

Tauranga Taupo River

Proposed

Annual Works Programme

2018/2019

Stakeholder Version

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Annual Works Programme

Introduction

Waikato Regional Council has constructed and maintains a flood protection scheme on the Tauranga Taupo River. This scheme is designed to protect the communities of Te Rangiita and Oruatua from flooding up to a 1 in 50 year event. The scheme includes stopbanks, gradient control structures, overflow spillways, banks, berms, floodplain and main channel. All of these structures and features are monitored and maintained to ensure they function to design standards. The scheme relies on the river channel to remain relatively stable ensuring each component functions as required.

Consultation

In 2013, Comprehensive resource consents were granted to the Waikato Regional Council's Integrated Catchment Management Directorate (ICM) for the management of the river floodway and flood protection scheme.

RC #	Activity authorised
125773	Divert water temporarily or permanently associated with erosion control/flood protection works
125772	Erosion control/flood protection works: extraction of up to 20,000 cubic metres per year of river bed material including debris, erosion control works and vegetation and obstructions removal.

Consent conditions require the distribution of a proposed Annual Works Programme (AWP) to allow consultation and input from the following parties,

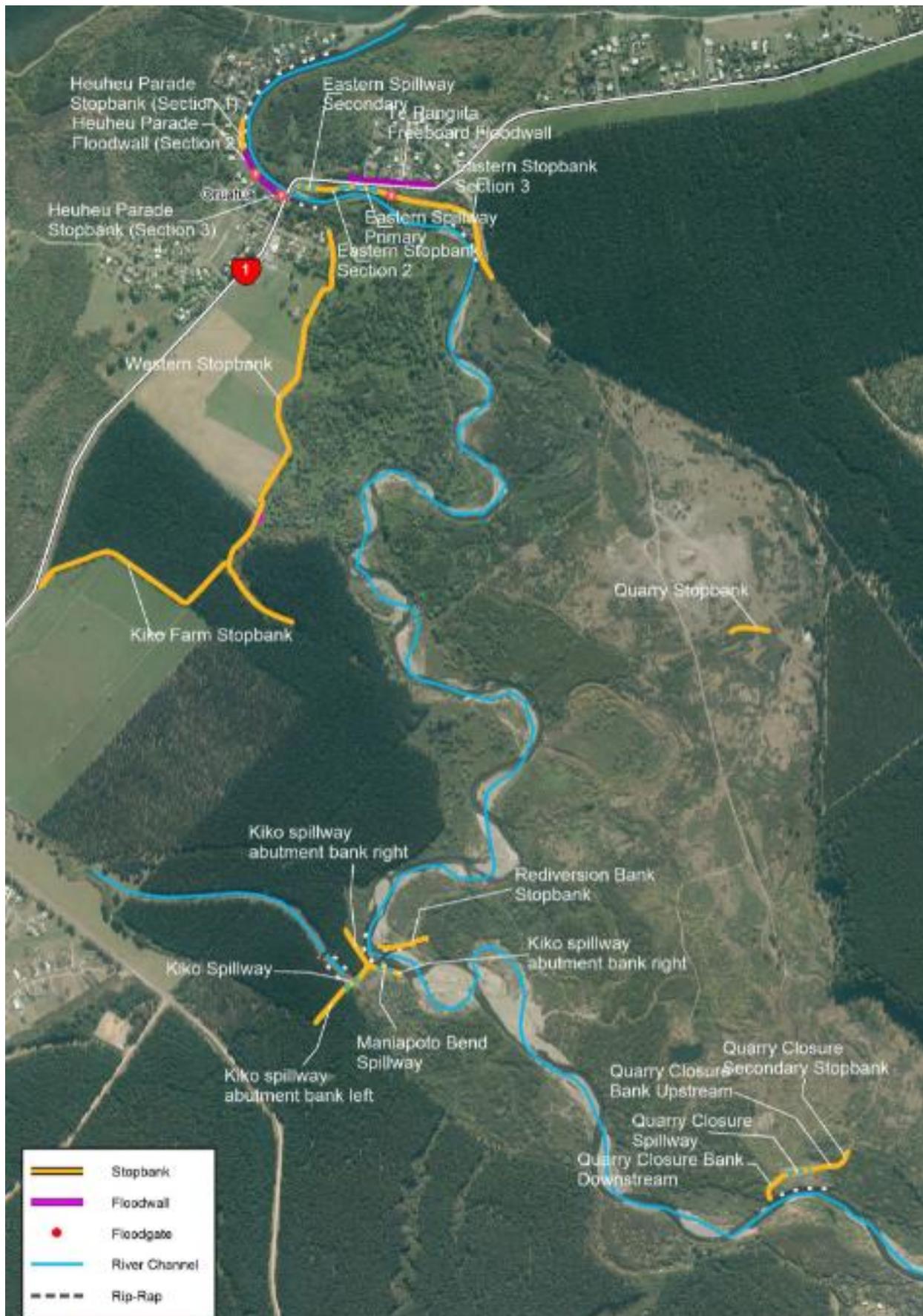
- Department of Conservation – Tongariro Taupo Conservancy;
- Taupo District Council;
- Tauranga-Taupo River Association;
- Tongariro and Lake Taupo Anglers Club;
- New Zealand Forest Managers;
- Lake Taupo Forest Trust;
- Te Kanawa Pitiroi (Y Block Trustee) and,
- Resource Use Directorate (RUD)-Waikato Regional Council (WRC).

