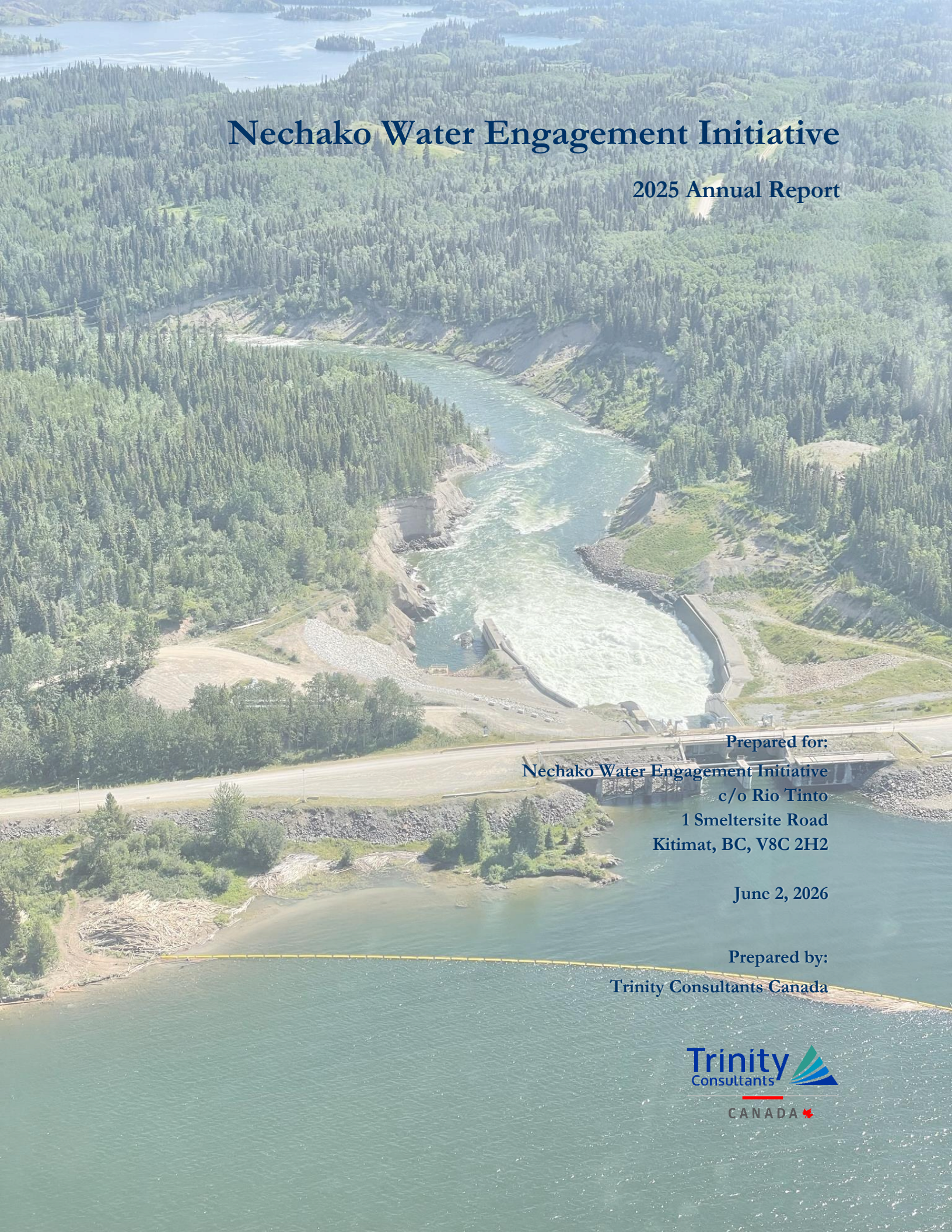


Nechako Water Engagement Initiative

2025 Annual Report

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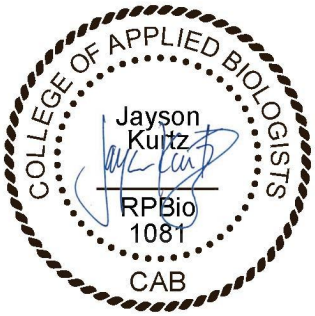
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EXECUTIVE SUMMARY

The Nechako Water Engagement Initiative (WEI) is a multi-stakeholder, consensus-based assessment and planning effort to better understand, and find solutions for, cultural, social, environmental, and business interests affected by flow regulation of the Nechako River and water level management of the Nechako Reservoir.

