

**DECISION OF OTAGO REGIONAL COUNCIL AND QUEENSTOWN-
LAKES DISTRICT COUNCIL**

RESOURCE MANAGEMENT ACT 1991

Applicant:	FULTON HOGAN LIMITED
RM Reference:	RM 13.474.01 (ORC) & RM 140133 (QLDC)
Location:	State Highway 8A (Luggate-Tarras Road) south-west of the eastern intersection with Kane Road east of the Clutha River.
Proposal:	Discharge permit for the discharge of contaminants into air from a solar secondary sewage sludge drying facility; land use consent for industrial activity, construction of a building and physical activity associated with a building including roading landscaping and earthworks, and breach of site standards relating to scale and nature of activities and planting of tree species with wilding potential.
Types of Consent:	Discharge Permit and Land Use
Legal Description:	Lot 2 DP 341373, CFR 170215
Valuation Number	2908210403
Zoning:	Rural General
Activity Status:	Discretionary Activity & Non-Complying Activity
Notification:	26/27 March 2014
Commissioners:	Kevin Rolfe, John Lumsden & W David Whitney
Date of Decision:	10 October 2014
Decision:	Consent is granted to both applications subject to conditions.

A. INTRODUCTION

A.1 Background

1. Fulton Hogan Limited has applied to the Otago Regional Council (ORC) to discharge contaminants into air from a proposed solar secondary sewage sludge drying facility (the facility) on a site located in the Upper Clutha valley. An application has also been made to the Queenstown Lakes District Council (QLDC) with respect to this land use activity. The site subject to the application is described as Lot 2 DP 341373 as held in Computer Freehold Register Identifier 170215 in the Otago Land Registration District.
2. Pursuant to section 34A(1) of the Resource Management Act 1991 (the Act) the ORC and the QLDC have delegated their powers and functions with respect to considering the applications and the submissions received thereto and for making a decision on the respective applications for resource consent. Commissioner Kevin Rolfe was appointed by the ORC and Commissioners John Lumsden and David Whitney were appointed by the QLDC. The two applications have been jointly heard, considered and decided pursuant to section 102(1) and (3) of the Act.

A.2 The Site

3. The site has an area of 46.4655 hectares more or less, and is located to the south of State Highway 8A being the Luggate-Tarras Road, to the south-west of the eastern intersection of Kane Road with State Highway 8A. The site forms part of an elevated river terrace to the east and north of the Clutha River being separated from the Clutha River by Crown Land.
4. The site is located approximately 40-60 metres above the Clutha River close to a bend in the river known as The Nook.
5. The majority of the site is flat and is thinly vegetated in rough pasture grasses; with a triangular portion of the site falling to a lower terrace, being the western extremity of the site. There is a mature shelter belt of trees that is along the roadside boundary with State Highway 8A; and a further shelter belt of pine trees runs along the terrace edge that generally bisects the site and separates the flat land from that portion that falls to the lower terrace within the site.

6. The site is subject to a current land use consent being RM 060120 that was subject to a consent order of the Environment Court issued on 7 May 2007. RM 060120 authorises Fulton Hogan Limited to establish and operate a quarry on the subject site. An existing quarry pit and stockpiling area are established on the north-eastern corner of the site. A community green waste operation is located on the western portion of the site in the vicinity of the location of the proposed facility.
7. A sealed vehicle crossing with tapers has been constructed at the entrance of the site, consistent with the relevant condition of RM 060120. Warning signs that relate to “Trucks Crossing” are erected at the approaches to the crossing on State Highway 8A; and egress from the site onto the State highway is controlled with a “Stop” sign.
8. Within the site and generally parallel to the northern boundary with State Highway 8A is a public access track which provides access from State Highway 8A to the Clutha River at The Nook.
9. It is also noted that land use consent RM 060120 contains conditions with respect to landscape plantings and mounding which have been established at boundaries of the site and that complement the existing shelter belt plantings. A pump shed and water tank exist on the site to facilitate irrigation of these plantings.
10. For completeness it is noted that Condition 13 of RM 060120 limits that consent to a period of 40 years from the date of the consent or upon the extraction of 3,000,000m³ of gravel, whichever is the earlier.

A.3 The Proposal

11. The consents are sought to establish and operate a solar drying facility that will process secondary sewage sludge from the Wanaka Wastewater Treatment Plant, which is known as “Project Pure”. The secondary sewage sludge is currently transported by truck to a landfill at Victoria Flats to the east of the Gibbston Valley, near Queenstown, a round trip of about 140 kilometres. Both the discharge permit and the land use consent have been sought for a period of 35 years.

12. The facility will comprise a large glass building that measures 96 metres in length by 12.8 metres in width (1,228.8m²). The floor of the building will be 0.5 metres below ground level. The building will have an overall height of 5.3 metres and will project 4.8 metres above existing ground level. The building is to be constructed on an asphalt base that measures 108 metres by 13 metres; occupying an area of 1,404m².
13. The drying process is conducted within the building and relies largely on solar radiation, which warms the surface of the secondary sewage sludge, assisted by active and passive ventilation. The rising temperature forces the water molecules out into the surrounding air. The moist air transports the water out of the glass building through open vents. While the surface dries, the lower secondary sewage sludge remains moist and must be mechanically turned to assist with drying, and to keep it aerobic.
14. Secondary sewage sludge brought to the site for processing has had a polymer added to it, and it is dewatered by centrifuge at Project Pure. While the dewatered secondary sewage sludge cake is moist, consisting of about 80% water, the Commissioners found during their visit to Project Pure that it does not present a “wet” appearance or have any obvious liquid characteristics.
15. Within the building a “Wendewolf” agitator is used to constantly turn the secondary sewage sludge. The Wendewolf is a turning and conveying machine mounted on the walls that automatically and gradually moves the secondary sewage sludge from one end of the drying bed to the other. The Wendewolf Sludge Solar Drier (SSD) process within the building is fed and emptied with loaders. Movement through the drying bed is entirely automatic.
16. The glass building (or “glasshouse”) has a range of features to aid in the drying. Clear glass, not reflective glass or polycarbonate, is proposed to be used to maximise the incoming solar radiation. Motor-driven roof ventilation flaps are to be installed over the entire length of the roof. These are similar to those used in many greenhouses for ventilation, but include sophisticated control systems activated by differences in the meteorological conditions inside and outside the building. Fans are placed inside the hall in such a way that air turbulence is created above the surface of the drying bed, breaking up the moist boundary layer above the surface. An aperture slit is positioned

between the glasshouse and the walls on which the Wendewolf is travelling. Whenever the roof flaps are opened a natural draught occurs and fresh air enters the facility.

17. The facility is to be located 70 metres from the northern boundary of the site (adjacent to State Highway 8A) and 71 metres from the north-west boundary of the (at the minimum). The building will be on a north-west to south-east axis, running parallel to the shelter belt that bisects the site on this alignment. As such, the 12.8 metre façade of the building will face State Highway 8A and any distant viewer from the south-west of the site (including State Highway 6 and land above the highway).
18. A maximum of 4 covered trucks per day will transport the secondary sewage sludge from Project Pure at Riverbank Road, north of the Wanaka Airport, to the site. Such transportation will occur Monday-Friday and the trucks will deliver the secondary sewage sludge directly into the building. There will be no outside stockpiling of the secondary sewage sludge. The building will hold the secondary sewage sludge for 12-14 months. During this time the original dewatered secondary sewage sludge, containing about 20 per cent dry solids, is transformed into a granular product with a minimum 85 percent dry solids. Based on experience from recently installed facilities in Victoria, Australia, the granulate product is odourless and can be used as a soil conditioner or fertiliser for pastoral farming or forestry, with a Aa biosecurity rating in terms of pathogen and metal contents. The granulate product will be transported off-site in a maximum of 2 truckloads per week and probably taken to the applicant's Parkburn Quarry that is located south of Smiths Way on State Highway 6, near Cromwell, in the Central Otago District.
19. The applicant has advised that no commercial or retail sales will occur at the subject site; and that no consent is sought for the granulate product to be applied to land. Although the sale of the product is not part of the consents applied for, the applicant has indicated that this is planned to occur at either the Parkburn Quarry owned by the applicant, referred to above, or from an existing sales outlet of the applicant located in Alexandra.
20. Access to the site is to be via the existing quarry entrance. An access carriageway is to be constructed between the existing entrance and the facility. Bunding and

landscaping is proposed between the facility and State Highway 8A to the north; and to the east of the building, as described further below.

21. The facility will be staffed for approximately 2 hours per day by one on-site operator at any time between the hours of 7:00am – 6:00pm Monday to Friday.

22. Water is currently pumped directly from the Clutha River to the site and is held in storage tanks for irrigation purposes near the southern boundary of the site. No water or wastewater connections are required for the facility. It is proposed that power will be connected to the site prior to the commissioning of the facility. Any stormwater will be diverted from the roof to ground soakpits.

23. In the application documentation and at the hearing the applicant volunteered a range of conditions to mitigate effects. These include the following (or to like effect):

(i) Secondary sewage sludge received at the site shall not be in a state that could cause an offensive or objectionable discharge into air at or beyond the property boundary.

(ii) The consent holder shall not receive a batch of secondary sewage sludge at the site more than 24 hours after dewatering commences for that batch [at Project Pure].

(iii) Secondary sewage sludge shall not be stored outside the building.

(iv) Secondary sewage sludge held within the drying facility shall be maintained in an aerobic condition by mechanical turning and ventilation in order to minimise discharges of odour.

(v) A bund and planting to give a total screen height of 4 metres is to be established to the north of the building, between the building and State Highway 8A.

(vi) A bund and planting to give a total screen height of 6 metres is to be established to the east of the building, and a row of Radiata pine (*Pinus radiata*) or alternative species to be planted to the east of the bund to provide rapid screening from the

direction of Sandy Point [this proposal was subsequently modified in correspondence following the adjournment of the hearing and before it was closed, as detailed in paragraphs 119 to 121 of this decision].

(vii) No stockpiling of the product is to occur on the site – all material is to remain in the building until it is taken off site.

(viii) An Environmental Management Plan that includes provision for the management of odour is to be maintained and updated by the consent holder.

(ix) A review condition is to apply.

(x) Other detailed conditions are accepted as appended to the section 42A officers' reports.

24. The Commissioners confirm that they have assessed the proposal on the basis of the application as lodged; and in terms of the additional mitigation provided for in the amended conditions offered by the applicant at the hearing, including those presented in evidence by Mr Bob Willis, a Resource Management Planner (and also a Regional Environmental Officer for the applicant).

A.4 Consent Required : ORC

25. The Regional Plan : Waste for Otago became operative on 11 April 1997. Rule 7.6.12 of the Regional Plan : Waste provides, as a permitted activity, for the discharge of any contaminant into or onto land; the discharge of any contaminant or water into water; or the discharge of any contaminant into air, when this occurs as the result of composting of organic material provided that the requirements specified in (a) – (f) of that rule are satisfied. In this instance the composting is not to be undertaken on the property from which the majority of the material is sourced, and the proposal therefore breaches Rule 7.6.12(e).

26. Rule 7.6.13 provides for the discharge of any contaminant into air as the result of composting of organic material other than in accordance with Rule 7.6.12 as a discretionary activity.

27. The application to discharge contaminants into air from the proposed solar secondary sewage sludge drying facility has therefore been considered by the Commissioners as a discretionary activity in terms of the Regional Plan : Waste for Otago.

A.5 Consent Required : QLDC

28. The Queenstown Lakes District Plan (District Plan) became fully operative on 10 December 2009. The site is zoned Rural General as shown on Maps 18 and 18a of the District Plan.

29. Rule 5.3.3.3i(a) provides for the construction of any building and any physical activity associated with any building such as roading, landscaping and earthworks as a discretionary activity in the Rural General Zone.

30. Rule 5.3.5.1iii is a Site Standard that applies limitations with respect to all activities (other than to certain farming and other activities specified in the Rule) being that:

- (a) The maximum gross floor area of all buildings on the site, which may be used for the activities shall be 100m²;
- (b) No goods, materials or equipment shall be stored outside a building; and
- (c) All manufacturing, altering, repairing, dismantling or processing of any goods or articles shall be carried out within a building.