The purpose of this consultation is to:

- Identify proposed works and how they will be managed in accordance with the conditions of consent;
- Allow parties to consider whether the proposed works will impact on specific sites and/or species of significance; and
- Identify solutions to address any concerns parties may have.

A pre-works meeting will be scheduled with Works Supervisors, WRC staff, interested parties and contractors. The purpose of this meeting is to discuss the proposed works and outline any appropriate mitigation measures in order to avoid or remedy any impacts of the proposed works. This is also seen as a good opportunity to have an informal discussion about any current or future issues.

Scheme Overview



The Tauranga Taupo protection scheme comprises two separate but integrated features:

- River management works, which ensures that the river channel and associated floodway maintains adequate capacity and stability to accommodate the design event.
- Scheme asset maintenance following surveys, inspections and assessments of condition and performance.

This report provides the findings of these surveys and inspections, and recommends implementation of the river management programme for the Tauranga Taupo River.

Scheme Assessment

The inspections and assessment were undertaken by the Taupo Zone River Management Officer, Taupo Zone Manager, ICM's Principal Technical Advisor Ghassan Basheer and Tonkin and Taylor Consultants' Senior Environmental Engineer David Bouma. Both Ghassan Basheer and David Bouma have been involved in the investigations, design, and construction of the Tauranga Taupo River Scheme. They have also kept an overview of all changes and reviews of the scheme.

Heuheu Parade and Eastern Stop Bank Timber Flood Wall observations:

- In places the timber planks forming the floodwalls have dried and shrunk resulting in open joints where water can pass between the planks therefore not forming a water tight structure. However, these open joints are generally above the predicted flood level in the freeboard range.

It is recommended to carry out maintenance work on the timber floodwall to ensure gaps are closed/covered between wooden planks.

Heuheu Parade Stop Bank and Rock Wall observations:

- Several native trees have been planted on the assets. Generally, vegetation on flood control assets are not recommended as their root growth and weight has the potential to threaten the structural integrity.

It is recommended to remove any vegetation growing on or in the assets. Given that the vegetation has been planted and is native it is recommended to discuss with locals to find a resolution. Invasive species should be annually removed.

Western Stop Bank observations

- Some fallen pines from the adjacent plantation have fallen on to the stop bank.
- LIDAR survey data suggests that the Western Stop bank level is lower than the design level in some areas.

Seven pines have been removed from the stop bank. It is recommended to monitor bi-annually and rectify accordingly. Saturated soils and wind corridor increase the risk of pines falling on the stop bank and creating low points over time. Stop bank top ups and re-levelling have been completed at the end of Tuki Street to address obvious low points. Ground based visual inspections upstream of this point don't indicate any obvious depressions, however a ground based survey is recommended to confirm survey results. If identified top ups are recommended.

Kiko Spillway

Accumulatively referred to as the “Kiko Spillway”, control structures including the Maniapoto’s Bend Revetment, bed gradient control structure, Maniapoto’s Bend Spillway, Kiko Spillway and the Kiko Swale are designed to pass the appropriate peak spill flows under specific flood conditions (derived from field observations and modelling). The basic precepts of the overall scheme design is to maintain spillage out of the river in the vicinity of Maniapoto’s Bend and its discharge across country to Lake Taupo.

- Ground levels show that the holding zone between Maniapoto’s Bend Spillway and the Kiko Spillway is 700mm higher than design levels in places. This is due to a series of successive high flow events depositing sediment in this area. This essentially limits the flow through this area and into the Kiko Swale.

Works have been completed to re-level this holding zone to ensure it functions as designed.

