

Te Tai Tokerau Water Trust

To undertake the following activities associated with the construction and operation of the Matawii Water Storage Reservoir:

1. Construct a dam in, on, and over the bed of the Kopenui Stream, at or about location co-ordinates: <INSERT> .
2. Earthworks for the construction of a dam and land contouring, at or about location co-ordinates: <INSERT>
3. Vegetation clearance for the construction of a dam and land-contouring, at or about location co-ordinates: <INSERT>
4. Dam and divert water associated with earthworks for the construction ~~the of a~~ dam and land contouring, at or about location co-ordinates: <INSERT>
5. Dam and divert water in the Kopenui Stream and tributaries, at or about location co-ordinates: <INSERT>
6. Take ~~land discharge~~ water from the Matawii Water Storage Reservoir, at or about location co-ordinates: <INSERT>
7. Take water from the Wairoro Stream at the Far North District Council Weir, at or about location co-ordinates: <INSERT>
8. Take water from the Wairoro Stream at Cumber Road when the stream flow is augmented by water from the Matawii Water Storage Reservoir, at or about location co-ordinates: <INSERT>
9. Take water from the Wairoro Stream at Cumber Road during ~~normal~~ run-of-river ~~conditions~~flows (?), at or about location co-ordinates: <INSERT>
10. Discharge ~~sediment-laden~~ stormwater to water and to land where it may enter water during land disturbance activities, at or about location co-ordinates: <INSERT>

Commented [CD1]: Suggest this is added to cover/authorise the augmentation water discharge.

Commented [CD2]: Is this meant to mean "un-augmented"? If so, then it would be preferable to use this term.

General

1. The Consent Holder must undertake the works in general accordance with the application formally received by the Environment Protection ~~Agency~~ Authority on the 10th August 2020. and the following documents. In the event that any of the provisions of the following documents conflict with the requirements of these conditions of consent, these conditions of consent must prevail:
 - (a) Preliminary Geotechnical and Dam Concept Assessment: Matawii Water Storage Reservoir. 8 July 2020. Prepared by Riley Consultants Ltd. Report Reference: 190272-A (Issue 2.0), noting that Drawing 190272-761 (Rev. 1) in Appendix C has been replaced by Drawing 200249-101 (Rev. 1) in Appendix Q.
 - (b) Matawii Water Storage Reservoir: Assessment of Ecological Effects. 10 July 2020. Prepared by Puhoi Stour Ltd in association with Tonkin & Taylor Ltd. PSL Report Number 2020/02
 - (c) Matawii Water Storage Reservoir- Offset and Compensation Plan 24 July 2020. Prepared by Puhoi Stour Ltd in association with Tonkin & Taylor Ltd. PSL Report Number 2020/0.
 - (d) Consenting for the Matawii Reservoir: Hydrology Assessment. 6 August 2020. Prepared by Williamson Water & Land Advisory. Project No: WWLA0165_v06 | Rev. 4.
 - (e) Landscape and Visual Amenity Assessment. 8 July 2020. Prepared by Simon Cocker Landscape Architecture. Report No: 20021_01 (LVAA).
 - (f) Archaeological Assessment of the Proposed Matawii Water Storage Reservoir, 5435 State Highway 12, Kaikohe, Geometria Limited, dated 8 July 2020.
 - (g) Matawii Water Storage Reservoir – Offset and Compensation Plan. 24 July 2020. Prepared by Puhoi Stour Ltd in association with Tonkin & Taylor Ltd. PSL Report Number 2020/09.
2. Far North District Council (FNDC) and Northland Regional Council (NRC) must be notified in writing of the date that earthworks are intended to commence at least two weeks prior to commencement. The Consent Holder must arrange a site meeting between the principal contractor and the Councils' assigned monitoring officers prior to any earthworks commencing. No works can commence until the Councils' assigned monitoring officers have completed the site meeting.
3. Copies of this consent documentation must be provided to any person who is to carry out the works authorised by these consents, prior to any work commencing.

Management Plan Certification Process

4. Management Plans required to be prepared by conditions of this consent must be submitted to the Chief Executive Officer of the relevant Council or their nominee (the Responsible Officer) in electronic and hard copy form for certification at least 40 working days prior to the commencement of the works to which the Plan relates. The certification process must be confined to confirming that the Plan adequately gives effect to the relevant condition(s).
5. If the Consent Holder has not received a response from the Responsible Officer(s) within 20 working days of the date of submission under ~~(a)~~Condition 4 above, the management plan must be deemed to be certified.
6. If the Responsible Officer(s) response is that that they are not able to certify the Management Plan they must provide the Consent Holder with reasons and recommendations for changes to the Plan in writing. The Consent Holder must consider any reasons and recommendations of the Responsible Officer(s) and resubmit an amended Management Plan for certification.
7. If the Consent Holder has not received a response from the Responsible Officer(s) within 5 working days of the date of resubmission under ~~(d)~~Condition 6 above, the Management Plan must be deemed to be certified.

Insurance

8. The Consent Holder must, at least three months prior to construction commencing and at all times thereafter, have a current public liability insurance policy in terms acceptable in all respects to the Councils or their Responsible Officers. The Consent Holder must provide written confirmation that the insurance is in place to the Councils' Responsible Officers.
9. The insurance required by Condition 8 must be sufficient to cover all reasonable insurable contingent risks associated with the construction and operation of the dam, including offsite impacts to third party property (including damage or destruction of possessions and damage to Top Energy power lines) associated with any reasonable foreseeable failure of any part of the dam, together with a reasonable provision for reconstruction and reinstatement; and the proceeds of the insurance policy must be applied for those purposes only.

Detailed Dam Design

10. The Matawii Water Storage Reservoir (MWSR) dam is as described in the Riley plans 190272-761 Rev 1, 190272-762 Rev 1, 190272-763 Rev 1, 190272-764 Rev 1, 190272-765 Rev 1, 190272-766 Rev 1. Revised plans may be substituted provided they result from detailed design ~~and which will not result in any~~ ~~there are no~~ additional adverse environmental effects.
11. The MWSR dam must be designed, constructed, and maintained in accordance with the objectives, principles, and requirements of the currently operative New Zealand Society on Large Dams (NZSOLD) Dam Safety Guidelines (NZSOLD Guidelines).
12. Detailed dam design must ensure an adequate dam strength, a stable embankment slope, competent foundation and abutment material, stable reservoir slopes, and an adequate drainage design that provides for precise monitoring.
13. MWSR spillway capacity must be able to pass the probable maximum flood, currently estimated to be 35.5 cubic metres per second, and the diversion capacity during construction must be verified by the independent competent engineer.
14. Design of the dam embankment on the right-hand abutment ~~is to~~must be given detailed design assessment.

Milestone Dam Design and Construction Peer Review Process

15. A review by an independent 'competent engineer' ~~is to~~must be carried out at the following milestone stages:-
 - (a) After completion of investigations and before the dam design is finalised;
 - (b) After dam design is completed and before construction commences;
 - (c) After dam foundations have been exposed and before dam construction commences;
 - (d) Periodically during dam construction;
 - (e) After construction of the dam is completed and before filling of the reservoir; and
 - (f) At the time of commissioning.
16. Progression of the MWSR dam can only be made after each of these stages when the reviewer and designer are agreed. In the event of an unresolved dispute a third 'competent engineer' may

Commented [CD3]: It would be preferable to explicitly define the scope/purpose of the review. It is assumed that the purpose of the review is to confirm compliance with the Detailed Dam Design conditions – 10 to 14. Likewise, the scope of what the "reviewer" and "designer" must agree to should be explicitly stated in Condition 16 for the sake of clarity/to avoid doubt.

be engaged to arbitrate. Responsibility for the safety of the dam remains with the owner after taking advice from the designer.