Participants from First Nations, federal, provincial and municipal government, academia, special interest groups, the public, and Rio Tinto form the Main Table (decision body), which is supported by a meeting facilitator, a Technical Working Group, and a Southside Working Group (the latter specifically representing interests around the reservoir).

In 2023, the Main Table reached consensus on a preferred flow regime for the Nechako River (Flow Alternative 6a, a modest change from status quo). They also agreed on priority data gap studies to address uncertainty, and on physical works to further improve conditions. In the early part of 2025, the WEI focused on reviewing drought conditions and implementation of Phase 1. The focus then shifted to recommendations for upcoming studies and infrastructure updates in 2026.

2025 was a drought year, and the Flow Alternative 6a (dry year) was implemented in May. Progress was made preparing for data gap studies and physical works, and several of these activities were initiated. Specifically, the Nechako Reservoir Spawning Kokanee Surveys were conducted to investigate the presence of spawning Kokanee in select reservoir tributaries and predicted spawning areas. Spawning kokanee were not observed during the study; however, the study solidified the best methods for surveying fish in the reservoir, as well as provided additional knowledge on the timing of spawning kokanee. In addition to planning, on the-ground work also occurred on the reservoir. Navigation buoys were installed to aid boaters, and anchoring systems were improved for existing buoys, and an old dock was removed from Wisteria boat landing.

Finally, effectiveness monitoring demonstrated indicators for cultural, social, environmental, and business interests under the 2025 flow regime were generally as predicted, but that drought conditions and warm summer temperatures caused some indicators to perform better or worse than predicted.

Looking forward, 2026 should see advances to data gap studies and physical works, a transition to the next phase of WEI, and renewed interest in infrastructure that would facilitate significant changes to the water storage and release regime.

TABLE OF CONTENTS

EXECUTIVE SUMMARY II

LIST OF FIGURES IV

1. INTRODUCTION 1

2. MAIN TABLE 2

2.1. MEETING SUMMARIES 2
2.2. KEY DECISIONS, MILESTONES, AND ACTION ITEMS 3

3. SOUTHSIDE WORKING GROUP 3

3.1. MEETING SUMMARIES 3
3.2. KEY DECISIONS, MILESTONES, AND ACTION ITEMS 3

4. TECHNICAL WORKING GROUP 4

4.1. MEETING SUMMARIES 4
4.2. KEY DECISIONS, MILESTONES, AND ACTION ITEMS 4

5. PHASE 1 IMPLEMENTATION 5

5.1. FLOW REGIME 5
5.1.1. Hydrological Conditions 5
5.1.2. Flow Alternative 6a 9
5.2. 2025 NECHAKO RESERVOIR SPAWNING KOKANEE SURVEYS 9
5.3. EFFECTIVENESS MONITORING 10

6. CLOSURE 11

LIST OF FIGURES

Figure 1. 2025 Nechako Reservoir water levels (sourced from Rio Tinto Flow Facts at https://www.getinvolvednechako.ca/flow-facts/). 6

Figure 2. Skins Lake Spillway discharge in 2025 (sourced from Rio Tinto Flow Facts at https://www.getinvolvednechako.ca/flow-facts/). 7

Figure 3. Nechako River discharge at Vanderhoof in 2025 (sourced from Rio Tinto Flow Facts at https://www.getinvolvednechako.ca/flow-facts/). 8

Figure 4. Phase 1 preferred Flow Alternative 6a (orange line) verse status quo (red line) in dry and average (top panel) and wet (bottom panel) years (modified from the Phase 1 Final Report). 9

1. INTRODUCTION

The Water Engagement Initiative (WEI) is a collaborative planning process designed to support informed and inclusive management decisions about the storage and release of water from Rio Tinto's Nechako Reservoir. WEI has three phases:

- Phase 1 focuses on short-term, incremental benefits including modest flow alternatives that Rio Tinto can implement with existing water management infrastructure and within the existing Nechako River water budget (i.e., compliant with in-hand approvals, licences, and power agreements).
- Phase 2 involves flow alternatives that would require Rio Tinto to obtain new or modify existing approvals, licences, and power agreements and hence would take longer (e.g., several years) to implement.
- Phase 3 involves modified or new water management infrastructure that would facilitate significant changes to the water storage and release regime. Phase 3 is a longer-term vision (e.g., 5-10 years away).

