

**Before the Commissioners appointed by Canterbury  
Regional Council**

**IN THE MATTER OF** The Resource Management Act  
1991

**AND**

**IN THE MATTER OF** Application CRC071785 by  
Lilybank Station Holdings Limited  
for a permit to disturb the bed of  
Station Stream to install and  
maintain an intake structure.

**Addendum to Section 42A Officer's Report**

**Date of Hearing: 21 September 2009**

1. This report should be read in conjunction with the report prepared for surface water permit application CRC071785, lodged by Lilybank Station Holdings Limited (Report 24a).
2. This report should also be read together with the introductory s42A report which gives an overview of all applications presented at this hearing (Report 1), the planning and technical reports on hydrology and minimum flows (Report 2A and 2B), the planning report outlining annual allocations (Report 3) and the reports on cumulative landscape and water quality effects in the catchment (Reports 4 and 5).

**INTRODUCTION**

3. Lilybank Station Ltd (the applicant) has applied for resource consent to:  
  
excavate, construct and maintain a rock infiltration intake structure and associated pipe works to facilitate the abstraction of water, in the bed of Station Stream, between map references NZMS 260: I36:132-215 and I36: 133-219, at Lilybank Station, Lilybank Road, Lake Tekapo.  
  
See Attachment One of Report 24a for a map of the location of the proposed activity.
4. Ms Haidee McCabe of Irrigation Resource Solutions submitted the AEE on behalf of the applicant, and has subsequently provided comments and further information.
5. The applicant seeks a 35 year duration of consent.
6. This is an application for a new activity.
7. A site visit was carried out on 26 January 2009, by Maria Bartlett of Canterbury Regional Council, with Haidee McCabe of Irrigation Resource Solutions and Ian Ward of Lilybank Station. See Attachment Two of Report 24a for photos taken on the site visit of the intake site.

## Background

8. Application CRC071785 to disturb the bed and banks of Station Stream was lodged with water permit application CRC071786 on 14 December 2006.
9. Since that time the applicant has also lodged applications for permits to construct a micro-hydroelectricity scheme at the same location (application CRC093264 to disturb the bed and banks of Station Stream, water permit application CRC093265 and discharge application CRC093266), which are not proceeding to this hearing. It is intended that an integrated intake will result, in which water for irrigation is supplied from the micro-hydroelectricity intake. In the event that application CRC071786 for irrigation water is unsuccessful, the micro-hydroelectricity scheme will operate as a stand alone activity. Upon grant of micro-hydroelectricity scheme related application CRC093264 to install a submerged gallery intake, this application CRC071786 for installation of a submerged gallery intake will not be required.
10. On 31 July 2009 the applicant amended this application with design details consistent with the proposed micro-hydroelectricity intake. Decision was made not to re-notify the application because it is considered there are no parties adversely affected who have not already lodged submissions on the original proposal, and changes are within the scope of the original application.

## Notification

11. See Report 24a for details of notification.

## Submissions

12. See Report 24a for details of submissions.

## DESCRIPTION OF THE PROPOSED ACTIVITY

13. The applicant has applied to carry out the proposed activities under the following conditions:
  - (a) To excavate a trench up to 3 metres deep and 20 metres long for installation of a rock infiltration gallery, consisting of a 500-700mm diameter pipe with slots not exceeded 8mm;
  - (b) To install the pipe at a 45 degree orientation relative to the bed of Station Stream, between map references I36:1324-2216 and I36:1322-2158;
  - (c) To replace excavated materials over the pipe level with the surrounding river bed;
  - (d) To ensure a 2 metre depth of gravel covering the pipe, using larger grade gravels closer to the intake and finer gravels closer to the surface to aid fish exclusion, in accordance with the *Fish Screening Good Practice Guidelines for Canterbury, NIWA Client Report: CHC2007.092, October 2007* and recommendations of Canterbury Regional Council;
  - (e) To remove vegetation in the path of the pipeline, to be located at the base of the hill to avoid flood flows, and install rip rap protection over the pipeline;
  - (f) Installation of the intake will be completed within two days with a 20 tonne digger;