Advice Note: A 'competent engineer' is a suitably qualified and registered Chartered Professional Engineer and who, where the review or certification relates to matters of dam design, construction, or the preparation and peer review of documentation required for large dams, has a minimum of 10 years' experience in those activities and is a Category A Recognised Engineer for the purposes of the NZSOLD Guidelines.

Construction Emergency Action Plan (CEAP)

17. The Consent Holder must, at least three months prior to the commencement of construction of the dam, provide to the Councils' Responsible Officers a Construction Emergency Action Plan (CEAP) for certification that it has been prepared in accordance with the recommendations of the NZSOLD Guidelines and relevant New Zealand dam safety legislative requirements for emergency action plans and meets the following objective and minimum requirements. The objective of the CEAP is to limit damage to the dam and downstream areas (including property and possessions), and prevent loss of life. The CEAP must meet the following minimum requirements:
- (a) Identification of emergency conditions which could endanger the integrity of the dam and which require immediate action;
 - (b) Prescription of procedures which should be followed by the contractor and operating personnel to initiate emergency procedures at the dam; and
 - (c) Provision of timely warning to appropriate emergency management agencies for their implementation of protection measures for downstream communities.

Emergency Action Plan (EAP)

18. Prior to the first filling of the reservoir, the Consent Holder must forward to the Councils' Responsible Officers written confirmation from a Professional Engineer(s) experienced in the design and construction of large dams with an assessed Potential Impact Category of 'High', confirming their engagement to prepare a post construction Emergency Action Plan (EAP) for the purpose of ensuring appropriate management of the risk associated with uncontrolled or excessive flow releases from the dam.
19. An EAP must be prepared in accordance with the recommendations of the NZSOLD Guidelines and relevant New Zealand dam safety legislative requirements. The EAP must be submitted to the Councils' Responsible Officers at least 20 working days prior to reservoir filling for certification that it meets the recommendations of the NZSOLD Guidelines and relevant New Zealand dam safety legislative requirements.
20. The Consent Holder must comply with the certified EAP at all times.

Consultation on CEAP and EAP

21. The CEAP and EAP must be the subject of consultation between the Consent Holder and Northland emergency services agencies (at the date of the consent including the Northland Emergency Management Group, Far North District Council Civil Defence and Northland Emergency Services Trust).

Reservoir Filling

22. A Commissioning Management Plan (ComMP) is to must be submitted to the Councils' Responsible Officers for certification prior to the first filling of the reservoir. As a minimum the ComMP must include the following details:
- (a) The key commissioning stages and any associated reservoir filling hold points;
 - (b) Key performance metrics and processes for dealing with performance deviations;
 - (c) Core commissioning documentation and verification processes; and
 - (d) A process for reviewing the ComMP.
23. Reservoir filling must not commence until all of the following are met:
- (a) The CEAP, EAP and ComMP are certified; and
 - (b) The Code Compliance Certificate (CCC), or similar authorisation, for the dam structure has been issued under the Building Act 2004;

Commented [CD4]: Inconsistent with the 40 working day requirement imposed by Condition 4.

Commented [CD5]: Conditions 17-23 and 26 essentially relate to dam safety, with Conditions 17,18,19, 22 and 26 including reference to "Councils' Responsible Officers". This indicates that both Councils are responsible the administration of those conditions and dam safety. Under section 14(1) of the Building Act 2004, the Northland Regional Council "is responsible for performing functions under this Act relating to a building that is a dam". The MWSR is clearly a "dam" under the Building Act and the Northland Regional Council has the responsibilities/powers under the Act relating to the safety of dams in Northland. Therefore, "Councils' Responsible Officers" should be replaced with "NRC Responsible Officer".

Commented [CD6R5]:

Commented [CD7]: Replace with "NRC Responsible Officer".

Commented [CD8]: Replace with "NRC Responsible Officer".

Commented [CD9]: Inconsistent with the 40 working day requirement imposed by Condition 4. However, this may be deliberately intended. To accommodate this, Condition 4 could be reworded along the lines of the following:

Management Plans required to be prepared by conditions of this consent must be submitted to the Chief Executive Officer of the relevant Council or their nominee (the Responsible Officer) in electronic and hard copy form for certification at least 40 working days prior to the commencement of the works to which the Plan relates, unless a shorter or longer submission period is specified by the relevant consent condition.

Commented [CD10]: Replace with "NRC Responsible Officer".

24. The Consent Holder must ensure that, prior to the first filling of the reservoir, the footprint of the reservoir is cleared of vegetation, or the potential for vegetation to adversely impact on water quality is otherwise reduced, to the extent possible, to assist with managing reservoir water quality.
25. At the first filling of the reservoir, the Consent Holder must remove floating vegetative matter, to the extent possible, to assist with managing reservoir water quality.

Dam Safety Management System

26. A Dam Safety Management System (DSMS) ~~is to~~ must be submitted to the Councils' Responsible Officers for certification prior to first filling. This system would contain.
 - (a) A dam safety policy, dam safety statement or dam standard;
 - (b) A description of the DSMS and its elements including dam safety management activities and resources for completing these activities;
 - (c) Responsibilities and procedures for implementing the DSMS;
 - (d) Procedures for checking and reviewing the performance of the dam and the DSMS;
 - (e) Procedures for identifying and addressing any dam safety issues, including deficiencies in the performance of the dam and the DSMS;
 - (f) Procedures for regular reporting on the performance of the dam and the adequacy of the DSMS to the owner and, where appropriate, the Councils' Responsible Officers; and
 - (g) Appropriate supporting systems for management, staff training, communications and information management.

Commented [CD11]: Replace with "NRC Responsible Officer".

Commented [CD12]: Open to different interpretation without some further qualification. It would be preferable to include a minimum frequency, e.g. "but at not less than XX intervals".

Construction Environmental Management Plan

27. The Consent Holder must, prior to the commencement of any site work, prepare and submit to the NRC Responsible Officer for certification a Construction Environmental Management Plan (CEMP) which sets out the methodologies, practices and procedures to be adopted in order to manage the operational aspects of the consented works. No works can be undertaken until the CEMP has been certified in accordance with **Conditions 4 to 7**.
28. The objective of the CEMP is to set out measures that must be implemented to comply with the conditions of consent and to appropriately remedy or mitigate any adverse effects of construction work activities.
29. As a minimum the CEMP must include the following details:
 - (a) A description of the project including:
 - i) ~~T~~he construction works programme and staging approach;
 - ii) A process for dealing with design adjustments including notification protocols;
 - iii) ~~C~~onstruction works methodologies;
 - iv) Key construction quality performance metrics and processes for dealing with performance deviations;
 - v) ~~A~~a detailed site layout; and
 - vi) ~~T~~he design and management specifications for all earthworks on-site and their location;
 - (b) Who the principal contractor and sub-contractors are;
 - (c) Names and telephone numbers of supervisory staff including the details for emergency contact personnel who must be contactable 24 hours, 7 days a week;
 - (d) Environmental emergency response procedures;
 - (e) Processes to be followed in wet weather;
 - (f) A maintenance programme for haul and access roads;
 - (g) Security and spill management systems proposed for any refuelling and maintenance depots;
 - (h) Environmental complaints management procedures and response measures;
 - (i) Compliance monitoring, environmental reporting and environmental auditing, including a requirement to provide the results or outcomes of monitoring, reporting and auditing to the Responsible Officer(s);
 - (j) An accidental discovery protocol in accordance with **Condition 48**;
 - (k) Site security arrangements;
 - (l) A requirement for a copy of the Construction Management Plan to be held on site;

- (m) Mitigation and contingency measures for (but not limited to) the following:
- (i) Erosion control and construction material loss;
 - (ii) Preventing spills (including oils, hydraulic fluids, other chemicals) and contingency containment and clean-up provisions in the event of accidental spillage of hazardous substances;
 - (iii) Occurrences of non-compliance;
 - (iv) Failure of protection works for earthworks; and
 - (v) ~~Water collection management.~~

The Consent Holder must undertake the activities authorised by these consents in accordance with the certified CEMP.