WEI launched in 2019 with the establishment of a Main Table with representatives from First Nations, federal, provincial and municipal governments, academia, special interest groups, the public, and Rio Tinto. The Main Table is supported by a meeting facilitator, a Process Team[1], and a Technical Working Group[2] and Southside Working Group[3]. Through facilitated discussion, the Main Table identified a wide range of environmental, cultural, social, and business interest and issues for consideration. With the support of the Technical Working Group, WEI undertook assessments of these interests/issues to better understand current conditions, evaluate constraints, and identify operating alternatives and other options to improve conditions. This work involved quantitative and value-based processes, including Structured Decision Making, to predict outcomes and resolve competing interests. In late 2023, the Main Table arrived at a consensus-based solution for Phase 1 that included a new flow regime, environmental studies to fill knowledge gaps, and physical works for immediate improvements. The WEI context, process, issues, and outcomes are detailed in the Phase 1 Report[4] that was approved by the Main Table in November 2024.

[1] Staff from Trinity Consultants Canada, Compass Resource Management Ltd, and Rio Tinto.

[2] Select members of Main Table participants, lead by Trinity Consultants Canada and supported by other environmental consultants and technical experts as needed.

[3] Select members of Main Table participants whose focus is to on sharing information and advancing physical works to improve social and recreational interests the Nechako Reservoir.

[4] Environmental Dynamics Inc., Trinity Consultants Canada and Compass Resource Management Ltd. 2024. Water Engagement Initiative: Final Phase 1 Report. Consultant report prepared for the *Water Engagement Initiative* Main Table, November 2024.

Since this important milestone, the WEI Main Table and Technical working group cadence has slowed, and Rio Tinto has embarked on implementing Phase 1 and planning for Phase 2 and Phase 3. This report provides an overview of WEI activities in 2025. It summarizes Main Table and Technical Working Group meetings, technical work, implementation of Phase 1 flows, and planning for 2026 and beyond.

2. MAIN TABLE

2.1. Meeting Summaries

Two virtual Main Table meetings were held in 2025: Meeting 35 on June 25, 2025, and Meeting 36 on December 4, 2025 (meetings 1-34 occurred from 2019 to 2024).

Meeting 35 focused on general updates and a discussion of the status of Phase 1 implementation. The hydrology updates highlighted concerns about the current drought conditions and mitigation methods that were being implemented to account for further reductions in reservoir elevations. Reservoir projections for 2026 indicated a potential for T2 and Kemano shutdowns. The results of the 2024 WEI monitoring report were reviewed including a discussion of the performance measure results for the flow regime implemented in 2024. The technical working group provided an update on the ongoing work to support Phase 1 implementation, including a review of the two Physical Works projects (osprey nest relocation and large woody debris removal to benefit caribou), development of study plans to address data gaps, research on the effects of water temperature on salmonids, and plans for other upcoming work. An update was also provided on the Southside Working Group reservoir navigation buoy program in 2025. There was also discussion of the Phase 1 flow alternative, which was implemented in May 2025 to simulate a spring freshet and included monitoring for stranding downstream of the Skins Lake Spillway. The Nechako Ne Too Infrastructure project was also introduced; this project is a collaboration between RT, the Nechako First Nations (Stellat'en First Nation, Nadleh Whut'en First Nation, and Saik'uz First Nation) and Cheslatta Carrier Nation. The project will study the feasibility of a Kenney Dam release facility, increasing live storage in the reservoir, decommissioning Skins Lake Spillway, and various watershed restoration components. Should it proceed, the Ne Too Infrastructure Project could enable WEI Phase 3. The meeting was concluded with a review of ongoing research and monitoring programs in the Nechako watershed, followed by a question period.

Meeting 36 focused on providing updates on reservoir conditions as well as a discussion on upcoming studies and infrastructure updates in 2026. The hydrology updates reflected the previous meeting. Reservoir levels continued to be low and energy imports were expected to continue into 2026. There was a discussion on potential for alternative energy sources other than hydroelectric to power the smelter in Kitimat. There was then discussion of implementation of the WEI Phase 1 flow scenario for a 'dry year', which was implemented in 2025 in response to air and water temperatures. Results of the Phase 1 Data Gap Studies were reviewed. There was also discussion of results of fish stranding assessments during the Summer Temperature Monitoring Program (STMP) ramping event, which

indicated low stranding risk, and will be used to guide STMP improvements. There was then discussion of several projects planned for 2026, including data gaps studies, fish stranding monitoring during spring pulse and STMP flows, planning for STMP implementations and potential scenarios, and creation of definitions for dry and wet years. The meeting ended with a review of initiatives being continued into 2026 including an update on work being completed by the University of Northern British Columbia (UNBC), Nechako Environment Water Stewardship Society (NEWSS), and Nechako First Nations. Time did not permit a Nee Too Infrastructure update discussion.