31. In this instance Rule 5.3.5.1iii(a) is breached as the building will exceed 100m² in area. A breach of Rule 5.3.5.1iii is a restricted discretionary activity pursuant to Rule 5.3.3.3xi.

32. Rule 5.3.5.1xiii is a Site Standard which confirms that there shall be no planting of listed tree species with wilding potential which includes Radiata pine (*Pinus radiata*). A breach of Rule 5.3.5.1xiii is a restricted discretionary activity pursuant to Rule 5.3.3.3xi.

33. The Commissioners noted at the hearing that Rule 5.3.3.3x provides for the following as a discretionary activity:

“Industrial Activities, limited to wineries and underground cellars within a vineyard.”

34. The term “Industrial Activity” is defined at page D-7 of the District Plan as meaning:

“... the use of land and buildings for the primary purpose of manufacturing, fabricating, processing, packing, or associated storage of goods.”

35. The Commissioners have given consideration to whether the proposal is an Industrial Activity; and whether such Industrial Activity breaches Rule 5.3.3.3x. Mr Page, for the applicant, drew our attention to the definition of “Waste” and “Waste Management Facility” as defined at page D-14 of the District Plan and he submitted that the primary purpose of the activity is to manage waste; and that a by-product of this is the production of granulates (soil fertiliser). Mr Page submitted that processing is not the primary activity to be conducted at the site. Mr Page agreed that, if the Commissioners determined that what is proposed is in fact an Industrial Activity, this would be a non-complying activity as it would breach the limitation specified in Rule 5.3.3.3x.

36. Ms Sinclair was of the opinion that the proposed activity is an Industrial Activity. She drew the Commissioner’s attention to Rule 5.3.5.1iii which relates to the Scale and Nature of Activities [as summarised above] and Rule 5.3.3.3xi. Ms Sinclair considered that, as the Industrial Activity is not listed as a prohibited or non-complying activity, it complies with the relevant Zone Standards but does not comply with the Site Standard being Rule 5.3.5.1iii as the building is over 100m² in area. Ms Sinclair therefore concluded that the Industrial Activity is a restricted discretionary activity pursuant to Rule 5.3.3.3xi. Ms Sinclair further noted that if the activity was defined as a “waste management facility” it would be captured by the same rule she identified.

37. The Commissioners conclude that the proposal is an Industrial Activity as defined, as its primary purpose is the processing of goods; the material being a good when it comes into the possession of the applicant. That is, the material is a waste product of the Project Pure facility but it is a good for the solar secondary sewage sludge drying facility. The Commissioners concur with Mr Page’s submission that, being an Industrial Activity, the proposal has status as a non-complying activity.

38. The Commissioners have some difficulty accepting that any industrial activity that breaches Rule 5.3.5.1iii has status as a restricted discretionary activity (only). This is because Rule 5.3.3.3x limits Industrial Activities which have status as a full

discretionary activity to wineries and underground cellars within a vineyard only. It does not seem logical to the Commissioners that any other Industrial Activities (of whatever nature and scale) that breach Rule 5.3.5.1iii would default to a restricted discretionary activity status being a lower position in the consent hierarchy than wineries and underground cellars, which have a clear association with rural production.

39. The Commissioners' conclusion is that the proposed activity is an Industrial Activity, which is a non-complying activity as it breaches Rule 5.3.3.3x; such status being confirmed by Clause 1.5.3iv on page 1-4 of the District Plan.

40. The Commissioners encourage the Council to give further consideration to the clarity of the Rules that relate to the status of Industrial Activities in the Rural General Zone (or equivalent) in the context of the forthcoming District Plan Review.

41. The applicant has advised that a maximum of 950m³ of earthworks are required to enable the facility to be positioned 0.5m below the existing ground level. Additional earthworks will be required for the bunds and it is unclear whether the 950m³ relates to both of the bunds now proposed. For the avoidance of doubt, the Commissioners do not consider that any earthworks, which exceed a maximum area of 2,500m² or a maximum volume of 1,000m³, would breach Rule 5.3.5.1viii, which is a Site Standard relating to Earthworks, as that rule confirms that the limitations do not apply to earthworks approved as part of a resource consent for a building.

42. The Commissioners have considered the proposal as an application for a land use consent for a non-complying activity in terms of the District Plan.

A.6 Submissions

43. Seven submissions were received by the ORC within the statutory submission period, which closed on 28 April 2014. A late submission lodged by Mr Graham Taylor was received on 30 April 2014 and was accepted by the Commissioners [see paragraph 44 below]. The submission by Public Health South was in support of the application subject to the conditions offered by the applicant in the application; and the seven other submissions were in opposition.

44. Thirty-seven submissions were received by the QLDC within the statutory submission period, which closed on 29 April 2014. Late submissions were lodged by Mr Graham Taylor and Mr BA Todd and were received on 30 April 2014 and 2 May 2014, respectively. Mr Page, for the applicant, had no submission to make with respect to whether or not the three late submissions should be accepted. The Commissioners have exercised their power under section 37 of the Act to waive compliance with the time limit for these submissions, having taken into account the matters stated in section 37A of the Act.
45. The Commissioners have noted that, of the 39 submissions lodged in response to the application made to the QLDC, three were in support of the application and thirty-six were opposed.
46. The Commissioners also note that all of the eight submitters to the application to the ORC also submitted in response to the application to the QLDC.
47. The Commissioners have given consideration to all submissions received in response to the applications to the ORC and the QLDC, and have visited the locations of the properties of 27 of the submitters.

A.7 Reports and Hearing

48. The Commissioners had the benefit of a section 42A officer's report dated 4 September 2014 prepared by Mr Mathew Bell, a Senior Consents Officer with the ORC. Mr Chris Shaw the Manager Consents for the ORC was in attendance at the hearing to provide logistical support for the Commissioners.
49. The Commissioners also had the benefit of a section 42A planning report dated 3 September 2014 prepared by Ms Jane Sinclair, Consultant Planner to QLDC; a Landscape and Visual Assessment report for the QLDC dated 1 August 2014 prepared by Dr Marion Read of Read Landscapes; an Engineering Report dated 24 July 2014 prepared by Ms Lyn Overton, the Resource Management Engineer with QLDC; and an assessment in regards to noise, dust and odour dated 17 April 2014

prepared by Ms Jodi Yelland, an Environmental Health Officer with QLDC. At the hearing we were assisted by Mr Bell, Mr Shaw, Ms Sinclair, Dr Read and Ms Overton.

50. Prior to the hearing we had the opportunity to consider the applications and supporting material including the further information filed by the applicant together with all of the submissions. We made an initial site inspection and a visit to Sandy Point in the vicinity of the A & B Kane residence at 618 Luggate-Tarras Road on the morning of the hearing on Wednesday 17 September 2014; a second, more comprehensive, site inspection at the conclusion of the hearing for the day on 17 September 2014, which included a visit to Project Pure, an inspection of the site and a tour of Luggate noting the location of submitters' properties in that locality; and a third site visit to the Gilchrist and Wilkinson properties above State Highway 6 following the adjournment of the hearing on the afternoon of Thursday 18 September 2014.

51. At the hearing the applicant was represented by Mr Phil Page, Counsel, of Gallaway Cook Allan. Mr Page called evidence from Mr Alan Peacock, the Regional Manager Central for Fulton Hogan Limited; from Mr Derek de Waal, the Business Development Manager of Liquitek Pty Limited – Liquitek being the exclusive representative for IST Anlagebau, the designer and developer of the Wendewolf sewage sludge solar drying technology, in Australia and New Zealand; Mr John Iseli, an Air Quality Scientist with Specialist Environmental Services Limited; Ms Yvonne Pflüger, a Senior Landscape Planner for Boffa Miskell Limited; and Mr Bob Willis, the Regional Environmental Manager, Canterbury for Fulton Hogan Limited whose professional background is in the field of Resource Management Planning. Mr Page also tabled evidence prepared by Mr Ulrich Glasner, Chief Engineer of the Planning and Infrastructure department of the QLDC.

52. Mr Glasner was unable to attend the hearing due to another commitment. The Commissioners record that Ms Pflüger and Messrs Iseli, Glasner and Willis all acknowledged that their evidence was written in compliance with the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2011.

53. Also in attendance at the hearing were Ms Rachael Scott the Regional Environmental Manager for Fulton Hogan Limited; Mr Peter Reid, Divisional Manager of Industries with Fulton Hogan Limited; and Mr Peter Savage, Environment and Resource

Development Manager with Fulton Hogan Limited. Ms Scott and Messrs Reid and Savage contributed information during the course of the hearing but did not present written evidence.

54. The Commissioners note that, rather surprisingly, none of the submitters were present at the hearing on Wednesday, 17 September 2014, when the applicant presented submissions and evidence. On checking with Officers, we are satisfied that all submitters were sent letters which confirmed that the hearing was due to commence on 17 September 2014.

55. Several of the submitters appeared at the hearing on Thursday 18 September 2014. Mr Graeme Halliday, Ms Judy Thompson and Mr Graham Taylor appeared in support of the submission lodged by the Luggate Community Association Project Groundswell Sub-committee (LCAPGS); and Mr Halliday, Ms Thompson and Mr Taylor also appeared in support of their own submissions, Mr Halliday's submission being also on behalf of the LCAPGS. The Commissioners note that Mr Taylor had submitted in response to both of the applications (to the ORC and QLDC) whereas the Association, Mr Halliday and Ms Thompson had submitted on the applications to the QLDC only. All of these submitters were opposed to the application.

56. Ms Rachel Brown (along with Winifred) appeared in support of her submission in response to the application made to the QLDC. Ms Brown spoke in support of the application.

57. Mr Allan Kane and Mrs Barbara Kane appeared in support of their submission to the application to the QLDC. They were opposed to the application.

58. Mr Philip Gilchrist appeared with Mr Mike Wilkinson. Mr Gilchrist lodged submissions in response to the applications to the ORC and QLDC. Mr Wilkinson appeared in support of the submission lodged by Wendy Fisher and himself in response to the application made to the QLDC. They were both opposed to the application.

59. The Commissioners record that, while the hearing was initially adjourned at 12:15pm on 18 September 2014, we became aware on that afternoon that Ms Lorna Schmidt had arrived at the venue at about 2:00pm and wished to be heard. Mr Page was able to return to the venue and make himself available, and he confirmed that he had no

difficulty with the Commissioners hearing Ms Schmidt's submission. Ms Schmidt presented her submission in response to the application made to the QLDC. She was opposed to the application. The Commissioners acknowledge that this approach was somewhat unorthodox but consider that it was appropriate to reconvene to hear Ms Schmidt's evidence as she had mistakenly arrived late at the venue at 2:00pm in good faith. In subsequent correspondence it was ascertained that Ms Schmidt had misread the letter to her about when submitters were to appear at the hearing.

60. The section 42A reports, including the landscape, engineering and environmental health reports prepared in the context of the application to the QLDC, were taken as read and Mr Bell, Ms Overton, Dr Read and Ms Sinclair were invited to comment following the presentations by submitters on the morning of 18 September 2014. Following Mr Page's reply the hearing was adjourned and later reconvened to hear Ms Schmidt's evidence, as recorded above.

A.8 Principal Issues in Contention

61. The principal issues in contention before the Commissioners were the effects on the environment of allowing the discharge of contaminants into air from the solar secondary sewage sludge drying facility; and the effects on the landscape of the proposed land use activity. Any such adverse effects must be weighed in this instance against the positive effects of the proposed activity.

B. EFFECTS ON ENVIRONMENT

B.1 Permitted & Consented Baseline

62. The discharge of any contaminant into air as a result of composting organic material is a permitted activity provided that Rule 7.6.12(a)-(f) of the Regional Plan : Waste is satisfied. Any such composting would have to be undertaken on the property from which the majority of that material is sourced.