- (g) In the event of any disturbance of Koiwi Tangata (human bones) or taonga (treasured artefacts), the consent holder shall immediately:
  - (i) Advise the Canterbury Regional Council of the disturbance;
  - (ii) Advise the Upoko Runanga of Te Runanga O Arowhenua, or their representative, of the disturbance; and
  - (iii) Cease earthmoving operations in the affected area until an area has been marked off around the site, and approval given for the earthmoving to recommence.;
- (h) Works will be done in a manner as not to adversely affect the river flood carrying capacity or erosion to the river bed or banks;
- (i) Vehicles and machinery will as far as practical will not enter flowing water;
- (j) There will be no refuelling or storage of machinery in or near the river;
- (k) Any sediment created during the construction works will be minimized as far as practicable, whereby hay bales can be used where required;
- (l) Maintenance works which may include complete replacement of structures will be carried out if possible as soon as practicable after a flood/fresh event where sediment levels are naturally high;
- (m) Liaison will occur with Fish and Game over the timing of the initial installation works;
- (n) On completion of construction, the area of works shall be re-levelled to blend with the surrounding environment;
- (o) All practicable measures will be undertaken to minimise adverse effects on wildlife, vegetation, ecological and amenity values;
- (p) The Canterbury Regional Council Compliance Monitoring Officer will be notified at least 48 hours prior to the commencement of works;
- (q) Machinery operators will ensure machinery is free of plants and plant seeds before use in the river beds;
- (r) Didymo hygiene protocols shall be adhered to.

## **LEGAL AND PLANNING MATTERS**

### **Consent Requirements**

14. The consent requirements under the Resource Management Act (RMA), Transitional Regional Plan (TRP) and Proposed Natural Resources Regional Plan (PNRRP) for permits to disturb the bed and banks of waterways are outlined in the introductory s42A report (Report 1)
15. The application was lodged on 21 December 2007 so both the TRP and PNRRP are applicable when determining status of the proposed activity.
16. In summary, the TRP is does not address matters relating to works in the bed and banks of rivers and lakes in the Waitaki Catchment. As there is no operative regional

plan which addresses certain uses of beds of lakes and rivers in the Mackenzie Basin, the proposed activity is a **discretionary** activity and requires resource consent under section 77C(1)(a) of the RMA.

17. The proposed PNRRP is relevant when considering an application for works in the beds and margins of lakes and rivers. The proposed activity will affect the bed of a tributary of the Cass River, listed in Schedule WQN5 of the NRRP as a natural state river, so the permitted activity rules cannot apply. As such, the proposed activity is a **discretionary** activity in accordance with Rule BLR8 of the proposed NRRP.
18. The applicant proposes to divert the flow of Station Stream for the purposes of undertaking the proposed works, which will require consent under Section 14 of the RMA. The applicant has not applied for a resource consent for this activity.

### **Additional Requirements**

19. The applicant will require authorisation from the Commissioner of Crown Lands to disturb the bed and banks of Station Stream, and may require an easement for the proposed pipeline.

### **CONSULTATION**

20. A summary of consultation related to the Lilybank Station proposal as a whole is included in Report 24a.

### **DESCRIPTION OF THE AFFECTED ENVIRONMENT**

21. A description of the affected environment is included in Report 24a.

### **ASSESSMENT OF PROPOSED ACTIVITY**

22. The proposed permit is a discretionary activity and must be considered in the context of s104 of the RMA.
23. Section 104(1) outlines matters that the consent authority must have regard to when considering an application for resource consent, including any actual and potential effects on the environment, any relevant statutory provisions, and any other matter the consent authority considers relevant.

### **Assessment of actual and potential effects (s104(1)(a))**

24. The effects that have been considered for this type of activity (disturbance of the bed and banks of a waterway) are presented in the introductory s42A report. That report includes the presentation of the relevant planning provisions which direct us to consider these effects. A summary table regarding the assessment of individual effects for this application is provided below and a detailed discussion of those outstanding matters or areas of concern is provided in the following sections.
25. Where mitigation is referred to in this table, I am referring to the recommended conditions listed at the end of this report. The recommended conditions take into consideration those proposed by the applicant, however may have been re-worded or replaced by standard conditions used by Environment Canterbury, to ensure conditions are certain and enforceable.

