout interactions with the weir are summarized in the *2025 Bull Trout Management Plan and Incidental Take Annual Report* (Appendix D).

2.1.2.2 Modified Fishway Operations

Section 4.1.1 of the BTMP stipulates that operation of the downstream passage facilities for Bull Trout will be consistent with bypass operations for Plan Species identified in the Wells HCP (as described in the *Wells Hydroelectric Project Adult Fish Passage Plan*).

In August, September, and October 2025, higher-than-normal volumes of aquatic vegetation impinged on the trash racks of turbine units and fishways at Wells Dam, resulting in intermittent modified fishway operations to maintain safe fish passage through the fishways per the *Wells Hydroelectric Project Adult Fish Passage Plan*. The Wells HCP Coordinating Committee (HCP-CC) was briefed on this matter. No impacts to Bull Trout were observed during these modified operations (which occurred outside of the typical Bull Trout migration period at Wells Dam).

2.1.2.3 Recovery Planning and Regional Coordination

In 2025, Douglas PUD was available to participate in regional and technical meetings specific to Bull Trout recovery, including the Upper Mid-Columbia Bull Trout Working Group, which met via conference call on January 23, 2025.

2.1.2.4 Other Protection, Mitigation, and Enhancement Measures

Sections 4.1 to 4.6 of the BTMP outline protection, mitigation, and enhancement measures (PMEs) designed to meet the goals and objectives of the BTMP. Throughout 2025, Douglas PUD and the Aquatic SWG implemented these PMEs, as described in the previous sections.

In 2025, Douglas PUD implemented additional PMEs toward meeting the goals and objectives of the BTMP, including the following: 1) enumerating Bull Trout in the Wells Dam fish ladder count windows; 2) monitoring for sub-adults in the Wells Dam count windows (more than 10 sub-adults per year triggers additional measures); 3) being prepared to rescue Bull Trout encountered during fish salvage activities during winter maintenance (one sub-adult was encountered in the ladder portion of the east fishway on December 1, 2025); and 4) being prepared to PIT-tag incidental encounters of Bull Trout at Project Facilities. In total, 11 Bull Trout were incidentally encountered during 2025 broodstock collection activities completed under the Wells HCP. These encounters occurred at Wells Dam fishway traps, the Wells Hatchery adult fish handling facility, and Twisp River weir. Each fish was PIT tagged (if not already tagged), and a tissue sample (fin clip) was collected.

2.1.2.5 Planned Monitoring, Studies, and Activities in 2026

In 2026, implementation of the BTMP and Bull Trout measures outlined in the FERC license and CWA Section 401 Water Quality Certification for the Wells Project will continue. This includes managing the Twisp Weir to facilitate downstream passage of adult Bull Trout, continuing participating in regional coordination, and continuing to implement additional PMEs toward meeting the goals and objectives of the BTMP. The *2025 Bull Trout Management Plan and Incidental Take Annual Report* (Appendix D), which summarizes Bull Trout activities and results from 2025, will be reviewed by the Aquatic SWG in early 2026 and submitted to FERC as appended to this 2025 ASA Annual Report by the May 31, 2026, deadline. In addition, each year, on or before April 15, Douglas PUD submits the *Bull Trout Management Plan and Incidental Take Annual Report* to USFWS as part of a Section 7 Bull Trout Biological Opinion Term and Condition in association with the Wells Project.

2.1.3 Water Quality

In 2025, Douglas PUD continued efforts to protect the quality of the surface waters throughout the Wells Reservoir, as outlined in the WQMP and as required by Douglas PUD's CWA Section 401 Water Quality Certification for the Wells Project and FERC license.

2.1.3.1 2024 Annual Report Total Dissolved Gas Abatement Plan

On February 12, 2025, the report, *2024 Annual Report Total Dissolved Gas Abatement Plan* (Appendix N) was approved by Ecology and the Aquatic SWG. This report summarized total dissolved gas (TDG) performance during the 2024 fish and non-fish bypass season at Wells Dam, including gas bubble trauma (GBT) monitoring throughout 2024 (as described in the 2024 ASA Annual Report). The report was filed with FERC on February 19, 2025.

2.1.3.2 2025 Total Dissolved Gas Abatement Plan and Wells Bypass Operating Plan

On February 12, 2025, the *2025 Total Dissolved Gas Abatement Plan* and appended *Wells Bypass Operating Plan* (2025 GAP/BOP; Appendix O) was approved as revised by Ecology and the Aquatic SWG, with the understanding that the Wells Dam bypass start date could be sooner than April 9 but would occur no later than April 9, pending guidance from the Wells HCP-CC (USFWS approved the plan via email on February 18, 2025). A 30-day review period was also provided to the Wells HCP-CC (Section 3.5.1). This plan summarized operational and structural measures to be implemented by Douglas PUD to comply with Washington State water quality standards for TDG at the Wells Project. Spill operations for the 2025 spill season were outlined in the *Wells Hydroelectric Project Spill Playbook* (Appendix 1 to the 2025 GAP). This plan was filed with FERC on February 27, 2025.

In 2025, the *Wells Hydroelectric Project Spill Playbook* utilized a modified spill pattern concentrated through Spillways 7, 6, and 5 and 4 (listed in priority order), due to the unavailability of Turbine Unit 8 during a 1-year unit overhaul project. This modification did not appear to affect TDG performance throughout the season. Additionally, the 2025 bypass operating plan was modified per guidance from the Wells HCP-CC to accommodate the salmon smolt migration. A bootstrap method was used to evaluate the historical passage timing of yearling Chinook Salmon to determine when to initiate bypass operations (changed from April 9 to April 3).[11]

Complete results of the 2025 compliance period will be summarized in the *2025 Annual Report Total Dissolved Gas Abatement Plan*, expected in early 2026.

[11] The Wells HCP does not distinguish between hatchery and wild fish for bypass performance; however, as requested by the Wells HCP-CC and in the interest of protecting the wild component, Douglas PUD elected to use this bootstrap method under the adaptive management clause stipulated in the Wells HCP.

2.1.3.3 2025 Biological Monitoring

The 2025 GAP (Appendix O) includes a biological monitoring plan[12] that requires Douglas PUD to conduct biological monitoring of migrating salmonids and resident fish to measure impacts from exposure to increased TDG conditions throughout the spill season. The plan requires weekly sampling of juvenile salmonids and native and resident fish, including lampreys, for GBT while the Wells Dam juvenile bypass is in use and when the tailrace TDG exceeds 120%, calculated as the average of the 12 highest readings in a calendar day (high 12-hour). The 2025 GAP also includes the National Marine Fisheries Service (NMFS) recommendation for additional sampling of juvenile salmonids for GBT, from July to August, when hourly TDG levels exceed 125% in the Wells Dam tailrace (NMFS 2000).

Per the biological monitoring plan, Douglas PUD was prepared to implement weekly GBT monitoring of migrating salmonids and resident fish throughout the spill season (April 3 to August 10); however, measurements never exceeded the 120% tailrace TDG standard and, therefore, no GBT monitoring was conducted.

Per a recommendation from NMFS, Douglas PUD was also prepared to implement additional sampling of juvenile salmonids for GBT from the end of juvenile bypass (August 10) to August 31; however, there were no exceedances of the 125% tailrace TDG standard, so additional monitoring beyond what was stipulated per the biological monitoring plan was not required or implemented.

Complete details of biological monitoring for GBT in 2025 will be summarized in the *2025 Annual Report Total Dissolved Gas Abatement Plan*, expected in early 2026.

2.1.3.4 2025 Wells Project Water Forecast

In 2025, Douglas PUD continued providing the Aquatic SWG with updates on the water forecast for the Wells Project. Douglas PUD began providing these updates following the below-average snowpack and subsequent drought conditions experienced in 2015. Most of the water in Wells Reservoir originates from snowpack in British Columbia, Canada, and Douglas PUD and the Aquatic SWG remained interested in closely tracking water forecasts for potential impacts to water quality and other aquatic resources in the Wells Reservoir.

The 2025 water year at the Wells Project was below average. In April, water supply forecasts for April to September were 91% of average, with lower percentiles expected May through July. May ended up being 84% of average, and June was later forecasted at 72% of average, and July at 70% of average. Similar to 2024, the lower snowpack led to a lack of a typical spring runoff with discharge levels in both the Columbia River and the tributaries below average during the spring and early

[12] Required by a TDG rule change adopted by Ecology on December 30, 2019, and approved by the U.S. Environmental Protection Agency on March 5, 2020, as codified in Washington Administrative Code 173-201A-200(1)(f). Effective January 1, 2021.

summer time period. Further discussion about river discharge can be found in the *2025 Annual Report Total Dissolved Gas Abatement Plan* (Appendix N) and the *2025 Water Quality Management Plan Annual Report*.

2.1.3.5 2025 Wells Project Water Quality Update

In 2025, Douglas PUD continued providing the Aquatic SWG with updates on water quality and TDG compliance for the Wells Project.

In 2025, inflow into the Wells Project was lower than average, remained low, and never reached the 7-day, 10-year frequency flood (or 7Q10) flows for the Wells Project (246,000 cubic feet per second). During both spring and summer fish spill seasons (April to August), the Wells Project maintained 100% compliance with TDG standards. There was no GBT monitoring because TDG in the tailrace did not exceed 120% (high 12-hour) (Section 2.1.3.3). During the non-spill season (September 1 to March 31), the Wells Project also maintained 100% compliance with TDG standards.

2.1.3.6 Total Dissolved Gas Water Quality Attainment Plan Year 10 Report

Douglas PUD's FERC license (issued in 2012) and CWA Section 401 Water Quality Certification for the Wells Project require Douglas PUD to develop a 10-year compliance schedule for TDG production at the Wells Project, to be filed with FERC and Ecology within 1 year after issuance of the license. At that time, the Aquatic SWG approved a 10-year schedule and plan for implementation starting in 2013. Douglas PUD has been implementing this schedule and plan over the last 10 years, which culminates in the issuance of a 10-year report.

On November 14, 2023, pursuant to the 10-year compliance schedule, Douglas PUD submitted the draft *Total Dissolved Gas Water Quality Attainment Plan Year 10 Report* (TDG WQAP 10-Year Report) to Ecology and the Aquatic SWG for review. On January 8, 2024, Douglas PUD and Ecology met and discussed a path forward to review and update the document over the next few months. Douglas PUD met the 10-year compliance schedule by submitting the draft report to Ecology in 2023, and now Douglas PUD and Ecology planned to review the data and collaboratively produce a high-quality finished product. In March 2024, the Ecology Aquatic SWG Technical Representative who had been coordinating with Douglas PUD on this report accepted another position, and this role was vacant until January 2025 (Section 3.1). By fall 2025, Douglas PUD and Ecology were able to revisit this report, and on October 17, 2025, a draft TDG WQAP 10-Year Report was distributed for Aquatic SWG review. On December 2, 2025, Ecology and the Aquatic SWG approved the TDG WQAP 10-Year Report, as drafted (Appendix P).