30. The CEMP must be updated throughout the course of the project to reflect changes to components of the project and the ESCP required under **Condition 35**. The CMP must be reviewed and revised as necessary prior to construction and at the commencement and completion of each stage of dam construction and/or earthworks season. The updated or revised CMP must be submitted to the NRC's Responsible Officer for re-certification. The Consent Holder must undertake the activities authorised by these consents in accordance with the latest certified version of the CEMP.

Erosion, Sediment and Dust Control

31. No earthworks can be carried out between 1 May and 30 September in any year unless the prior written agreement of the NRC's Responsible Officer has been obtained. Any request to undertake works between 1 May and 30 September must be in writing and ~~must~~ be made at least two weeks prior to the proposed commencement date of the works. This written request must include an amended ESCP that has been prepared in accordance with **Condition 35**.
32. Sediment control measures must be constructed and maintained in accordance with the principles and practices contained within the Auckland Council document entitled "Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region, June 2016, Guideline Document 2016/005 Incorporating Amendment 2" (GD05). Where there are inconsistencies between any part of GD05 and the conditions of these consents, then the conditions of these consents must prevail.
33. ~~All works, including t~~The installation of all erosion and sediment controls, must be supervised by a suitably qualified and experienced person, ~~who must ensure that all works are undertaken in a manner that ensures the long-term stability of the site.~~
34. Prior to the commencement of earthworks operations, the ~~Ce~~consent ~~H~~holder must provide a stabilised construction entrance(s) to minimise the tracking of spoil or debris onto off-site public road surfaces. All material tracked onto off-site surfaces as a result of the ~~Ce~~consent ~~H~~holder's operations must be removed as soon as possible, but at least daily. The stabilised construction entrance(s) must be maintained throughout the duration of earthworks operations.
35. An Erosion and Sediment Control Management Plan (ESCP) must be submitted to the NRC's Responsible Officer for certification. No earthworks can be undertaken under this consent until ~~the ESCP has been certified in accordance with Conditions 4 to 7 this certification has been given in writing.~~ The ~~Erosion and Sediment Control Management Plan-ESCP~~ must set out the practices and procedures to be adopted in order that compliance with the conditions of this consent is achieved and must include;
- (a) The expected duration (timing and staging) of the major cut and fill operations, drainage works, disposal sites for unsuitable materials/overburden, and clean water diversions.
 - (b) Diagrams and/or plans, of a scale suitable for on-site reference, showing the locations of the major cut and fill operations, disposal sites for unsuitable materials, erosion and silt control structures/measures, and water quality sampling sites.
 - (c) Details of erosion and sediment controls including specific pond design and calculations as required;
 - (d) Supporting calculations and catchment boundaries for the erosion and sediment controls;
 - (e) The commencement and completion dates for the implementation of the proposed erosion and sediment controls;
 - (f) Methods to be used to stabilise batter faces;

Commented [CD13]: Not clear why you would have mitigation and contingency measures for collecting water. Is the intent to have mitigation and contingency measures for controlling stormwater at the site?

Commented [SS14]: Limit scope of condition to just "to ensure works are undertaken in accordance with the ESCP".

- (g) Details of surface re-vegetation of disturbed sites and other surface covering measures to minimise erosion and sediment runoff following construction;
 - (h) Measures to minimise sediment being deposited on public roads, beyond the works area;
 - (i) Measures to avoid a dust nuisance occurring on neighbouring properties during dam construction; and
 - (j) A monitoring programme dealing with significant sediment plumes that are a result of the works authorised by this cConsent, being plumes that persist for longer than 48 hours. The monitoring must include, but not be limited to:
 - (i) Regular task specific visual monitoring of sediment plumes in the Kopenui Stream;
 - (ii) Consultation between the site manager and the NRC's Responsible Officer regarding any sediment plumes that persist for more than 48 hours; and
 - (iii) Water quality sampling locations, parameters, analysis procedures and reporting requirements to quantify the downstream water quality effects should sediment plumes persist for more than 48 hours.
36. All earthworks must be undertaken in compliance with the latest certified version of the ESCP.
37. The Consent Holder may review and amend the ESCP at any time during the term of these consents provided that the amendments still achieve compliance with the conditions of these consents. The amended ESCP must be submitted to the NRC's Responsible Officer for re-certification. ~~The Consent Holder must undertake the activities authorised by these consents in accordance with the latest certified version of the ESCP.~~
38. The Consent Holder must submit a certificate to the NRC's Responsible Officer, signed by an appropriately qualified and experienced person, stating that the erosion and sediment controls have been constructed in accordance with the latest certified version of the ESCP and prior to the commencement of other works. Information supplied must include:
- (a) Contributing catchment area.
 - (b) Retention volume of structures.
 - (c) Shape of structures.
 - (d) Position of inlets/outlets.
 - (e) Stabilisation of the structures.
 - (f) Size of diversions and method of stabilisation.
39. All erosion and sediment controls must be installed for as long as there is a potential for sediment movement arising from dam construction activities into any waterways and all such control structures must be maintained to ensure they achieve their intended performance standards at all times.
40. All bare areas of land at the site beyond the reservoir footprint must be stabilised following the completion of earthworks.
41. Drains and cut-offs constructed to divert stormwater must be capable of conveying stormwater during not less than the estimated 1 in 20-year rainfall event. All channels on grades greater than 2% must be protected to avoid erosion occurring.
42. All offsite stormwater must, as far as is practicable, be directed away from earthworks areas and no drainage pathways must be constructed or permitted to flow over fill areas in a manner that creates erosion of the fill material.

Construction Activity Controls

- 43. Construction activities may only be undertaken Monday to Saturday, excluding Public Holidays, during the hours of 7.00 am to 6.00 pm.
- 44. Construction activities must be conducted in accordance with NZS 6803: 1999 "Acoustics - Construction Noise" and must comply with the "typical duration" noise limits contained within Table 2 of that Standard.
- 45. The Consent Holder must repair or reinstate any public roads that are damaged by construction traffic.
- 46. The only hazardous substances that can be stored on site are fuel and lubricants for construction plant and machinery.

Commented [CD15]: Addressed by Inserting "latest" into Condition 36.

47. The construction operations must not give rise to any discharge of contaminants including dust at or beyond the property boundary, which is noxious, dangerous, offensive or objectionable to such an extent that it has, or is likely to have, an adverse effect on the environment.
48. In the event of archaeological sites or kōiwi being uncovered, activities in the vicinity of the discovery must cease and the Archaeological Site Instruction and Methodology (Archaeological Site Instruction) contained in the report titled 'Archaeological Assessment of the Proposed Matawii Water Storage Reservoir, 5435 State Highway 12, Kaikohe, Geometria Limited, dated 8 July 2020', must be initiated. In accordance with the Archaeological Site Instruction, the Consent Holder must initiate the following procedures;
- (a) All work in the vicinity of the discovery must cease and the FNDC Responsible Officer advised;
 - (b) Secure and mark the area to ensure the archaeological material is not further disturbed;
 - (c) Inform the Project Archaeologist, and Kaitiaki (if the archaeologist and Kaitiaki are not present), and Heritage New Zealand Pouhere Taonga and in the case of kōiwi (human remains) the New Zealand Police;
 - (d) The Project Archaeologist and cultural monitor/kaitiaki will inspect the find and the Project Archaeologist will advise the Site Supervisor and Project Manager as to whether the find is or is not archaeological, and if archaeological, whether it is a significant find such as kōiwi tangata/human remains or taonga tuturu/a protected object, and enact the appropriate protocol:-
 - (e) Works in the site area must not recommence until authorised by the Kaitiaki, Heritage New Zealand Pouhere Taonga (and the NZ Police in the case of kōiwi) to ensure that all statutory and cultural requirements have been met:- and
 - (f) The Consent Holder must notify the FNDC Responsible Officer prior to the recommencement of work, and copies of all relevant authorisations must be provided to that Officer