- The upstream section of the left bank Maniapoto’s Bend rock revetment has been covered by sediment and vegetation and is showing signs of slumping in places.
- The downstream section is to design and is structurally sound however it is covered by vegetation.

Vegetation management in the form of mulching has been completed along the revetments and Kiko Swale to allow for better access and investigation.

- Modelling shows the spillway is operating during the 50% AEP, however, the volume of flow is relatively small and not enough to cause the downstream spillway to operate to design levels. The model shows that more water is conveyed downstream through the main channel in high flow events.

It is recommended that an external party reviews and analyses the Kiko Spillway and its assets to determine what maintenance and modifications are required to ensure the spillway operates as originally designed.

Quarry Closure Bank

- Observations by the previous Taupo field staff suggest that the closure bank spillway is operating as it should allowing flood flows to filter into the wetland area in behind. However it has been suggested that a portion of the flood flow during 2% AEP events, or higher, is flanking the upstream side of the structure.
- Heavy vegetation is begging to encroach on the structure and may be contributing to the excess flow through the upstream side of the structure.

Recent vegetation management of this structure and surrounding area has allowed for better access and analysis. The closure bank is in good condition. It is recommended to monitor after high flows to confirm the above observation.

Assets not addressed in this section have been inspected and are deemed to be in good condition. Permitted activity maintenance of these assets may be required.

Nature of Proposed Works

Successive high flow events in recent years has resulted in slight degradation of the Kiko Spillway control structures. Additionally, debris accretion in certain areas has altered the main channel flow path. An altered flow path is contributing to increased pressure on the control structures and is potentially contributing to the reduced flow through the spillway during flood.

Tonkin and Taylor have been contracted to conduct a detailed assessment of the control structures. This will include survey management on site and digital modelling. The output will be tender drawings and a design report that outlines the maintenance and modifications required to ensure the spillway operates as originally designed.

This report will be developed in the months leading up to this summer's works season. This is a notification that it is likely maintenance and modification to the Kiko Spillway will be recommended and required this summer. A proposed works plan specific to the Kiko Spillway will be circulated for consultation when the report is finished. Works (outside of permitted activities) will not occur in this area until the consultation period has ceased.

Part of the routine asset maintenance is to control unwanted vegetation. Ideally, stop banks are maintained so as to only have a cover of low growing grass and rock walls are free of vegetation. This allows rapid inspection of the assets for defects and ensure structural integrity. In cases where stop banks are not grazed maintenance will require chemical and manual control of woody plant species. This summer will see a routine inspection of the length of assets, followed by a spray programme to kill off any unwanted plants. This will be followed up with manual removal of the dead plant material where required.

Willow (crack and grey) continue to establish along the river margins and within the river channel itself. A collaborative multi agency strategy will be sought to target these species. Particular focus will be placed on any tree or trees that are contributing to erosion and trees that are encroaching on gravel shoals, point bars and islands.

Other asset maintenance recommend in the scheme assessment will be completed under permitted activity conditions.

Primary Consideration of Timing of Works

The Tauranga Taupo River is a nationally significant Trout fishery and also hosts a range of indigenous fish species. As such the timing of consented in-stream works are limited to the months outside of May to October inclusive. This ensures work falls outside of the main trout and indigenous fish spawning season.

Although Trout fishing is popular all year, fishing activity generally falls over the warmer summer months. For this reason most of the works will be scheduled for mid to late summer. This will also coincide with seasonal low river levels. Representatives from DoC will be consulted at various stages prior to the works commencing to ensure the best possible outcomes in the event of late spawning runs or other such natural events.

Tuwharetoa Maori Trust Board, as holders of mana whenua of the river and surrounding land, will be consulted on all river works. After the consultation and works are agreed and finalised

representatives will be contacted to ensure the timing is appropriate. In addition, if any cultural site is identified, works will cease and further action must be undertaken before any work will resume. These actions will be undertaken with the full engagement of Iwi representatives.

Monitoring and Mitigation

All works will be carried out in accordance with the conditions of these consents.

All works will be carried out in accordance with Waikato Regional Council's Best Practice Environmental Guidelines.

To adhere to specific consent conditions the following mitigation strategies will be applied,

- Notify RUD 5 days prior;
- Site notices will be erected 2 days prior to works;
- Public access will not be unduly restricted;
- Hours of operation are restricted- Mon-Sat, 8am-6pm max;
- Machinery will be cleaned prior to entering work site;
- Machinery will be operated in accordance with best practice;
- Spill prevention plan will be identified and addressed;
- Best practice for sediment will be applied, and,
- Notification and work plan will be circulated.