2.1.3.7 Total Maximum Daily Load Water Quality Attainment Plan

On August 13, 2021, the U.S. Environmental Protection Agency issued the final Columbia and Lower Snake River Temperature Total Maximum Daily Load (TMDL),[13] which establishes a load allocation for the project and stipulates the need to develop a water quality attainment plan that provides a detailed strategy for achieving compliance with water quality standards for water temperature. Douglas PUD's FERC license (issued in 2012) and CWA Section 401 Water Quality Certification for the Wells Project require Douglas PUD to participate in the completed TMDL and forthcoming implementation process. Ecology is tasked with leading its implementation.

On April 9, 2025, Ecology began discussing this process with the Aquatic SWG. By this time, Water Quality Attainment Plans (WQAPs) for federally operated hydropower projects identified in the TMDL were already in development. Federal projects began developing WQAPs as early as 2023, corresponding with deliverable deadlines set in EPA's National Pollutant Discharge Elimination System permits and Ecology's 401 certifications. The Mid-Columbia Projects (including the Wells Project) are on a different schedule, per their CWA Section 401 certifications that came before the 2021 TMDL was completed. Ecology is coordinating these projects to develop a system-wide analysis using the results from all TMDL WQAPs.

In August 2025, Douglas PUD began providing recurring updates on this topic during monthly Aquatic SWG meetings. Douglas PUD must develop a TMDL WQAP for the Wells Project that contemplates metrics such as current conditions in the Wells Project and effects of upstream dams and climate change, among other things. The Aquatic SWG's role is to assist Douglas PUD with components of this plan. The first tasks include developing a comprehensive list of project ideas and developing evaluation criteria that can be used to evaluate potential projects. Douglas PUD is working with Ecology to develop first drafts of these documents and will distribute these for Aquatic SWG review and discussion in early 2026. Additionally, Douglas PUD and Ecology are working towards finalizing a 12-month schedule to complete the TMDL WQAP for the Wells Project, also expected in early 2026. *(Note: Ecology and Douglas PUD later agreed to a 16-month schedule that moved the final draft deadline to early 2027.)*

2.1.3.8 Planned Monitoring, Studies, and Activities in 2026

In 2026, implementation of the WQMP and water quality measures outlined in Douglas PUD's CWA Section 401 Water Quality Certification for the Wells Project and FERC license will continue. This includes implementing biological monitoring of juvenile salmonids and native resident fish as required, continuing to provide the Aquatic SWG with water forecasts and water quality updates, and finalizing a TMDL WQAP for the Wells Project. The *2025 Annual Report Water Quality Management Plan* (Appendix E), which summarizes water quality activities and results from 2025, will be reviewed

[13] https://www.epa.gov/columbiariver/tmdl-temperature-columbia-and-lower-snake-rivers

by the Aquatic SWG in early 2026 and submitted to FERC as appended to this 2025 ASA Annual Report by the May 31, 2026, deadline.

2.1.4 Pacific Lamprey

In 2025, Douglas PUD continued efforts to monitor and address impacts, if any, to Pacific Lamprey (*Entosphenus tridentatus*) in the Wells Project, as outlined in the PLMP and as required by the FERC license and CWA Section 401 Water Quality Certification for the Wells Project. Measures outlined in the PLMP and FERC License Order are consistent with the USFWS's Section 18 Fishway Prescription for the Wells Project.

2.1.4.1 Adult Pacific Lamprey Studies

2.1.4.1.1 Past Studies

Pursuant to Objective 1 of the PLMP, Douglas PUD and the Aquatic SWG have conducted multiple studies with the goal of identifying and addressing any adverse Wells Project-related impacts on upstream passage of adult Pacific Lamprey. Table 2 summarizes adult Pacific Lamprey studies to date.

Table 2
Adult Pacific Lamprey Studies

Study Name[1] Technology	**Study Plan** Objectives	**Study Report** Results
	Pre-FERC License No. 2149 (2012)[2,3]	
2004 Radio Telemetry Study Radio Telemetry	***Radio-Telemetry Monitoring of Bull Trout, Lamprey, and Coho at Wells Dam and Project Tributaries, 2004–2005*** **(LGL Limited 2004)** (July 29, 2004) • Evaluate migration and passage behavior entering the Wells Project.	***Assessment of Adult Pacific Lamprey Migratory Behavior at Wells Dam Using Radio-Telemetry Techniques, 2004*** **(Nass et al. 2005)** (October 13, 2005) • 18 of 150 (12%) were released at or below Rocky Reach were detected in the Wells Dam tailrace. • 10 of 18 (56%) were observed at a Wells fishway entrance. • Limited sample size (N=18).
2007–2008 Adult Lamprey Passage Study Radio Telemetry	***Adult Lamprey Passage and Behavior Study Plan*** **(Douglas PUD 2007)** (September 2007) • Evaluate entrance efficiency. • Evaluate fishway passage efficiency.	***Adult Pacific Lamprey Passage and Behavior Study*** **(Robichaud et al. 2009)** (February 2009) • Low sample size (N=6); additional fish (N=15) from Rocky Reach. • Entrance efficiency averaged 27%. • 73% of tagged lamprey passed the count windows uncounted.
2009 DIDSON Study DIDSON	***Assessment of Adult Pacific Lamprey Behavior in Response to Temporary Velocity Reductions at Fishway Entrances*** **(Murauskas and Johnson 2009)** (July 24, 2009) • Evaluate entrance efficiency. • Evaluate the effects of reduced fishway head differential.	***Assessment of Adult Pacific Lamprey Response to Velocity Reductions at Wells Dam Fishway Entrances (2009 DIDSON Study Report)*** **(Johnson and Le 2010)** (April 2010) • Fishway entrances were passively monitored. • There were varying nighttime head differential treatments. • A total of 7 Pacific Lamprey were observed over both years combined.
	Post-FERC License No. 2149 (2012)[4,5]	
2013 Adult Pacific Lamprey Passage and Enumeration Study Radio Telemetry	***Adult Lamprey Passage and Enumeration Study, Wells Dam — 2013*** **(Long View 2012)** (September 21, 2012) • Evaluate passage behavior and success through Wells fishways. • Evaluate entrance efficiency under reduced head differentials. • Evaluate the enumeration efficiency.	***Adult Lamprey Passage and Enumeration Study, Wells Dam, 2013: The Effects of Head Differential on Entrance Efficiency, and of Picketed Leads on Count Window Enumeration Efficiency*** **(Robichaud and Kyger 2014)** (September 9, 2014) • 45 of 110 (49%) were never detected at the dam. • 47 of 110 (51%) approached the dam. • Lower ladder passage efficiency appears to be problematic (14%). • Enumeration efficiency was still low (55% overall), especially in the west fishway (33%).
2016 Adult Pacific Lamprey Approach, Passage, and Enumeration Study Acoustic	***Adult Lamprey Approach, Passage, and Enumeration Study Plan, Wells Dam — 2016*** **(Douglas PUD 2016)** (February 10, 2016) • Evaluate approach to Wells Dam. • Determine use of newly installed low-level lamprey entrances.	***Adult Lamprey Approach and Passage Study, Wells Dam, 2016–17*** **(Robichaud and Kyger 2018)** (September 12, 2018) • 51 Pacific Lamprey were tagged and released 1 mile upstream of Rocky Reach Dam. • 33 Pacific Lamprey were tagged and released above Priest Rapids Dam by Grant PUD. • Approach rates were 25% at the tailrace and 20% at the fishway. • 80% overwintered in Rocky Reach.
2018–2021 Translocation PIT	***To Translocate Adult Pacific Lamprey from Priest Rapids Dam to Areas Within or Upstream of the Wells Project and Postpone Passage Evaluations*** **(Aquatic SWG 2018)** (June 14, 2018) • Based on results of the 2016 Study, the Aquatic SWG agreed to conduct adult Pacific Lamprey translocation and postpone adult Pacific Lamprey passage studies at Wells Dam until numbers/upstream attraction improved.	• See Section 2.1.4.1.2 and Section 2.1.4.1.3.

Study Name[1] Technology	**Study Plan** Objectives	**Study Report** Results
2022–2023 Adult Pacific Lamprey Approach and Passage Study Acoustic and PIT	***Wells Dam 2022 Adult Lamprey Approach and Passage Study Plan* (Douglas PUD 2022)** (March 9, 2022) • Evaluate approach and at-dam passage after 4 years of translocation.	***Wells Dam Adult Lamprey Approach and Passage Study, 2022–23* (Robichaud et al. 2024)** (June 2024) • 120 dual-tagged and 334 PIT-only Pacific Lamprey were released in the Rocky Reach Dam forebay. • 50 dual-tagged and 141 PIT-only Pacific Lamprey were released at Daroga State Park. • Overall approach rate was 82% and fishway passage efficiency was 96% to 100%.
2025 Adult Pacific Lamprey Approach and Passage Study Radio Telemetry and PIT	***Deferred*** • See Section 2.1.4.1.4.	***Deferred***
2026 Adult Pacific Lamprey Approach and Passage Study Radio Telemetry and PIT	***Wells Dam 2026 Adult Lamprey Approach and Passage Study Plan* (Douglas PUD 2025)** (March 21, 2025) • Objective 1a: Determine the proportion of radio-tagged fish that approach Wells Dam, successfully enter the collection gallery, and ascend the fish ladder. • Objective 2a: Evaluate nightly modification of the typical 1.5-foot head differential to a lower 0.5-foot head differential. • Objective 3a: Evaluate ladder count window efficiency. • Objective 4a: Evaluate tag burden by comparing dual-tagged fish to PIT-only fish. • Objective 4b: Evaluate differences in approach behavior and passage rates between fish collected at Priest Rapids Dam and Wells Dam.	***Forthcoming***

Notes:

1. Studies described at length in associated ASA annual reports.
2. Studies conducted by Douglas PUD separate from the Aquatic SWG.
3. Studies conducted by Douglas PUD in consultation with the Aquatic SWG.
4. Parenthetical dates after the publication details are dates the document was distributed to the Aquatic SWG.

2.1.4.1.2 Translocation

Since 2015, Douglas PUD and the Aquatic SWG have discussed and participated in regional adult Pacific Lamprey translocation opportunities in the Wells Reservoir (as described in respective ASA annual reports). Through years of discussions, studies (Section 2.1.4.1.1), and workshops (Section 2.1.4.4), the Aquatic SWG identified a potential lack of pheromones upstream of Wells Dam as a suspected issue behind why Pacific Lamprey appear to not be motivated to approach and pass Wells Dam. If this is accurate, the absence of Pacific Lamprey upstream of Wells Dam would continue to be an issue for conducting passage studies at Wells Dam in accordance with the Douglas PUD FERC license and PLMP. Although translocation is not a Protection, Mitigation, or Enhancement measure described in the PLMP, translocating fish enables Douglas PUD to evaluate the number one hypothesis identified by the Aquatic SWG—a lack of pheromones coming from above the dam is preventing fish to be motivated to pass the dam.