Advice Notes:

- 1. *It is expected that all parties will work towards work recommencing in the shortest possible time frame while ensuring that any archaeological sites discovered are protected until as much information as practicable is gained and a decision regarding their appropriate management is made, including obtaining an archaeological authority under the Heritage New Zealand Pouhere Taonga Act 2014 if necessary. Appropriate management may include recording or removal of archaeological material.*
 - 2. *The Consent Holder is advised to obtain an archaeological authority under the Heritage New Zealand Pouhere Taonga Act 2014 covering all areas where archaeological sites may be modified or destroyed during the project.*
49. The upstream and downstream passage of indigenous freshwater fish must be provided for and be effective under the flow range conditions of the Kopenui Stream during construction of the dam and reservoir area.
50. All construction activity must comply with the certified Indigenous Freshwater Fauna Salvage and Relocation Plan, Bat Management Plan, Avifauna Management Plan, and Lizard Management Plans.
51. A Works Completion Report must be prepared within 3 months of completion of earthworks. The report must be submitted to FNDC Responsible Officer for certification. The Works Completion Report must contain sufficient detail to address the following matters:
- (a) A summary of the works undertaken within the development area.
 - (b) Records of unexpected contamination encountered and the response actions, if applicable.

Construction Traffic Management Plan

52. Prior to commencement of construction, the Consent Holder must submit a Construction Traffic Management Plan (CTMP) prepared by a person with a current STMS certificate to the FNDC Responsible Officer for certification in accordance with **Conditions 4 to 7** of these consents. The CTMP must include (but not be limited to) the following matters:
- (a) An assessment of likely numbers of construction vehicle movements;
 - (b) The safe management and maintenance of traffic flows, including pedestrians and cyclists, on existing roads;
 - (c) The locations of access carriageways and their connections to public roads;

- (d) The methodology for ensuring the continued access to all properties affected by the construction process for both vehicles and pedestrians (access must be maintained at all times unless the prior written approval of the landowner has been obtained);
 - (e) Construction dates and hours of operation;
 - (f) Truck route diagrams both internal to the construction site and external to the local road network; **and**
 - (g) Temporary traffic management signage/details for both pedestrians and vehicles to appropriately manage the interaction of these road users and heavy construction traffic.
53. The Consent Holder must submit a draft of the CTMP to Waka Kotahi NZTA and FNDC Infrastructure and Asset Management. The CTMP must be amended to incorporate any comments received prior to its submission to FNDC for certification by its Responsible Officer.
54. The certified CTMP must be implemented and maintained by the Consent Holder throughout the entire construction period of the project.

Discharge from the Matawii Water Storage Reservoir to the Wairoro Stream

55. The augmentation discharge from the Matawii Water Storage Reservoir into the Wairoro Stream or about NZTM 1672625E 6083909N for subsequent retaking at Cumber Road must be metered to measure the discharge flow rate in litres per second and the discharge volume in cubic metres. The meter and its operation must comply with the metering and data logging requirements of **Conditions 68 to 72**.
56. The augmentation discharge must be undertaken accordance with the Operational Reservoir Management Plan required under **Condition 76**.

Flushing Flows

57. **Within four months of the commencement of these consents**, the Consent Holder must prepare a Flushing Flow Management Plan (FFMP) for certification by the NRC's Responsible Officer. The objective of the FFMP is to determine periphyton trigger levels in the Kopenui Stream that would warrant the release of a flushing flow from the Matawii Water Storage Reservoir. The FFMP must specify the rate (**Litres per second/s**), volume (**cubic metresm³**) and duration of the flushing flow to be released should the periphyton trigger level be met.

High-Flow Water Take (Wairoro Stream at the existing FNDC Weir)

58. The maximum rate of take from the Wairoro Stream at the existing weir at or about NZTM 1672625E 6083909N must not exceed 250 litres per second.
59. No water can be taken under **Condition 58** when the flow in the Wairoro Stream measured at or about NZTM 1672625E 6083909N is at or below 154 litres per second.

High-Flow Water Take (Kopenui Stream from the Matawii Water Storage Reservoir)

60. The maximum rate of the take from the Matawii Water Storage Reservoir must not exceed 10,000 cubic metres per day.

Augmentation Water Take (Wairoro Stream at Cumber Road)

61. The abstraction of Matawii Water Storage Reservoir augmentation water from the Wairoro Stream at Cumber Road (at or about NZTM #####) must not exceed the rate and volume of water being discharged into the Wairoro Stream (at or about NZTM 1672625E 6083909N).

Non-augmentation Water Take (Wairoro Stream at Cumber Road)

62. The maximum rate and volume of taking of non-Matawii Water Storage Reservoir augmentation water from the Wairoro Stream at Cumber Road (at or about NZTM #####) must not exceed;
- (a) 27 litres per second;
 - (b) 2,300 cubic metres per day; **or**
 - (c) 422,000 cubic metres between 1 July and 30 June in the following year.
63. No non-Matawii Water Storage Reservoir augmentation water can be taken when the flow in the Wairoro Stream measured at or about NZTM ##### is at or below 98 litres per second.

SMWB Peer Review

Commented [CD16]: Will need to be changed to Condition 71 if existing Condition 71 is deleted.

Commented [CD17]: Will need to be changed to Condition 75 if Condition 71 is deleted.

Commented [CD18]: Why four months and not 40 working days – apparent inconsistency with Conditions, albeit Condition 4 specifies commencement of works rather than commencement of consents?

The determination of “periphyton trigger levels” requirement of this condition is problematic because arguably the Consent Holder would need to collect regular water quality data over a period of years to set appropriate trigger levels. Therefore, this condition could frustrate an early start to construction and exercise of the consents. An alternative wording achieving the intent of this condition is:

... The objective of the FFMP is to determine periphyton trigger levels in the Kopenui Stream that would warrant the release of a flushing flow from the Matawii Water Storage Reservoir. The Consent Holder must determine the initial trigger levels in consultation with the NRC. The triggers levels must be reviewed no more than 12 months after the reservoir has filled for the first time and be changed if new/additional water quality and/or periphyton data show that those trigger levels are deficient. Thereafter, the NRC may review and change the trigger levels at any time if new/additional water quality and/or periphyton data show that those trigger levels are deficient.

This condition could also have a perverse outcome, namely, requiring the release of dam water during drought/water shortage conditions when there may be widespread natural proliferations of periphytons in Northland rivers and the dam water is required the most. Such a flushing flow may have little or short-term environmental benefit. This will hinge of the interpretation of what warrants a flushing flow.

- Some ways to alleviate perverse outcomes are:
- Include an advice note that explains that in setting triggers levels, the environmental benefit of a flushing flow must be balanced against the adverse effects that releasing the flushing flow would have on water users particularly during drought/water shortage conditions.
 - Provide an exemption provision that could be exercised subject to the permission of the NRC during drought/water shortage conditions.

Commented [CD19R18]:

64. Prior to the commencement of construction works the Consent Holder must obtain an independent peer review by a suitably qualified and experienced practitioner of the Soil Moisture Water Balance Model (SMWBM) used to establish the minimum and median flows set out in the conditions of these consents. The peer review must be provided to the NRC's Responsible Officer.