63. The discharge of contaminants into air from the extraction of minerals, and any discharge into air from miscellaneous activities such as building and construction activities, and any outdoor general engineering activity, are permitted activities in terms of Rule 16.3.5.3 and Rule 16.3.13.1, respectively, of the Regional Plan : Air.

64. Farming activities, planting (with specific exclusions), fencing and earthworks, which do not breach Rule 5.3.5.1viii, are permitted activities in the Rural General Zone of the District Plan. Within the Rural General Zone any building that exceeds 5m² and a height of 2 metres requires resource consent and is therefore not a permitted activity.

65. The site is subject to land use consent RM 060120 that was authorised by a consent order of the Environment Court issued on 7 May 2007. This authorises the existing quarrying activity and associated activities on the subject site. Mr Page drew our attention to Condition 17 of RC 060120 which has the effect of requiring that stockpiles be located within the quarry pit following the initial 2-3 year quarrying period. RM 060120 provides a consented baseline.

B.2 Affected Persons Approvals

66. Affected persons approvals have been provided in the context of the application to the QLDC. These have been provided by Mr Kim Landreth who owns land to the north of State Highway 8A and to the west of Kane Road; from Mr Paul Kane of Grandview Farm that is located to the east of Kane Road and to the north and south of State Highway 8A; and from the Otago Fish & Game Council.

67. The Commissioners note that the applicant also owns the adjacent land immediately to the east of the site being Lot 1 DP 327097. We consider that the applicant is deemed to have provided affected persons approval with respect to that land.

68. Section 104(3)(a)(ii) of the Act directs that a consent authority must not have regard to any effect on a person who has given written approval to an application when considering that application.

69. The Commissioners note that the applicant has provided correspondence from Kāi Tahu ki Otago Limited on behalf of Kāti Huirapa Rūnanga ki Puketeraki and Te Rūnanga o Otākou, which advises that Ngā Rūnanga does not oppose the application proceeding by non-notified resource consent procedure, subject to conditions. Ngā Rūnanga requested further consultation once the applications had been prepared; and Ms Scott advised that a verbal response from KTKO Limited was received subsequent

to the applications being prepared, but no record of that conversation was kept. The Commissioners acknowledge that, while no formal affected persons approval has been received from KTKO Limited, no submission has been received from KTKO Limited that would indicate there has been any change to the stance of Ngā Rūnanga.

B.3 Certain Matters Not Relevant

70. The Commissioners acknowledge that certain matters were raised in submissions which are not relevant to our consideration of one or both of the applications. The Commissioners emphasise that it is required to consider the applications that are before it and which relate specifically to the activity to be conducted at the subject site.

71. The applications to ORC and QLDC are clear that those applications for resource consent do not include any application to apply fertiliser to land. The use of the end product from the solar secondary sewage sludge drying facility is therefore not a relevant consideration in the context of these applications.

72. As the applications relate to the proposal to establish the facility at the subject site, the alternative of co-location with the Wanaka Wastewater Treatment Plant at the “Project Pure” site is not relevant to the application made to the QLDC. The Commissioners note in this context that Clause 1(b) of Schedule 4 to the Act requires that a description of any possible alternative locations or methods for undertaking the activity should be included in an assessment of effects on the environment only where it is likely that an activity will result in any significant adverse effect on the environment. The Commissioners have concluded that no such significant adverse effects on the environment will result from the activity on the proposed site in this instance.

73. Section 105(1) directs that if an application is for a discharge permit to do something that would contravene section 15 the consent authority must, in addition to the matters in section 104(1), have regard to, *inter alia*, any possible alternative methods of discharge, including discharge into any other receiving environment. The Commissioners acknowledge in the context of the application to the ORC that such an alternative would be to locate the proposed facility at the Wanaka Wastewater Treatment Plant (Project Pure).

74. The applicant has advised that the proposed location of the facility has been chosen as it owns the site. The only other land owned by the applicant suitable for the facility would be at the Parkburn Quarry adjacent to State Highway 6, north of Cromwell. The applicant has advised that locating the facility at Parkburn Quarry was dismissed due to the increased cartage costs and because it is outside the QLDC area.
75. The applicant does not own land in or in close proximity to the Wanaka Wastewater Treatment Plant. The applicant has also advised that the Project Pure plant is within the Wanaka Airport Zone; and that height restrictions within the Wanaka Airport Zone would mean that the facility would need to be dug into the ground and as a consequence the glass would not effectively allow sunlight to reach the secondary sludge. The applicant has also noted that the proposed facility, being essentially a large glasshouse, would also cause aviation safety hazards in that location close to the airport. Correspondence confirming the situation regarding airport operations has been provided from the relevant authority, and it forms part of the Assessments of Environmental Effects for the two applications.
76. The Commissioners acknowledge that possible alternative methods of discharge, including discharge into any other receiving environment have been considered; and we have had regard to these matters in terms of section 105(1) of the Act in the context of the application for the ORC consent. We have also had regard to requirements of section 108(1)(e) of the Act, regarding adoption of the best practicable option to control any adverse effects caused by a discharge of contaminants into air. The best practicable option (BPO) includes, *inter alia*, consideration of the sensitivity of the receiving environment to adverse effects, and the effects on the environment of that option when compared with other options.
77. The Commissioners consider that the whole tendering process, which has resulted in the applicant having long term supply contracts in place with the QLDC to take secondary sewage sludge from Project Pure, is not a relevant consideration. Documents relating to this process were attached to the submissions from LCAPGS and from Mr Graeme Halliday on behalf of LCAPGS, both submissions being lodged in response to the application to the QLDC.

B.4 Actual and Potential Effects

B.4.1 Odour

78. Mr de Waal provided the Commissioners with details of the Wendewolf secondary sewage sludge drying process that utilises mainly solar radiation to dry the secondary sludge. The process to be used at the facility will, by the removal of water, reduce the volume of the material by a minimum of 76.5%.

79. Mr de Waal informed the Commissioners that the Wendewolf technology is used in 124 operating systems worldwide in 13 countries, including Australia. He noted that many of the Wendewolf plants are located in Europe in areas with a similar climate to the subject site, and also in locations with much less solar radiation than Luggate. He agreed, in answers to questions from the Commissioners, that the East Burgengary, Queensland, facility referred to in the Assessments of Environmental Effects, was not a relevant example, because it dries the sewage sludge to only 65 per cent solids.

80. Mr de Waal also agreed that neither was the first installation at Boneo, Victoria, a facility visited by Ms Scott of Fulton Hogan, a relevant example because the ventilation system on that building was non-optimum. That followed a requirement of the Environment Protection Authority, Victoria, for collection and dispersion of the discharges from a tall stack. He confirmed that the second building at Boneo did not require collection and dispersion of the discharges. Mr de Waal focused instead mainly on the most recent installation in Australia, at Mt Martha, Victoria, the size and configuration of which was almost identical to that proposed for Luggate.

81. Mr Iseli observed that the site provides large separation distances to any sensitive activities (such as dwellings) on neighbouring properties. As noted above, affected persons approval has been provided by the owners of the adjacent large rural blocks of land to the north and east of the site. Mr Iseli informed us that the closest dwelling lies approximately 850 metres to the west of the proposed facility at Church Road, to the west of the Clutha River. He noted that a dwelling is also located on a lifestyle property on Kane Road at least 1000 metres generally to the north of the site.

82. Mr Iseli presented wind roses compiled from hourly wind data recorded by NIWA at Wanaka Airport. These showed that westerly winds are strongly prevalent in the local area; and that winds from the south-east are also frequent. Winds from the east and

north-east (blowing towards Luggate and the nearest receptors on Church Road) are rare.

83. Mr Iseli applied odour assessment techniques to the proposed activity as described in the Good Practice Guide for Assessing and Managing Odour in New Zealand published by the Ministry for the Environment in 2003. The Good Practice Guide recommends that odour assessments for new activities should be based on:

- (a) Past experience with the same activity having similar controls at other locations; or
- (b) Dispersion modelling.

84. Mr Iseli was of the opinion that, in this instance, dispersion modelling is not a useful assessment tool because reliable odour emission data for the proposed facility is not available, and that the odour emission rate will be small but highly variable from different parts of the facility. He considered that the assessment should, therefore, be based on experience at other sites, taking into account site-specific factors and proposed mitigation measures. The Commissioners concur with this approach.

85. The effects of odour are commonly characterised in terms of the FIDOL factors, described as follows:

- Frequency – How often an individual is exposed to odour.
- Intensity – The strength of the odour.
- Duration – The length of a particular odour event.
- Offensiveness – The character of the odour.
- Location – The type of land use and nature of human activities in the affected area.

86. Mr Iseli noted that the dominant factor in this case is the location of the solar secondary sewage sludge drying facility, which offers large separation distances to sensitive neighbouring activities such as dwellings. Mr Iseli advised the Commissioners that during normal operation the odour emission rate from ventilation of the glasshouse will be small and any odour effects at neighbouring properties are expected to be negligible. Any potential for adverse off-site effects would be associated with acute effects (that is, odour discharges with a low frequency of occurrence, of high intensity, a short duration and an offensive character) caused by poor site management, such as allowing unusually malodorous secondary sewage sludge to be received, or storing the secondary sewage sludge in stockpiles outside,

or allowing anaerobic conditions to develop within the facility. Mr Iseli advised us that such effects can be controlled by implementing good practice measures.

87. Mr Iseli advised the Commissioners that he recently visited the solar sewage sludge drying facility at the Pines wastewater treatment plant operated by the Selwyn District Council at Rolleston. At that facility the centrifuged secondary sludge is conveyed directly into the glasshouse for drying. He noted that while this is not a Wendewolf design the operating principles are similar but less sophisticated, whereby the secondary sludge is regularly turned manually and maintained in an aerobic condition. Mr Iseli informed us that this plant has been operating for nearly a year and a half and that the operators report that there have not been any issues regarding excessive odour or nuisance effects. Mr Iseli noted that the nearest dwelling to the Rolleston facility is approximately 1.1 kilometres from the facility.

88. Mr Iseli reported that he observed a small degree of odour (similar to dry compost) when standing inside the drying hall at Rolleston. He did not detect this odour outside the glasshouse, but rather that a moderate “sewage type” odour from the adjacent wastewater treatment plant dominated. Mr Iseli’s observations indicate that the discharges from the secondary sewage sludge solar drying process proposed for Luggate are unlikely to cause significant odour beyond the immediate vicinity of the plant, which he defined as within a range of 100 to 200 metres of the building.

89. Mr Iseli considered that experience from existing operations such as the Rolleston plant and the Boneo Wendewolf facility in Victoria, Australia (that Ms Scott had visited) provides confidence that the proposed facility can be operated in a manner that does not cause adverse odour effects at neighbouring properties. Mr Iseli is satisfied that the plant can be operated in a manner that complies with a condition of consent requiring that the discharge not cause an objectionable or offensive odour beyond the site boundary.

90. Mr Iseli noted there is guidance available internationally with respect to recommended separation distances for sewage treatment and related waste management processes. He advised that, while specific separation distance guidelines are not published in relation to solar secondary sewage sludge drying plants, the available guidance provides a useful indication of the extent to which adverse effects might be

experienced at neighbouring properties during normal operation of conventional secondary sludge drying facilities. Separation distance guidance from environmental agencies in Australia and Canada indicates a range of distances to dwellings or residential areas of 150 to 500 metres. Mr Iseli emphasised that those activities subject to such separation distances are expected to generate significantly greater odour emissions than the proposed facility where aerobic conditions will be maintained. He considered that, in practice, the extent of any adverse odour effect caused by normal operation of the facility is predicted to be much less than those associated with activities subject to the 150 to 500 metres separation distance guidance, and that any such adverse odour effects are not expected to extend beyond the site boundary.

