

File: 40030-OTH

## **APPROVAL AND DISPENSATION**

Granted to Hawke's Bay Regional Investment Company Limited, by the Director-General of Conservation, pursuant to Regulation 44 of the Freshwater Fisheries Regulations 1983.

### **APPROVAL**

#### **Definitions**

"Approval" means the Director-General's Requirements and Specifications set out in this document.

"Approval Holder" means the person lawfully operating the Ruataniwha Water Storage Scheme.

"Department" means the person acting under the delegated authority of the Director-General of Conservation.

"Makaroro Dam" means the physical dam structure to be located on the Makaroro River as part of the Ruataniwha Water Storage Scheme.

"Pest fish" means koi carp, rudd, gambusia and brown bullhead catfish.

"Target Fish Species" means longfin eel, torrentfish, koaro, common bully, bluegill bully, redfin bully, and native smelt, and includes any other species of native migratory fish found during the pre-dam monitoring specified in Specifications 3.2.1.1-3.2.1.6.

#### **Other information**

Location of the facility: Upstream water intake: at or about E1890317 N5584739 (NZTM), approximately 4.5km west of State Highway 50.

Downstream water intake: at or about E1910480 N5569497 (NZTM), approximately 1km upstream of the Waipawa River confluence with the Tukituki River.

Trap and Transfer system: precise location unknown, but downstream of the crest of the proposed dam (at or about E1880627 N5592232 (NZTM), approximately 35km northwest of Waipawa); and upstream of the proposed reservoir on Makaroro River.

Commencement of Approval: 19 August 2015.

Lapse period, as per regulation 44(4): 10 years.

### **1. Requirement for upstream water intake facility**

#### **1.1 Requirement**

- 1.1.1 The Approval Holder must install an upstream water intake fish facility (fish screen), upon the Specifications below.



## 1.2 Specifications

- 1.2.1 The fish facility shall ensure fish exclusion to a standard consistent with the NIWA Fish Screening Good Practice Guidelines.<sup>1</sup>
- 1.2.2 The Approval Holder shall engage an appropriately qualified aquatic ecologist to assess the performance of the intake as a means of compliance with Specification 1.2.1 above and shall report to the Hawke's Bay Regional Council Group Manager, Resource Management within 3 calendar months of resource consent WP120373T being exercised. If that report identifies that Specification 1.2.1 is not being met then as soon as practicable and not later than a further 3 calendar months the Approval Holder shall undertake remedial works recommended by the aquatic ecologist to achieve compliance with Specification 1.2.1. Following the completion of the recommended remedial works the Approval Holder shall provide a certificate to the Hawke's Bay Regional Council Group Manager, Resource Management from the aquatic ecologist that these works meet Specification 1.2.1.
- 1.2.3 The Approval Holder shall supply the report and certificate referred to in Specification 1.2.2 to the Department at the same time as they are supplied to the Hawke's Bay Regional Council Group Manager, Resource Management.

## 2. Requirement for downstream water intake facility

### 2.1 Requirement

- 2.1.1 The Approval Holder must install a downstream water intake fish facility (fish screen), upon the Specifications below.

### 2.2 Specifications

- 2.2.1 The fish facility shall ensure adult trout are fully excluded.
- 2.2.2 The Approval Holder shall engage an appropriately qualified aquatic ecologist to assess the performance of the intake in terms of excluding adult trout and report to the Approval Holder and the Hawke's Bay Regional Council Group Manager, Resource Management as soon as practicable and not later than 3 calendar months of resource consent WP120375T being exercised. If that report identifies that Specification 2.2.1 is not being met then within a further 3 calendar months the Approval Holder shall undertake remedial works recommended by the aquatic ecologist to achieve compliance with Specification 2.2.1. Following the completion of the recommended remedial works the Approval Holder shall provide a certificate to the Hawke's Bay Regional Council Group Manager, Resource Management from the aquatic ecologist that these works meet Specification 2.2.1.
- 2.2.3 The Approval Holder shall supply the report and certificate referred to in Specification 2.2.2 to the Department at the same time as they are supplied to the Approval Holder's Group Manager, Resource Management.

## 3. Requirement for a trap and transfer system (fish facility)

### 3.1 Requirement

- 3.1.1 The Approval Holder must design and operate an effective upstream and downstream trap and transfer system for all Target Fish Species, upon the Specifications below.

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<sup>1</sup> Jamieson, D., Bonnett, M, Jellyman, D & Unwin, M. 2007: Fish screening: good practice guidelines for Canterbury. NIWA Client Report CHC2007-092.

### 3.2 Specifications

#### 3.2.1 *Baseline information monitoring to be undertaken before the dam is constructed*

3.2.1.1 Baseline monitoring must be undertaken by the Approval Holder. Information collected must include, but is not limited to:

- i. Confirmation of the migratory native fish species present or absent in the Tukituki River catchment in the vicinity of the proposed Makaroro Dam site and upstream of that proposed site;
- ii. Length frequency data and minimum density estimates for target migratory native fish present in the vicinity of the proposed Makaroro Dam site and upstream of that proposed site;
- iii. Area fished (length and width);
- iv. General location details and GPS co-ordinates of areas monitored; and
- v. Photographs and brief habitat description of areas monitored.

3.2.1.2 Baseline monitoring must be undertaken at reaches representative of the environment upstream of the proposed Makaroro Dam, taking into account the listed Target Fish Species, to ensure the Department can determine whether Requirement 3.1.1 can be met.