Other mitigation strategies include,

- Threatened species and accidental Archaeological discovery processes will be discussed before each job site commences work, and,
- Mitigation and enhancement measures for fish habitat will be discussed and implemented where possible.

Consent Compliance Monitoring

A resource consent compliance monitoring regime has been developed in consultation with the Resource Use Directorate (RUD). The Integrated Catchment Management Environmental team will be implementing this process.

All relevant resource consent conditions will be monitored and assessed. A draft compliance Audit Report will be reviewed by RUD prior to approval. This report will identify any areas of non-compliance and identify any remedial actions undertaken to rectify this non-compliance.

A representative number of sites will be selected for monitoring, based on the scale, location and sensitivity of the proposed sites.

Vegetation Management

It is expected that a variety of vegetation management strategies will be implemented including mechanical and chemical. As stipulated by permitted activity rules, notification for any spray works in public amenity areas will be via advertisements placed in local papers. In addition, appropriate signage will be in place in the days leading up to spray programme as well as while the spraying is being undertaken. Affected landowners will be directly notified of the program

and timing. If chemicals are used they will be assessed to be appropriate for the site and purpose. All spraying will be undertaken by contractors with Registered Chemical Applicators accreditation.

Dust

It is expected that dust emissions from these works will be minimal. However, should dust become an issue which may result in an objectionable or offensive effect beyond the work site boundary, works shall cease until appropriate dust suppression measures are put in place. These measures may include the use of water carts or irrigation on the exposed areas; and slowing or minimising vehicle movement.

Hazardous Substance Spillages

All machinery will be refuelled, serviced and maintained in manner to ensure spillages of contaminants are prevented; and in a location that should a spill occur it will not enter a water way.

Spill prevention and response activities will be undertaken in accordance with the Waikato Regional Council's Oil Spill Contingency Guidelines – Integrated Catchment Management Directorate.

In addition, a contingency plan will be submitted to RUD in conjunction with each notification to ensure all equipment on site will be able to deal with a containment spill, sufficient procedures are in place in the event of a containment spill, and interested and affected parties are notified such as the Waikato Regional Council, Department of Conservation, Emergency Services, and potentially affected water users and landowners.

Detailed spill prevention and response plans for each contract will be undertaken as part of the contract process. This plan will include lists of hazardous materials such as fuels, measures undertaken to prevent spills, work site map showing refuelling locations and fuel storage areas.

Riparian Planting

This plan does not deal specifically with riparian planting, however, many of the works undertaken by the operations team in Taupo are undertaken with the consultation with various agencies (Project Tongariro, DoC, Ngati Tuwharetoa). We will continue to work with these agencies to identify opportunities to benefit planting programmes. This may include machinery use and weed management.

Fishing and Recreational Access

Access to fishing and recreational activities will be retained wherever possible. Access will only be restricted to work sites during hours of operation, and only to the area where work is being carried out to ensure public safety.

Fish Habitat

Trout breed in low gradient gravel-bottomed streams between late winter and early spring. The peak spawning period is slightly earlier than that for rainbow trout but both spawning periods are encompassed within the instream works restriction period under the Regional Plan section 4.2.21. After hatching the young fry move into slow flowing habitats for a few months before moving into the main channels. Trout do best in cool, clear and well oxygenated waters where they can easily detect prey visually.

Woody vegetation removal and gravel management have the potential to impact on trout populations through habitat disturbance, habitat loss and decreases in water quality. While there may be short-term effects when installing erosion control structures most kinds of structures are likely to result in a net improvement habitat for trout by providing more instream structure. The distribution and known habitat preferences indicate that this season maintenance works will have minimal effects on trout populations.

The mitigation measure outlined below will also help ensure the health of fish species.

ACTIVITY TYPE	MITIGATION HIERARCHY			
	Avoidance	Minimisation	Rehabilitation	Offset
Woody vegetation removal	Adhere to appropriate timing restrictions.	Minimise disturbance of -wetter channel -riffle & boulder/pool habitat -instream structures -backwaters/side channels Undertake work at a permitted activity level wherever possible.	Undertake riparian enhancement Install instream structure	Undertake riparian enhancement
Gravel management	Adhere to appropriate timing restrictions.	Minimise disturbance of -wetter channel -riffle & boulder/pool habitat -instream structures -backwaters/side channels Undertake fish recovery operations for any channel diversions in significant trout habitats.	Where applicable apply methods to improve trout habitat.	
Erosion control structures	Adhere to appropriate timing restrictions.	Minimise disturbance of -wetter channel -riffle & boulder/pool habitat -instream structures -backwaters/side channels		

Table 1 *Green* measures will be implemented when value is known to be present; *Red* measures will be implemented at the discretion of operational staff; *Blue* measures will be implemented through Habitat Enhancement Plans or predetermined mitigation packages.