2.2. Key Decisions, Milestones, and Action Items

Key decisions and action items from the Main Table include:

1. Distribute the 2024 WEI Annual Report and 2024 Effectiveness Reports to the Main Table members – Ecofish Research Ltd. (Ecofish) to distribute.
2. Fish stranding monitoring during ramp-down events in the Nechako watershed to be discussed in more detail at the next TWG meeting – Ecofish to add to next TWG agenda.
3. Progress discussion around potential for a reservoir tour in 2025 – Quinten and Aman to progress this idea.
4. Schedule reservoir tours in the spring of 2026 (Kenney Dam area and Spillway area) – Quinten and Amand to coordinate dates and sign-up.
5. Rio Tinto to further operationalize the Phase 1 (Alt 6a) flow scenario.
6. Rio Tinto to continue with fish stranding monitoring related to the implementation of the WEI Flow Scenario (study in the Spring and during STMP).
7. Schedule a dedicated session on "Nee Too" Infrastructure project early in 2026 (deferred due to time constraints).

3. SOUTHSIDE WORKING GROUP

3.1. Meeting Summaries

The Southside Working Group did not hold any meetings in 2025. Rio Tinto installed navigation buoys from Little Andrew Bay to Chikamin Bay Portage from the spring to the fall. They modified locations for some buoys and added additional buoys to improve navigation and upgraded the buoy anchoring system. In addition, the old boat dock was removed from Wisteria Landing.

3.2. Key Decisions, Milestones, and Action Items

- Navigation buoys installed for the 2025 boating season.
- Buoy system was upgraded to improve navigation.
- Old Wisteria boat dock removed.

4. TECHNICAL WORKING GROUP

4.1. Meeting Summaries

In 2025, the Technical Working Group (TWG) held one virtual meeting on May 21 to support decision-making for the Main Table. Rio Tinto provided an update on 2025 hydrology. The spring pulse flow had been released for Flow Alternative 6A "dry and average year" at the time of the meeting and included a discussion on ecological considerations for the timing to implement 6A (i.e., ice levels on Cheslatta Lake, impacts to White Sturgeon, etc.). Additionally, the group highlighted that while reservoir levels were higher than 2024, they were forecasted to remain below historical averages. There was also discussion of an agreement for a pre-feasibility study for the Nee Too Infrastructure Project. This project has started by defining the project and process and identifying data gaps and risks. There was brief discussion of projects-on-a-page under development to support defining data gaps and physical works projects identified during Phase 1 of the WEI process. There was also an update on the Nechako River Fish Overwinter Habitat and Salmon Fate study plans, including a review of updated recommendations from each study. The intent to implement the study plans in summer 2025, in collaboration with Infrastructure Projects was discussed. The meeting concluded with a review of Performance Measures to be calculated (following the same approach as 2024) and an update from NEWSS on the beaver dam analogues and upcoming Chinook Salmon fry releases.

4.2. Key Decisions, Milestones, and Action Items

- Ecofish to collaborate with TWG members to develop a memo to operationalize the Alt 6A Flow Alternative.
- TWG members to review the projects-on-a-page and study plans once they are available for distribution (Ecofish post on SharePoint).

5. PHASE 1 IMPLEMENTATION

5.1. Flow Regime

5.1.1. Hydrological Conditions

The 2025 water year was characterized by drought with reservoir levels below the long-term average. There was significantly lower-than-average snowpack across the entire watershed, and as a result, there was a weak snowmelt freshet, and low river flows that persisted until July. Low precipitation and warm air continued during summer and early fall, although flows were closer to normal during this period, and exceeded the typical flow levels in the Nechako River in late-July to early-August. The snowpack began to accumulate in October and was closer to the long-term average for the Nechako Reservoir for the remainder of the year.

The year began with a below-average (1-1.5 m) reservoir level similar to 2024. Low water levels in the Nechako Reservoir persisted through the year. Spring reservoir levels were slightly higher than 2024 due to the proactive measures undertaken by RT (i.e., modulating smelter production and importing power from BC Hydro). The high summer flows resulted from flow releases at Skins Lake Spillway as part of the STMP. Water level in Nechako Reservoir, and flow at Skins Lake and the Nechako River at Vanderhoof for 2025 compared to historical data are provided below in Figure 1, Figure 2, and Figure 3.

Figure 1. 2025 Nechako Reservoir water levels (sourced from Rio Tinto Flow Facts at https://www.getinvolvednechako.ca/flow-facts/).