In early 2023, Douglas PUD and the Aquatic SWG began discussing next steps while the *Wells Dam 2022–2023 Adult Lamprey Approach and Passage Study* (2022–2023 Adult Pacific Lamprey Approach and Passage Study) was underway (Section 2.1.4.1.1). There was general agreement to continue translocation while waiting for the current study to end and to allow time to review and discuss the 2022 study results before starting discussion of the next study design. On June 14, 2023, the SOA *To Translocate Adult Pacific Lamprey from Priest Rapids Dam to Areas Within or Upstream of the Wells Project 2023–2024* (as appended to the 2023 ASA Annual Report), was approved by the Aquatic SWG. This SOA outlines a 2-year translocation program from 2023 to 2024, with the goal of PIT-tagging and translocating 1,000 adult Pacific Lamprey—or the number that can be trapped during two 4-week periods, whichever occurs first—each year and no fewer than 500 fish per year as averaged over the 2-year period. The SOA also includes measures to continue efforts toward future passage evaluations, potential fishway modifications, and additional studies of Pacific Lamprey passage at Wells Dam.

In 2023, a total of 1,007 adult Pacific Lamprey were translocated upstream of Wells Dam (Table 3). This completed the first year of the 2-year SOA. In 2024, the last year of the SOA, a total of 860 adult Pacific Lamprey were translocated upstream of Wells Dam. This included collecting 499 adult Pacific Lamprey from Priest Rapids Dam over a 4-week period for tagging at Wells Dam and release into the Wells Reservoir. It also included 4 weeks of collecting and PIT-tagging 361 adult Pacific Lamprey from Grant PUD at Kirby Billingsley Hydro Park for release farther upstream in the Wells Reservoir. A total of 731 fish were released in the mainstem Columbia River (below the Methow River confluence at Starr Boat Launch), and Douglas PUD provided the CTCR with 129 PIT-tagged fish, which were released farther upstream in the Okanogan River Basin. Genetics samples were collected for all translocated fish, and the samples were sent to Columbia Inter-Tribal Fish Commission for analysis. This completed the second and final year of the 2-year SOA.

In 2025, Douglas PUD and the Aquatic SWG planned to implement the 2025 Adult Pacific Lamprey Study, which meant foregoing translocation this year. However, due to a low run size, the study was ultimately deferred (Section 2.1.4.1.4). In lieu of the study, Douglas PUD proposed collecting adult Pacific Lamprey from Grant PUD for translocation farther upstream above Wells Dam, using the same guidelines as the last SOA. Over 8 weeks, a total of 505 adult Pacific Lamprey were translocated from Priest Rapids Dam to upstream of Wells Dam, including coordination with the CTCR, and the YN on releases into the Okanogan and Methow river basins. Table 3 summarizes the Douglas PUD Pacific Lamprey translocation effort to date. Table 4 summarizes Grant PUD catch rate data from Pacific Lamprey trapping efforts at Priest Rapids Dam.

Table 3
Douglas PUD Pacific Lamprey Translocation Effort, To Date

Release Location	Guidance[1]	2018 SOA[2,3]				2023 SOA[4]		2025 SOA[5]	Total
	2017	2018	2019	2020	2021	2023	2024	2025	
Methow River (Pateros)	--	507	--	--	--	--	--	--	507
Starr Boat Launch	136	--	102	266	345	956	731	390	2,926
Lincoln Rocks	--	--	--	--	--	--	--	3	3
Brewster	131	70	--	--	--	--	--	--	201
Loup Creek	--	--	--	21	25	--	36	--	82
Salmon Creek	--	16	22	26	32	--	37	25	158
Omak Creek	--	15	26	22	31	--	29	33	156
Similkameen River	49	61	--	20	28	51	27	--	236
Twisp River	--	--	--	--	--	--	--	27	27
Beaver Creek	--	--	--	--	--	--	--	27	27
Total	**316**	**669**	**150**	**355**	**461**	**1,007**	**860**	**505**	**4,323**

Notes:

1. Per guidance of the Aquatic SWG, effort conducted by Douglas PUD, in coordination with the YN, the CTCR, and Grant PUD.
2. Per the SOA *To Translocate Adult Pacific Lamprey from Priest Rapids Dam to Areas Within or Upstream of the Wells Project and Postpone Passage Evaluations* (as appended to the 2018 ASA Annual Report).
3. The goal of translocating no fewer than 500 adult Pacific Lamprey per year as averaged over the 4-year translocation period, per this SOA, was not achieved. This can be attributed to the reduced run size in 2019 (19,374 fish counted at Bonneville Dam) and 2020 (11,889 fish counted at Bonneville Dam) compared to 2018 (43,419 fish counted at Bonneville Dam).
4. Per the SOA *To Translocate Adult Pacific Lamprey from Priest Rapids Dam to Areas Within or Upstream of the Wells Project 2023–2024* (as appended to the 2023 ASA Annual Report).
5. Per the SOA *Statement of Agreement to defer the Pacific Lamprey Approach and Passage Study* (Section 2.1.4.1.4).

--: No fish were translocated to this release site, as discussed within the Aquatic SWG.

Table 4
Pacific Lamprey Trapping Efforts at Priest Rapids Dam – Catch Rates, 2018 to 2025

Year	Counts at Priest Rapids Dam	Translocating Entity			Total Translocated	Total Arriving to Priest Rapids Dam	Total Percent Translocated	Percent Translocated Above Wells Dam
		Grant PUD[a]	Douglas PUD[b]	Chelan PUD[d]				
2018	11,758	177	669	--	846	12,604	7%	5%
2019	3,276	111	150	--	261	3,537	7%	4%
2020	1,750	--	355	--	355	2,105	17%	17%
2021	2,482	--	461	--	461	2,943	16%	16%
2022	11,152	1,529	645[c]	--	2,174	13,326	16%	0%
2023	13,147	577	1,007	--	1,584	14,731	11%	7%
2024	6,670	--	860	--	860	7,530	11%	11%
2025	1,502	--	505	370	875	2,377	37%	21%

Notes:

a. Grant PUD translocated Pacific Lamprey are released at Kirby Billingsley Hydro Park, downstream of the Wenatchee River confluence and Entiat River confluence with the Columbia River.
b. Douglas PUD translocated Pacific Lamprey are released at various locations upstream of Wells Dam.
c. Pacific Lamprey translocated in 2022 were tagged and released between Rocky Reach Dam and Wells Dam as part of the 2022 Adult Pacific Lamprey Approach and Passage Study.
d. Chelan PUD conducted an adult passage study in 2025 and translocated fish from Priest Rapids Dam to below Rock Island Dam for the study.

--: Douglas PUD collected Grant PUD translocated Pacific Lamprey at Kirby Billingsley Hydro Park for release at various locations upstream of Wells Dam.

The 2022–2023 Adult Pacific Lamprey Study found that the approach of acoustic-tagged lamprey toward Wells Dam, the proportion interacting with the fishway entrances, and the fishway ascent success rate (Section 2.1.4.1.1) were higher than was observed in 2016. Considering that the 2022–2023 study was conducted following an extended period of lamprey translocation (Table 3), this suggests the translocation efforts may have improved the motivation of lamprey to approach and pass Wells Dam. These translocation efforts have continued annually since, and the primary objective of the forthcoming 2026 Adult Pacific Lamprey Study (deferred from 2025) is the re-evaluate these same metrics.

2.1.4.1.3 Translocation Detection Table

Since 2019, Douglas PUD has monitored PIT-tag detections of Pacific Lamprey translocated through the Douglas PUD translocation program to date and has routinely provided these results for Aquatic SWG review in a Pacific Lamprey Translocation PIT Tag Information System File and Detection Summary Table (or "Last Seen" table). This table includes individual Pacific Lamprey release dates and locations, subsequent detection locations, and last detected dates and locations. The table has been revised several times at the request of the Aquatic SWG to show the timing and patterns of Pacific Lamprey movement more clearly. This "Last Seen" table is provided in the *Pacific Lamprey Management Plan 2025 Annual Report* (Appendix F).

2.1.4.1.4 2025 Adult Pacific Lamprey Approach and Passage Study

The Aquatic SWG-approved SOA, *Statement of Agreement Regarding the Implementation of the Wells Dam 2022 Adult Lamprey Approach and Passage Study Plan* (as appended to the 2022 ASA Annual Report) stipulated that Douglas PUD will implement the 2022–2023 Adult Pacific Lamprey Study, and the Aquatic SWG will determine a path forward based on the study results (Section 2.1.4.1.1). As such, throughout 2024, Douglas PUD and the Aquatic SWG discussed the 2022–2023 study results and identified objectives for study in 2025. Considerations included prioritizing the objectives and contemplating the best way to study the proposed objectives, pros and cons of different methodologies and how each objective will be measured, how the results compare and do not compare to past studies, contemplating strategies for prioritizing tags between study fish collected at two dams with different peak migration timing, and pros and cons of different fishway head differential treatments. On November 13, 2024, the draft *Wells Dam 2025 Adult Lamprey Approach and Passage Study Plan* (2025 Adult Pacific Lamprey Study Plan) was distributed for Aquatic SWG review. This study plan proposes the use of dual-tagged (radio telemetry and PIT) and PIT-tagged only Pacific Lamprey collected at Priest Rapids Dam and Wells Dam and released from approximately July to early September in the Rocky Reach Dam forebay. The primary objective (Objective 1a) is to determine the proportion of radio-tagged fish that approach Wells Dam, successfully enter the collection gallery, and ascend the fish ladder. Secondary objectives include evaluating nightly

modification of the typical 1.5-foot head differential to a lower 0.5-foot[14] head differential (Objective 2a), evaluating ladder count window efficiency (Objective 3a), evaluating tag burden by comparing dual-tagged fish to PIT-only fish (Objective 4a), and evaluating differences in approach behavior and passage rates between fish collected at Priest Rapids Dam and Wells Dam (Objective 4b). Components of this proposed study plan are also under review and require approval by the Wells HCP-CC (Section 3.6).

In early 2025, the Aquatic SWG reviewed and discussed edits and comments on the draft 2025 Adult Pacific Lamprey Study Plan. At the same time, the Wells HCP-CC was reviewing and discussing an SOA from the Aquatic SWG for the trap operations and reduced head differentials proposed in the study plan (Section 3.5.4). On February 12, 2025, the 2025 Adult Pacific Lamprey Study Plan, as revised (Appendix Q) was approved by the Aquatic SWG, with the understanding that minor details under the purview of the Wells HCP-CC may be slightly modified.[15]

Over the next few months, Douglas PUD and the Aquatic SWG monitored in-season run data for the Pacific Lamprey migration. There was concern about the low run numbers, and the Aquatic SWG began discussing possibly deferring the study. Considerations included current and historical counts at Bonneville, Priest Rapids, and Wells dams; what sample sizes are needed for the proposed study; and understanding that Chelan PUD is also implementing a Pacific Lamprey study using fish collected at Priest Rapids Dam, which was already underway. On July 15, 2025, the Aquatic SWG convened an additional meeting to continue these discussions. Ultimately, the Aquatic SWG approved a 1-year deferment of the 2025 Pacific Lamprey Study (approval record is appended to these meeting minutes; Appendix A).[16] In lieu of the study, Douglas PUD agreed to conduct translocation consistent with the last translocation SOA (Section 2.1.4.1.2). This is a 1-year deferment only. If fish counts are again in 2026, a "Plan B" study will be conducted. On August 13, 2025, the Aquatic SWG also approved the *Statement of Agreement to defer the Pacific Lamprey Approach and Passage Study* (Appendix R), to memorialize this decision in a formal SOA.