3.2.1.3 Baseline monitoring must be undertaken in accordance with the Joy *et al* (2013) protocol.

3.2.1.4 The Approval Holder must start the baseline monitoring within 2 months of receiving this Approval.

3.2.1.5 Baseline monitoring must be undertaken monthly for a 12 month period. If construction which precludes monitoring begins before the end of the 12 month period, the Approval Holder must carry out at least 6 months of monitoring before this stage of construction starts.

3.2.1.6 The Approval Holder must log any information received through this monitoring into the NIWA freshwater fish database at periods no longer than 6 monthly.

#### 3.2.2 *Design and operation of the trap and transfer system*

3.2.2.1 Within 6 months of obtaining the baseline information to be completed under Specification 3.2.1.1-3.2.1.6, the Approval Holder must submit a trap and transfer system (ie the design and the operating parameters) to the Department for approval in a certifier role.

3.2.2.2 The system must be designed by expert(s) qualified in aquatic ecology and design of fish passage systems, engaged by the Approval Holder.

3.2.2.3 The Department must certify the system if, in the Department's opinion, it will achieve Requirement 3.1.1 by (without limitation) meeting the following criteria:

- i. the trap/s maximise the catch of all of the Target Fish Species. This may entail multiple trap designs, and/or may entail the use of altered slope and substrate of the entrance ramp or a submerged orifice trap entrance;
- ii. the upstream release points are at locations well above the reservoir which ensure the released fish are encouraged to migrate further up the catchment rather than into the reservoir;
- iii. pest fish and aquatic pest plant species are identified and not transferred;
- iv. the system includes an initial evaluative period of 36 months of continuous operation;
- v. following the evaluative period, the system will operate for sufficient periods of the year and sufficient hours of the day to ensure Requirement 3.1.1 is met;



- vi. the trap and transfer system will minimise stress and mortality of Target Fish Species;
  - vii. traps are located so as to maximise the capture of species migrating up or down the river at different times of the year (which may entail moving traps during the year); and
  - viii. if measures are undertaken to lure fish to the traps, those measures are the most effective lures for all of the migrating species (which may entail trialling different lures).
- 3.2.2.4 The Approval Holder must operate the trap and transfer system in accordance with the certified system as modified from time to time under Specifications 3.2.3.8-3.2.3.9.
- 3.2.3 *Monitoring to be undertaken once dam in operation*
- 3.2.3.1 The purpose of monitoring, once the dam is in operation, is to evaluate whether Requirement 3.1.1 is being achieved.
- 3.2.3.2 The Approval Holder must engage a suitably qualified and experienced freshwater aquatic ecologist to design and implement a monitoring protocol, to be undertaken once the dam is operational. This will be approved by the Department in a certifier role.
- 3.2.3.3 The monitoring must provide information, for sites above and below the dam, to enable the Approval Holder to demonstrate whether the trap and transfer system is meeting Requirement 3.1.1.
- 3.2.3.4 The monitoring protocol must specify what records must be kept of the numbers and species of fish caught in the traps.
- 3.2.3.5 The monitoring must be carried out in accordance with the monitoring protocol approved by the Department.
- 3.2.3.6 The Approval Holder must report annually to the Department setting out the data obtained through monitoring carried out in the previous year.
- 3.2.3.7 The Approval Holder must provide five yearly analysis of the previous five years of reporting data as provided under Specification 3.2.3.6 and other relevant data used to identify whether the trap and transfer system is meeting Requirement 3.1.1.
- 3.2.3.8 In the event monitoring establishes that the trap and transfer system is not meeting Requirement 3.1.1, the Approval Holder must commission an independent report by a suitably qualified expert to establish why the Requirement is not being met, and to recommend modifications to the trap and transfer system. Upon receipt of such recommendations the Approval Holder must present this information to the Department.
- 3.2.3.9 The Approval Holder must identify any practicable option to implement the recommended changes and submit a varied trap and transfer system to the Department for approval in a certifier role.
- 3.2.4 *Variation of monitoring protocol*
- 3.2.4.1 If the Department is not satisfied that the monitoring protocol is providing adequate information in order to determine whether the trap and transfer system is meeting Requirement 3.1.1, the Department may require the Approval Holder to vary the protocol to better achieve this.



3.2.5 *External Expert advice*

3.2.5.1 The Department may engage, at the expense of the Approval Holder, an expert(s) qualified in aquatic ecology and / or design of fish passage systems, who is independent of the Approval Holder and the Department, to review:

- the proposed system (before initial certification);
- the system once it is operational; and
- the monitoring protocol;

and advise whether the system will meet, or is meeting, Requirement 3.1.1, or, in the case of the monitoring protocol, whether it will meet, or is meeting, the purpose of monitoring. The expert/s may also recommend changes to the system or protocol.

**4. Amendment to the Approval**

4.1 This Approval can be amended at any time by agreement in writing between the Department and the Approval Holder.

**DISPENSATION**

5. Pursuant to Regulation 44 of the Freshwater Fisheries Regulations 1983 the Director-General of Conservation grants a dispensation to Hawke's Bay Regional Investment Company Limited from any requirement to provide a further fish facility enabling passage past the proposed Makaroro Dam.

Dated at Wellington this.....day of.....2015

Lou Sanson

Director-General of Conservation