Fish Screens

65. All water intakes (from the reservoir and from streams) must be screened so as to minimise harm to and prevent entrainment of indigenous fish. The fish screens must be designed in accordance with the document "Fish screening: Good practice for Canterbury, NIWA Client Report: CHC2007-092, October 2007". Prior to installing any fish screen, the Consent Holder must submit a report to the NRC's Responsible Officer containing the design plans and specifications for the screens and their installation and operation and maintenance plans for the screens, together with a letter from a person experienced in New Zealand freshwater ecology and fish screening techniques certifying that the screen meets the requirements of the document "Fish screening: Good practice for Canterbury, NIWA Client Report: CHC2007-092, October 2007". As a minimum, each screen must limit the intake velocity across the screen to less than 0.3 metres/second and have no holes or slots with a diameter or width greater than 5 millimetres. Screening material (mesh, profile bars or other) on each screen must have a smooth surface and openings.

Advice note: The Consent Holder must also obtain approvals about fish passage from the Director-General of Conservation under clause 43 Freshwater Fish Regulations 1983.

66. Within 12 months of fish screen installation a certificate must be provided to the NRC Responsible Officer, by a person with experience in freshwater ecology and fish screening techniques, to certify that the fish screen has been installed in accordance with the details provided to NRC in accordance with **Condition 65**.
67. The intake structures and fish screens must be operated and maintained in accordance with the operation and maintenance procedures as established through Condition ~~57-65~~^{above}. A record must be kept of all the maintenance carried out and provided to NRC Responsible Officer upon request.

Commented [SS20]: This seems to be a rather long period. One month would be more appropriate.

Water Meters

68. Prior to the first exercise of this consent, water meters must be installed to measure the volumes of water taken, in cubic metres, for each take referred to in **Conditions 58 to 63**. Each meter must:
- Have an electronic datalogger for automatic logging of meter data;
 - Be telemetered to the NRC;
 - Be sealed and as tamper-proof as practicable;
 - Be installed at the location from which the water is taken; and
 - Have an accuracy of within +/-5%.

The Consent Holder must, at all times, provide safe and easy access to each meter installed for ~~Council~~ NRC officers or agents to undertake visual inspections and record water take measurements.

69. The Consent Holder must verify to the NRC Responsible Officer that the meters required by **Condition 68** are accurate. This verification must be undertaken prior to 30 June:
- Following the first taking of water in accordance with this consent; and
 - At least once in every five years thereafter.

Each verification must be undertaken by a person, who in the opinion of the NRC's Responsible Officer, is suitably qualified. Written verification of the accuracy must be provided to the NRC's Responsible Officer no later than 31 July following the date of each verification.

70. The Consent Holder must keep a record of the daily volume of water taken from each site of abstraction in cubic metres, including all nil abstractions, using the readings from the meters required by **Condition 68**.

- ~~71. The water meters required by Condition 68 must all have electronic datalogger for automatic logging of meter data.~~

- ~~72-71.~~ A copy of the records required to be kept by **Condition 70** must be forwarded to the NRC's Responsible Officer on an annual basis during the month of May. In addition, a copy of these

Commented [CD21]: Redundant as already required by Condition 68(a).

records must be forwarded immediately to the NRC's Responsible Officer on written request. The records must be in an electronic format that has been agreed to by the ~~council~~NRC.

Advice Note: *If no water is taken during any calendar month then the Consent Holder is still required to notify the NRC's Responsible Officer in writing of the nil abstraction. Water use record sheets in an electronic format are available from the council's website at www.nrc.govt.nz/wur.*

Operation of the Matawii Water Storage Reservoir

~~73-72.~~ The structures covered by these consents must be maintained in good order and repair so that they work effectively at all times.

~~74-73.~~ Any outflows of water from the Matawii Water Storage Reservoir into the Kopenui Stream immediately downstream of the dam must be effectively dissipated to minimise scouring of the Kopenui Stream bed and erosion of the stream bank.

~~75-74.~~ When upstream catchment inflows (i.e. upstream of the Matawii Water Storage Reservoir) are less than 15 litres per second, the exercise of these consents must not result in the flow of the Kopenui Stream being reduced below the upstream catchment inflows. Upstream catchment inflows are to be calculated on a water balance approach, augmented where practical by direct flow measurements in representative sub-catchments, and as documented through the Operational Reservoir Management Plan.

~~76-75.~~ The Consent Holder must, prior to the filling of the reservoir, prepare and submit an Operational Reservoir Management Plan (ORMP) which sets out the methodologies, practices and procedures to be adopted in order to manage the reservoir. The ~~Operational Reservoir Management Plan~~ORMP must be submitted to NRC's Responsible Officer for certification prior to operating the reservoir, and must contain the following details:

- (a) An overview of the reservoir characteristics, construction and features and where details about the construction can be found;
- (b) As-built drawings;
- (c) Roles and responsibilities of the various parties associated with the operation of the Matawii Water Storage Reservoir;
- (d) Inspection forms for engineering, water monitoring and maintenance inspections;
- (e) Design levels, flows, triggers and telemetric monitoring requirements;
- (f) Details of the flow bypass structure to be installed to achieve compliance with **Condition 75** during periods when upstream catchment inflows are below 15 litres per second;
- (g) Data management and information ownership;
- (h) Maintenance functions and reporting requirements; and
- (i) Details of annual reporting requirements to NRC and FNDC.

~~77-76.~~ Upstream and downstream passage for native eels must be provided during the operation of the Matawii Water Storage Reservoir. The methods for provision of native eel upstream and downstream passage during the operation of the Matawii Water Storage Reservoir must be documented in the ~~Operational Reservoir Management Plan~~ORMP. Prior to finalising the eel passage methods, the Consent Holder must consult with the Department of Conservation regarding the methods proposed to be used.

~~78-77.~~ Within one year following completion of the dam and for a period of not less than two consecutive years but not exceeding five consecutive years, the Consent Holder must carry out a quantitative annual survey specifically designed to determine the relative success of upstream movement of eels into the upstream Kopenui Stream catchment. The findings of each annual survey must be provided to the NRC's Responsible Officer by 1 May each year.

~~79-78.~~ The ~~Operational Reservoir Management Plan~~ORMP must be reviewed following two full years of reservoir operation for the purpose of verifying the performance of the Plan, in particular in meeting residual flow requirements. The review, including any proposed changes to improve the performance associated with meeting residual flow and fish passage requirements, ~~will~~**must** be submitted to the NRC's Responsible Officer before the end of the ~~fifth~~ year of reservoir operation.

~~80-79.~~ Following completion of the dam structure, annual inspections of the dam must be undertaken and reported on in accordance with the latest dam safety guidelines prepared by the New Zealand Society on Large Dams by a suitably qualified technical adviser [or Category A Recognised Engineer being certified by IPENZ]. This inspection and assessment must cover, but not be limited to the following:

Commented [CD22]: Will need to be changed to Condition 74 if Condition 71 is deleted.

Commented [CD23]: It is unclear why this condition provides up to three years to submit the review.

- (a) The performance and maintenance of the dam equipment in accordance with the dam safety guidelines prepared by the New Zealand Society on Large Dams;
- (b) Checks on works recommended previously ensuring that any remedial works recommended have been carried out;
- (c) Normal deterioration; and
- (d) Any dam safety (potential) deficiencies.

Any minimum requirements arising from the annual inspection report must indicate a reasonable timeframe in which follow-up actions are to be undertaken. Any recommended remedial works outlined in the yearly inspection report must be carried out promptly. The annual inspection report must be submitted to the NRC Responsible Officer by 1 May of each year.

~~81-80.~~ In addition to the annual inspection reports required by Condition 80, a review of the safety and efficiency of the dam structure and ancillary equipment in accordance with the dam safety guidelines prepared by the New Zealand Society on Large Dams must be undertaken at five yearly intervals by a suitably qualified and experienced independent registered engineer. The review report must be for the preceding five-year period ending 30 June. A copy of the review report must be forwarded to the NRC Responsible Officer by the following 30 September. Any recommended remedial works must be carried out in accordance with the timeframe specified in the review report.