Archaeological Discovery Process

In the event that sites of archaeological value are discovered at the works site, the following process shall occur (in accordance with condition 18) and the ICM Directorate Accidental Archaeological Discovery Protocol (see [Discover#10648616](#)).

When an accidental discovery occurs, it is important to immediately cease all earthworks within 10 metres of the discovery, and stay away from the area to avoid any further disturbance. If there is any doubt regarding the historic nature of the discovery, always take a cautious approach by assuming it is an archaeological discovery until advised otherwise.

The following procedure **must** be followed by the person responsible for the site (e.g. the ICM works supervisor/project manager/contractor):

- Immediately cease all earth moving work and shut down earth disturbing machinery within 10 metres of any part of the discovery. Stay away from the area to avoid any further disturbance.
- Secure the immediate vicinity of the discovery to restrict access and ensure remains and/or cultural remains are left undisturbed (e.g. by installing a temporary mesh fence).
- As soon as practicable, and within 6 hours of the discovery, inform:
 - The Director and/or a Section Manager of the ICM Directorate;
 - The ICM Environmental Compliance team.

Provide them with as much information as possible about the site and what has been uncovered or found on the site.

- As soon as practicable, and within 24 hours of the discovery, ICM shall inform:
 - The Director and/or a Section Manager of the Resource Use Directorate (RUD);
 - Heritage New Zealand infonorthern@heritage.org.nz, 09 307 9920;
 - The relevant Territorial Authority;
 - NZ Police if the discovery is of potential human remains; and
 - The appropriate Mana Whenua representative.
- ICM shall assist with any investigation as required, and proffer a site inspection for initial assessment and response with the RUD, and all other parties that have expressed an interest to attend.
- If the accidental discovery is of potential human remains the remainder of the process does not apply until the NZ Police confirm they have no further interest.
- Following the site inspection and consultation between all parties, RUD and Heritage NZ will determine the statutory requirements and Mana Whenua will determine cultural requirements.
- Works may only recommence within the area of the discovery upon the written approval of the Resource Use Directorate, after considering the following matters:
 - Mana Whenua interests and values;
 - Protocols agreed upon by Mana Whenua and ICM;
 - ICM's interests;
 - Any Heritage New Zealand authorisations;
 - Any archaeological or scientific evidence; and
 - The assessment of the discovery by a registered archaeologist.

At the pre-construction meeting, the above process will be discussed.

Resource Consent Certificate

Resource Consent: 125773 (AUTH125772.02.01)

File Number: 61 25 04A

Pursuant to the Resource Management Act 1991, the Waikato Regional Council hereby grants consent to:

Waikato Regional Council
Private Bag 3038
Waikato Mail Centre
Hamilton 3240

(hereinafter referred to as the Consent Holder)

Consent Type: Water permit

Consent Subtype: Diversion

Activity authorised: Divert water temporarily or permanently associated with erosion control/flood protection works

Location: Tauranga - Taupo River

Spatial Reference: NZTM 1851143 E 5688068 N

Consent Duration: This consent will commence on the date of decision notification, unless otherwise stated in the consent's conditions, and expire on 30 June 2033

Subject to the conditions overleaf:

Resource Consent Certificate

Resource Consent: 125772 (AUTH125772.01.01)

File Number: 61 25 04A

Pursuant to the Resource Management Act 1991, the Waikato Regional Council hereby grants consent to:

Waikato Regional Council
Private Bag 3038
Waikato Mail Centre
Hamilton 3240

(hereinafter referred to as the Consent Holder)

Consent Type: Land use consent

Consent Subtype: Bed – disturbance

Activity authorised: Erosion control/flood protection works: extraction of up to 20,000 cubic metres per year of river bed material including debris, erosion control works and vegetation and obstructions removal

Location: Tauranga - Taupo River

Spatial Reference: NZTM 1851143 E 5688068 N

Consent Duration: This consent will commence on the date of decision notification, unless otherwise stated in the consent's conditions, and expire on 30 June 2033

Subject to the conditions overleaf:

Conditions

General

1. The activities authorised by this consent shall be undertaken in general accordance with the documents titled: *Waikato Regional Council River & Catchment Services Group Resource Consent Application to: Undertake River Management Activities within the Bed of the Tauranga-Taupo River*, Bloxam Burnett & Olliver, November 2012, WRC document no. 2311070; and, [Best Practice Guidelines for Vegetation Management and In Stream Works](#), Technical Report 2007/41, WRC document no. 1232780; except, as otherwise identified in the following resource consent conditions.
2. A copy of this resource consent shall be kept onsite at all times that physical works authorised by this consent are being undertaken, and shall be produced without unreasonable delay upon request from a servant or agent of the RUG-WRC.
3. The Consent Holder shall notify the RUG-WRC in writing of the commencement of activities authorised by this consent, at least 5 days prior to work commencing in any year that this consent is exercised.
4. The Consent Holder shall appoint a representative(s) prior to the exercise of this resource consent, who shall be the RUG-WRC's principal contact person(s) in regard to matters relating to this resource consent. The Consent Holder shall inform the RUG-WRC of the representative's name and how they can be contacted at least 1 working day prior to the commencement of the works authorised by this resource consent. Should the representative(s) change during the term of this resource consent, the Consent Holder shall immediately inform the RUG-WRC and shall also give written notice to the RUG-WRC of the new representative's name and contact details.
5. The Consent Holder shall be responsible for all contracted operations related to the exercise of this resource consent, and shall ensure contractors are made aware of the conditions of this resource consent relevant to their work area and ensure compliance with those conditions.

Notices

1. The Consent Holder shall erect notices upstream and downstream of each section of the works not less than 2 working days prior to the commencement of the works. These notices shall provide appropriate warning of:
 - the construction activities;
 - any relevant safety advice;
 - the period over which these activities will be occurring.

Access to Tauranga-Taupo River

1. The Consent Holder shall, in respect of the works authorised by this resource consent, maintain any existing public access at any location where works authorised

by this consent are carried out except where the public are required to be excluded for safety purposes.

Timing of works

1. Works authorised by this consent shall not be undertaken in the wet river channel during the months May to October inclusive each year, except where:
 - flood flows have resulted in stopbank freeboard loss and the remaining freeboard in the reach upstream of the bridge is less than 150mm; or,
 - erosion control works are required.
2. The Consent Holder shall provide survey information to the RUG-WRC confirming the requirements of 8a) have been met prior to undertaking works provided by condition 8.
3. Works may be undertaken up to a maximum of 10 hours per day during the period 8am to 6pm; and, up to six days per week Monday to Saturday. No works shall be undertaken on a Sunday or a Public Holiday.
4. The Consent Holder shall notify the Department of Conservation of the commencement of activities authorised by this consent at least 24 hours prior to work commencing during the months of May to October in any year that this consent is exercised. Notification shall include the location and the extent of the works.
5. The Consent Holder shall check daily and weekly weather forecasts so that, in the event of a rain forecast which could result in flood flows, construction works authorised by this consent shall be postponed, or cease if already commenced, and all machinery shall be removed from the river bed and flood way until the identified flood risk has passed.

Machinery maintenance and hazardous substances spill prevention and response

1. The Consent Holder shall ensure that all machinery used in the exercising of this consent is cleaned prior to being transported to the construction site to ensure that all seed and/or plant matter has been removed.
2. The Consent Holder shall ensure that all machinery shall be operated in a manner which ensures that spillages of fuel, oil and similar contaminants are prevented, particularly during refuelling and machinery servicing and maintenance. Refuelling and lubrication activities shall be carried out away from any water body such that any spillage can be contained so it does not enter the Tauranga-Taupo River.
3. The Consent Holder shall ensure the onsite contractor has and complies with a “Spill Prevention and Response Plan” The aim of the Plan shall be to minimise the possibility of contamination of water and the Spill Prevention and Response Plan shall address, but not necessarily be limited to, the following matters:
 - a list of the hazardous materials and their quantities kept on site and their storage details;

- the prevention measures that will be undertaken on site in order to avoid a spill of hazardous materials;
 - the equipment available to contain and/or remove spills of hazardous materials;
 - specific procedures and measures that will be undertaken when machinery is operating within close proximity to water bodies that are designed to minimise the risk of any spillages or significant leakages of hazardous materials entering the water body;
 - the training staff will receive in the use of hazardous materials spill prevention, containment and clean up measures and associated equipment;
 - how the disposal of any contaminated materials arising from spills or leakages of hazardous materials will be undertaken; and,
 - the procedures involved in reporting of any such incidents to the RUG-WRC.
4. The Consent Holder shall notify the RUG-WRC as soon as is practicable, and as a minimum requirement within 12 hours, of the Consent Holder becoming aware of a spill of hazardous materials, fuel, oil, hydraulic fluid or other similar contaminants. The Consent Holder shall, within 7 days of the incident occurring, provide a written report to the RUG-WRC, identifying the following:
- the possible causes;
 - steps undertaken to remedy the effects of the incident; and,
 - any additional measures that will be undertaken to avoid future spills.