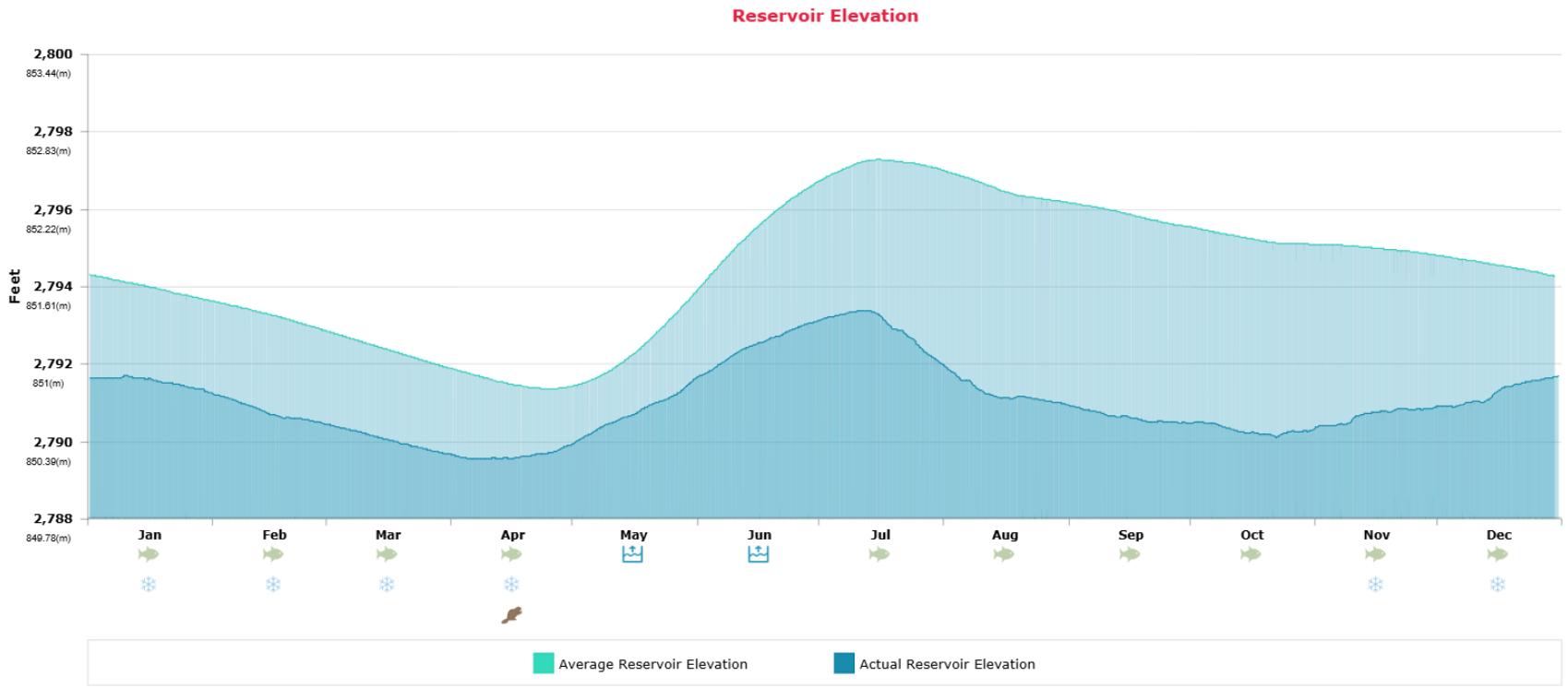


Figure 2. Skins Lake Spillway discharge in 2025 (sourced from Rio Tinto Flow Facts at https://www.getinvolvednechako.ca/flow-facts/).