2.1.4.2 Juvenile Pacific Lamprey Studies

In June 2023, the Aquatic SWG began discussing a path forward for juvenile Pacific Lamprey studies in the Upper Columbia River. The impetus was interest from the YN in possibly coordinating with an upcoming U.S. Army Corps of Engineers (USACE) acoustic telemetry study in the Snake and Lower Columbia rivers toward conducting a large-scale passage and survival study through the entire Columbia River system. On August 21, 2023, the Aquatic SWG participated in a virtual joint meeting of the Priest Rapids Fish Forum (PRFF) and Rocky Reach Fish Forum (RRFF) Pacific Lamprey

[14] Ultimately, a lower 1.0-foot head differential was approved for implementation (Section 3.5.4).
[15] On March 25, 2025, the Wells HCP-CC approved lamprey trap operations and reduced head differentials for implementation in 2025 (Section 3.5.4).
[16] On July 22, 2025, the Wells HCP-CC also approved a 1-year deferral of the proposed lamprey trap operations and reduced head differentials for implementation in 2026 (Section 3.5.4).

Subgroups to discuss the available models used to estimate juvenile survival and behavior (Section 2.1.4.4). The joint meeting also included a discussion about possibly coordinating with the USACE study. In September 2023, the YN presented to the Aquatic SWG a *Framework and Implementation Plan for the Upper Columbia Juvenile Pacific Lamprey Passage Acoustic Telemetry Study*, which suggested a collaborative approach, involving Douglas PUD, Chelan PUD, and Grant PUD. The components of this framework were discussed at length (as described in the 2023 ASA Annual Report). Ultimately, Section 4.2.4 of Douglas PUD's PLMP stipulates a 1-year study using study fish from upstream of the Wells Project, and juvenile Pacific Lamprey data in the Methow and Okanogan basins suggest that obtaining a required sample size will be problematic.

On January 10, 2024, the Aquatic SWG continued discussing juvenile Pacific Lamprey studies, including other ongoing studies and the state of tag technology. On June 5, 2024, the Aquatic SWG participated in another virtual joint meeting of the PRFF and RRFF Pacific Lamprey Subgroups to hear PNNL present results from their 2023 juvenile Pacific Lamprey passage behavior and survival study, which applied the Virtual Release/Dead-Fish Correction (ViRDCt) model and used Eel/Lamprey Acoustic Tags (ELATs) to study juvenile lamprey at Lower Granite and Lower Monumental dams (Section 2.1.4.4). On June 12, 2024, the YN shared with the Aquatic SWG juvenile and adult Pacific Lamprey count data and translocation numbers in the Columbia and Snake River systems, which suggest the number of juveniles collected in a system is not necessarily a reflection of the number of adults counted in the system. That is, there may be more juveniles in both river systems, but the key is to ensure there is a good system in place to collect the juveniles.

Throughout 2025, the Aquatic SWG continued discussing juvenile Pacific Lamprey studies, including reviewing, providing comments, and discussing at length two YN strategy documents (*Juvenile Pacific Lamprey Passage Behavior and Survival at Upper Columbia River Hydroelectric Dams General Study Design* and a working *Upper Columbia Juvenile Lamprey Source Datasheet*). These documents focused on the following four key questions (Appendix A):

1. What is the (primary) project scope?
2. What survival model is best to use?
3. What is the acceptable precision level
4. What source of lamprey to use?

On August 6, 2025, the Aquatic SWG participated in another virtual joint meeting of the PRFF and RRFF Pacific Lamprey Subgroups to discuss these questions. Additionally, PNNL shared an updated summary of research results and responded to questions compiled by the Aquatic SWG, PRFF, and RRFF (Section 2.1.4.4; Appendix S). For the Wells Project, the PLMP indicates that study fish need to come from within or upstream of the project, which has been a key obstacle in past years (the use of lamprey from alternative sources including downstream of the project and artificial propagation has been a topic of discussion during these meetings but has not been approved by the group). In recent

years, the number of macrophthalmia collected at the Methow Screw Trap has been gradually increasing, possibly attributed to years of translocation (Section 2.1.4.1.2). With increased abundance in the tributaries, coupled with the recent advances in tag technology, studying juvenile lamprey per the PLMP was looking more tangible. On October 2, 2025, Douglas PUD shared a draft timeline for developing a Douglas PUD Juvenile Lamprey Passage Study Plan. The intent of this study plan was to have something in place so that when the time comes everything will be ready. Considering Douglas PUD's forthcoming 2026 Adult Pacific Lamprey Study (deferred from 2025; Section 2.1.4.1.4), the earliest a juvenile lamprey study may be implemented is 2027. On November 14, 2025, a draft Juvenile Lamprey Study Plan Memorandum was distributed to the Aquatic SWG for review. The following month, the Aquatic SWG had a lengthy discussion about each component of the study plan, including the study design, fish collection and tagging, dead fish releases, hydrophone locations, and predation bias (Appendix A). Further discussion is expected in early 2026.

2.1.4.3 Monitoring and Evaluation

2.1.4.3.1 Fish Salvage Memorandums

Since 2019, at the request of the Aquatic SWG, Douglas PUD has distributed fish salvage numbers from winter maintenance activities at Wells Dam. The reason for the request is to monitor the number and frequency in which Pacific Lamprey are encountered in the dewatered fishways.

During the 2024/2025 winter maintenance outage, 10 juveniles were collected from the east fishway, and 1 larva and 2 juveniles were collected from the west fishway. All 13 Pacific Lamprey were sampled for DNA analysis at the request of the YN before being released in the Columbia River at the Carpenter Island boat launch, approximately 1 mile downstream of Wells Dam.

2.1.4.4 Regional Pacific Lamprey Conservation Activities

Section 4.3.1 of the PLMP stipulates that Douglas PUD shall support regional conservation efforts. This may include but is not limited to participating in Pacific Lamprey Workgroups and information exchanges and coordinating with other entities conducting Pacific Lamprey research in the Mid-Columbia River. Table 5 summarizes regional Pacific Lamprey conservation activities to date. Current or ongoing activities are further described in the sections that follow.

Table 5
Regional Pacific Lamprey Conservation Activities

Activity[1]	Details
Adult Pacific Lamprey Translocation	Ongoing since 2015 (Section 2.1.4.1.2).
2016 Pacific Lamprey Regional Workshop	In June 2016, a Pacific Lamprey Regional Workshop was held to address scientific uncertainties regarding the causes of poor adult Pacific Lamprey passage over Wells Dam and facilitate regional collaboration in addressing Pacific Lamprey in the Mid-Columbia River Basin. The workshop convened members of the Aquatic SWG, RRFF, and PRFF, who received presentations by regional experts on the latest passage research. The workshop focused primarily on identifying and discussing critical uncertainties including approach behavior, study design limitations, propagation or translocation, presence and premature mortality, fish size (energetics), spawn timing, fish collection, survival models, tag types, and 3D detection of tagged fish.
2017 Aquatic SWG Pacific Lamprey Passage Workshop	In January 2017, another Pacific Lamprey Passage Workshop was held to continue discussions about Pacific Lamprey, including review of results of research conducted to date, notably the Douglas PUD 2016 Pacific Lamprey Study, review of governing documents, and potential next steps, including plans for Pacific Lamprey studies in 2017 and beyond. The Aquatic SWG agreed to limit attendance at this workshop to Aquatic SWG members and technical support staff and focus on identifying working hypotheses to address within the Aquatic SWG. The following three were identified as priorities for study in 2017: 1) lack of juvenile and adult pheromones; 2) poor hydraulic conditions at fishway entrances; and 3) reservoir mortality, fate in reservoirs, and mainstem spawning. Lastly, the Aquatic SWG discussed how to improve coordination among regional fish forums.
2017 Aquatic SWG Pacific Lamprey Subgroup Meeting	In April 2017, the Aquatic SWG convened a Pacific Lamprey Subgroup to further discuss a number of Pacific Lamprey topics prior to the 2017 Pacific Lamprey Passage Regional Workshop, including key data gaps and questions to raise during the workshop. The subgroup further discussed prioritizing hypotheses, bioenergetics, Douglas PUD 2016 Pacific Lamprey Study acoustic tag data, and mobile tracking in the Rocky Reach Reservoir. The subgroup unanimously agreed that translocation above Wells Dam should begin in 2017.
2017 Pacific Lamprey Passage Regional Workshop	Following the 2017 Aquatic SWG Pacific Lamprey Subgroup Meeting, also in April 2017, a Pacific Lamprey Passage Regional Workshop was held to reconvene the Aquatic SWG, RRFF, and PRFF, with the goal of discussing hypotheses to study a path forward and tasks needed to make forward progress on the topic of Pacific Lamprey passage in the Mid-Columbia River Basin. Regional experts and fish managers also attended the workshop. Grant PUD, Chelan PUD, and Douglas PUD discussed respective Pacific Lamprey studies and results. Translocation was a key topic. Based on discussions during the workshop, there was general support for translocating fish upstream of Wells Dam from Grant, Chelan, and Douglas PUDs.
2017 Pacific Lamprey Subgroup Regional Workshop	In October 2017, a Pacific Lamprey Subgroup Workshop was held convening common members among the Aquatic SWG, RRFF, and PRFF. Questions developed at the workshop were conveyed to the Aquatic SWG regarding adult White Sturgeon presence in the Wells Dam tailrace and fishways (a possible deterrent for Pacific Lamprey from approaching the area), passage and entrance efficiencies, and velocity profile data. In November 2017, the Aquatic SWG responded to these questions, which were provided to the subgroup in the form of Aquatic SWG-approved meeting minutes.
2018 Pacific Lamprey Passage Alternatives Presentation	In August 2018, the PRFF invited the RRFF and Aquatic SWG to attend a presentation by Damon Goodman (USFWS) on "Lamprey Passage Alternatives." The presentation described a lamprey passage technique using 2- and 4-inch flexible plastic tubing to move adult lamprey over structures. Preliminary conclusions indicate the 2-inch tubing works but delays lamprey travel time through the tubing compared to the 4-inch tubing. In the 4-inch tubing, there is approximately 0.5 to 1 inch of water depth, or 13 liters of water per minute flowing through the tubing. Goodman is also testing 8-inch tubing. He indicated this technique has had high success at a low cost.
Environmental DNA Monitoring	From 2018 to 2023, at the request of the YN, Douglas PUD agreed to collect and provide water samples taken from select locations upstream of Wells Dam to monitor Pacific Lamprey eDNA. This effort is in support of eDNA sampling proposed and conducted by the YN, and also in coordination with Chelan PUD, to monitor the variability in sample results of a large watershed and better understand movement of Pacific Lamprey upstream of Wells Dam. Sample locations for the broader effort include sites both upstream of Wells Dam near the Methow and Okanogan rivers and downstream of Wells Dam at sites along the right and left banks at Wells, Rocky Reach, McNary, and Bonneville dams (see past ASA annual reports for additional details).
Genetic Sampling	Ongoing since 2019 (Section 2.1.4.4.1).
Information Exchanges	Ongoing since 2020 (Section 2.1.4.4.2).
Public Signage	In 2023, at the request of the YN, Douglas PUD posted lamprey bait flyers throughout the Wells Project. The flyers state that it is illegal to use lamprey as bait.
Juvenile Pacific Lamprey Studies	On August 21, 2023, the Aquatic SWG participated in a virtual joint meeting of the PRFF and RRFF Pacific Lamprey Subgroups to discuss models and assumptions of models used to estimate juvenile survival and behavior. This also included a discussion about juvenile studies to be conducted in the Lower Columbia River and the potential opportunity to coordinate a large-scale passage and survival study throughout the entire Columbia River (Section 2.1.4.2). On June 5, 2024, the Aquatic SWG participated in a virtual joint meeting of the PRFF and RRFF Pacific Lamprey Subgroups to hear PNNL present preliminary results from its 2023 juvenile Pacific Lamprey passage behavior and survival study in the Lower Snake River. This study applied the ViRDCt model and used ELATs to study juvenile lamprey at Lower Granite and Lower Monumental dams (Section 2.1.4.2). On August 6, 2025, the Aquatic SWG participated in a virtual joint meeting of the PRFF and RRFF Pacific Lamprey Subgroups to discuss key questions identified in the YN strategy documents *Juvenile Pacific Lamprey Passage Behavior and Survival at Upper Columbia River Hydroelectric Dams General Study Design* and working *Upper Columbia Juvenile Lamprey Source Datasheet*. These included the following: 1. What is the (primary) Project Scope? 2. What survival model is best to use? 3. What is the acceptable precision level? 4. What source of lamprey to use? Additionally, PNNL shared an updated summary of research results and responded to questions compiled by the Aquatic SWG, PRFF, and RRFF (Section 2.1.4.2; Appendix S).