91. Mr Iseli assessed the effects of odour on potentially sensitive receptors in the locality. He predicted that the dwelling that is located at least 850 metres to the west of the proposed facility at Church Road will not be adversely affected by odour from the site. He also confirmed that the dwelling located on a lifestyle property on Kane Road at least 1,000 metres north of the site will not be affected by odour from the facility.
92. Mr Iseli noted that an industrial site (Central Trusses & Frames) is located on Church Road approximately 700 metres to the west of the proposed facility. Given the 700 metres separation distance, the local topography and the very low frequency of easterly winds Mr Iseli concluded that any adverse effects of odour at this industrial site will be less than minor; and that the Luggate sawmill, further south on Church Road, will not be affected by odour from the facility.
93. Mr Iseli noted that the greatest potential for odour transmission from discharges typically occurs during periods of very light wind conditions, particularly drainage flows, when mixing and dilution of the discharge is limited. The wind roses indicate that katabatic drainage flows (wind speeds typically less than 1m/s) in the local area generally occur from the west and north-west, following the broader gradient of the Clutha River valley. He advised that drainage flows are expected to predominantly carry odour discharges to the south and south-east, towards the river; and that there are no potentially sensitive receptors in this direction that might be affected. Mr Iseli also considered that the distance to the river in these directions (at least 600 metres) is such that any recreational users of the waterway are unlikely to be affected. In

answer to a question from the Commissioners, Mr Iseli confirmed that the periods of “calms” (about 2 to 3 per cent of the time) were also likely to be important with regard to odour potential, at locations very close to the facility.

94. Mr Iseli noted that good site management is important to ensure that the site is operated in a manner that minimises odour and avoids upset conditions. He acknowledged that a draft Environmental Management Plan for the facility has been prepared; and that this plan will be updated to incorporate specific Wendewolf operating guidance and consent conditions.

95. Mr Iseli noted that the secondary sewage sludge from the Wanaka treatment plant has been dewatered by centrifuge and has a relatively high solids content of approximately 20 percent, compared with the secondary sewage sludge from similar wastewater treatment plants. He advised that during operation of the sewage treatment plant the secondary sewage sludge is not highly malodorous and delivery by covered truck would not cause a significant peak in odour emissions from the site. Secondary sewage sludge is delivered directly into the glasshouse building and incorporated into the existing drying secondary sewage sludge material by the Wendewolf agitator. Mr Iseli also noted that secondary sewage sludge will not be stored outside the building.

96. Mr Iseli emphasised that in the event of upset conditions at the wastewater treatment plant resulting in abnormally malodorous or wet secondary sewage sludge, the sludge would not be accepted at the facility and would be transported instead to the landfill at Victoria Flats, near Queenstown, as is the current practice.

97. Mr Iseli confirmed that the plant operator will be required to inspect the site boundary each working day and record any detected odour and its intensity. Mr Iseli anticipated, given the isolated location of the facility, that it is not anticipated that any odour complaints would be received, albeit that provision has been made to record the details relating to any odour complaint and the remedial action taken, if required.

98. Mr Iseli noted that Mr Bell’s section 42A officer’s report recommended that a condition be included in the discharge permit that would set a strict limit of no more than 70 percent of the solids in the incoming secondary sewage sludge being “volatile solids”. Mr Iseli is of the opinion that, provided the other conditions are met and secondary

sludge is delivered in a fresh state (free of significant odour), a specific limit on the volatile solids content of the secondary sewage sludge solids is not necessary to ensure that adverse effects of odour are avoided.

99. A section 92 further information request of the ORC to the applicant led to the applicant providing a Watercare Laboratory Services Analysis Certificate that showed, for a sample taken on the 7 February 2014, a total solids content of the secondary sewage sludge of 19.7% and a volatile solids content of the total solids of 84.3%. At the hearing the Commissioners asked for, and received, the results of further testing of those two parameters. They showed for samples collected on 22 August, 23 August, and 27 August 2014, values of 19.7% and 84.9%, 19.4% and 84.1%, and 19.8% and 82.8%, respectively. That is, a reduction over time in the volatile solids content of the total solids, predicted by the applicant in documents accompanying the applications, did not materialise.

100. The Commissioners note this situation and acknowledge in this context that the applicant offered at the hearing an alternate condition to that recommended in the ORC section 42A officer's report. That is, the consent holder must not receive a batch of secondary sewage sludge at the site more than 24 hours after dewatering commences for that batch at Project Pure.

101. After careful consideration of this aspect, the Commissioners accept that the best way to avoid odour effects is to ensure that the secondary sewage sludge received at the site is fresh. During our visit to Project Pure we stood alongside an open bin containing centrifuged secondary sewage sludge. We noted that there was a barely discernible odour of a compost type nature emanating from the secondary sewage sludge even when leaning over the bin. The Commissioners are satisfied that the application of conditions that ensures that the secondary sludge is fresh on arrival at the facility, and which precludes the storage of secondary sewage sludge outside the building, will ensure that no offensive or objectionable odour is discernible beyond the boundary of the site.

102. The person who accompanied the Commissioners on our inspection of Project Pure was Mr Murray Spence. We asked for information about the periods of time and the times of day that the centrifuge was operated and the bin of secondary sewage sludge was removed from the wastewater treatment plant. The centrifuge is operated 8 hours per day Monday to Friday and usually 4 hours per day Saturday and Sunday,

commencing at about 6am each day. On special occasions, such as during the Warbirds over Wanaka flying show, the centrifuge is operated for longer periods during the weekends. The first bins are removed at about 9:30am and the last at about 2:30pm Monday to Friday.

103. Analysing Mr Spence's answers, the Commissioners determined the maximum 24 hours limit for secondary sewage sludge would not be achieved with the current operating regime during weekends. Specifically, the wastewater treatment plant will have an empty bin from about 2:30pm on Fridays, filling of which would commence at about 6am on Saturdays. Secondary sewage sludge would be added during the operational periods of the weekends, and the bin removed at about 9:30am on Mondays. The first secondary sewage sludge in the bin by 9:30am on a Monday would be about 51.5 hours old at that time, or approximately 52 hours old on arrival if it was transported to the solar sewage sludge drying facility.
104. Because the Commissioners made the visit to Project Pure alone, feedback on this matter was sought at the hearing. The applicant was asked for a response. Mr Page, on behalf of the applicant, acknowledged the point and said the contractual arrangements between the applicant and the Queenstown Lakes District Council would address the matter. The operational regime at the wastewater treatment plant would be adjusted to prevent any secondary sewage sludge of an age more than 24 hours being delivered to the solar sewage sludge drying facility. He also repeated that any non-complying material would be transported to the landfill at Victoria Flats, near Queenstown, as now occurs. The Commissioners are satisfied by those responses.
105. Several submitters had questioned how the facility will operate in cold weather and under the inversion conditions that are common in winter in the Upper Clutha valley. Mr de Waal observed in this context that the rate at which the secondary sewage sludge drying process operates depends on the time of year as in winter there is less solar radiation available. He advised that in inversion conditions biological processes reduce within the facility as temperature drops and that any potential for odour reduces accordingly. Mr de Waal emphasised that there is no odour potential at all on those days when inversion conditions occur.
106. The Commissioner's conclusion is that any odour effects associated with the proposal will be no greater than minor.

B4.2 Pathogens, Metals and Safety

107. Several submitters raised potential concerns with respect to impacts on health from airborne pathogens. While no specific evidence was presented to the Commissioners with respect to this matter, it is noted that the secondary sewage sludge will be unloaded directly into the building, and that substantial separation distances exist between the facility and the nearest isolated residence (approximately 850 metres away) and from the closest settlement being Luggate, the closest Rural Residential Zone allotment at Luggate being approximately 1.5 kilometres to the south-west of the facility.
108. Figure 7 as contained in the Assessments of Environmental Effects Reports that accompanied the two applications showed that drying secondary sewage sludge causes the level of pathogen indicators, being e.coli and faecal coliforms, to decrease rapidly until they are barely detectable. That is, the drying process conducted at the facility causes the rapid die-off of pathogens.
109. Secondary sewage sludge can contain heavy metals, which have the potential to cause harm to both humans and the environment. Heavy metals within secondary sewage sludge pose a risk to the environment when they are contained in solids that have high moisture content. Heavy metals naturally bind with soil particles and are not typically mobile. In answer to a question, the Commissioners were informed that the contents of metals, specifically arsenic and mercury, in the Wanaka sewage are low compared with areas of New Zealand that have geothermal activity or are in urban areas with a wider range of industrial activities.
110. Although no quantitative information was provided, the Assessments of Environmental Effects Reports that accompanied the two applications records that, by drying the solids to greatly decrease the moisture content, which is what the solar sewage sludge drying facility does, the potential for heavy metals to enter ground or surface water is significantly lowered. The heavy metals are able to bind with the organic matter and aid soil fertility by increasing nutrient levels such as nitrogen and phosphorous.
111. Access to the site is controlled by locked gates. The applicant has advised that these gates will be locked when the staff are not at the facility or the quarry.

112. The applicant has prepared a draft Environmental Management Plan, which requires that all staff wear appropriate safety clothing including gloves, boots and overalls, and makes provision for hand sanitation. The applicant has stated that, due to the technology to be used, staff at the facility do not handle the secondary sewage sludge that is unloaded directly into the building and then mechanically turned by the Wendewolf machinery.

113. The Commissioners also acknowledge that Ms Yelland, the Council's Environmental Health Officer, has considered the application documentation and has not raised any issues.

114. The Commissioners are satisfied that any effects on the environment in terms of pathogens, metals and safety will be no greater than minor.

B4.3 Visual Effects and Rural Amenity

115. The proposed building is 96 metres in length, 12.8 metres in width and has a height of 5.3 metres. With a proposed 0.5 metres of soil excavation, the building height would be 4.8 metres above the existing ground level. The building is clad in glass as this is the most efficient material to provide maximum solar radiation to facilitate drying.

116. Dr Read and Ms Pflüger are in agreement on the extent of visibility, in that:

- There will be intermittent views from State Highway 8A of the northern 12.8 metre façade of the building for a distance of approximately 100 metres.
- There will be intermittent views of the northern façade from the public access track located on the site (provided in terms of Condition 34 of land use consent RM 060120).
- Other short distance views into the site from State Highway 8A will be blocked by the existing shelter belt and bunding from the east.
- To the west of the site is a mature pine shelter belt which will screen the building from views from the west and from the public access track to the west.
- Public viewpoints on the southern side of the river are confined to the terrace where State Highway 6 (to the south of Luggate) is located. The building will be visible driving west 3 kilometres east of Luggate at a distance of approximately 1.5-2.5 kilometres.

117. Mitigation offered by the applicant prior to and at the hearing included:

- A 70 metre long bund 2 metres in height and planting that can be expected to reach a further 2 metres in height (to give a total screen height of 4 metres) along the northern boundary between the building and the public access track (and State Highway 8A further to the north).
- A 120 metre long bund 3 metres in height with planting expected to reach 3 metres in height to give a total screen height of 6 metres some 28 metres to the east of the building to provide screening from State Highway 8A and the A and B Kane's residence at Sandy Point. In addition a row of *Pinus radiata* trees were proposed to be planted adjacent to this bund to provide more immediate screening, such pine trees to be trimmed at a height of 6 metres [this proposal was subsequently modified in correspondence following the adjournment of the hearing and before it was closed, as detailed in paragraphs 119 to 121 below].
- The existing shelter belt to the west of the building is to be retained.

118. The Commissioners noted that an Ecologists Report prepared by Mr Neill Simpson in the context of land use consent RM 060120 advised that the *Radiata* pine trees planted adjacent to State Highway 8A on the subject site are about 50-60 years old and are expected to live to at least 100 years. It is anticipated that the existing shelter belt to the west of the building is of similar vintage.

119. There were, following the adjournment of the hearing, more developments regarding the mitigation to the east of the building. Mr Allan Kane, a submitter, wrote to Ms Sinclair on the evening of Thursday 18 September suggesting, *inter alia*, that a higher bund (3 to 4 metres) be constructed and that the *Pinus radiata* trees be planted on, rather than next to, the bund. He also suggested that pine tree plants of about 1.2 to 1.5 metres height be used, rather than the 0.6 metre plants proposed by the applicant. Mr Kane also suggested planting of a couple of faster growing natives next to the pine trees, the latter being sacrificial plantings.