Responsibility for erosion control works

1. The Consent Holder shall be responsible for the provision and maintenance of any erosion control works that may be necessary as a result of the exercise of this resource consent.

Sediment control and debris removal

1. The Consent Holder shall ensure that sediment losses to natural water arising from the exercise of this resource consent are minimised for the duration of the works and during the term of this consent.
2. Gravel shall only be removed below the adjacent River water level when the excavation site is bunded from direct surface connection with the River.
3. Debris collected during gravel extraction shall be removed from the river bed and the flood way of the river.
4. The consent holder shall ensure that sediment losses to natural water arising from the exercise of this consent are minimised during the term of this consent. To this end the works authorised by this resource consent shall be undertaken in a manner that is consistent with the document "*Best Practise Guidelines; Vegetation Management & Instream Works*" - Environment Waikato Technical Report 2007/41, and ensures that;

- The works do not cause the suspended solids concentration in the Tauranga-Taupo River to exceed:
- 25 grams per cubic metre in water ways which have been classified in the Waikato Regional Plan Water Management Class Maps as “*Significant Trout Fisheries and Trout Habitat*”;
- for more than 24 consecutive hours at a point downstream of but not exceeding 100 metres from the works after reasonable mixing has occurred.
- If the upstream suspended solids concentration unaffected by the works exceeds the relevant standard then the works shall cause no measurable increase in suspended solids concentrations for more than 24 consecutive hours at a point downstream of but not exceeding 100 metres from the works after reasonable mixing has occurred.
- Except as constrained by condition 8, the maximum number of days per calendar year that instream works authorised by this consent can be undertaken shall not exceed 20 days.

Flow diversion and re-contouring

1. The Consent Holder shall, immediately after the construction of each temporary diversion bund, salvage any fish stranded in pools in the diverted section of river channel and return them to the main channel of the Tauranga-Taupo River.
2. Except as provided for by condition 19, on completion of gravel extraction at any one location, the Consent Holder shall re-contour the surface of the extraction area to fit with the natural character of the river.

Erosion control structures

1. Structures and flood ways in the immediate vicinity of structures shall be maintained clear of debris.
2. Structures shall not decrease the cross sectional area of the river.
3. All construction materials and equipment shall be removed from the river upon completion of the activity.
4. Where the weight of the structure is insufficient to keep it in place it shall be permanently anchored to the bed of the river.
5. All structures shall be maintained in a structurally sound condition at all times.

Monitoring and management plan

1. The Consent Holder shall provide the RUG-WRC with a Monitoring and Management Plan in conjunction with the proposed Annual Works plan of 31 August 2014. This Plan shall be submitted to the RUG-WRC for their written approval, acting in a technical certification capacity. The aim of the Plan shall be to minimise any reduction in sediment supply to the Lake Taupo shore associated with the extraction of river bed material. The Monitoring and Management Plan shall address, but not necessarily be limited to, the following matters:

- a survey methodology to assess sediment volumes in the Tauranga-Taupo River; and,
 - a survey methodology to enable monitoring of the Tauranga-Taupo River and lake shore extending from the river mouth at Oruatua, to the eastern end of the lakeshore at Te Rangiita to monitor for changes in bedload sediment and identify areas of fluvial and lake shore erosion; and,
 - trigger points and contingency measures including but not limited to reducing or halting sediment abstraction, restricting abstraction, and beach re-nourishment.
2. The Monitoring and Management Plan shall be approved in writing by the RUG-WRC acting in a technical certification capacity prior to any works authorised by this consent commencing.
 3. Any changes proposed to the Monitoring and Management Plan shall be confirmed in writing by the Consent Holder and approved in writing by the RUG-WRC acting in a technical certification capacity, prior to the implementation of any changes proposed.