Activity[1]	Details
Columbia Basin Lamprey Identification Guide	In May 2025, the Aquatic SWG reviewed and provided feedback and comments on the updated Columbia Basin Lamprey Identification Guide. This is a 7-page resource identification guide for adults and larvae distributed by the Lamprey Technical Workgroup, the technical advisory committee of the Pacific Lamprey Conservation Initiative (Section 2.1.4.4.3).

Notes:

1. Activities are described at length in the associated ASA annual reports.

2.1.4.4.1 Genetic Sampling

During the 2019/2020 winter maintenance outage, at the request of the Aquatic SWG, Douglas PUD began collecting genetic samples from Pacific Lamprey encountered during fish salvage events associated with winter maintenance activities. The reason for the request is to determine the parentage of Pacific Lamprey encountered in the Wells Dam fishways in support of a study being conducted by the YN and Columbia River Inter-Tribal Fish Commission. Consistent with the past 6 years, in 2025, Douglas PUD collected genetic samples from all captured juvenile and larval Pacific Lamprey, as requested. No adults were encountered in the ladder during these winter maintenance outages.

2.1.4.4.2 Information Exchanges

Since 2020, the Aquatic SWG has routinely participated in and/or received debriefs on and discussed various Pacific Lamprey workshops and information exchanges held around the region. These events have included presenters and attendees representing local, state, national, and tribal interests. Web links to access workshop information and materials have also been provided to the Aquatic SWG.

On February 12, 2025, the Aquatic SWG received a debrief from the YN on Pacific Lamprey Conservation Initiative's 8th Annual Lamprey Information Exchange, which was held from December 11 to December 12, 2024. Topics covered on December 11 included communications and outreach, genetics, and restoration and passage. Topics covered on December 12 included trophic interactions and an open session that dealt with a variety of topics.

The Pacific Lamprey Conservation Initiative's 9th Annual Lamprey Information Exchange took place from December 9 to December 11, 2025, and was attended by Douglas PUD staff and Aquatic SWG members.

The Aquatic SWG will continue tracking Pacific Lamprey workshops and information exchanges to keep up to date on Pacific Lamprey efforts around the region.

2.1.4.4.3 Columbia Basin Lamprey Identification Guide

On May 14, 2025, the YN shared an updated Columbia Basin Lamprey Identification Guide. The Aquatic reviewed and provided feedback and comments on the updated document, which is a 7-page resource for identifying adults and larvae that is distributed by the Lamprey Technical Workgroup, the technical advisory committee of the Pacific Lamprey Conservation Initiative.

2.1.4.5 Fishway Modifications

Based on recommendations and discussions within the Aquatic SWG, and in consultation with the Wells HCP-CC, modifications have been discussed (with some implemented) over the years at Wells Dam to further improve Pacific Lamprey passage through the Wells Project. These modifications are described in the following sections.

2.1.4.5.1 Low-Level Side Entrances

Currently, these entrances are closed. Reopening the low-level side entrances of the Wells Dam collection galleries is discussed in greater detail in previous ASA annual reports. To date, no PIT-tagged Pacific Lamprey have been detected using the low-level side entrances.

2.1.4.5.2 Count Windows

Installation of aluminum ramps at the fish ladder count windows to test improved enumeration at Wells Dam is discussed in greater detail in previous ASA annual reports. The 2026 Adult Pacific Lamprey Study Plan (deferred from 2025; Appendix Q) includes a secondary objective to evaluate count window efficiency by pairing window ladder counts and upstream and downstream detections of dual-tagged (radio telemetry and PIT) and PIT-tagged only Pacific Lamprey (Section 2.1.4.1.4).

2.1.4.5.3 Collection Gallery and Fishways

Throughout 2018, the Aquatic SWG reviewed and discussed modifications implemented at other hydropower projects in efforts to improve Pacific Lamprey passage. Modifications discussed included installing ramps on the downstream side of perched weir orifices and solid plating along the edges of diffuser gratings in weirs to provide a surface for Pacific Lamprey to attach to and eliminate access to areas behind the diffuser gratings and reduce migration delay. Other modifications reviewed included modifying the bulkhead slots to be flush with the adjacent areas or implementing a Pacific Lamprey passage technique involving flexible plastic tubing (Section 2.1.4.4). The Aquatic SWG discussed the feasibility of implementing similar modifications in the Wells Dam collection gallery and fishways, as well as potentially modifying the spacing of the auxiliary water system diffuser grating panels at Wells Dam. Ultimately, in June 2018, an SOA was developed and approved by the Aquatic SWG that deferred fishway modifications while a translocation plan was implemented (Section 2.1.4.1.2).

In 2022 and 2023, following 4 years of translocation, Douglas PUD and the Aquatic SWG implemented the 2022–2023 Adult Pacific Lamprey Study (Section 2.1.4.1.1), which found the proportion of acoustic-tagged lamprey interacting with the Wells Dam fishway entrances was higher than it was in 2016 (before lamprey translocation). Based on these results, the 2026 Adult Pacific Lamprey Study Plan (deferred from 2025; Appendix Q) outlines a comprehensive upstream passage evaluation (Section 2.1.4.1.4), which may inform future fishway modifications to improve Pacific Lamprey passage at Wells Dam.

2.1.4.6 Fishway Maintenance

In 2018, while discussing potential maintenance opportunities to assist Pacific Lamprey passage through the Wells Dam fishways, the Aquatic SWG discussed the spacing requirements for the diffuser grating openings (i.e., closing any gaps greater than 1 inch), including reviewing Wells Dam fishway design specifications, consulting WDFW guidelines and requirements by NMFS, and

consulting with Wells Dam mechanical staff and the Douglas PUD HCP-CC representative regarding requirements for all anadromous fish. At the request of the Aquatic SWG, Douglas PUD scheduled a thorough inspection of all diffuser grating openings throughout the collection gallery and fish ladder and other needed repairs to be completed during upcoming winter maintenance outages. Over the next three winter maintenance periods, Douglas PUD worked to reduce gaps in horizontal and vertical auxiliary water supply diffuser gratings throughout the fishway, including hosting a tour of the dewatered fishway where the Aquatic SWG was able to see the progress to date. In the years where coronavirus disease 2019 (COVID-19) safety protocols did not allow an in-person tour to take place, Douglas PUD shared and discussed photographs of progress to date. As of the end of 2021, all plating and closing of gaps was completed in both ladders and the collection galleries.

In 2022 and 2023, following 4 years of translocation, Douglas PUD and the Aquatic SWG implemented the 2022–2023 Adult Pacific Lamprey Study (Section 2.1.4.1.1), which in part, was intended to evaluate these in-ladder improvements. Results showed that every acoustic-tagged lamprey detected in the fishways exited via a known route. No fish disappeared mid-route, and there was no evidence of fish exiting via a diffuser grating or the auxiliary water supply system, based on the available arrays. The collection gallery is a difficult location to monitor using acoustic telemetry so some fish may have not been detected entering the auxiliary water supply grating from the collection gallery. This suggests these fishway maintenance activities may have improved Pacific Lamprey passage at Wells Dam, especially in the ladder weirs.

During the 2023/2024 winter maintenance outage, maintenance included refixing plating that had come loose and installation of perforated plates at the lamprey trap locations (in Weir 40) in preparation for future lamprey trap operations.

On February 12, 2025, Douglas PUD hosted a tour of the hatchery volunteer channel, which included viewing and discussing the monitoring in place for the 2025 Adult Pacific Lamprey Study (now taking place in 2026; Section 2.1.4.1.4). This provided better resolution on actively tagged fish that enter the lower section of the volunteer channel, including viewing the PIT-detection arrays and other features in the system (Section 3.6).

2.1.4.7 Fishway Operations

Section 4.2.1 of the PLMP stipulates that Douglas PUD is required to operate the downstream bypass system at Wells Dam in accordance with criteria outlined in the Wells HCP (as described in the *Wells Hydroelectric Project Adult Fish Passage Plan*).

In August, September, and October 2025, higher-than-normal volumes of aquatic vegetation impinged on the trash racks of turbine units and fishways at Wells Dam, resulting in intermittent modified fishway operations to maintain safe fish passage through the fishways per the *Wells Hydroelectric Project Adult Fish Passage Plan* (Section 3.5.3). No impacts to Pacific Lamprey were

observed during these modified operations (no dead or injured lamprey were found, and the count of adult lamprey at Wells Dam remained consistent with expected seasonal run distribution).

