

MSC Variation Request

Annette Islands Reserve salmon

Marine Stewardship Council variation request

Table 1 – Variation request

1	Date submitted to the MSC
	March 1, 2022 (Revised and Submitted March 13, 2022)
2	CAB
	SCS Global Services
3	Fishery name and certificate number
	Annette Islands Reserve salmon, MSC-F-31303 (F-SCS-0102)
4	Lead auditor or program manager
	Gabriela Anhalzer, Program Manager Ray Beamesderfer, Lead Assessor
5	Request prepared by
	Brian Ahlers, SCS Senior Technical Specialist Ray Beamesderfer, Lead and Principle 1 Assessor Gabriela Anhalzer, Program Manager
6	Scheme requirement(s) for which variation requested
	FCP v2.2: 7.28.16.4, 7.28.23, 7.30.5.2
7	How many times has a variation for this requirement been accepted for the same assessment of the same fishery?
	None, N/A

Table 2 – Variation justification

1	Proposed variation	
	<p>The SCS Assessment Team requests an extension on the amount of time granted to close the following Condition due to exceptional circumstances which require longer than the current period of certification to achieve a performance level of 80:</p> <ul style="list-style-type: none"> • Condition 1 - 1.3.3(a) and 1.3.3 (b), specific to Chum Salmon information. <p>The SCS Assessment Team requests to waive requirements under 7.28.16.4 and 7.30.5.2, thus enabling this condition to carry over into the Re-Assessment with a scheduled closure by the Year 4 Surveillance Audit after the Re-Assessment (effectively October 28, 2027, the next anticipated expiration date). The team wishes to exercise exceptional circumstances now based on examination of the fishery client’s capacity to deliver conditions as part of the Year 4 Surveillance Audit process.</p> <p>The team also identifies a longer, specified time period to carry over into the re-assessment for two conditions which were originally opened during the 2019 second annual surveillance of the current certificate cycle:</p> <ul style="list-style-type: none"> • Condition 8 – 1.1.1 (b), specific to Chum Salmon stock status; • Condition 9 – 1.3.3(a) and 1.3.3 (b), specific to Pink Salmon information. <p>The extension of Conditions 8 and 9 require additional time to fund and implement hatchery system changes needed to otolith-mark fish for hatchery evaluation and natural ecological function with respect to response time for marked salmon to complete their life cycle and return to the fishery and the spawning grounds for assessment. Though it was implied in the Year 2 Surveillance Report, the assessment team did not explicitly exercise clause G7.18.1.5 under FCP v 2.1 as originally intended. The team wishes to exercise exceptional circumstances now based on examination of the fishery client’s capacity to deliver conditions as part of the Year 4 Surveillance Audit process. The team wishes to waive requirements under 7.28.16.4 and 7.30.5.2, thus enabling this condition to carry over into the Second Re-Assessment with a scheduled closure by the Year 4 Surveillance Audit after the Second Re-Assessment (effectively October 28, 2027, the next anticipated expiration date).</p> <p>Lastly, the assessment team requests to waive the 60 day requirement stipulated in 7.28.23 and extend to 75 days out of precaution. This request would support an extension on the publication of the surveillance report to ensure all letters of support, variation requests, and stakeholder advisory notices have been conducted prior to and in conjunction with the publication of the Year 4 Surveillance Report currently due April 4th.</p>	
2	Additional time requested	
	Original deadline date	<ul style="list-style-type: none"> • Year 4 Surveillance of current certificate cycle (effective 2017) for Condition 1 • Year 4 Surveillance of next anticipated (effective in 2022) certificate cycle for Conditions 8 and 9 (deadline implied, but originally not made explicit)
	Modified deadline date requested	<ul style="list-style-type: none"> • Year 4 Surveillance after Second Re-Assessment for Condition 1 • Year 4 Surveillance after Second Re-Assessment for Conditions 8 and 9 (to be made explicit in revised CAP)
	Length of additional time requested	5 years

The Assessment team's variation request is informed by:

- 1) Unforeseen challenges in the regulatory landscape adversely affecting the Metlakatla Indian Community's (MIC) capacity to demonstrate progress to meet the current Milestones for Condition 1, which contributed to general capacity and funding constraints not initially anticipated by the MIC nor by the Assessment team in previous years.
- 2) Progress to close Conditions 1, 8, and 9 is heavily dependent on anadromous salmonid life history characteristics which require several years for marked adult salmon to return to freshwater systems in order to collect necessary information to monitor and generate stock status updates.
- 3) Unusual climate patterns, including dry years and unseasonal storms, has disrupted the original plans for using natural temperature gradients in the lake water source of Tamgas Hatchery to otolith-mark production of Chum and Pink Salmon (Conditions 1 and 9).
- 4) Challenges and delays associated with COVID-19 due to inability to conduct regular meetings and business of the Tribal Council and associated Committees which has delayed funding decisions, administration and implementation of hatchery alternatives for fish marking when previous plans proved to be ineffective (Conditions 1 and 9). Covid-related disruptions in supply chains have also delayed availability of new hatchery equipment (water chillers) needed to mark hatchery fish given the limitations of the existing water source.

Condition 1 identified a need for information sufficient to estimate the contribution of enhanced Chum Salmon to the fishery harvest, total escapement (wild plus enhanced) and hatchery broodstock in the Annette Island Reserve (PI 1.3.3). Milestones expected this condition to be achieved by year 4 of the current (2017) certification. The action plan included: 1) otolith marking of hatchery production of Chum Salmon, 2) sampling of the fishery harvest and laboratory analysis of collected otoliths to estimate hatchery contributions, and 3) sampling of Chum carcasses during annual spawning ground surveys for otoliths to determine the incidence of straying. The fishery implemented every one of these actions at a significant cost in effort and funds.

Based on previous feasibility assessments, the hatchery planned to thermally mark otoliths of its Chum Salmon production using water withdrawn from different depths of its Tamgas Lake water source. Exposing incubating chum salmon eggs to different temperatures during rearing creates unique banding patterns by which fish from different hatcheries can be distinguished when otoliths of returning adults are collected and cross-sectioned. Thermal stratification in the lake during summer results in significant temperature differences between shallow (warmer) and deep (colder) water inputs. The hatchery mixes these inputs to regulate water temperature at optimum levels for salmon production. Implementation required costly modifications to the hatchery water system to allow the hatchery to segregate inflow of the water sources separately throughout the fish production cycle in order to accomplish marking.

This strategy initially proved effective in marking of summer Chum production of the 2019 brood year. However, uncharacteristically stormy weather in late summer led to early mixing of lake stratification and loss of the temperature differential necessary for effective marking. Marking of the 2020 and 2021 Chum production could not be achieved due to a different problem. Warm, dry summers produced deep stratification which extended below the deep-water withdrawal, eliminating access to cold water needed for marking. These developments demonstrated that the original plans based upon the best available information at that time would not consistently provide the ability to mark hatchery fish in every year, and a more extensive reconfiguration of the hatchery water system will be required.

The MIC Department of Fish and Wildlife (MICDFW) subsequently contracted with professional consultants from Unakwik Aquaculture Group LLP to complete a comprehensive assessment and plan for hatchery reconfiguration. The resulting plan calls for addition of water chillers, extension of the deep-water intake in the lake from its current 60 ft depth to 140 ft, and addition of a salt water supply system. Approval of this plan is pending from the MIC Tribal Council, and implementation is expected to proceed with funding from the U.S. Bureau of Indian Affairs funds. Significant delays in the planning, approval and implementation of

hatchery construction have resulted from pandemic-related disruptions in the ability of government bodies to meet, make decisions and administer normal processes. Supply chain issues on account of COVID-19 have also limited the availability of new equipment, including water chillers.

Assessment programs have been implemented to sample MIC salmon fisheries and Annette Island spawning areas for Chum Salmon otoliths in order to estimate hatchery contributions. Analyses of information collected to date have provided some information from initial otolith marking at Tamgas Hatchery and from other Southeast Alaska hatcheries. This information suggests that hatchery-origin fish comprise a large proportion of the MIC Chum Salmon catch and a small proportion of natural escapements on Annette Island. These results are consistent with findings in other areas of Southeast Alaska as documented in the State fishery assessment. However, limited sample sizes of Tamgas Hatchery fish to date will require additional samples for good statistical assessments.