Proposed annual works programme

1. The Consent Holder shall prepare a Proposed Annual Works Programme including (but not limited to) the following:
 - details of scheduled works and maintenance requirements authorised by this consent that are to be carried out for the proceeding 12 months including a description of the nature, scale and location of the works; and
 - timing of the works; and
 - contingency procedures that may be required for specific activities; and
 - any specific mitigation measures that will be undertaken; and
 - riparian planting proposed using eco-sourced indigenous plants; and
 - advice to the parties listed in condition 33a) - 33h) that if any party wishes to have an on-site meeting, the Consent Holder's representative will comply with this request within 10 working days of the request being received.
2. Any changes to the Proposed Annual Works Programme (with the exception of works required to be undertaken without delay, for example, unscheduled works in response to flood events) shall be confirmed in writing by the Consent Holder to the RUG-WRC.
3. The Consent Holder shall distribute the Proposed Annual Works Programme required by condition 32, to the following parties on or before 31 August each year requesting comment(s) on the proposed works (if any) to be provided in writing within 20 working days of receipt:
 - Department of Conservation – Tongariro Taupo Conservancy;
 - Taupo District Council;
 - Tauranga-Taupo River Association;
 - Tongariro and Lake Taupo Anglers Club;
 - New Zealand Forest Managers;
 - Lake Taupo Forest Trust; and,
 - Te Kanawa Pitiroi (Y Block Trustee).
 - RUG-WRC

4. Comments received by the Consent Holder from the above parties regarding the proposed works shall be copied to the RUG-WRC.
5. Any changes to the Proposed Annual Works Programme (with the exception of works required to be undertaken without delay, for example, unscheduled works in response to flood events) shall be confirmed in writing to the groups listed in this condition.
6. The Consent Holder shall address any comments from the parties listed in condition 33, and upon completion of any related changes to the Proposed Annual Works Programme, advise these parties in writing of any changes. The Consent Holder shall submit the Proposed Annual Works Programme to the RUG-WRC prior to 1 October annually. The Consent Holder shall not commence these works until the Proposed Annual Works Programme has been approved by the RUG-WRC acting in a technical certification capacity.

Tangata whenua values

1. In the event that any archaeological remains are discovered, the works shall cease immediately in the vicinity of the discovery, and Tangata Whenua, the Historic Places Trust and the RUD shall be notified as soon as practicable. Works may recommence with the written approval of the RUG-WRC. Such approval shall only be given after the RUG-WRC has considered:
 - Tangata Whenua interests and values,
 - the Consent Holder's interests,
 - Historic Places Trust advice, and
 - any archaeological or scientific evidence.

Review

1. During the April to June period each year for the term of this consent the RUG-WRC may, following service of notice on the Consent Holder, commence a review of this consent under section 128(1) of the Resource Management Act 1991, for the following purposes:
 - to review the effectiveness of the conditions of this resource consent in avoiding or mitigating any adverse effects on the environment from the exercise of this resource consent and if necessary to avoid, remedy or mitigate such effects by way of further or amended conditions; and/or
 - to review the adequacy of and the necessity for monitoring undertaken by the Consent Holder and specifically to review the method and frequency of record collection for the purposes of determining the most appropriate method and frequency; and/or
 - if necessary and appropriate, to require the holder of this resource consent to adopt the best practicable option to remove or reduce adverse effects on the environment; and/or
 - for the purpose of ensuring that the conditions of this consent are not inconsistent with the requirements of legislation pertaining to Treaty of Waitangi settlement claims, subject to the proviso that any review shall be for a resource management purpose.

Advice notes

- In accordance with section 125 RMA, this consent shall lapse five (5) years after the date on which it was granted unless it has been given effect to before the end of that period.
- Where a resource consent has been issued in relation to any type of construction (e.g. dam, bridge, jetty) this consent does not constitute authority to build and it may be necessary to apply for a Building Consent from the relevant territorial authority.
- This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the Consent Holder and the property owner.
- This resource consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA).
- The Consent Holder may apply to change the conditions of the resource consent under s.127 RMA.
- The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the Consent Holder. This may include but not be limited to routine inspection of the site by Waikato Regional Council officers or agents, liaison with the Consent Holder, responding to complaints or enquiries relating to the site, and review and assessment of compliance with the conditions of consents.
- Note that pursuant to s333 of the RMA 1991, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
- If you intend to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives you the right to continue exercising this consent after it expires in the event that your application is not processed prior to this consent's expiry.

Administration

1. The Consent Holder shall pay to the RUG-WRC any administrative charge fixed in accordance with section 36 of the Resource Management Act 1991, or any charge prescribed in accordance with regulations made under section 360 of the Resource Management Act.

*For and on behalf of the
Waikato Regional Council*