120. In response Mr Page, for the applicant, offered in an email dated 29 September 2014 a bund with a crest height of 3 metres and a width at the base of 12 metres; a platform width at the top of 2.5 metres and a platform 1 metre below the crest that is also 2.5 metres wide. A cross section of the bund offered was provided. Mr Page proposed that native species and the *Pinus radiata* be planted on the bund, with the pines managed to a maximum 3 metres height, achieving an overall screen height of 6

metres. The pine trees could then be progressively removed as the native species achieve an equivalent height and perform a similar screening function.

121. The Commissioners sought, and obtained by email on 1 October 2014, comments from Dr Read on this matter. She generally concurred with Mr Kane, and provided us with a sketch to illustrate her suggestions, showing planting both on the bund and on the platforms proposed by the applicant. She also suggested use of a 3 metre high black windbreak cloth fence on top of the 3 metre bund, to provide immediate visual mitigation and protection of the trees as they are growing. Dr Read also provided the correct names of the native species suggested by Mr Kane, although the Commissioners found one of those was slightly incorrect.

122. After careful consideration of these planting matters, the Commissioners conclude that the best option is a combination of the opinions and offerings of Mr Kane, the applicant, and Dr Read. That is, planting on the crest of the bund and on the platform 1m below the crest of the bund, the cross section of the bund being that proposed by the applicant, with the addition of a 3 metre high black windbreak cloth fence on top of the bund, and a couple of additions to the list of native species for planting on the bunds (both the bund along the northern boundary and the bund parallel to the eastern side of the building).

123. On a related aspect of visual effects and amenity, the Commissioners acknowledge there are visual effects associated with the building, including effects in terms of glare and reflectivity that result from the glass cladding. The Commissioners have had the benefit of the reports prepared by Dr Read and Ms Pflüger on these matters.

124. The landscape architects agree that the site is located within a Visual Amenity Landscape (VAL); and is on a terrace that is separated by elevation from the Clutha River, which is an Outstanding Natural Feature (ONF). In all the circumstances the Commissioners have determined that the proposal should be assessed on the basis of being a VAL. We acknowledge that Clause 5.4.2.2(3) of the District Plan contains assessment matters that apply to development in the Rural General Zone on land categorised as a VAL.

125. The Commissioners acknowledge that Dr Read and Ms Pflüger have assessed the proposal on the basis of these assessment matters.

126. In terms of effects on natural and pastoral character (Assessment Matter 5.4.2.2(3)(a)) the Commissioners note that the building will not be visible in conjunction with the Clutha River ONF and, consequently, the development will not compromise the character of that feature.
127. The proposed building is of similar appearance to a horticultural glasshouse, which is a form of built development that can be anticipated in the Rural General Zone. Dr Read considers that, because of its location within the quarry site, the building would not compromise the character of the wider VAL. Dr Read considers that the long and low appearance of the building will mitigate its size to a degree and she does not consider its scale would compromise the character of the wider landscape to more than a small degree. Dr Read considers that the proposed development will not degrade the pastoral character of the landscape and the Commissioners concur.
128. In terms of the visibility of the development (Assessment Matter 5.4.2.2(3)(b)), it is noted that the proposed facility, without appropriate visual mitigation, would be visible from State Highway 8A at Sandy Point, which provides an iconic vista of the Upper Clutha valley that is viewed by those who travel towards Wanaka from Christchurch. Dr Read considered that the 3 metre high and 120 metre long bund to the east of the building and the various planting that is proposed will serve to satisfactorily mitigate any detracting from public views from Sandy Point and from private views from the Kane residence at 618 Luggate-Tarras Road (State Highway 8A).
129. The bunding and planting proposed to the north of the building will provide screening from the public access track and State Highway 8A adjacent to the site. The Commissioners note, in this context, that this portion of State Highway 8A is at a bend that is signposted as being a 75 kph bend (from the east) and as an 85 kph bend (from the north). The proposed building will be visible in a glimpse view as vehicles negotiate this bend at normal speed.
130. Dr Read confirmed that she has visited Mr Gilchrist's property. Dr Read advised that the proposed building will not be visible from the consented building platform on the Gilchrist site, but would be visible from parts of the property towards its north-western boundary. Dr Read considered that there would be an adverse effect on the Gilchrist property, but that the extent of the effect would be small.

131. The Commissioners visited the Gilchrist property and also viewed the site from the direction of the adjacent Wilkinson property on 18 September 2014. We are satisfied that Dr Read's conclusion can be applied to both the Gilchrist and Wilkinson properties, and note that the facility would be viewed at a substantial distance and end on from these properties, with rising land behind in such views.
132. The facility is not visible from the town of Luggate that contains land in the Township Zone and the Rural Residential Zone. While the town of Luggate is described as being approximately 2 kilometres to the south-west of the facility, the Rural Residential Zone extends to approximately 1.5 kilometres to the south-west of the facility. The facility will be screened from Luggate by the substantial shelter belt to the west of the facility and by topography, being the elevated terrace feature that is located generally to the north and east of the township.
133. The Commissioners consider that the proposed bunding and plantings, including the use of Radiata pine, is appropriate to provide mitigation in the context of this site, which already has significant pine shelter belts along much of the northern boundary and to the west of the proposed facility.
134. In the context of the form and density of development (Assessment Matter 5.4.2.2(3)(c)), Dr Read noted that the topography of the site ensures that the site is not highly visible from the river corridor, but allows views into the site from the east and from immediately adjacent to the development site. The Commissioners note that any effects on such views are to be mitigated by the landscaping proposed.
135. The proposed location of the facility in the north-western corner of the site, close to the existing boundary planting, ensures that it is located within the portion of the site that has the highest ability to absorb built development.
136. In terms of cumulative effects of development on the landscape (Assessment Matter 5.4.2.2(3)(d)) the Commissioners agree with Dr Read that, in the main, the vicinity or locality is a relatively open, rural landscape.

137. Dr Read is of the opinion that the proposed development would not breach any threshold of the vicinity's ability to absorb change. It was also noted that the development will not require the provision of any urban infrastructure.
138. Rural amenities are specifically addressed in Assessment Matter 5.4.2.2(3)(e). In this context Dr Read noted that the proposed development will have a very small effect on the visual access to open space currently available to users of the public access track to the Clutha River, which passes along the northern edge of the subject site, as there is bunding and planting proposed between the facility and the track. Dr Read considers the extent of this adverse effect to be very small.
139. The proposed development will not compromise the ability to undertake agricultural activities on surrounding land; and the landscaping proposed (bundling and planting) is generally consistent with that already required as mitigation for the quarry in terms of RM 060120; and the use of pine trees is consistent with the rural shelter belts that exist on the site. Dr Read noted that rural shelter belt planting is a strong feature of the Upper Clutha landscape.
140. Dr Read also noted that the building, which is 70 metres from the nearest boundary (with State Highway 8A), is well back from the site boundary.
141. The Commissioners concur with Dr Read's conclusion that the surrounding landscape has the capacity to absorb the proposed development without significant adverse effect on the character of the landscape in the vicinity. We consider that any visual effects of the proposal, as mitigated in terms of the measures offered by the applicant at the hearing, will be no greater than minor.
142. The Commissioners note that, while *Pinus radiata* has wilding propensity, the use of such trees for landscape mitigation, as proposed, is appropriate given the presence of mature shelter belts containing *Pinus radiata* on the subject site.
143. While the applicant originally proposed that natural tones would be used in the framing of the building to reduce visual effects, the Commissioners do not consider that a condition to this effect is necessary or appropriate. Any such framing would be

located within the building, which is clad in glass. Such a condition would therefore have negligible benefit in terms of mitigation.

B4.4 Traffic Effects

144. Vehicular access to the site is achieved via the entrance off State Highway 8A that has been constructed to the New Zealand Transport Agency Diagram D standard which has included the construction of widening (tapers) on both sides of the carriageway. The activity will involve a maximum of 4 return journeys per day bringing secondary sewage sludge to the facility; and a maximum of 2 return journeys per week transporting granulate product from the facility.

145. Mr Willis informed us that the quarrying activity consented by land use consent RM 060120 may generate at peak 50 return journeys per day during maximum production. The proposal will increase vehicle movements by less than 10% when compared to the activity consented by RC 060120. The Commissioners agree with Ms Overton that the existing site entrance is appropriate to serve the proposed activity.

146. Within the site a carriageway is to be formed from the existing entrance to the facility. This carriageway is to be constructed to Council standards and will be sealed within 2 years of the facility becoming operational.

147. The transportation of secondary sewage sludge from Project Pure to the facility will involve a 14 kilometre round trip that utilises State Highways 6 and 8A. Currently, the secondary sludge is transported to the Victoria Flats landfill via State Highway 6, which passes through Luggate, this being a 140 kilometre return journey.

148. The Commissioners are satisfied that the proposal will have less than a minor effect on the safe and efficient operation of the transport network; and that the proposal will have positive effects by substantially reducing the return journey involved in transporting secondary sewage sludge from Project Pure, and by avoiding the transportation of secondary sewage sludge (going to the facility) through Luggate. The Commissioners again acknowledge in this context that the secondary sewage sludge will be “fresh” when transported to the facility and accordingly no odour effects are anticipated from the covered trucks during the journey from Project Pure to the facility.

B4.5 Noise

149. The facility will operate automatically on a continuous basis. The Wendewolf machinery is essentially silent; and some noise will be associated with the fans and the motor driven roof flaps. Given the distance of the facility from any residential property the Commissioners concur with Ms Yelland's opinion that noise will be very unlikely to be audible at the closest residential dwelling that is some 850 metres away.
150. Personnel will be at the facility between the hours of 7:00am – 6:00pm on weekdays, with one on-site operator present for a two hour period between these hours. Truck movements will be associated with the transportation of secondary sewage sludge to the facility (a maximum of 4 return journeys per day); and for the transportation of granulate product from the facility (2 return journeys per week). A front end loader will be used to load the trucks with the granulate product. Minor noise will be associated with the use of reversing beepers on the trucks particularly as they reverse into the building.
151. Having regard to the hours of operation (that are during daylight) and the isolation of the site from any residential neighbours, the Commissioners consider that any noise effects associated with the use of vehicles at the site will be negligible. The Commissioners also acknowledge that the hours when personnel will be present at the facility fall within the permitted hours of operation of the quarry on the site, as provided for in Condition 22 of land use consent RM 060120.
152. The Commissioners' conclusion is that any noise effects associated with the proposed activity will be less than minor.

B4.6 Dust

153. The applicant has advised that 950m³ of material will be excavated during the construction of the facility; and earthworks will also be associated with the construction of the bunds and access. During the earthworks phase of construction water will be available to wet down exposed areas should dust be an issue. The applicant has advised that as soon as the material is excavated the surface will be compacted to avoid the generation of dust from wind.

154. The access carriageway from the existing sealed site entrance to the facility is approximately 200 metres in length and will be sealed within 2 years of the facility becoming operational. A 30 kph speed limit applies within the site to reduce the on-site generation of dust prior to sealing of this carriageway. Water is also available on-site to wet down this carriageway if necessary to minimise dust emissions.

155. Ms Yelland has concluded that the likelihood of excessive dust being generated from the proposed activity is minor in comparison with the quarrying activity authorised by RM 060120 on the site. The Commissioners concur that any adverse effects in terms of dust will be minor.

B4.7 Natural Hazards

156. Assessment Matter 5.4.2.3 as presented in the District Plan contains Assessment Matters – General, which have been considered by the Commissioners. Assessment Matter 5.4.2.3ii relates to Natural Hazards; and Ms Overton informed the Commissioners that there are no hazards identified at the location of the proposed facility on the Council's Hazard Maps.

157. The Commissioners are satisfied that there are no adverse effects associated with natural hazards.

B4.8 Earthworks

158. General Assessment Matter 5.4.2.3xxvii relates to Earthworks. Any adverse effects due to earthworks associated with excavating the footprint for the building and apron areas to a depth of 0.5 metres, with the construction of the vehicle carriageway, and with the construction of bunds utilising the excavated material can be managed and mitigated by the imposition of appropriate conditions that require site management during construction, and appropriate shaping and revegetating to ensure that the earthworks are stabilised and revegetated.