2.1.4.8 Wells Hatchery

Based on recommendations and discussions within the Aquatic SWG, modifications have been discussed (with some implemented) at Wells Hatchery to further improve Pacific Lamprey passage through the Wells Project. These modifications are described in the following sections.

2.1.4.8.1 Plant Drain and Return-to-River Pipe

During the 2023/2024 winter maintenance outage, Douglas PUD hosted a tour at Wells Dam. During the tour, the YN recalled a past acoustic telemetry study that detected Pacific Lamprey in the vicinity of two outfalls at Wells Hatchery. These outfalls are the plant drain and the return-to-river pipe where fish are returned to the Columbia River from the adult handling facility at Wells Hatchery. Douglas PUD and the Aquatic SWG discussed these outfalls, including whether lamprey may have the ability to access and ascend the outfalls, how to detect this if it happens, and how to prevent it from possibly happening in the future. Ultimately, Douglas PUD installed perforated plating on the plant drain to prevent Pacific Lamprey from entering the outfall. No perforated plating was installed on the return-to-river pipe because fish (salmon and steelhead) are returned to the river from the adult handling facility via this outfall. Additionally, if a lamprey were to ascend the return-to-river pipe, it would be found in the adult handling facility and returned to the river, unless there is a barrier between the pipe and the facility.

In 2025, no Pacific Lamprey were observed at this location.

2.1.4.8.2 Volunteer Channel

In 2024, during lamprey trap operations, Douglas PUD continued tracking fish that were collected in the traps, PIT tagged, and released downstream of Wells Dam in the tailrace. A total of eight fish were last detected at the Wells Hatchery volunteer channel. During the 2022–2023 Adult Pacific Lamprey Study (Section 2.1.2.1.1), a total of 17 fish were last detected at the Wells Hatchery volunteer channel. This prompted discussion about the area. Operation and the configuration of the channel were discussed at length, including reviewing aerial photographs section by section (as described in the 2025 ASA Annual Report). The concern was whether lamprey are entering and ascending the channel, and if so, when lamprey are leaving the channel. To further investigate this, the 2026 Adult Pacific Lamprey Study (deferred from 2025; Section 2.1.4.1.4) includes additional radio antennas being installed at the downstream and upstream weirs within the channel to evaluate whether study fish are entering this area and when and how far into the channel they are moving. This will show what proportion of the population is entering the channel, which will also show the magnitude of the issue. In December 2024, Douglas PUD hosted a tour at Wells Dam, which included

visiting and discussing the Wells Hatchery volunteer channel area. On February 12, 2025, Douglas PUD hosted another tour of the Wells Hatchery volunteer channel area (Section 3.6).

2.1.4.9 Pacific Lamprey Literature Review

The PLMP stipulates that Douglas PUD will conduct a literature review in year 5 of the FERC license, addressing current tag technologies and juvenile Pacific Lamprey passage issues. Accordingly, in late 2017, Douglas PUD, in coordination with HDR Engineering, Inc., began compiling this information, as well as information for adult Pacific Lamprey. In 2019, Douglas PUD finished compiling and updating the juvenile and adult Pacific Lamprey passage and survival literature reviews, including an online document clearinghouse containing available literature to date, and the Aquatic SWG approved the juvenile and adult Pacific Lamprey literature reviews and document libraries with the intention to revisit the literature reviews and libraries in terms of format, structure, and content annually each fall.

On October 2, 2025, Douglas PUD and the Aquatic SWG reviewed five publications recently added to the Juvenile and Adult Pacific Lamprey Document Libraries (Appendix A).

2.1.4.10 Planned Monitoring, Studies, and Activities in 2026

In 2026, implementation of the PLMP and Pacific Lamprey measures outlined in the FERC license and CWA Section 401 Water Quality Certification for the Wells Project will continue. This includes implementing the 2026 Adult Pacific Lamprey Study Plan (deferred from 2025), continued development of a juvenile lamprey passage study plan, continued participation in regional Pacific Lamprey conservation activities, ongoing maintenance to plating installed to reduce diffuser grating gaps in the Wells Dam fishway collection galleries and ladders, and continuing to maintain and update the juvenile and adult Pacific Lamprey passage and survival literature reviews. The *Pacific Lamprey Management Plan 2025 Annual Report* (Appendix F), which summarizes Pacific Lamprey activities and results from 2025, will be reviewed by the Aquatic SWG in early 2026 and submitted to FERC as appended to this 2025 ASA Annual Report by the May 31, 2026, deadline.

2.1.5 Aquatic Nuisance Species

In 2025, Douglas PUD continued aquatic nuisance species (ANS) monitoring in the Wells Reservoir, as outlined in the ANSMP, and as required by the FERC license and CWA Section 401 Water Quality Certification for the Wells Project.

2.1.5.1 Eurasian Milfoil

Douglas PUD implements annual surveillance for non-native Eurasian Watermilfoil (*Myriophyllum spicatum*) throughout the Wells Project. On July 15 to 17, 2025, aquatic herbicide was applied to control aquatic macrophytes at swimming areas at Pateros Park, Columbia Cove Park (Brewster, Washington), and Marina Park (Bridgeport, Washington). The aquatic herbicide used was Tribune (active ingredient: diquat bromide). The control efforts were successful, and no reapplication

of herbicide was required for the remainder of 2025. This was the ninth year that this herbicide has been used in these areas successfully, and based upon spot surveys, the species composition of the macrophyte communities in these areas have not changed nor has the concentration of Eurasian Watermilfoil.

2.1.5.2 Zebra and Quagga Mussels

Douglas PUD implements annual surveillance for non-native Zebra Mussel (*Dreissena polymorpha*) and Quagga Mussel (*D. bugensis*), collectively called Dreissenid Mussels, throughout the Wells Project. Consistent with past years, from June to October 2025, Douglas PUD coordinated Zebra and Quagga Mussel monitoring with WDFW. Monitoring consisted of plankton net tows for mussel veligers, inspection of artificial substrate, and shoreline surveys at three locations in the Wells Reservoir on three occasions. Plankton tow samples collected were sent out for analysis, and results were provided to WDFW. Results from sample analysis determined no presence of either species at any of the sites monitored in the Wells Project. In 2025, environmental DNA (eDNA) sample analysis also continued to be employed as an additional monitoring method for Zebra and Quagga Mussels.

2.1.5.3 Northern Crayfish

Douglas PUD implements annual surveillance for non-native Northern Crayfish (*Orconectes virilis*) throughout the Wells Project. From October 6 to October 7, 2025, Douglas PUD performed annual crayfish monitoring, which consisted of using baited rectangular crayfish traps and resulted in the capture and removal of 68 non-native Northern Crayfish. In 2025, Douglas PUD also maintained and updated a Northern Crayfish incidental captures database.

2.1.5.4 Northern Pike

Northern Pike (*Esox lucius*) have become established upstream of the Wells Project in Lake Roosevelt. In response, Douglas PUD initiated a monitoring program for Northern Pike in the Wells Project in 2017. To date, there have been no detections of Northern Pike within the Wells Project.

2.1.5.4.1 Monitoring and Evaluation

In 2025, Douglas PUD implemented the eighth year of an eDNA monitoring program for Northern Pike in the Wells Project. Consistent with the past 7 years of the program, two eDNA samples were collected monthly from March through October at five locations for a total of 10 samples throughout the Wells Project. For a seventh year in a row, results from the 2025 monitoring effort came back negative for Northern Pike.

2.1.5.4.2 Northern Pike Monitoring and Response Plan

In 2025, Douglas PUD executed the sixth full year of implementation of the *Northern Pike Monitoring and Response Plan* (approved by the Aquatic SWG on May 8, 2019, as appended to the 2019 ASA

Annual Report). The plan outlines how Douglas PUD will monitor for the presence of Northern Pike in the Wells Project, including a description of baseline data, potential monitoring methods and associated risks and benefits, and consideration of Endangered Species Act species and minimizing impacts to these species. The plan also describes suppression activities should Northern Pike become established, including when it is appropriate to implement these activities and the methodology to be used.

2.1.5.4.3 Regional Coordination

In 2025, Douglas PUD participated in Regional Pike Forum conference calls with regional entities (Chelan PUD, Grant PUD, CTCR, WDFW, and USFWS) conducting Northern Pike monitoring and suppression efforts in the Columbia River Basin. These discussions focused on sharing information on Northern Pike monitoring and removal efforts and coordinating future eDNA sample collection efforts in the region.

2.1.5.5 Other Protection, Mitigation, and Enhancement Measures

Sections 4.1 to 4.3 of the ANSMP outline PMEs designed to meet the goals and objectives of the ANSMP. Throughout 2025, Douglas PUD and the Aquatic SWG implemented these PMEs, as described in the previous sections.

In 2025, Douglas PUD implemented additional PMEs toward meeting the goals and objectives of the ANSMP, including the following: 1) applied ANS best management practices for all in-water construction work; 2) verified the condition of ANS signs at boat launches and added Northern Pike signage; 3) supplied ANS pamphlets at Wells Project boat launches and at the visitor overlook; 4) performed cyanobacteria monitoring and provided public health advisories, as needed; and 5) maintained the *Aquatic Nuisance Species Management Plan Contact List* (Section 2.1.5.5.1).

2.1.5.5.1 Aquatic Nuisance Species Management Plan Contact List

In 2020, the Aquatic SWG approved a formal *Aquatic Nuisance Species Management Plan Contact List* of parties to notify in case Douglas PUD detects new ANS in the Wells Project. This list, which is a living document subject to updates, includes Aquatic SWG members and additional stakeholders who might find this information relevant. Douglas PUD will revisit this list each year as an appendix to the ANSMP annual report.

In March 2025, Douglas PUD and the Aquatic SWG reviewed the *Aquatic Nuisance Species Management Plan Contact List* as appended to the 2024 ANSMP annual report, and any updates were included in the finalized report.

2.1.5.6 Planned Monitoring, Studies, and Activities in 2026

In 2026, implementation of the ANSMP and ANS measures outlined in Douglas PUD's CWA Section 401 Water Quality Certification for the Wells Project and FERC License Order will continue. This includes

continuing annual surveillance and monitoring for non-native Eurasian Watermilfoil, non-native Zebra and Quagga Mussels, and non-native Northern Crayfish. Additionally, Douglas PUD will continue the eDNA monitoring program for Northern Pike in the Wells Project and implementation of the Aquatic SWG-approved *Northern Pike Monitoring and Response Plan*. The *Aquatic Nuisance Species Management Plan 2025 Annual Report* (Appendix G), which summarizes ANS activities and results from 2025 and will be reviewed by the Aquatic SWG in early 2026 and submitted to FERC as appended to this 2025 ASA Annual Report by the May 31, 2026, deadline.

2.1.6 Resident Fish

In 2025, Douglas PUD continued efforts to protect and enhance native resident fish populations and habitat in the Wells Reservoir, as outlined in the RFMP, and as required by the FERC license and CWA Section 401 Water Quality Certification for the Wells Project.