Commented [CD24]: Will need to be changed to Condition 79 if Condition 71 is deleted.

~~82-81.~~ The Consent Holder must promptly report any visible signs of an algal bloom within the Matawii Water Storage Reservoir to the NRC Responsible Officer.

Ecological Management

~~83-82.~~ The Consent Holder must engage a suitably qualified expert(s) to develop the following ecological management plans (EMPs) for certification in accordance with Conditions 4 to 7 of these consents:

- (a) An Indigenous Freshwater Flora and Fauna Salvage and Relocation Plan for all parts of the site where works will occur in stream or wetland habitat that will be inundated.
- (b) Bat Management Plan.
- (c) Avifauna Management Plan.
- (d) Lizard Management Plan.
- (e) Stream Enhancement Planting Plan to achieve at least 0.5ha of stream bed habitat enhancement including up to 20 metres of riparian planting on each bank and weed control on the tributary streams above the dam.

The objective of these plans is to as far as is practicable, plan and implement actions to avoid, remedy and/or mitigate the actual and potential effects of the Matawii Water Storage Reservoir project on the freshwater, bat, avifauna and lizard values affected by the project, and to ensure implementation of the offset and compensated measures contained in the Biodiversity Offset and Compensation Plan required under Condition 85.

Each plan must be in accordance with relevant sections of the document titled "Matawii Water Storage Reservoir: Assessment of Ecological Effects. 10 July 2020. Prepared by Puhoi Stour Ltd in association with Tonkin & Taylor Ltd. PSL Report Number 2020/02", and must include, but not be limited to:

- (a) Providing the methodologies that will be used to identify and quantify (where reasonably practicable) the presence of indigenous flora and fauna within the proposed area of works, beyond a desktop assessment; and
- (b) Providing the methodology for the protection, relocation, replacement or removal of flora or fauna where required; and
- (c) Describing monitoring and reporting requirements to the NRC, FNDC and other relevant authorities; and
- (d) Details of monitoring, reporting and response actions to be undertaken when EMP objectives are not met. The Bat Management Plan (BMP) is to assess if it is feasible to leave potential bat roost trees (trees having a diameter at breast height of 15cm or greater) standing in the inundation area. If determined feasible the trees will be left standing. The BMP is to include protocols for removing potential roost trees that minimises the killing and/or injury to bats. Planting of trees around the edge of the inundation area to enhance bat habitat is also to be considered and be implemented if considered practicable.

Commented [CD25]: Will need to be changed to Condition 84 if Condition 71 is deleted.

- (e) The Lizard Management Plan must detail the residual effects on lizards including the mortality of individuals (including At Risk species) and permanent habitat loss and provide details to adequately address and compensate for the residual adverse effects on lizards.
- (f) The Indigenous Freshwater Flora and Fauna Salvage and Relocation Plan must require, in consultation with the Department of Conservation, the investigation of the possibility and feasibility of translocating the 23 mature swamp maire trees (and other wetland material e.g. substrate and plants) to another site. This will include considering the soil type and hydrology and protocols to minimise damage to roots during the translocation (for example, using the guidance of a wetland ecologist and arborist).

~~84-83.~~ The plans listed in ~~Condition 83~~ must be peer reviewed by a suitably qualified and experienced ecologist and must incorporate the peer review comments and recommendations.

Advice Notes:

Approvals may also be required under the Wildlife Act 1953, so the ~~C~~consent ~~H~~holder should ensure that the methodologies adopted under this condition do not conflict with any requirements of that Act.

While the bat roost trees left standing may eventually decay, they may provide habitat for a portion of the time the offset habitat is maturing

~~85-84.~~ The Consent Holder must, at least one month before construction work begins, submit to the NRC and the FNDC Council Responsible Officers for certification, a Biodiversity Offset and Compensation Plan (~~BOCP~~) prepared by a suitably qualified and experienced ecologist and in general accordance with the Offset and Compensation Plan set out in the following document: *David Pickett, Justine Quinn, Josh Markham, and Martin Neale. 24 July 2020. Matawii Water Storage Reservoir – Offset and Compensation Plan. Prepared by Puhoi Stour Ltd in association with Tonkin & Taylor Ltd. PSL Report Number 2020/09.*

~~86-85.~~ The ~~Biodiversity Offset and Compensation Plan (BOCP)~~ must be implemented by the Consent Holder and ~~it must~~ include, but not be limited to:

- (a) Offset objectives to:
 - (i) achieve no net loss and preferably a net biodiversity gain as derived from the offset accounting model across ecosystem type, composition and structure;
 - (ii) minimise the delay between the loss of biodiversity from the project and the gain or maturation of biodiversity outcomes;
- (b) Compensation objectives (based on proven and feasible ecological actions) to address the loss of individual Threatened or At-Risk lizards and lizard habitat and any adverse effects on wetland bird foraging and roosting habitat;
- (c) Considering existing hydrology and wetland connectivity when selecting an appropriate wetland offset site;
- (d) Considering wetland offset plants that are suitable for nesting and foraging of wetland birds;
- (e) Planting proposals and plans for environmental enhancement of the Kopenui Stream upstream and downstream of the Matawii Water Storage Reservoir, including planting that is in general accordance with the "Draft Landscape mitigation concept" forming Figure 2c of the LVAA;
- (f) The measures to be undertaken to strengthen and complement the natural vegetation patterns within the site and immediately surrounding area;
- (g) Specifically addressing any adverse effects on the Significant Natural Area (SNA) – Kopenui Stream Remnants;
- (h) Requiring the relocation of existing swamp maire trees if that is practicable;
- (i) Identification of other sites where ecological restoration and enhancement activities will take place and how, including but not limited to, initial and operational pest plant and animal eradication measures;
- (j) Legal mechanisms proposed to protect areas used for ecological restoration and enhancement activities in perpetuity including the fencing of those areas and the exclusion of grazing stock from them;
- (k) Annual monitoring of areas used for ecological restoration and enhancement activities and whether or not the objectives, performance targets and performance standards specified in the BOCP and requiring the replacement of any failed plantings;

Commented [CD26]: Will need to be changed to Condition 82 if Condition 71 is deleted.

Commented [CD27]: See comment regarding Condition 19. If a shorter period is intended, then "one month" should be changed to "20 working days" to be consistent with other consent conditions.

- (l) Provision of five-yearly reports to the NRC and the FNDC Responsible Officers outlining the results of the monitoring under (k).

~~87-86.~~ Prior to submitting each EMP to the FNDC or NRC Responsible Officers for certification, a copy of each draft plan must be provided to the Department of Conservation with an invitation to provide feedback. The Consent Holder must ensure that all written feedback received from Department of Conservation on each draft plan is provided to the FNDC or NRC Responsible Officer when it is submitted, along with a clear explanation of where any comment made has or has not been incorporated into the plan and the reasons why.

~~88-87.~~ Each EMP must be submitted to the FNDC Council Responsible Officer and the NRC Responsible Officer for joint certification in accordance with **Conditions 4 to 7** of these consents.

~~89-88.~~ Prior to any work to remove the kauri tree identified on the project site, the Consent Holder must engage a suitably qualified and experienced person to assess whether the tree has kauri dieback disease (the presence of the pathogen *Phytophthora agathidicida*). If kauri dieback disease is present, then the Consent Holder must engage a suitably qualified and experienced person to prepare a Kauri Dieback Disease Risk Management Plan prior to removal work starting, and all work must be undertaken in accordance with that Plan.