159. The Commissioners are satisfied that any effects associated with the proposed earthworks will be less than minor.

B4.9 Provision of Services and Lighting

160. An existing water supply is provided on the site as required by Condition 11 of land use consent RM 060120. Water is currently pumped directly from the Clutha River and held in storage tanks on the site for irrigation purposes. An electricity supply is to be provided underground to the facility. No other services are proposed.

161. The applicant has stated that there will be no security lighting nor any fixed exterior lights at the facility. Lighting is not necessary as personnel will be at the facility during daylight hours only. The Commissioners are satisfied that there will be no adverse effects resulting from lighting.

162. The Commissioners are satisfied that any effects associated with the provision of services and lighting will be no greater than minor.

B4.10 Cultural and Heritage Effects

163. The Ngai Tahu Claims Settlement Act 1998 identified the Mata-au (Clutha River) as a statutory acknowledgment area. A statutory acknowledgement is an acknowledgement by the Crown of the special relationship of Ngai Tahu with identifiable areas, being the particular cultural, spiritual, historical and traditional association of Ngai Tahu with those statutory areas.

164. Kai Tahu ki Otago Limited has advised in correspondence dated 28 November 2013 that Ngā Rūnanga did not oppose the application proceeding by non-notified resource consent; and Ms Sinclair advised us that Ngai Tahu and Kai Tahu ki Otago Limited were also notified in the context of the QLDC notification process; and Mr Bell also advised us that Kai Tahu was served notice of the application to the ORC and chose not to make a submission. In all the circumstances the Commissioners are satisfied that the proposal will have no particular effect on cultural values.

165. There are no heritage items on the site, being items listed on the Inventory of Protected Features at Appendix 3 to the District Plan. The Commissioners note in this context that several submitters made reference to the historic value of the Red Bridge that crosses the Clutha River to the north of the site and which forms part of State Highway 8A. The Red Bridge is not identified in Appendix 3 of the District Plan as a heritage item notwithstanding that it was constructed in 1914 and is a local landmark.

For completeness the Commissioners do not consider that traffic movements associated with the proposed facility will have any particular effect on the Red Bridge.

166. The Commissioners are satisfied that any effects in terms of cultural and heritage values will be no greater than minor.

B4.11 Signage

167. Some submitters were concerned at the negative connotation associated with having the facility located in the vicinity of Luggate. Mr Willis confirmed at the hearing that no signage is proposed in conjunction with the proposed facility. The Commissioners consider it appropriate to apply a condition to this effect. As a consequence, any part of the facility that is visible will be consistent with the appearance of a glasshouse which is not an unexpected form of built development in the rural environment.

168. The Commissioners are satisfied that the proposal will have no adverse effects in terms of signage.

B4.12 Positive Effects

169. The proposal will have a positive effect by achieving waste minimisation and by diverting secondary sewage sludge from the Victoria Flats landfill to the proposed facility. The process will convert secondary sewage sludge into granulate product being a nutrient rich fertiliser. The facility is located close to the Project Pure wastewater treatment plant and this significantly reduces the return journey when compared to that presently involved in transporting the secondary sewage sludge to the Victoria Flats landfill. Positive effects also result from the conversion of secondary sewage sludge utilising an aerobic process at the facility, whereas it currently breaks down at the Victoria Flats landfill in anaerobic conditions emitting greenhouse gases.

170. The Commissioners are satisfied that the proposed activity will have significant positive effects on the environment.

B4.13 Summary : Effects and Assessment Matters

171. The Commissioners find that any adverse effects of the proposal will be no greater than minor and can be satisfactorily mitigated through adherence to appropriate conditions of consent. The proposal is appropriate having regard to the relevant

assessment matters stated in Part 5 of the District Plan; and the Commissioners have concluded that the proposal will have significant positive effects on the environment that will outweigh any adverse effects.

C. NATIONAL INSTRUMENTS

172. When considering an application for a resource consent and any submissions received the consent authority must have regard to any relevant provisions of a national environmental standard; other regulations; a national policy statement; and a New Zealand coastal policy statement pursuant to section 104(1)(b)(i-iv) of the Act.

173. The Commissioners are satisfied that there are no national environmental standards; regulations; national policy statement or New Zealand coastal policy statement that are of any particular relevance to the applications. As part of the section 92/92A further information processes, Ms Sinclair raised the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 on the basis that this may apply to the application made to the QLDC. She also questioned whether the subject site could be considered a Hazardous Activities and Industries List (HAIL) site.

174. The Commissioners concur with the legal opinion dated 19 August 2014 of Ms Jan Caunter, Environmental Counsel and colleague of Mr Page, that the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES) is irrelevant to these applications. That is, not only is the subject site not a HAIL site, but the NES does not apply at all.

175. The NES is generally directed at land uses which may be proposed on land that is contaminated or upon which hazardous/contaminated activities have occurred, or are likely to have occurred, in the past. There is no suggestion that the subject site was used for any such purpose. The Commissioners conclude that no investigation, reporting, or remediation work is required under the NES with respect to the proposed activity.

D. REGIONAL POLICY STATEMENT

176. The Regional Policy Statement for Otago (RPS) became operative on 1 October 1998. The provisions of Section 7 Air and Section 13 Wastes and Hazardous Substances of the RPS are relevant to the applications.

177. Objective 7.4.1 and Policies 7.5.1, 7.5.2 and 7.5.4 as stated in Section 7 Air of the RPS are relevant to these applications and these state as follows:

“7.4.1 To maintain and enhance Otago’s existing air quality, including visual appearance and odour.

7.5.1 To recognise and provide for the relationship Kai Tahu have with the air resource in Otago.

7.5.2 To avoid, remedy or mitigate any discharges which have adverse effects on the air resource including effects on human health, the environment, visual impacts and odour.

7.5.4 To promote and encourage activities and methods that avoid, remedy or mitigate the production and discharge of greenhouse gases and ozone depleting substances.”

178. In this instance Kai Tahu were consulted initially by the applicant and were served with the applications. Any adverse effects of the discharges into air are to be mitigated by the conditions offered by the applicant; and the facility will avoid the discharge of greenhouse gases that would otherwise occur at the Victoria Flats landfill.

179. Objectives 13.4.2 and 13.4.3 and Policy 13.5.9 as stated in Section 13 Wastes and Hazardous Substances of the RPS are also relevant and these state as follows:

“13.4.2 To encourage a reduction in the amount, range and type of waste generated in Otago.

13.4.3 To encourage an increase in the reuse, recycling and recovery of wastes.

13.5.9 To minimise the amount of waste generated at source in Otago and to maximise the opportunities for the reuse, recycling and recovery of materials from the waste stream through promoting and encouraging:

(a) A reduction in the quantity of material entering the waste stream; and

(b) Material and products that are reusable and the recycling of material and substances that cannot be reused; and

(c) *The recovery of resources from materials in the waste stream.*

180. In this instance the proposal is to reduce waste and to maximise the opportunity for reuse of material from the waste stream as secondary sewage sludge is to be converted by solar drying to granulate that is intended to be used as fertiliser.

181. The Commissioners have concluded that the applications are consistent with the relevant objectives and policies of the RPS.

E. REGIONAL PLANS

E.1 Regional Plan : Waste

182. The Regional Plan : Waste became operative on 11 April 1997. Section 4.3 and 4.4 of the Regional Plan : Waste contain waste minimisation objectives and policies. These include Objective 4.3.1 and Policy 4.4.4 which state as follows:

“4.3.1 To minimise the amount of waste generated at source in Otago.

4.4.4 To encourage the composting of appropriate organic waste material.”

183. In this instance the applicant proposes to compost waste material, rather than it being disposed at a landfill, thereby minimising waste material.

184. Section 7.3 and 7.4 of the Regional Plan : Waste contain Landfill objectives and policies. Objective 7.3.3 and Policies 7.4.1, 7.4.3, 7.4.4 and 7.4.8 are relevant and these state as follows:

“7.3.3 To avoid, remedy or mitigate the adverse effects of discharges from composting and silage production.

7.4.1 To recognise and provide for the relationship Kai Tahu have with Otago’s natural and physical resources through:

(a) Providing for the management and disposal of Otago’s wastes in a manner that takes into account Kai Tahu cultural values; and...

7.4.3 To ensure that landfills and discharges from silage production and composting operations are sited at locations and managed in a manner whereby adverse effects on the environment are avoided, remedied or mitigated.

7.4.4 To monitor discharges to land, water, and air from new, operating and closed landfills, and from silage production and composting.

7.4.8 To promote alternatives to landfills as a means of waste disposal.”

185. In this instance the activity will be carried out in a way that will not give rise to adverse effects from discharges; and Kai Tahu has been consulted. The Commissioners consider that the facility is sited in an appropriate location and will be managed to ensure that adverse effects on the environment are avoided or mitigated. We also acknowledge that the applicant has undertaken to monitor discharges from the facility to ensure that adverse odour discharges will not occur. The proposal to dry secondary sewage sludge to create a granulate product intended for use as fertiliser is consistent with promoting an alternative to landfill as a means of waste disposal.

186. The Commissioners are satisfied that the applications are consistent with the relevant objectives and policies of the Regional Plan : Waste.

E2. Regional Plan : Air

187. The Regional Plan : Air became operative on 1 January 2003. The Regional Plan : Air contains objectives and policies that relate to air quality and management issues. Objective 6.1.2 and Policies 7.1.1, 8.2.3, 8.2.4, 8.2.5 and 11.1.1 of the Regional Plan : Air are relevant and state as follows:

“6.1.2 To avoid adverse localised effects of contaminant discharges into air on:

- (a) Human health;***
- (b) Cultural, heritage and amenity values;***
- (c) Ecosystems and the plants and animals within them; and***
- (d) The life-supporting capacity of air.***

7.1.1 To recognise and provide for the relationship Kai Tahu have with the air resource through procedures that enable Kai Tahu to participate in management of the air resource.

8.2.3 In the consideration of any application to discharge contaminants into air, Council will have:

- (a) Particular regard to avoiding adverse effects including cumulative effects on:***
 - (i) Values of significance to Kai Tahu;***
 - (ii) The health and functioning of ecosystems, plants and animals;***
 - (iii) Cultural, heritage and amenity values;***
 - (iv) Human health; and***
 - (v) Ambient air quality of any airshed; and***

- (b) *Regard to any existing discharge from the site, into air, and its effects.***

8.2.4 *The duration of any permit issued to discharge contaminants into air will be determined having regard to:*

- (a) *The mass and nature of the discharge;***
- (b) *The nature and sensitivity of the receiving environment; and***
- (c) *Any existing discharge from the site, into air, and its effects.***

8.2.5 *To require, as appropriate, that provision be made for review of the conditions of any resource consent to discharge contaminants into air.*

11.1.1 *To avoid or mitigate any adverse effects on human health or amenity values resulting from the discharge of offensive or objectionable odour through the use of:*

- (a) *Good management practices (including the use of codes of practice) and process technology that has an inherently low odour potential to ensure the amount of odorous contaminants generated by a process or activity is minimised;***
- (b) *Appropriate control technologies to reduce the emission of odourous contaminants;***
- (c) *Site planning mechanisms and other land use management techniques to reduce the potential for adverse off site effects; and***
- (d) *Tools and techniques that provide an objective assessment of odour, such as olfactometry, odour dose response assessments and community surveys.”***

188. Again it is acknowledged that Kai Tahu has been consulted and was formally notified of the applications. The Commissioners have concluded in Part B : Effects on Environment, of this decision that any adverse effects will be no greater than minor and can be mitigated by the application of appropriate conditions of consent. In this instance a term of 35 years has been sought for the discharges into air and the land use consents, and the appropriateness of this term is addressed in Section I : Term of Consent, of this decision. A review condition has been recommended by Mr Bell in the context of the discharges into air application; and the Commissioners acknowledge that the applicant proposes good management practices to avoid and mitigate any odour effects.