Due to the salmon life cycle, there will also be a 2 to 4-year lag time between marking and return of hatchery fish in sufficient numbers to allow for assessments of contributions to the fishery and the escapement. While water system reconfiguration and otolith marking may be completed within one year, an assessment of hatchery returns of marked fish will require 2-3 additional years due to the inherent delay in return of adults at 3 to 4 years of age. The initial delay in effective hatchery marking did not allow sufficient time to complete because of the inherent lag in fish returns, which is a product of their normal ecology.

It is now clear with the benefit of hindsight, that completion of all milestones for this condition will require more than the four years initially assumed in the last re-assessment and always would have. Despite the assessment team's effort to verify FCR v2.0 clause 27.11.3 at the last re-assessment, the previous milestones were unrealistic and should have allowed for a more normal implementation schedule which recognized the inherent limitations in capacity and funding constraints on the Metlakatla Indian Community. The inherent lag in adult returns due to the length of the salmon life cycle means that a comprehensive assessment was unlikely even with the most optimistic schedule for completion of effective changes in hatchery infrastructure. The MIC implemented marking and assessment plans as originally designed in good faith. However, subsequent developments required adaptive management for effective implementation based on results and lessons of initial efforts. By virtue of subsequent actions, the MIC has demonstrated a commitment to follow through with revised plans. While the available information on hatchery components is incomplete, there are no indication of any sustainability concern in the fishery related to this concern.

Based on the explanations above, the assessment team for the Year 4 Surveillance (and Re-assessment) believes that this condition actually meets the definition of exceptional circumstances (as per definition in FCR v 2.0 27.11.8 and also the current language of FCP 2.2. G7.18.1.6) at the time of the previous reassessment assessed under FCR v 2.0, and corresponding milestones should have been extended at that time beyond the 5-year period of the current certification. Therefore, the Year 4 Surveillance assessment team requests a variation to grant an extension on Condition 1 in the spirit of FCP v 2.2 G7.18.1.6. We wish to avoid penalization of the fishery given their now extensive efforts to demonstrate progress and address the needs identified in good faith for the corresponding conditions.

Condition 8 calls for demonstrating that the stock management unit (SMU) of Fall Chum Salmon is at a level which maintains high production and has a low probability of falling below its limit reference point (LRP). This was a new condition identified in the 2nd surveillance of the 2017 certification period when it was apparent that low Chum Salmon returns to Annette Island streams were part of a prolonged downturn in Chum Salmon productivity throughout Southeast Alaska following a period of unfavourable climate-related environmental conditions. Though the team did review evidence and verify 7.19.8 at the time Condition 8 was issued as part of the Year 2 Surveillance, the assessment team did not explicitly exercise clause G7.18.1.5 under FCP v 2.1 applicable at the time – this is merely implied as evidenced by the re-scoring rationale and conditions table in the last Year 2 Surveillance Report. The team wishes to grant extension on this condition based on funding, personnel capacity, and logistical constraints identified as part of the Year 4 Surveillance remote site visit applicable to specifications under G7.18.1.6 under FCP v 2.2. The schedule for completion of this condition was intended from the outset to carry over into the next certification due

to ecological function in salmon population dynamics related to normal patterns of annual variability in numbers and the length of the salmon life cycle. Because the condition was triggered by several years of low spawning escapements, it will require several years of improvement in spawning escapement to reverse the current situation. Environmental patterns affecting fluctuations in salmon abundance are typically autocorrelated, which means that periodically unfavourable conditions tend to be grouped in successive years. Because Chum Salmon return in multiple overlapping age groups (e.g., ages 3, 4, and 5), it often requires several years of better conditions for the effects to be reflected in annual returns. Therefore, it is unrealistic to expect abrupt improvements during low production cycles.

Milestones for years 3-4 of the current certification call for evidence that a plan is being implemented to ensure that the fishery is not responsible for reducing escapement of Chum Salmon in AIR streams to levels below target reference points. The milestones have been met. The MIC has enacted a series fishery management measures and regulations in 2020 including area closures and period restrictions to reduce exploitation rates on natural chum populations, and ensure that the fishery does not preclude recovery as improvements in environmental patterns allow. Assessments of spawning escapements in key production areas are conducted annually to evaluate effectiveness of fishery measures. This condition has been determined to be open and on target as of the 4th annual surveillance in 2022.