<b>Table 1: Summary of potential adverse effects from this application</b>			
<b>Adverse Effects</b>	<b>Applicant's assessment</b>	<b>IO audit</b>	<b>Conclusion</b>
Water quality and ecosystems	Works in flowing water minimised, although diversion of the stream will be required during installation; protocols to prevent spread of pest plants employed; hay bales may be used to minimise sediment discharge; Fish & Game NZ will be consulted regarding timing of works; reconstruction to occur when natural sediment levels are high; intake will be designed to meet NIWA fish exclusion guidelines;	Water permit application required for channel diversion; effects of sediment discharge may not be adequately mitigated with use of hay bales; timing of works important re fish spawning; intake design compliant with recommendations; protocols appropriate Conditions (1), (5)-(14), (19) & (20)	Effects uncertain, sediment control and method of works regarding stream diversion
Bed erosion and flooding	No impact on flood carrying capacity as pipeline will be buried 2 metres below bed level, natural bed level to be restored; intake may need to be reconstructed after flood event; pipeline route adjacent to the stream will be at base of the hill to avoid flood flows, with rip rap protection installed	CRC Senior River Engineer Mr Bruce Scarlett considered that erosion risks and risks to flood carrying capacity would be minor, based on original proposal, and provided standard conditions are applied; pipeline route unclear; extent of rip rap protection not specified; standard conditions will address effects of revised proposal Conditions (1), (7), (15)-(17), (19) & (20)	Effects likely to be minor, subject to conditions
Artificial structures	There is an existing culvert and stop bank in Station Stream approximately 600m downstream of the proposed intake site, which is unlikely to be affected.	Agree	Effects minor
Amenity values	Noise and dust generated during initial installation, but remote farming environment; No recreational angling on Station Stream; not visible from public access track through Lilybank Station	Removal of vegetation, rip rap and exposed pipeline adjacent to the stream will reduce natural character in this location, but not visible to public. Conditions (19) & (20)	Effects minor
Tangata Whenua values	Accidental recovery protocol proposed.	Protocol appropriate. Ngai Tahu have submitted in opposition to the proposal Condition (18)	Effects uncertain

**Table 1: Summary of Assessment of Effects**

### Effects on water quality and ecosystem values

26. A channel of the stream will need to be diverted during installation and reinstated over the gallery after installation. Adverse effects on water quality and ecosystems may result from the proposed activity. The applicant has indicated intention to use hay bales to mitigate against adverse effects of sediment discharge on water quality and species present in the stream. Hay bales may not be the most appropriate method of sediment control for the proposed activity. Erosion and Sediment Control guidelines produced by Auckland Regional Council give clear guidance for works requiring

temporary watercourse diversion to minimise works in flowing water and are a useful reference for works method.

27. Regarding timing of installation works, if works are to occur within the months of January or February, then fish spawning periods for salmonids and native species will be avoided, reducing the potential for sediment discharge to adversely affect aquatic species spawning in the stream. The applicant has not discussed effects on nesting birds. Undertaking works outside of bird nesting season is also recommended, and again, February would be appropriate. Hydrological data indicates stream flows in February are likely to be lower than January, which may help to reduce works in flowing water. Works at other times of the year have the potential to have a greater adverse effect on species present in the stream and its margins.
28. Reinstatement of gravel cover after a high flow event is proposed to occur when sediment levels in the stream are naturally high, which is appropriate. Avoidance of disturbance to nesting birds will be a consideration at these times and a condition is recommended to address this issue.
29. In summary, effects of the proposed activity on water quality and ecosystems are expected to be minor, subject to conditions recommended to address the matters raised above.

#### **Effects on erosion and flood carrying capacity**

30. CRC Senior Engineer Bruce Scarlett commented on the original proposal, and indicated that provided standard conditions were adhered to, effects of the proposed activity on erosion and flood carrying capacity would be minor.
31. With respect to structures in the bed and margins of the stream, provided the pipeline is buried 2 metres below the lowest bed level, effects on flood carrying capacity are expected to be minor.
32. Further assessment will be required regarding the proposed channel diversion to undertake works. The proposed pipeline route, particularly where it will be exposed above bed level (and how close this will be to the stream margin), as well as location and extent of rip rap material, are not known, however standard conditions will prescribed that design is such that flood carrying capacity is not reduced and erosion of the bed and banks does not occur.
33. In summary, I am satisfied that, subject to conditions, effects on erosion and flood carrying capacity will be minor.

#### **Conclusion**

34. With regard to s104(1)(a), the actual and potential effects of the proposed activity have been discussed above. For this application, I am satisfied that under s104(1)(a) the actual and potential effects of the proposed activity will be minor on water quality and ecosystems, and on erosion and flood carrying capacity, provided recommended conditions are included.