189. The Commissioners have concluded that the proposal is consistent with the relevant objectives and policies of the Regional Plan : Air.

F. THE QLDC DISTRICT PLAN : OBJECTIVES & POLICIES

190. Parts 4 and 5 of the Operative District Plan contain objectives and policies for the whole district being District Wide and for Rural Areas respectively. The objectives and policies from Parts 4 and 5 have been presented in Ms Sinclair's planning report, and to a large degree the objectives and policies relate to matters discussed in the context of the assessment matters that have been addressed in our consideration of the effects of the proposal in Section B : Effects on Environment (and particularly in Section B4.3 : Visual Effects and Rural Amenity) of this decision. It is neither desirable nor necessary, therefore, to undertake a line by line analysis of every objective and policy as this would involve a significant amount of repetition without materially advancing our analysis of this application.

F.1 Part 4

191. Objective 4.1.4.2 and the corresponding Policy 2.1 relate to air quality and state as follows:

***“Objective 2 : Air Quality:
Maintenance and improvement of air quality.***

Policies:

2.1 To ensure that land uses in both rural and urban areas are undertaken in a way which does not cause noxious, dangerous, offensive or objectionable emissions to air.”

192. The operation of the facility has been fully described earlier in this decision. The Commission notes that Ms Yelland has advised that no adverse effects will arise from the discharge of odour. The Commissioners therefore consider that the proposal is consistent with Objective 4.1.4.2 and the associated Policy 2.1.

193. Clause 4.2.4(3) confirms that the Visual Amenity Landscapes (VALs) are those landscapes which wear a cloak of human activity much more obviously [than outstanding natural landscapes] being pastoral or arcadian landscapes with more houses and trees, greener (introduced) grasses; and VALs tend to be on the District's downlands, flats and terraces. The key resource management issues for VALs are managing adverse effects of subdivision and development (particularly from public places including public roads) to enhance natural character and to enable alternative forms of development where there are direct environmental benefits.

194. Objective 4.2.5 is:

“Objective:

Subdivision, use and development being undertaken in the District in a manner which avoids, remedies or mitigates adverse effects on landscape and visual amenity values.”

195. Objective 4.2.5 is supported by a number of policies. Policies of relevance include Policy 1 Future Development which relates to the effects of development; Policy 4 which relates to Visual Amenity Landscapes; Policy 5 that relates to Outstanding Natural Features; Policy 8 that relates to Avoiding Cumulative Degradation; Policy 9 that relates to Structures; Policy 12 that relates to Transport Infrastructure; and Policy 17 that relates to Land Use.

196. Policy 1 – Future Development – is to avoid, remedy or mitigate the effects of development and/or subdivision in those areas of the District where the landscape and visual amenity values are vulnerable to degradation; to encourage development and/or subdivision to occur in areas of the District that have a greater potential to absorb change without detracting from landscape and visual amenity values; and to ensure that subdivision and/or development harmonises with local topography and ecological systems and other nature conservation values as far as possible.

197. The Commissioners are satisfied that this policy is satisfied in this instance. The development is to occur in an area with greater potential to absorb change without detracting from landscape and amenity values; with any adverse visual effects towards the north and east are to be mitigated by the bunding and additional planting that is proposed by the applicant.

198. Policy 4 – Visual Amenity Landscapes states as follows:

“4. Visual Amenity Landscapes

(a) To avoid, remedy or mitigate the adverse effects of subdivision and development on the visual amenity landscapes which are:

- highly visible from public places and other places which are frequented by members of the public generally (except any trail as defined in this Plan); and***
- visible from public roads.***

(b) To mitigate loss of or enhance natural character by appropriate planting and landscaping.

- (c) *To discourage linear tree planting along roads as a method of achieving (a) or (b) above.”*

199. The proposed conditions will serve to avoid, remedy or mitigate adverse effects of development on the VAL. The bunding and planting will ensure that the building will not be highly visible in any public views from public places. While parts of the building will be visible from State Highway 8A, any such effects will be mitigated by the bunding and planting proposed by the applicant. The retention of most of the land in pastoral use will serve to mitigate visual effects and maintain the natural character on the subject site.

200. In terms of Policy 5 – Outstanding Natural Features – the Commissioners acknowledge that the subject site is to the north and east of land adjacent to the margins of the Clutha River that is identified as an ONF in terms of Policy 5. The facility is separated from the Clutha River ONF, both vertically and horizontally. The Commissioners are satisfied that the building will not result in adverse effects that will be more than minor on the landscape values and natural character, or visual amenity values of the Clutha River.

201. In terms of Policy 8 – Avoiding Cumulative Degradation – the Commissioners are satisfied that the proposed density of development will not increase to the point where the benefits of further planting and building are outweighed by adverse effects on landscape values of over-domestication of the landscape. In this instance the building presents the appearance of a glasshouse, which is not an unexpected form of built development in a rural area. The building is not a domestic structure; and no dwellings are located in the immediate vicinity of the subject site.

202. Policy 9 – Structures – refers specifically to preserving the visual coherence of VAL by screening structures from roads and other public places by vegetation whenever possible to maintain and enhance the naturalness of the environment. In this instance planting will provide screening between the facility and State Highway 8A to the north and between the facility and State Highway 8A at Sandy Point to the east. The Commissioners also acknowledge in the context of Policy 9 that no signage is proposed with respect to the proposal facility.

203. The Commissioners are satisfied that the proposal is consistent with Policy 12 – Transport Infrastructure. The facility will utilise the existing entrance from State Highway 8A which has been constructed to the standard of the New Zealand Transport Agency Diagram D standard.

204. Policy 17 – Land Use – encourages land use in a manner which minimises adverse effects on the open character and visual coherence of the landscape. The Commissioners are satisfied that the proposal is consistent with this policy as the building will present the appearance of a glasshouse, which is not unexpected in a rural environment, and the building will occupy only a small portion of the site. The bunding and landscape plantings proposed will serve to minimise adverse effects on the open character and visual coherence of the landscape.

205. Clause 4.7.3 contains objectives and policies relating to Solid and Hazardous Waste Management. Objective 1 and its associated policies state as follows:

“4.7.3 Objectives and Policies

Objective 1

The collection, treatment, storage and disposal of solid and hazardous wastes in a manner which meets the needs of current and future generations of residents and visitors to the District, and avoids, remedies or mitigates adverse effects on the environment.

Policies:

1.1 To ensure that the effects on the environment and other adverse effects on soil, groundwater and water contamination and other adverse effects on the health, safety and amenity values of residents, visitors and environment from the disposal [sic – of] wastes are avoided, remedied or mitigated.

1.2 To minimise the quantities of waste requiring collection, treatment, storage or disposal within the District and to maximise opportunities for reuse, recycling and recovery of materials from the waste stream.

1.3 To ensure the safe and efficient collection, treatment, storage and disposal of all solid and hazardous wastes within the District.”

206. The Commissioners consider that the proposal is entirely consistent with Objective 1 and Policies 1.1 to 1.3. In terms of any effects on groundwater the Commissioners have noted that Mr de Waal explained that the secondary sewage sludge is not in liquid form; and that the asphalt surface under the building is impermeable.

207. The facility will reduce the amount of waste going to landfill. The Commissioners also acknowledge that the location, design and nature of the facility will ensure that adverse effects are avoided, remedied or mitigated.

208. Objective 4.11.3 and its supporting policies relate to earthworks. These state as follows:

“To avoid, remedy or mitigate the adverse effects from earthworks on:

- (a) Water bodies***
- (b) The nature and form of existing landscapes and landforms, particularly in areas of Outstanding Natural Landscapes and Outstanding Natural Features.***
- (c) Land stability and flood potential of the site and neighbouring properties.***
- (d) The amenity values of neighbourhoods.***
- (e) Cultural heritage sites, including waahi tapu and waahi taoka and archaeological sites.***
- (f) The water quality of the aquifers.***

Policies:

- ...
3. To minimise the area of bare soil exposed and the length of time it remains exposed.***
- ...
7. To ensure techniques are adopted to minimise dust and noise effects from earthworks activities.***
- ...”***

209. Ms Overton has recommended specific conditions of consent to avoid, remedy or mitigate potential effects associated with earthworks. The Commissioners find that the proposal is consistent with the objectives and policies of the District Plan that relate to earthworks.

F.2 Part 5

210. Part 5 of the District Plan contains objectives and policies that specifically apply to Rural Areas. Objective 1 and its associated policies seek to allow the establishment of a range of activities that are managed in such a way as to protect the character and landscape values of the rural area:

“Objective 1 – Character and Landscape Value

To protect the character and landscape value of the rural area by promoting sustainable management of natural and physical resources and the control of adverse effects caused through inappropriate activities.

Policies:

- 1.1 Consider fully the district wide landscape objectives and policies when considering subdivision, use and development in the Rural General Zone.*
- ...
- 1.3 Ensure land with potential value for rural productive activities is not compromised by the inappropriate location of other developments and buildings.*
- 1.4 Ensure activities not based on the rural resources of the area occur only where the character of the rural area will not be adversely impacted.*
- ...
- 1.6 Avoid, remedy or mitigate adverse effects of development on the landscape values of the District.*
- 1.7 Preserve the visual coherence of the landscape by ensuring all structures are to be located in areas with the potential to absorb change.*
- 1.8 Avoid remedy or mitigate the adverse effects of the location of structures and water tanks on skylines, ridges, hills and prominent slopes.”*

211. In terms of Policy 1.1, the district-wide landscape objectives and policies have been considered fully in Section F1 : Part 4 of this decision. In terms of Policy 1.3 the Commissioners acknowledge that the applicant’s intention is to retain much of the site as land available for grazing; and in terms of Policy 1.4 the character of the rural area will not be adversely impacted in this instance. The Commissioners consider that the proposal is consistent with Policies 1.5-1.8 having regard to the matters discussed earlier in this decision.

212. The Commissioners also note that Objective 2 and Objective 3 and their associated policies seek to avoid, remedy or mitigate adverse effects of development on the life supporting capacity of soils, and on rural amenity. We note in the context of the life supporting capacity of soils that land use consent RM 060120 permits the use of much of the site for quarrying purposes. Any adverse effects on the soil and vegetation cover in the area where the building footprint, carriageway and bunding is proposed will be mitigated by the revegetation of exposed surfaces. We also consider that any

adverse effects of the development on rural amenity are sufficiently avoided, remedied or mitigated. The Commissioners find that the proposal is in accordance with the objective and policies that relate to rural amenity.

F.3 Summary : QLDC District Plan Objectives and Policies

213. Following the above analysis, the Commissioners find that the proposal is consistent with those objectives and policies of the District Plan that are relevant to the applications, and the Commissioners have concluded that this is a location in the Visual Amenity Landscape where the proposed activity is appropriate.

G. OTHER MATTERS

214. Section 104(1)(c) of the Act requires the consent authority to have regard to any other matter the consent authority considers relevant and reasonably necessary to determine the application.

G.1 Precedent

215. Precedent is a relevant matter as the proposal is an Industrial Activity, which is a non-complying activity in the Rural General Zone.

216. The Commissioners acknowledge that the facility will present the appearance of a glasshouse, which is not unexpected in a rural context. The Commissioners also acknowledge that the proposal is somewhat unusual in that the solar secondary sewage sludge drying facility needs to be located within reasonable proximity of Project Pure, and is more appropriately located within a Rural General Zone than, say, an urban zone. The Commissioners also acknowledge the significant positive effects of the proposal in terms of waste minimisation and reuse.

217. In all circumstances the Commissioners find that the proposal will not establish a significant precedent.

G.2 Waste Minimisation Act 2008 and Waste Management and Minimisation Plan 2011 - 2017

218. The purpose of the Waste Minimisation Act 2008 is to encourage waste minimisation and a decrease in waste disposal. Section 42 of the Waste Minimisation Act 2008

requires that territorial authorities are to encourage effective and efficient waste management and minimisation; and that a territorial authority must promote effective and efficient waste management and minimisation within its District.