As per G7.18.1.6, the Year 4 Surveillance assessment team requests to extend this condition to the Year 4 Surveillance of the next certificate cycle on the basis that this condition fulfils the definition of exceptional circumstances (as per definition in FCP 2.2. G7.18.1.6) due to effects of ecological function on natural response times due to the length of the salmon life cycle. As afforded under G7.30.5.1.a, the team intends to carry over this condition given it was set during the Year 2 Surveillance Audit during the most recent certificate cycle. This request is to ensure the condition closure can be extended to the Year 4 Surveillance for Condition 8.

Condition 9 identified a need for information sufficient to estimate the contribution of enhanced Pink Salmon to the fishery harvest, total escapement (wild plus enhanced) and hatchery broodstock in the Annette Island Reserve (PI 1.3.3). This was a new condition identified in the 2nd surveillance of the 2017 certification period when the fishery provided new information regarding pending plans to initiate Pink Salmon production at Tamgas Hatchery. The schedule for completion of this condition was intended from the outset to carry over into the next certification due to time required to implement effective hatchery marking methods for Pink Salmon, and the lag time in return of marked adult salmon two years after marking as juveniles. This schedule was clearly identified in the annual surveillance reports. Though the team did review evidence and verify 7.19.8 at the time Condition 9 was issued as part of the Year 2 Surveillance, the assessment team did not explicitly exercise clause G7.18.1.5 under FCP v 2.1 applicable at the time. This timeline was merely implied as evidenced by the re-scoring rationale and condition table in the report. The team now wishes to grant extension on this condition based on funding, personnel capacity, and logistical constraints identified as part of the Year 4 Surveillance remote site visit applicable to specifications under G7.18.1.6 under FCP v 2.2.

Milestones and actions identified for Condition 9 were similar to those identified in Condition 1 for Chum Salmon including: 1) otolith marking of hatchery production of Pink Salmon, 2) sampling of the fishery harvest and laboratory analysis of collected otoliths to estimate hatchery contributions, and 3) sampling of Pink Salmon carcasses during annual spawning ground surveys for otoliths to determine the incidence of straying. However, unlike the Chum Salmon Condition 1, plans for Pink Salmon otolith marking recognized the need for significant hatchery improvements from the beginning, because the previous Chum marking strategy depending on thermal stratification in the hatchery lake water source had already been proven to be unreliable.

The fishery has met current milestones for Condition 9 which has been determined to be open and on target as of the 4th annual surveillance in 2022. The MIC Department of Fish and Wildlife (MICDFW) has contracted with professional consultants from Unakwik Aquaculture Group LLP to complete a comprehensive assessment and plan for hatchery reconfiguration. Approval of the marking plan is pending from the MIC Tribal Council and implementation is expected to proceed with funding from the U.S. Bureau of Indian Affairs funds. Some COVID-19 pandemic-related delay has occurred in planning, approval and

	<p>implementation of hatchery construction as well as supply chain issues have also limited the availability of new equipment, including water chillers. However, the condition remains on track to meet established milestones as originally intended for the 4th surveillance of the next certification. Assessment programs are in place to sample MIC salmon fisheries and Annette Island spawning areas for Pink Salmon otoliths in order to estimate hatchery contributions.</p> <p>The Year 4 Surveillance assessment team interprets that Condition 9 fulfils the definition of exceptional circumstances (as per definition in FCP 2.2. G7.18.1.6) including time required for implementation and natural response times due to the length of the salmon life cycle. Though the team did not explicitly exercise clause G7.18.1.5 under FCP v 2.1 at the Year 2 Surveillance, the timeline to close the Condition in the next certificate cycle was implied as evidenced by the rationale in the Year 2 Surveillance Report. As per G7.18.1.6 under FCP v 2.2, the Year 4 Surveillance assessment team requests a variation to grant an extension on Condition 9 through the Year 4 Surveillance of the next certificate cycle. As afforded under G7.30.5.1.a, the team intends to carry over this condition given it was set during the Year 2 Surveillance Audit during the most recent certificate cycle. This request is to ensure the condition closure can be extended to the Year 4 Surveillance for Condition 9.</p> <p>As noted the assessment team requests to waive the 60 day requirement stipulated in 7.28.23 and increase the requirement to 75 days as a precautionary measure. Though this variation request was submitted March 3 with ample time to allow for response and potential inclusion into the Year 4 Surveillance Report, there has been some unexpected back and forth with MSC Fisheries to process this variation request. An extension on the publication of the surveillance report would ultimately help ensure that all letters of support, variation requests, and stakeholder advisory notices have been conducted prior to and in conjunction with the publication of the Year 4 Surveillance Report currently due April 4th.</p>
4	Implications for assessment
	<p>If granted this variation request will result in conditions being extended through the Year 4 Surveillance after the Second Re-Assessment.</p> <p>SCS will notify all relevant stakeholders of the timeline extension associated with Conditions 1, 8, and 9 through a stakeholder advisory. This will be published prior to the publication of the Year 4 Surveillance.</p> <p>As per 7.28.23.1 of the FCP v 2.2, the assessment team will draft all new milestones and request the client to draft the CAP, which will be submitted and finalized in the Year 4 Surveillance Report and uploaded to MSC e-cert within 90 days of completing the Year 4 Surveillance Audit. These tables for Conditions 1, 8, and 9 will be carried over into the Re-Assessment Client and Peer Review Draft Report.</p> <p>As required under 7.30.5.1, if granted this variation, the assessment team will clearly identify these open conditions as being carried over into the next certificate as part of the re-assessment.</p> <p>This additional time, if granted, will enable durable, lasting improvements already in motion that will achieve sustainability outcomes to fulfil SG80 requirements where applicable.</p> <p>Lastly, if granted this VR, the Year 4 Surveillance Report will be published before the request extension of 75 days since the remote site visit.</p>
5	Mitigation of the implications for assessment
	<p>The assessment team and SCS examined the feasibility of the MIC to deliver evidence to close conditions now and into the future as part of the Year 4 Surveillance. Stemming from the remote site visit, SCS notes efforts to increase financial capital, assets, and human capacity to address these conditions. The MIC</p>