## Relevant Statutory Provisions (s104(1)(b))

### Regional Policy Statement (RPS)

35. Under Section 104(1)(b)(iii) of the RMA, the consent authority shall have regard to any relevant regional policy statement. The Canterbury Regional Policy Statement has been operative since 26 June 1998.
36. Of significance to these applications is Chapter 10, which relates to the management of the beds of lakes and rivers and their margins. The WCWARP and PNRRP take into account policies in the RPS and address the issues outlined in more detail. Any assessment of effects has been made using these documents and therefore I have had regard to the RPS throughout this assessment.

### Proposed Natural Resources Regional Plan (PNRRP)

37. The objectives and policies of the PNRRP that are relevant to each potential adverse effect have been identified in the introductory s42 report.
38. Of particular relevance to this application is Objective BLR1, which seeks to ensure that the activity does not restrict flood carrying capacity; erode the bed or banks of rivers, result in an increase in undesirable or pest plant infestation, or adversely effect significant habitats of trout and salmon and indigenous fauna. Objective BLR2 further seeks to ensure that the habitats of breeding birds and indigenous fauna are not disrupted or damaged by human activity.
39. As discussed in the assessment of effects section, I am not yet satisfied that the proposal meets these objectives, but recommended conditions will address outstanding matters.

## Part II Purpose and Principles

### Purpose of the RMA (s5)

40. Under Section 104, the consent authority must consider applications “subject to part II” of the RMA. The purpose of the RMA (Section 5(1)) is to:  
  
*“promote the sustainable management of natural and physical resources.”*
41. The proposal will allow the development of land to occur, which may provide for the economic and social well-being of the community. The applicant however has not proposed sufficient measures to “avoid, remedy or mitigate” the potential impacts on water quality and ecosystems, erosion and flood carrying capacity, as required in Section 5(2)(c).

### Matters of National Importance (s6)

42. Sub-sections (a), (b), (c) and (e) of Section 6 of the RMA are relevant to this application. The proposed activity is to occur in a high natural character area, however the proposed gallery intake is considered appropriate and the site of works is not visible from the public access track through Lilybank Station. The site is part of an outstanding natural landscape, but works and structures will not be visible. The proposal may adversely affect significant habitats of indigenous vegetation and fauna, depending on mitigation measures employed. Adverse effects on indigenous species, not adequately mitigated, have potential to impact on the relationship of Maori to their culture and traditions.

### **Other Matters (Section 7)**

43. In achieving the purpose of the RMA, the consent authority is directed to have particular regard to a number of matters as set out in (a) – (j) of Section 7.
44. Section (a) refers to kaitiakitanga, which requires best practice for management of resources, and is relevant to the timing and method of works, particularly in relation to sediment control.
45. Section (c) refers to the maintenance and enhancement of amenity values, which are not expected to be adversely affected due to low visibility of site.
46. Section (e) refers to maintenance and enhancement of the quality of the environment, which is relevant to ongoing maintenance of the site to ensure water quality is protected, including undertaking works during periods of naturally high sediment load, and employing best practice techniques to minimise sediment discharge.
47. Section (h) refers to protection of habitat of trout and salmon, which again relates to timing of works and works method.

### **Principles of the Treaty of Waitangi (s8)**

100. Section 8 of the RMA requires the consent authority to take into account the principles of the Treaty of Waitangi. The site lies within the rohe of Te Runanga o Arowhenua and Te Runanga o Waihao. Te Runanga o Ngai Tahu have submitted in opposition to the application. Consultation has occurred between the applicant and runanga.

## **RECOMMENDATION**

### **Grant or Refuse**

48. Section 104B applies to any application which is a discretionary or non-complying activity and states that the consent authority may grant or refuse the application and may impose conditions under s108.
49. The applicant proposes to construct a submerged gallery intake in the bed of Station Stream to establish an irrigation scheme, which is intended to be integrated with a planned microhydro scheme. This application, CRC071785, may not be required if application CRC093264 is granted for the same activity, with additional proposed structures related to the microhydro proposal.
50. I am satisfied that the application can be granted, subject to conditions, and subject to the applicant obtaining the necessary water permit for channel diversion, required to ensure works occur out of flowing water.