~~90-89.~~ In the event that the presence within the project site is confirmed of fauna or flora classified as Threatened or At-Risk under the New Zealand Threat Classification System, and which has not already been addressed in an ecological management plan and the ~~Biodiversity Offset and Compensation Plan~~BOCP, then:

- (a) The Consent Holder must immediately notify the Department of Conservation, and
- (b) If the applicable EMP under ~~Condition 83~~ has not yet been submitted, the Consent Holder must ensure that the plan appropriately addresses the presence of that species; or
- (c) If the applicable EMP under ~~Condition 83~~ has already been submitted, the Consent Holder must review the plan to ensure that it appropriately addresses the presence of that species and must then submit the reviewed plan for certification; or
- (d) If there is no EMP under ~~Condition 83~~ which is applicable to that species, the Consent Holder must prepare a further plan which does address that species and must then submit the plan for certification; and in all cases the Consent Holder must review the ~~Biodiversity Offset and Compensation Plan~~BOCP required under ~~Condition 85~~ to ensure that it appropriately addresses the presence of that species and must then submit the reviewed plan for certification.

Water Use

~~91-90.~~ The Consent Holder must maintain its water supply reticulation so that it operates effectively at all times and the loss of water from the reticulation network is, as far as is practicable, minimised. A record of all maintenance must be available to view by the NRC's Responsible Officer immediately upon request by that Officer.

~~92-91.~~ The Consent Holder must prepare a Water Supply Management Plan (WSMP) for the Matawii Water Storage Reservoir and submit it to the NRC's Responsible Officer within 12 months of the date of the commencement of these consents. The ~~Water Supply Management Plan~~WSMP must identify the overall water supply strategies to manage the potential effects of the use of water by people who receive water from the Matawii Water Storage Reservoir under supply agreements.

~~93-92.~~ The ~~Water Supply Management Plan~~WSMP must include but not be limited to:

- (a) A general policy on how decisions will be made to supply water to persons from the scheme;
- (b) Identification of allocation quantities to persons as set out under Water Supply Agreements;
- (c) Responsibilities of persons receiving the water to ensure water is conveyed and used efficiently, including the following considerations:
 - (i) An assessment of the demonstrated need for water, including current and likely future demand; and
 - (ii) Implementation of good management practices, taking into account the nature of the activity, to efficiently use water.

~~94-93.~~ The ~~Water Supply Management Plan~~WSMP must be reviewed annually from the date of first certification by the NRC to adjust operational practices as necessary to ensure compliance with consent conditions. Any amendments to the ~~Water Supply Management Plan~~WSMP must be

Commented [CD28]: Currently this condition places control of the process to a third party without imposing a deadline on the action/response of that party, which is unfair to the Consent Holder and not considered to be good practice.

Commented [CD29]: Will need to be changed to Condition 82 if Condition 71 is deleted.

Commented [CD30]: Will need to be changed to Condition 82 if Condition 71 is deleted.

Commented [CD31]: Will need to be changed to Condition 82 if Condition 71 is deleted.

Commented [CD32]: Will need to be changed to Condition 84 if Condition 71 is deleted.

Commented [CD33]: This would be too onerous on the Consent Holder if extreme interpretations of potential effects of water use are applied and is arguably *ultra vires*. If the intent of the condition to ensure water use efficiency, then it could be reworded along the following lines:

The WSMP must identify the overall water supply strategies to ensure the efficient use of water by people who receive water from the Matawii Water Storage Reservoir under supply agreements.

provided to the NRC's ~~Monitoring Manager~~ Responsible Officer within 10 working days of the change being made.

Reservoir Water Quality

~~95-94.~~ At quarterly intervals samples of water from the reservoir must be collected and analysed for the following:

- (a) ~~Five-day biochemical oxygen demand (g/m³)~~
- (b) Dissolved inorganic nitrogen (g/m³)
- (c) Dissolved reactive phosphorus (g/m³)
- (d) Cyanobacteria (mm³/L)
- (e) Phytoplankton (mg-chlorophyll-a/m³)
- (f) Escherichia coli (cfu/100 mL)

~~96-95.~~ All samples must be collected using standard procedures and in appropriate laboratory supplied containers.

~~97-96.~~ All samples collected as part of this monitoring programme must be transported in accordance with standard procedures and under chain of custody to the laboratory.

~~98-97.~~ All samples collected must be analysed at a laboratory with registered quality assurance procedures, and all analyses are to be undertaken using standard methods, where applicable.

~~99-98.~~ By 30 September, the results of monitoring for the previous calendar year must be provided to the NRC's Responsible Officer.

Kopenui Stream Monitoring

~~100-99.~~ The Consent Holder must prepare a Kopenui Stream Monitoring Plan (KSMP) for certification by the NRC Responsible Officer. The objective of the KSMP is to specify the methodologies (including frequency of sampling and location of sampling points) that will be used to identify the effects of Matawii Water Storage Reservoir on the water quality and aquatic habitat of the Kopenui Stream. The KSMP must include, but not be limited to, assessing changes in the growth of periphyton, changes to aquatic habitat and changes in water quality.

Information on and Monitoring of Instream Structures

~~101-100.~~ Within 20 working days following the completion of MWSR construction activities the Consent Holder must provide the information that is listed in the following regulations in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 to the NRC Responsible Officer:

- (a) Regulation 62(3) Requirements for all activities: information about structures and passage of fish;
- (b) Regulation 63(3) Requirement for culvert activities: information about culverts;
- (c) Regulation 64(3) Requirement for weir activities: information about weirs;
- (d) Regulation 66(3) Requirement for dam activities: information about dams;
- (e) Regulation 67(3) Requirement for ford activities: information about fords; and
- (f) Regulations 68(1) and 68(2) Requirement for certain structure activities: information about aprons and ramps.

~~102-101.~~ The Consent Holder must prepare and provide to the NRC Responsible Officer a maintenance and monitoring plan for any instream culvert, weir or ford installed as part of the MWSR. The objective of the plan is to ensure that the provision for the passage of fish does not reduce over the life time of those structures. The plan must include but not be limited to:

- (a) ~~H~~ow the monitoring and maintenance will be done; and
- (b) ~~T~~he steps to be taken to avoid any adverse effects on the passage of fish; and
- (c) ~~T~~he steps to be taken to ensure that the structure's provision for the passage of fish does not reduce over its lifetime; and
- (d) ~~A~~a requirement for updated information listed under ~~Condition XX-100~~ to be provided to the NRC responsible Officer at 5 yearly intervals and each time a significant natural hazard affects the structure. The purpose of the updated information is to reassess the structure's effect on the passage of fish.

Commented [CD34]: The consents do not impose any water quality (namely sediment/suspended solids) discharge standards during the construction activities.

Commented [CD35]: Don't consider this it is meaningful to test for given the requirement to remove vegetation from the reservoir footprint prior to its infilling. It would be preferable to measure the dissolved oxygen content of the water at least at surface and bottom of the reservoir, particularly prior to any take and discharge of augmentation

Commented [SS36]: Insert "Biovolume" so it is clear what is required to be measured.

Commented [CD37]: If Condition 71 is deleted.

Advice Note: The requirements of the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 insofar as they relate to the passage of fish over the MWSR dam are set out in [Conditions 77 and 78](#).

Complaints

~~403-102.~~ The Consent Holder must maintain a permanent record of any complaints received alleging adverse effects from or related to the works, including sedimentation effects in downstream waterbodies. This record must include:

- (a) the name and address of the complainant (if provided);
- (b) the date and time that the complaint was received;
- (c) details of the alleged event;
- (d) weather conditions at the time of the complaint and of the alleged event; and
- (e) any measures taken to investigate/mitigate/remedy the cause of the complaint.

~~404-103.~~ The Consent Holder must provide details of any complaints received to the Councils' Responsible Officers no later than the next working day.