2.1.6.1 Northern Pikeminnow Removal Program

Per the Wells HCP, since 1993, Douglas PUD has funded research on, and removal of, Northern Pikeminnow (*Ptychocheilus oregonensis*) at the Wells Project to understand and control predators of juvenile anadromous salmonids within the project. Northern Pikeminnow are also included in the resident fish assemblage under the Agreement; therefore, annual reports that summarize these efforts are provided to the Aquatic SWG for reference (Section 3.5.2).

The final report, *2024 Public Utility District No. 1 of Douglas County Northern Pikeminnow Removal and Research Program*, which summarizes Northern Pikeminnow removal efforts in the Wells Reservoir and tailrace in 2024, is expected in early 2026.

As of 20244, approximately 38585,000 Northern Pikeminnow have been captured and removed from the Wells Reservoir and tailrace through Douglas PUD sponsored removal efforts. Future yearly catch data will continue to inform the state of the Northern Pikeminnow population in the Wells Project and how environmental conditions affect it. In 2025, Douglas PUD continued Northern Pikeminnow removal efforts, and a final report on these efforts is expected in the spring of 2026.

2.1.6.2 Resident Fish Assemblage Study

Objective 2 of the RFMP requires Douglas PUD to conduct a study to determine the relative abundance of resident fish species found in the Wells Reservoir in Year 2 of the 2012-issued FERC license and every 10 years thereafter. Douglas PUD conducted a Resident Fish Assemblage Study in 2014 (Year 2 study).

On March 13, 2024, the *2024 Resident Fish Assemblage Study Plan* (as appended to the 2024 ASA Annual Report) was approved by the Aquatic SWG. Specific objectives of the study included the following: 1) collect resident fish abundance data using previously established methods and make

comparisons to results of past studies; 2) collect baseline resident fish abundance data using alternative sampling methods, with a focus on species ineffectively sampled by previously established methods; 3) compare the effectiveness of previously established and alternative sampling methods for individual resident fish species and develop relationships for comparing results among sampling methods; and 4) use established and alternative sampling methods to determine the abundance and distribution of non-native and native predator species.

Sampling efforts were initiated in spring 2024 and were conducted throughout the year, with each gear type deployed during seasons that maximized its effectiveness and suitability to specific habitat conditions and target species. Beach seine and electrofishing methods were used during the summer and early fall months when resident fish species were most likely to occupy the littoral zone. Fyke nets were deployed during both the spring and fall periods, while cod traps and gill nets were used primarily in late fall and early winter. A total of 26,410 individuals were captured with 30 different species represented. Three-spined Stickleback (*Gasterosteus aculeatus*) was the most abundant species, which accounted for 18,114 individuals (or 68.6% of the total catch). Northern Pikeminnow and Redside Shiner (*Richardsonius balteatus*) were the next most abundant species, contributing 3,604 (13.7%) and 2,681 (10.2%) individuals, respectively. Northern Pikeminnow was the most numerous predator species reservoir-wide, followed distantly by Smallmouth Bass (*Micropterus dolomieu*), Largemouth Bass (*M. salmoides*), and Walleye (*Sander vitreus*). Predator species were observed across all five sample zones, though their abundance and composition varied considerably. Predator diversity was greatest in the Okanogan and Brewster–Bridgeport Bar Zones, while the Chief Joseph Tailrace supported the lowest abundance and least diverse predator assemblage. For sampling methods, fyke nets detected the greatest number of species (23), followed by electrofishing (17), gill nets (16), and beach seines (15; Table 5). These four methods accounted for the bulk of species detections and captured both common and rare species across various habitats.

Complete study results are summarized in the *2024 Resident Fish Assemblage Study Report* (Appendix T), which was approved by the Aquatic SWG on November 12, 2025, following a 30-day review.

2.1.6.3 Planned Monitoring, Studies, and Activities in 2026

In 2026, implementation of the RFMP and resident fish measures outlined in the FERC license and CWA Section 401 Water Quality Certification for the Wells Project will continue, including implementation of the Northern Pikeminnow Removal Program. The *Resident Fish Management Plan 2025 Annual Report* (Appendix H), which summarizes resident fish activities and results from 2025, will be reviewed by the Aquatic SWG in early 2026 and submitted to FERC as appended to this 2025 ASA Annual Report by the May 31, 2026, deadline.

3 Agreement Administration

This section lists processes, activities, and events of note that occurred in 2025 related to the administration of the Agreement, including a list of reports published and approved in 2025 that relate to the Aquatic SWG.

3.1 Aquatic Settlement Work Group Members

A designated technical representative and a separate designated policy representative for each of the Parties make up the Aquatic SWG, as established under the Agreement, including designated alternates for each representative. The Aquatic SWG meets collectively to expedite the process for overseeing and guiding the implementation of the Agreement. Meeting minutes and conference call minutes from the monthly Aquatic SWG meetings are compiled in Appendix A of this report, and the current members of the Aquatic SWG are listed in Appendix B.

In March 2024, the Ecology Aquatic SWG Technical Representative accepted another position, and this role was vacant through the end of the year. During this time, Douglas PUD coordinated with Ecology regarding water quality topics as needed. In January 2025, a new Ecology Aquatic SWG Technical Representative resumed active participation in the work group.

Throughout 2025, there were several changes to the USFWS Aquatic SWG technical representation, beginning with the longstanding representative retiring in January, and then due to federal government furloughs. Throughout this time, Douglas PUD provided additional coordination with the various USFWS Aquatic SWG technical representatives and alternates regarding Bull Trout and Pacific Lamprey requirements stipulated in USFWS's Section 18 Fishway Prescription for the Wells Project.

3.2 Agreement Chair

In April 2025, the Agreement Chair, Dr. John Fergsuon, announced plans to retire from this position at the end of the year. Therefore, discussions began regarding selecting a new Chair—a process last visited 10 years ago. The Aquatic SWG elected to use the same interview process as before and use with the same Aquatic SWG Chair position documents, to be reviewed, updated, and approved for this Chair selection process. These documents included a qualifications and experience document, interview questions, and a process timeline. Over the next few months, Aquatic SWG Technical Representatives were asked to nominate qualified candidates to fill the Chair position, these candidates were discussed, and the Chair selection documents were reviewed and updated.

On August 13, 2025, the Chair selection documents were finalized and there was a request for resumes or curricula vitae (CVs) from candidates. After review of resumes received, the Aquatic SWG

ultimately agreed to move forward with interviewing three candidates and hold a discussion and vote afterwards. All Aquatic SWG Parties were present for the interviews.

On October 14, 2025, the Aquatic SWG approved Dr. Tracy Hillman as the new Agreement Chair.

3.3 Meeting Logistics

In October 2025, a new Agreement Chair was selected to replace the current Chair who planned to retire from the position at the end of the year (Section 3.2). On November 12, 2025, the Aquatic SWG agreed to move the Aquatic SWG monthly meeting timing from the second Wednesday of each month to the first Tuesday of each month, from 10:00 a.m. to no later than 1:00 p.m., starting on December 2, 2025. This move was to accommodate the new Chair's existing commitments and obligations.

3.4 Aquatic Settlement Work Group Document Repositories

Throughout 2025, Douglas PUD and the Aquatic SWG continued maintaining two online document repositories that house the Agreement's administrative record. The internal SharePoint site (formerly known as the "extranet" site) is a private repository that houses draft and final documents for Aquatic SWG members. The external Douglas PUD website includes a public repository of final documents accessible to Aquatic SWG members and non-members.

In September 2025, the internal online document repository was migrated from the Aquatic SWG extranet site (i.e., "SharePoint 2016") to a new Aquatic SWG SharePoint site (i.e., "SharePoint online" or "SharePoint 365"). The layout and content remained unchanged from the former system.

3.5 Habitat Conservation Plan Coordination

In 2025, the Aquatic SWG continued coordination with the Wells HCP-CC, as needed and as required by the FERC license and CWA Section 401 Water Quality Certification for the Wells Project.

3.5.1 2025 Total Dissolved Gas Abatement Plan and Wells Bypass Operating Plan

Each year, the annual GAP/BOP is developed collaboratively by the Aquatic SWG and Wells HCP-CC (Section 2.1.3.2). In 2025, the Aquatic SWG approved the 2025 GAP/BOP, as revised (Appendix O) on February 12, 2025, understanding that the Wells Dam bypass start date could be sooner than April 9 but no later than April 9, pending guidance from the Wells HCP-CC, and the Wells HCP-CC approved the document, with a Wells Dam bypass start date of April 3, on February 25, 2025, prior to Douglas PUD filing the plan with FERC on February 27, 2025.

3.5.2 Northern Pikeminnow Removal Program Annual Reports

Each year, the Wells HCP-CC develops a report that summarizes Northern Pikeminnow research and removal efforts conducted over the past year and provides the final report to the Aquatic SWG for reference because Northern Pikeminnow are also included in the resident fish assemblage under the Agreement (Section 2.1.6.1). The final report, *2024 Public Utility District No. 1 of Douglas County Northern Pikeminnow Removal and Research Program*, which summarizes Northern Pikeminnow removal efforts in the Wells Reservoir and tailrace in 2024, will be finalized by the Wells HCP-CC and provided to the Aquatic SWG in early 2026.

3.5.3 Modified Fishway Operations

In September 2024, Douglas PUD notified the Wells HCP-CC of higher-than-normal volumes of aquatic vegetation impinging on the trash racks of turbine units and fishways at Wells Dam. An update was provided explaining that aquatic vegetation was clogging the trash racks of intakes to five turbine units and the trash racks of the fish-pump and supplemental flow penstocks and the ladder exits for the east fishway, resulting in a several-hour outage of the east fishway to allow trash racks to be cleaned. During this time, sufficient water was maintained in the ladder, so there was no need to perform a ladder dewatering and fish salvage action, and the west fishway remained in operation during the cleaning effort. The buildup of aquatic vegetation continued resulting in pressure-differential alarms for the diffuser gratings between the supply chamber and collection gallery on both fishways. These alarms alert operators to unsafe head differentials on the diffuser gratings between the auxiliary water supply (AWS) system and the collection gallery. In 2001, this same issue occurred. At that time, NMFS recommended reducing AWS flow to reduce pressure on the diffuser gratings, which also reduced the head differential at the fishway entrance. Therefore, NMFS also recommended partially closing the collection gallery doors from 8 feet to 4 feet to maintain the head differential at the fishway entrances at 1.0 foot (normal differential is 1.5 feet). Consistent with this recommendation, Douglas PUD took this action in 2024 to maintain safe fish passage through the fishways, per the *Wells Hydroelectric Project Adult Fish Passage Plan*. These operations were maintained in both fishways until annual winter fishway maintenance was initiated.