## **RECOMMENDED CONDITIONS**

51. Comments on the mitigation proposed by the applicant are provided earlier in this report.
52. If the Commissioners decide to grant this application, a list of conditions that are usually included in a permit to disturb the bed and banks of a waterway, and explanation for their inclusion, are provided in Appendix 6 of the introductory s42A report.

- 53.** A list of conditions for this application is included below, which are considered to adequately mitigate adverse effects on water quality and ecosystems, and erosion and flood carrying capacity. The italicised conditions are shorthand, with the full condition listed against the unique identifier in Report 1, Appendix 6.

## **CRC071785**

### *Scope*

1. a) Works in the bed and banks of Station Stream shall be limited to installation and maintenance of a submerged gallery intake, irrigation supply pipeline, and erosion protection, including:
  - i. excavation of a trench up to 1 metres wide, 20 metres long, and 3 metres deep; and
  - ii. installation of a 700mm diameter pipe, with a maximum of 8mm slots (submerged gallery intake) and an irrigation supply pipeline; and
  - iii. installation and maintenance of rip rap protection; and
  - iv. maintenance of the submerged gallery intake to ensure compliance with fish exclusion standards described in the *Fish Screening Good Practice Guidelines for Canterbury, NIWA Client Report: CHC2007.092, October 2007*, including maintenance of a 2 metre depth of graded gravels over the submerged gallery intake.
- b) The pipeline submerged gallery intake described in 1(a) shall be buried to a minimum depth of 2 metres below lowest bed level.

### *Location*

2. Works shall only be carried out within the bed and banks of Station Stream between map references NZMS 260 I36:132-215 and I36:133-219, as shown on attached plan CRC071785.

### *Works/Construction*

3. Prior to commencing excavation, a copy of this resource consent shall be given to all persons undertaking activities authorised by this consent.
4. The Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager shall be notified not less than 48 hours prior to the commencement of works.
5. Works described in Condition 1 shall take no longer than a day to complete.
6. (a) Works described in Condition 1(a) shall only occur in January or February of any year.  
(b) Works described in Condition 1(b) shall only occur when there are naturally high levels of sediment in Station Stream, following a high flow event.
7. Material used for construction of the gallery and associated pipeworks shall not be sourced from the bed and banks of Station Stream.
8. *LU16 Not in flowing water*
9. *LU22 Storage of fuel*
10. *LU23 Minimise adverse effects on a variety of values*
11. Machinery shall be free of plants and plant seeds prior to use in the riverbed.
12. To prevent the spread of Didymo or any other aquatic pest, the consent holder shall ensure that activities authorised by this consent are undertaken in accordance with the Biosecurity New Zealand's hygiene procedures.

Note: You can access the most current version of these procedures from the Biosecurity New Zealand website <http://www.biosecurity.govt.nz> or Environment Canterbury Customer Services

13. Excavation shall not occur within 100 metres of birds, which are nesting or rearing their young in the bed of the river.

*Erosion Protection, Sediment Control and Flood Capacity*

14. All practicable measures shall be undertaken to prevent the discharge of sediment to Station Stream arising from the works.
15. All practicable measures shall be undertaken to ensure that works do not deflect floodwaters into the berm.
16. *LU011 No erosion of bed and banks – ephemeral streams*
17. The proposed works shall not have any adverse effects on the flood carrying capacity of Station Stream.

*Accidental Discovery Protocol*

18. *LU09 Arowhenua Runanga and Waihao Runanga*

*Upon Completion*

19. *LU27 Remove spoil and waste material*
20. All disturbed areas on the riverbank shall be stabilised and re-vegetated with suitable indigenous species following completion of works.

*Administration*

21. *AD05 Review*
22. *AD06 Lapse*



Signed: \_\_\_\_\_

Date: 28 August 2009

Maria Bartlett  
Consents Investigating Officer

## REFERENCES

Canterbury Regional Council 2004. Proposed Natural Resources Regional Plan – Chapter 6: Beds and margins of Lakes and Rivers

Canterbury Regional Council 1998. Regional Policy Statement. Report No R98/4. ISBN 1-86937-337-5.

Canterbury Regional Council 1991. Transitional Regional Plan. October 1991.

The Resource Management Act 1991. Consolidated version including the Resource Management Amendment Act 1995. August 2005.

Waitaki Catchment Water Allocation Board 2006. Waitaki Catchment Water Allocation Regional Plan. ISBN: 0-9582620-7-1.