	<p>Department of Fish and Wildlife (MICDFW) recently hired professional consultants from Unakwik Aquaculture Group, LLP, and hired two members of the MIC who are completing or have recently completed graduate programs at the University of Alaska and University of Washington.</p> <p>Despite many challenges and social or environmental constraints, the Metlakatla Indian Community has demonstrated the commitment, capacity, funding resources, and personnel to close other open conditions despite limited resources. For instance, the assessment team has determined that three conditions will close at this time as part of the Year 4 Surveillance Audit (e.g., Conditions 2, 3, and 5).</p> <p>Pending approval of this variation request by MSC, the assessment will include a letter of support from Unakwik Aquaculture Group, LLP, MICDFW, and BIA to ensure all requirements are met under 7.19.8 for Conditions 1, 8, and 9 to support the Year 4 Surveillance and carrying over to these three conditions in the re-assessment. SCS is currently waiting for these letters of support to verify 7.19.8 requirements.</p>
6	<p>How many conditions does the fishery have and will their progress be affected (positive or negative)?</p>
	<p>The fishery currently has 7 conditions. The assessment team is closing three conditions with the Year 4 Surveillance. Condition 6 objectively has 90% of evidence needed to close at this time and should have no problem closing as it is being carried over to the Year 1 Surveillance after the Re-Assessment. Condition 6 has been extended until the Year 1 Surveillance under the MSC COVID Derogation-6 (Fishery Conditions Extension).</p> <p>Conditions 1, 8, and 9 will be positively affected by this variation request, which will grant the necessary time for social and environmental outcomes to occur in order to foster the necessary progress to close by the next Year 4 Surveillance.</p>
7	<p>What is the status of the current assessment or audit?</p>
	<p>Remote site visit has been completed. The Year 4 Surveillance Report is in draft form and will be published before 60 days have passed after the Remote Site Visit, by April 4, 2022. If this VR is accepted, the assessment team will publish the Surveillance Report within 75 days after the Remote site visit.</p> <p>The assessment team is also working on the Client and Peer Review Draft Report, which should be submitted to the MSC Peer Review College and to the Client Group by April 15, 2022.</p>
8	<p>Further comments</p>
	<p>We appreciate the consideration of the MSC to carefully consider this variation request given the multitude of capacity, funding, historical equity, and environmental challenges which the MIC faces as a Native American tribe operating in a small geographic area surrounded by the larger jurisdictional waters and fisheries of the United States (State of Alaska).</p>
9	<p>If applicable, additional information added after the MSC's request</p>

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Template version control

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1.0	25 March 2020	Release alongside Fisheries Certification Process v2.2

A controlled document list of MSC program documents is available on the [MSC website](https://www.msc.org) (msc.org)

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