In August 2025, higher-than-normal volumes of aquatic vegetation were experienced again. Two of the pumps in the east fishway were shut off for a couple hours at a time to allow vegetation to slough from diffuser panels. When the pumps are shut off, the head differential is lowered for a short period of time, but the ladder is still operating and there is still gravity flow through the ladder from the forebay to the tailrace. This issue continued into September, and as was done in 2024, the entrance gate openings and AWS flow rates in both fishways were reduced to reduce pressure on the diffuser gratings while maintaining the head differential between the two areas. By September 25, 2025, the fishways were returned to normal operations. From October 4 to 11, 2025, the west fishway entrance gates were reduced from the normal 8-foot opening to 6 feet to reduce pressure on the diffuser

panels within the AWS system. This was once again associated with the aquatic vegetation buildup on the panels. During this time, the east fish ladder operated normally.

The BTMP and PLMP require Douglas PUD to operate the fishways at Wells Dam consistent with the *Wells Hydroelectric Project Adult Fish Passage Plan* (Sections 2.1.2.2 and 2.1.4.7).

3.5.4 Lamprey Trap Operations and Fishway Modifications

In 2007, Douglas PUD and the Aquatic SWG constructed lamprey traps for deployment in the east and west fishways at Wells Dam. When installed and operating, the traps sit atop each of the two overflow weirs at Pool 41 of each ladder, are flush to the fishway wall, and occupy approximately half the width of each overflow section of each weir. Because of the possibility for HCP Plan Species to interact with the lamprey traps, Douglas PUD has sought and received approval from the Wells HCP-CC before operating the traps.

Since that time, trap operations have been approved by the Wells HCP-CC, but during past years, few Pacific Lamprey were counted ascending the Wells Dam fishways. Beginning in 2023, Douglas PUD and the Aquatic SWG expressed a renewed interest in operating these lamprey traps to evaluate how the traps perform during years with greater abundance of Pacific Lamprey and improve the traps to possibly be used to provide study fish for future Aquatic SWG studies of adult Pacific Lamprey passage. The Wells HCP-CC approved trap operations in 2023 and 2024 (as described in past ASA annual reports). These approvals were contingent on Douglas PUD monitoring steelhead passage during trap operations. No impacts to steelhead passage have been observed to date.

In December 2024, Douglas PUD and the Aquatic SWG proposed for implementation in 2025 deploying the lamprey traps and reducing the collection gallery head differential, in accordance with a forthcoming 2025 Adult Pacific Lamprey Study Plan that was pending finalization by the Aquatic SWG (Section 2.1.4.1.4), and as described in the memorandum "Wells Dam Lamprey Trapping and Fishway Modifications 2025" (as appended to the 2024 ASA Annual Report).

In early 2025, a draft SOA with the proposed operations contained in the December 2024 memorandum was distributed for review. The Wells HCP-CC discussed the regulatory compliance of the reduced head differentials and discussed the importance of adequately monitoring salmon and steelhead passage, specifically that there are no delays during testing of the reduced head differentials. After three iterations of the draft SOA, on March 25, 2025, the Wells HCP-CC approved the *Statement of Agreement to Modify Fishway Operations for a Lamprey Radiotelemetry Study at Wells Dam in 2025* (Appendix U). In addition to the activities described in the December 2024 memorandum, this SOA also included the following: 1) a change in the start time of the hours of modified head differential operation from 18:00 to 20:00 hours; 2) a change in reduced head

differentials from 0.5 foot to 1.0 foot; and 3) an appended monitoring plan. Per the monitoring plan, Douglas PUD will provide updates throughout the study period and a post-season report.

Throughout 2025, the Aquatic SWG tracked lamprey counts at Bonneville and Priest Rapids dams, and there was concern in the low numbers, notably because a key objective of the 2025 Adult Pacific Lamprey Study was to compare fish collected at Priest Rapids Dam with fish collected at Wells Dam. Therefore, the Aquatic SWG approved a 1-year deferral of the study and requested the same approval from the Wells HCP-CC—that is, take exactly what the Wells HCP-CC approved for 2025 and move it to 2026. After a brief discussion and minor edit, on July 22, 2025, the Wells HCP-CC approved the *Statement of Agreement to defer until 2026 the Wells Dam operations supporting the Pacific Lamprey study approved by the Statement of Agreement* Modify Fishway Operations for a Lamprey Radiotelemetry Study at Wells Dam in 2025 (Appendix V).

3.6 Wells Dam and Wells Hatchery Site Visits

Each year, Douglas PUD extends an invitation to the Aquatic SWG, and other interested parties, to tour the Wells Dam fishway while a ladder is dewatered for annual winter maintenance. This provides an opportunity to view components of the fishway frequently discussed throughout the year while implementing the Agreement and aquatic resources management plans, including any modifications that may be under discussion. This tour is also typically coupled with a tour of the Wells Hatchery and White Sturgeon rearing facility and an in-person Aquatic SWG monthly meeting. Douglas PUD consistently offers and accommodates site visits and tours of locations within the Wells Project, as the opportunities arise or are requested.

On February 12, 2025, Douglas PUD hosted the Aquatic SWG meeting, in-person, at Wells Hatchery, followed by a tour of the hatchery volunteer channel. The tour was attended by members from USFWS, the YN, and the CTCR, and included viewing and discussing the monitoring in place for the 2025 Adult Pacific Lamprey Study (now taking place in 2026; Section 2.1.4.1.4). This provided better resolution on actively tagged fish that enter the lower section of the volunteer channel, including viewing the PIT-detection arrays and other features in the system.

3.7 Agreement-Related Publications in Calendar Year 2025

The following documents were finalized by the Aquatic SWG in 2025:

- Anchor QEA, 2025. *Annual Report Calendar Year 2024 Activities Under the Aquatic Settlement Agreement*. May 21, 2025.
- Douglas PUD, 2025. *2024 Annual Report Total Dissolved Gas Abatement Plan*. Wells Hydroelectric Project FERC No. 2149. Prepared for Washington State Department of Ecology and the Aquatic Settlement Work Group. February 19, 2025.

- Douglas PUD, 2025. *2024 Annual Report Water Quality Management Plan*. Wells Hydroelectric Project, FERC Project No. 2149. May 21, 2025.
- Douglas PUD, 2025. *2024 Annual Report White Sturgeon Management Plan*. Wells Hydroelectric Project FERC No. 2149. May 21, 2025.
- Douglas PUD, 2025. *2024 Bull Trout Management Plan and Incidental Take Annual Report*. Wells Hydroelectric Project, FERC Project No. 2149. May 21, 2025.
- Douglas PUD, 2025. *2024 Resident Fish Assemblage Study Report*. Wells Hydroelectric Project FERC No. 2149. September 2025.
- Douglas PUD, 2025. *2025 Aquatic Settlement Agreement and Workgroup Action Plan*. Hydroelectric Project FERC No. 2149. March 12, 2025.
- Douglas PUD, 2025. *2025 Total Dissolved Gas Abatement Plan* and appended *Bypass Operating Plan*. Wells Hydroelectric Project FERC No. 2149. Prepared for Washington State Department of Ecology and Aquatic Settlement Work Group. February 27, 2025.
- Douglas PUD, 2025. *Aquatic Nuisance Species Management Plan 2024 Annual Report*. Wells Hydroelectric Project, FERC Project No. 2149. May 21, 2025.
- Douglas PUD, 2025. Memorandum to: Dr. Megan Finley (Washington Department of Fish and Wildlife). Regarding: Notification of Fish Pre-Release/Transfer Health Inspection. May 8, 2025.
- Douglas PUD, 2025. *Pacific Lamprey Management Plan 2024 Annual Report*. Wells Hydroelectric Project, FERC Project No. 2149. May 21, 2025.
- Douglas PUD, 2025 *Resident Fish Management Plan 2024 Annual Report*. Wells Hydroelectric Project, FERC Project No. 2149. May 21, 2025.
- Douglas PUD, 2025. Memorandum to: Aquatic Settlement Work Group. Regarding: Results of 2025 White Sturgeon Autopolyploidy Testing. May 14, 2025.
- Douglas PUD, 2025. *Total Dissolved Gas Water Quality Attainment Plan Year 10 Report*. FERC License No. 2149. October 2025.
- Douglas PUD, 2025. *Wells Dam 2026 Adult Lamprey Approach and Passage Study Plan*. FERC License No. 2149. March 21, 2025.
- Robichaud, D., and S. Crawford, 2024. Adult White Sturgeon Upstream Passage Evaluation. Revised December 26, 2025.
- Robichaud, D., and C. Kyger, 2025. *White Sturgeon Supplementation and Management Plan Implementation in the Wells Reservoir, 2023–24*. Prepared for Public Utility District No. 1 of Douglas County. August 4, 2025.
- Wells Aquatic Settlement Work Group, 2025. *Statement of Agreement to defer the Pacific Lamprey Approach and Passage Study*. August 13, 2025.
- Wells HCP Coordinating Committee, 2025. *Statement of Agreement to defer until 2026 the Wells Dam operations supporting the Pacific Lamprey study approved by the Statement of Agreement* Modify Fishway Operations for a Lamprey Radiotelemetry Study at Wells Dam in 2025. July 22, 2025.

- Wells HCP Coordinating Committee, 2025. *Statement of Agreement to Modify Fishway Operations for a Lamprey Radiotelemetry Study at Wells Dam in 2025*. March 25, 2025.

4 References

Anchor QEA, 2025, *Annual Report Calendar Year 2024 Activities Under the Aquatic Settlement Agreement*. Prepared for Public Utility District No. 1 of Douglas County. May 21, 2025.

Aquatic SWG (Wells Aquatic Settlement Work Group), 2018. *To Translocate Adult Pacific Lamprey from Priest Rapids Dam to Areas Within or Upstream of the Wells Project and Postpone Passage Evaluation*. June 13, 2018.

Douglas PUD (Public Utility District No. 1 of Douglas County, Washington), 2002. *Exhibit No. 1, Anadromous Fish Agreement and Habitat Conservation Plan – The Wells Hydroelectric Project*. FERC License No. 2149. Available from: http://dcpud.org/wells-project/aquatic-settlement-agreement.

Douglas PUD, 2007. *Adult Pacific Lamprey Passage and Behavior Study*. FERC License No. 2149. September 2007.

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Douglas PUD, 2022. *Wells Dam 2022 Adult Lamprey Approach and Passage Study Plan*. FERC License No. 2149. February 2022.

Douglas PUD, 2025. *Wells Dam 2026 Adult Lamprey Approach and Passage Study Plan*. FERC License No. 2149. March 21, 2025.

FERC (Federal Energy Regulatory Commission), 2012. Order issuing new license to Douglas PUD to continue operation and maintenance of the existing Wells Hydroelectric Project No. 2149. November 9, 2012. Available at: http://dcpud.org/wells-project/wells-project-license.

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NMFS (National Marine Fisheries Service), 2000. *Endangered Species Act – Section 7 Consultation: Biological Opinion*. Consultation on Remand for Operation of the Columbia River Power System and 19 Bureau of Reclamation Projects in the Columbia Basin. F/NWR/2004/00727. November 30, 2005. Pages 5–6, 5–7, 5–53, 10–9, and Appendix E: Risk Analysis.

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