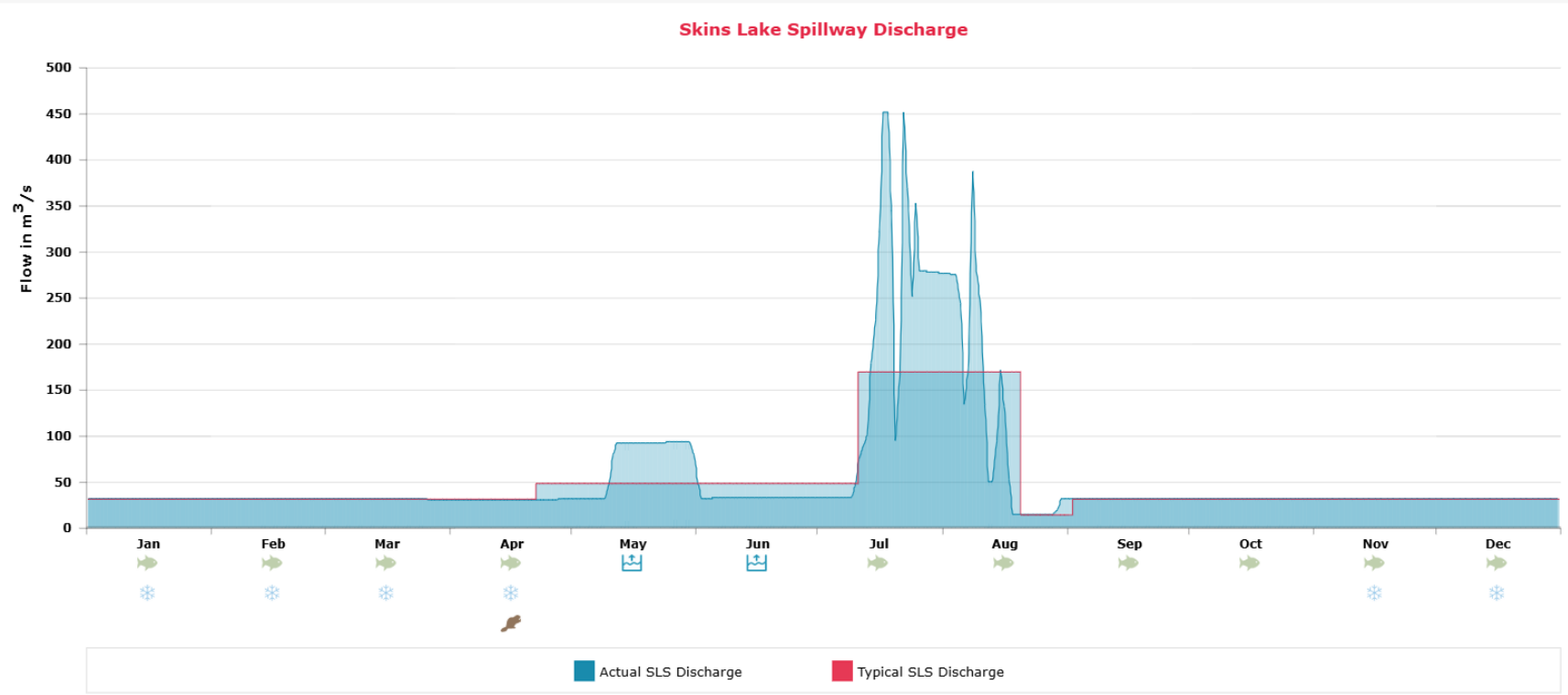
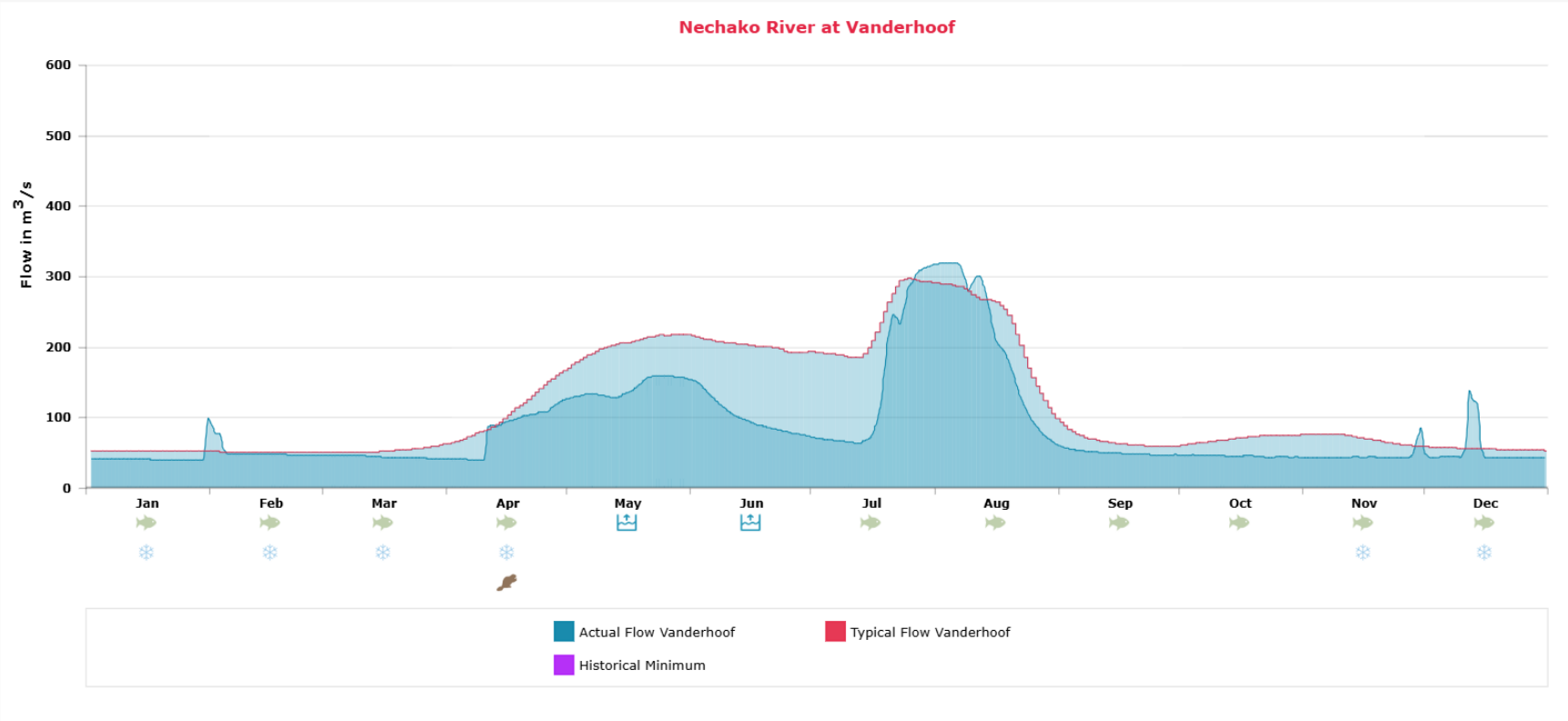