Bond

~~405-104.~~ Prior to the exercise of this consent, the Consent Holder must provide and maintain in favour of the Councils a bond to:

- (a) Secure compliance with all the conditions of these consents and to enable any adverse effects on the environment resulting from the ~~C~~consent ~~H~~holder's activities and not authorised by a resource consent to be avoided, remedied or mitigated;
- (b) Secure the closure and rehabilitation of the site should the construction of the dam not be completed for any reason; **and**
- (c) Ensure the performance of any monitoring obligations of the Consent Holder under this consent.

~~406-105.~~ The bond must be in a form approved by the Councils or their Responsible Officers and must, subject to these conditions, be on the terms and conditions required by the Councils or their Responsible Officers.

~~407-106.~~ The bond must provide that the ~~C~~consent ~~H~~holder remains liable under the Resource Management Act 1991 for any breach of the conditions of consent which occurs prior to the completion of closure and rehabilitation of the site if that is required.

~~408-107.~~ Unless the bond is a cash bond, the performance of all conditions of the bond must be guaranteed by a guarantor acceptable to the Councils or their Responsible Officers. The guarantor must bind itself to pay for the carrying out and completion of any condition in the event of any default of the Consent Holder, or any occurrence of any adverse environmental effect requiring remedy.

~~409-108.~~ The amount of the bond must be fixed annually by the Councils or their Responsible Officers who must take into account any matters submitted by the Consent Holder to be relevant to the determination of the amount. The amount of the bond must be advised in writing to the Consent Holder at least one month prior to the review date.

~~410-109.~~ The Councils must release the bond following the successful commissioning of the Matawii dam and reservoir.

~~411-110.~~ "Successful commissioning of the Matawii dam and reservoir" means when the elements of the entire project have been demonstrated by the Consent Holder to the satisfaction of the Councils or their Responsible Officers to have reached a stable and properly function state, including the initial filling of the reservoir.

~~412-111.~~ All costs relating to the bond must be paid by the Consent Holder.

~~413-112.~~ This consent must not become operative unless and until the Consent Holder provides the rehabilitation bond to the Councils.

Community Liaison Group

~~414-113.~~ The Consent Holder must establish a Community Liaison Group (CLG) in accordance with the following requirements:

- a) The purpose of the CLG must include, but not be limited to, the following:

Commented [CD38]: Will need to be changed to Conditions 76 and 77 if Condition 71 is deleted.

Commented [CD39]: The bond conditions appear to essentially cover the construction phase for MWSR, noting that it must be released after successful commissioning of the dam and reservoir. Given that the MWSR and its effects are subject to adaptive management, consideration needs to be given imposing an "operational" bond after the construction bond has been released as mitigation measures need to be implemented and checked for their efficacy and in the event that planned mitigation measures fail and need to be changed/replaced.

- i) To engage on an on-going and regular basis about matters associated with the construction, operation and management of the Matawii Water Storage Reservoir (MWSR);
 - ii) To promote the flow of information between the local community and the Consent Holder so as to, wherever possible, address any issues that may arise; and
 - iii) To discuss the results of monitoring and any matters that may arise as a result of the monitoring.
- b) The CLG must initially comprise up to two representatives of the Consent Holder and the Consent Holder must invite one representative of the FNDC, one representative of the NRC, one representative of the Northland CDEM Group, one representative from Top Energy, two members of the surrounding community and two iwi representatives.

Advice Note: This condition only governs initial membership for the purposes of convening the first meeting of the CLG. On-going membership will be determined by the CLG

115-114. The Consent Holder must ensure that members of the CLG are provided with the opportunity and facilities to meet:

- (a) At least 30 working days prior to the start of any site preparation activities; and
- (b) Not less frequently than biannually during the construction of the MWSR and thereafter annually throughout the operation of the MWSR, unless all members of the CLG agree there is no need for a meeting.

116-115. The time, date and venue of proposed meetings must be notified to members of the CLG. Minutes of the CLG meetings must be kept by the Consent Holder and be made publicly available.

117-116. The Consent Holder must meet the reasonable administrative costs of the CLG meetings (e.g. meeting invitations; meeting venue; preparation of meeting minutes).

Advice Note: In the event that it is not possible to establish a CLG or convene meetings through lack of interest or participation from the local community or iwi, then such failure to do so will not be deemed a breach of these conditions. Should the local community or iwi wish to re-establish meetings after a period of inactivity then the conditions above must continue to apply.

Kaitiaki Liaison Group

118-117. The Consent Holder must establish a Kaitiaki Liaison Group (KLG) in accordance with the following requirements:

- a) The purpose of the KLG must include, but not be limited to, the following:
 - i) To engage on an on-going and regular basis about iwi cultural values and interests associated with the construction, operation and management of the Matawii Water Storage Reservoir (MWSR);
 - ii) To promote the flow of information between iwi and hapu and the Consent Holder so as to, wherever possible, address any issues that may arise; and
 - iii) To discuss the results of monitoring and any matters that may arise as a result of the monitoring.
- b) The KLG must initially comprise up to two representatives from each of Te Runanga a Iwi o Ngāpuhi, Ngā Uri o Hua, Ngati Rangī and Ngāti Whakaeke.

119-118. The Consent Holder must ensure that members of the KLG are provided with the opportunity and facilities to meet:

- (a) At least 30 working days prior to the start of any site preparation activities; and
- (b) Not less frequently than biannually during the construction of the MWSR and thereafter annually throughout the operation of the MWSR, unless all members of the KLG agree there is no need for a meeting.

120-119. The time, date and venue of proposed meetings must be notified to members of the KLG. Minutes of the KLG meetings must be kept by the Consent Holder and be made publicly available.

121-120. The Consent Holder must meet the reasonable administrative costs of the KLG meetings (e.g. meeting invitations; meeting venue; preparation of meeting minutes).

Commented [CD40]: The “surrounding community” could be interpreted broadly and so it would be prudent to define more explicitly what is intended, e.g. “the community (or landowners?) within the catchment downstream of the dam”. Also, is it intended that the community includes commercial water users/beneficiaries of the project? As the condition requires the Consent Holder to invite the representatives, but does not control the selection process, there is a (at least perceived) risk that the Consent Holder may only select representatives that have a vested interest in the project.

Commented [CD41]: Could delay early commencement of works noting that the Consent Holder (CH) is required to develop a raft of management plans (MPs) with generally a 40 working day submission period. It would be preferable to have at least draft MPs available when CLG meets for the first time. It will also take some time for the CLG to be established, while the requirement for it to meet at least 30 working days prior to the start of any site preparation activities prevents minor works being undertaken prior to the meeting. An alternative approach would be to require the CH to provide copies of draft MPs to CLG members when they are submitted to the Councils, have a shorter timeframe for the first meeting and/or require the meeting prior to the start of any bulk/major earthworks/construction works.

Commented [CD42]: See comments made in regard to the CLG.

Advice Note: *In the event that it is not possible to establish a KLG or convene meetings through lack of interest or participation from iwi and hapu, then such failure to do so will not be deemed a breach of these conditions. Should iwi and hapu wish to re-establish meetings after a period of inactivity then the conditions above must continue to apply*

Review

~~422-121~~ NRC or the FNDC may, in accordance with Section 128 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of each anniversary of the commencement of the consent for any one of the following purposes:

- (a) to require the Consent Holder to adopt the best practical option to remove, remediate or reduce any adverse effects on the environment resulting from the activity; and/or
- (b) amending the minimum and median flows specified in the conditions following the peer review of the Soil Moisture Water Balance Model (SMWBM) required under **Condition 64**; and/or
- (c) adjusting the consented rate or volume of water abstraction should monitoring or future changes in water use indicate that the consented rate or volume is not able to be fully utilised, and/or-
- (d) determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; and/ or
- (e) ensuring the conditions of this consent are consistent with any National Environmental Standards or other regulations relating to the management of freshwater; and/or
- (f) adjusting or altering the method of water take data recording and transmission; and/or
- (g) requiring greater efficiency of water use.

Formatted: Font color: Auto