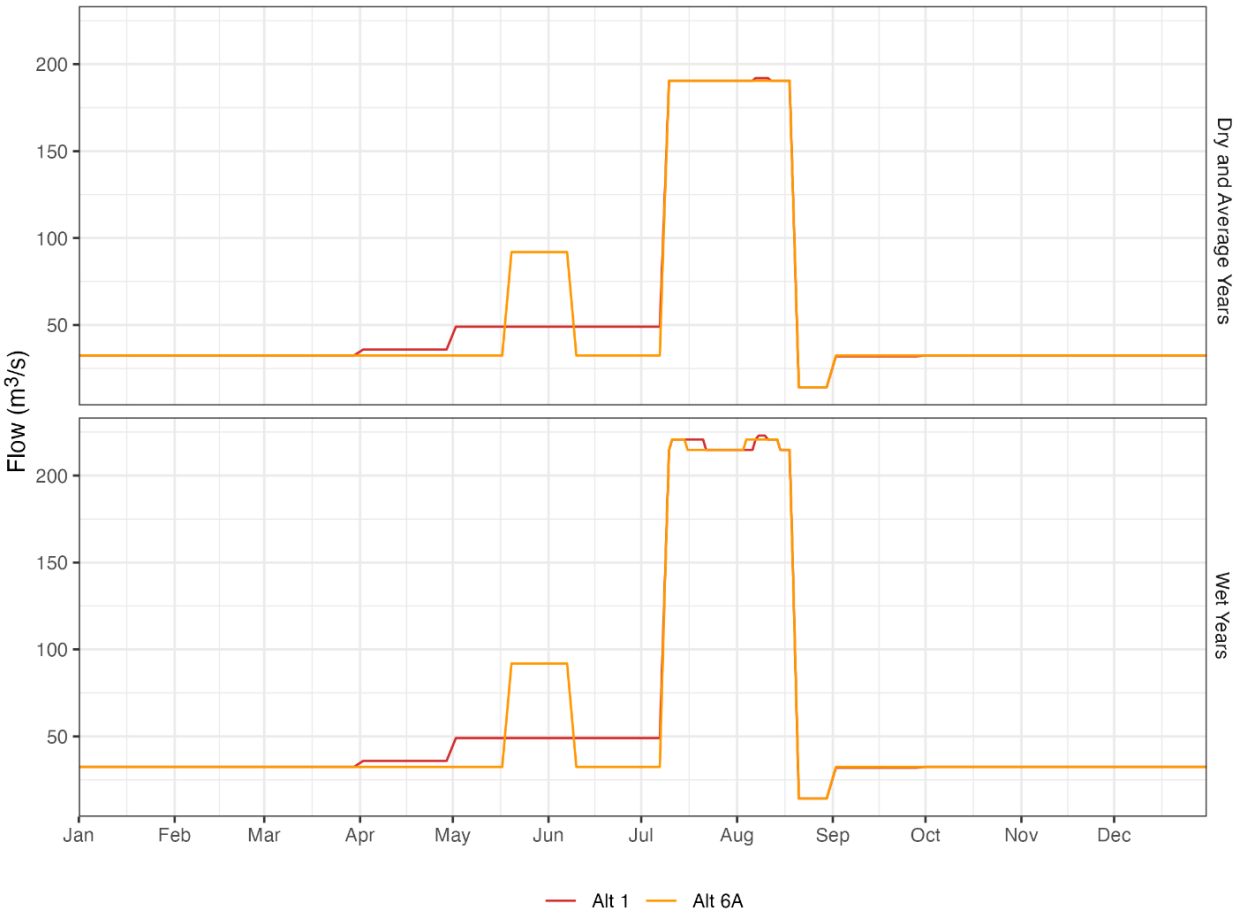
Figure 3. Nechako River discharge at Vanderhoof in 2025 (sourced from Rio Tinto Flow Facts at https://www.getinvolvednechako.ca/flow-facts/).



5.1.2. Flow Alternative 6a

A milestone outcome from Phase 1 was the endorsement of a new flow regime: Flow alternative 6a, which maintains status quo except for a modest increase in discharge coinciding with natural freshet timing. In dry or normal years, the status quo water budget is reshaped to provide a single flow pulse. In wet years, the flow increase is larger and longer, depending on the available "extra" water. Flow alternative 6a is depicted below in Figure 4.

Figure 4. Phase 1 preferred Flow Alternative 6a (orange line) verse status quo (red line) in dry and average (top panel) and wet (bottom panel) years (modified from the Phase 1 Final Report[3]).



As described in Section 5.1.1, 2025 was a dry year. The dry and average year Flow Alternative 6A was implemented on May 10, 2025 and persisted until June 2, 2026.

5.2. 2025 Nechako Reservoir Spawning Kokanee Surveys

To advance understanding of kokanee (*Oncorhynchus nerka*) populations in the Nechako Reservoir, Ecofish, Stellat'en First Nation, and the Cheslatta Carrier First Nation completed spawning surveys in October and November 2025. The main objectives of the work were to identify whether kokanee

spawning occurs in Tahtsa Narrows and identify important Kokanee spawning tributaries by making direct observations of kokanee spawning and habitat suitability. Secondary objectives included confirming suitable survey methods to inform future studies and supporting capacity building for First Nations through training and experience.

Site selection and survey timing were informed by previous studies and local knowledge. Surveys were completed using three complementary approaches: helicopter overflights, snorkel surveys, and stream-walk surveys. Surveys were conducted on four days over a three-week period that was suspected to encompass peak spawning timing. Helicopter-access surveys were completed on October 28 and November 13, 2025, and truck-access surveys were completed on October 30 and November 7, 2025. The surveys were completed over nine locations identified as potentially supporting spawning kokanee populations.

Spawning kokanee were not observed in any of the surveys. Accounts of kokanee spawning timing in the reservoir are highly variable, with observations from local knowledge ranging from as early as mid-August to as late as mid-November. This range may be due to different timing of spawning between basins, observer error, or truly represent a prolonged spawning period in the Nechako Reservoir. Given this broad range, it is possible that surveys may have missed the spawning timing in the surveyed streams. To reduce this uncertainty, the study recommended future work should begin in mid-August and be conducted bi-weekly to increase the likelihood of overlapping with kokanee spawning activity.

5.3. Effectiveness Monitoring

The Main Table identified the importance of monitoring how effective flow alternatives and physical works are at meeting objectives for cultural, social, environmental, and business interests to support adaptive management decisions in Phase 1. This information will also be valuable to inform decisions in subsequent phases of the WEI Process.

A standalone effectiveness monitoring assessment[5] was prepared for 2025.

For a variety of reasons, the Main Table decided that the most appropriate monitoring approach would be to compare performance measures calculated from actual 2025 flow data to the performance measures for the flow record that was considered in Phase 1 flow alternative decision-making process (i.e., a consequence table comparing predicted and actual performance measure results). Flow Alternative 6a was implemented on May 10, 2025 and persisted until the STMP was implemented in July. The assessment concluded that most of the 2025 performance measures were within the 20th to 80th percentile range of predictions. However, there were several exceptions where 2025 results were higher or lower than predicted. These differences are generally explained by drought conditions in 2025, although higher than normal flows to mitigate downstream river temperature also contributed to some of the differences.

[5] Walters, C, R., Chudnow, M. Pruett, and J. Kurtz. 2026. 2025 Effectiveness Monitoring. Consultant report prepared for the Nechako Waer Engagement Initiative by Ecofish Research Ltd, April 21, 2026.

6. CLOSURE

This annual report summarizes 2025 progress of the Nechako WEI. The report is based on meeting agendas, presentations, and summaries, consultant reports, and memory recall of the authors. However, input and review by members of the Main Table, Southside Working Group, and Technical Working Group was essential.