219. The Commissioners are satisfied that the proposal is entirely consistent with the purpose of the Waste Minimisation Act 2008.

220. Section 43 of the Waste Minimisation Act 2008 requires that a territorial authority must adopt a waste management and minimisation plan. The QLDC adopted the Waste Management and Minimisation Plan 2011-2017 on 16 December 2011. This document includes goals and guiding principles for waste management and minimisation in the Queenstown Lakes District, and a corresponding suite of objectives, policies and methods. The relevant provisions from the Waste Management and Minimisation Plan 2011-2017 are reproduced in the Assessments of Environmental Effects that were lodged in support of the applications. The Commissioners have noted that this document supports initiatives that will result in the diversion of waste from landfill, and refers specifically to recycling in the context of the sewage waste stream.

221. The Commissioners consider that the proposal is entirely consistent with the Waste Management and Minimisation Plan 2011-2017.

G.3 Kai Tahu Ki Otago Natural Resource Management Plan 2005

222. The Kai Tahu ki Otago Natural Resource Management Plan 2005 contains objectives and policies relating to the monitoring of all discharges; encouraging management plans for all discharge activities; requiring that all discharge systems be well maintained and regularly serviced; and requiring cultural assessments for any discharges into air. In this instance Kai Tahu has been consulted and has not submitted on the applications. Conditions of consent can be applied that make provision for monitoring of the discharges, provide for a management plan, and require that equipment be well maintained and serviced. A condition can also be applied relating to an accidental discovery protocol that would be relevant if Koiwi tangata or other artefact material is discovered during construction works.

G.4 Section 104E of the Act

223. Section 104E of the Act directs that when considering an application for a discharge permit to do something that would otherwise contravene section 15 of the Act relating to the discharge into air of greenhouse gases, a consent authority must not have regard to the effects of such a discharge on climate change, except to the extent that the use and development of renewable energy enables a reduction in the discharge into air of greenhouse gases either in absolute terms; or relative to the use and development of non-renewable energy. In this instance the Commissioners acknowledge that renewable solar energy (radiation) is proposed to be used; and that the facility will avoid the discharge into air of greenhouse gases from sewage sludge at the Victoria Flats landfill.

224. In addition, the Commissioners acknowledge that the proposal would result in much reduced (about 80% less) discharges into air of greenhouse gases as a result of the lesser transport of the secondary sewage sludge, and after taking into account the transport of the final product. That is, up to 4 trucks per day would travel a round trip of 14km from Project Pure to the subject site and return, compared with the current situation of the same up to 4 trucks per day travelling a round trip of 140km from Project Pure to the Victoria Flats landfill. There would also be the up to 2 trucks per week taking the final product to an outlet. The Wendewolf machinery and the ventilation systems do consume electricity, albeit mainly generated by hydroelectricity.

H. SECTION 104D

225. Section 104D of the Act directs that a consent authority may grant a resource consent for a non-complying activity only if it is satisfied that either the adverse effects of the activity on the environment (other than any effect to which section 104(3)(a)(ii) applies) will be minor; or the application is for an activity that will not be contrary to the objectives and policies of the relevant plan, if there is a plan but no proposed plan in respect of the activity.

226. The Commissioners have concluded in Section B4.13 : Summary : Effects and Assessment Methods of this decision that any adverse effects of the activity on the environment will be no greater than minor; and have concluded in Section F3 :

Summary : QLDC District Plan Objectives and Policies that the proposal will not be contrary to the objectives and policies of the District Plan.

227. The Commissioners therefore conclude that the proposal can pass through either of the gateway tests provided for in terms of section 104D. The Commissioners therefore have discretion whether or not to grant consent to the application that has been made to the QLDC.

I. TERM OF CONSENT

228. The applicant has applied for a 35-year term of consent for the discharge permit. This is consistent with the maximum term that can be granted in terms of the Act for such a discharge permit. The Commissioners acknowledge that the applicant has also applied for a 35-year term of consent in the context of the application made to the QLDC.

229. Following consideration of the effects of the proposed activity and the mitigation that is proposed by the applicant, the Commissioners consider that the 35 year term sought is appropriate for each of the consents.

J. PART 2 OF THE ACT

230. Part 2 of the Act contains sections 5 to 8. We refer to them in reverse order.

231. Section 8 requires us, in exercising our functions on this application, to take into account the principles of the Treaty of Waitangi. In this instance Kai Tahu has been consulted and served with notice of the applications. A condition can be applied with respect to an accidental discovery protocol and the Commissioners consider that there are no other issues to be considered with respect to the Treaty.

232. Section 7 directs that in achieving the purpose of the Act we are to have particular regard to certain matters which include, of relevance here, Kaitiakitanga; the efficient use and development of natural and physical resources; the maintenance and enhancement of amenity values; maintenance and enhancement of the quality of the environment; and the benefits to be derived from the use and development of renewable energy. The Commissioners are satisfied, having regard to the matters

addressed in Sections B to G of this decision that the proposal is consistent with the relevant matters stated in section 7 of the Act. There are no other matters stated in section 7 which are of any particular relevance to the current application.

233. Section 6 sets out a number of matters which are declared to be of national importance and directs us to recognise and provide for them. Section 6(a), 6(b), 6(d) and 6(e) confirm that the following are matters of national importance:

- “(a) The preservation of the natural character of ... rivers and their margins, ... and the protection of them from inappropriate subdivision, use, and development:*
- (b) The protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:*
- (d) The maintenance and enhancement of public access to and along... rivers:*
- (e) The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.”*

234. The Commissioners are satisfied that the proposal does not represent inappropriate use and development in the context of section 6(a) of the Act. The Clutha River is located at a lower elevation to the north and west of the site and the facility is to be located some distance from the boundary with the land adjacent to the margins of the Clutha River.

235. As noted above the Clutha River is an Outstanding Natural Feature. The Commissioners find that the proposed activity does not constitute inappropriate use and development in this instance. Accordingly the Commissioners find that the proposal is consistent with section 6(b) of the Act.

236. The proposed activity will not inhibit public access to and along the Clutha River in terms of section 6(d). The Commissioners acknowledge in this context that access is available to the Clutha River in the locality known as The Nook via the public access track that has been formed on the northern edge of the site consistent with Condition 34 of RM 060120. This track will be screened from the facility by the proposed berm and planting and such public access is unaffected by the proposal.

237. Again it is noted in the context of section 6(e) that Kai Tahu has been consulted and has advised that Ngā Rūnanga would not oppose the application proceeding by non-notified resource consent procedure, subject to conditions; and that Kai Tahu have received notice of the applications to the ORC and QLDC.
238. There are no other matters stated in section 6 that are of any particular relevance to the application.
239. Section 5 sets out the purpose of the Act – to promote the sustainable management of natural and physical resources. Taking into account the definition of sustainable management contained in section 5(2), the Commissioners have reached the view that the application before us will achieve the purpose of the Act.
240. Sustainable management means managing the use, development and protection of natural and physical resources within certain parameters. The physical resources of this site will be developed in such a way that the social and economic wellbeing of the applicant and of the community are provided for, while the potential of natural and physical resources will be sustained to meet the reasonably foreseeable needs of future generations. Any adverse effects of the activity can be avoided, remedied or mitigated by adherence to appropriate conditions of consent.

K. OUTCOME

241. Section 104 of the Act directs that when considering applications for resource consents and any submissions received in response to them, we must, subject to Part 2, have regard to the actual and potential effects on the environment of allowing the activity together with the relevant plan provisions. In the course of considering the applications and submissions and in reaching this decision the Commissioners have carefully followed this process. Under section 104B the Commissioners have discretion to grant consent to the applications, and we hereby do so subject to the imposition of conditions relating to the discharge permit and the land use consent as attached in **Schedule 1** and **Schedule 2** to this decision, respectively.

This decision on application RM 13.474.01 (ORC) and application RM 140133 (QLDC) is dated 10 October 2014.

A handwritten signature in blue ink, appearing to read 'Rolfe'.

Kevin Rolfe
COMMISSIONER – CHAIR

A handwritten signature in blue ink, appearing to read 'J Lumsden'.

John Lumsden
COMMISSIONER

A handwritten signature in blue ink, appearing to read 'W David Whitney'.

W David Whitney
COMMISSIONER

SCHEDULE 1

Our reference: A669454

Consent No. RM13.474.01

DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Fulton Hogan Central Limited

Address: 11 Main Rd, Fairfield, Green Island, New Zealand

To discharge contaminants, namely odour, to air for the purpose of operating a solar secondary sewage sludge drying facility

For a term expiring 10 October 2049

Location of consent activity: Luggate, approximately 575 metres west southwest of the intersection of McKay Road and Luggate-Tarras Road (State Highway 8A)

Legal description of consent location: Lot 2 DP 341373

Map Reference: NZTM 2000 E1306130 N5039786

Conditions

Specific

1. The discharge shall only be as described in the consent application lodged with the consent authority on 4 March 2014, the further information provided by the consent holder in correspondence and email correspondence dated 8 July 2014 and 21 August 2014, and in the submissions and evidence presented on behalf of the consent holder at the hearing on 17 and 18 September 2014. If there are any inconsistencies between the application, further information, submissions and evidence and this consent, the conditions of this consent shall prevail.
2. The solar secondary sewage sludge drying facility shall be generally sized and located as outlined in the plan attached as Appendix 1 to this consent.
3. A maximum of 4 truck deliveries totalling no more than 16 tonnes of secondary sewage sludge shall occur in a single day.
4. Any secondary sewage sludge received at the site:
 - (a) Shall not be in a state that could cause an offensive or objectionable

discharge to air at or beyond the property boundary to the extent that it causes an adverse effect in the opinion of an authorised officer of the consent authority.

(b) Shall not be received by the consent holder if more than 24 hours has elapsed since dewatering commenced for that batch of sewage sludge at the Project Pure wastewater treatment plant.

5. Secondary sewage sludge shall not be stored outside the solar drying facility.
6. Secondary sewage sludge held within the solar drying facility shall be maintained in an aerobic condition by mechanical turning and ventilation in order to minimise discharges of odour.

Performance Monitoring

7. The consent holder shall maintain and update an Environmental Management Plan including provision for the management of odour from the solar secondary sewage sludge drying facility. This shall be submitted to the consent authority one month prior to the first delivery of secondary sewage sludge. The Environmental Management Plan shall be reviewed annually and the consent holder shall ensure the consent authority has the most up to date copy at all times. The Environmental Management Plan shall include all measures necessary to achieve compliance with the conditions of this consent including (but not limited to) the following:
 - (a) details of the best practicable options to prevent or minimise odour from the site;
 - (b) a full description of the facility;
 - (c) a site map showing the location of each discharge point at the facility;
 - (d) an operating and maintenance plan for the facility;
 - (e) methods to accurately record all odour complaints received as a result of the operation of the facility. A copy of all complaints shall be made available to the Consent authority for audits and upon request;
 - (f) community liaison for community feedback on any odour issues; and
 - (g) assignment of responsibility for implementing and updating the plan and contact details for these people.
8. The consent holder shall maintain a record of any complaints received regarding the solar secondary sewage sludge drying facility operation. The register shall include (but not be limited to):
 - (a) the name and location of site where the problem is experienced;
 - (b) the nature of the problem;
 - (c) the date and time problem occurred, and when reported;
 - (d) the action taken by consent holder to remedy the situation and any policies or methods put in place to avoid or mitigate the problem occurring again; and
 - (e) the weather conditions at the time of complaint which are measured in accordance with Condition 10.A record of the complaint(s) shall be submitted to the consent authority as soon as practicable after a complaint is received, on request and by 1 July each year.

9. The consent holder shall inspect the site boundary at least once each day from Monday to Friday and record any detected odour, the character and intensity of such odour and any known cause. A record of this shall be kept and made available to the consent authority on request.
10. Prior to receiving secondary sewage sludge at the solar secondary sewage sludge drying facility the consent holder shall begin continuous monitoring by the recording of wind speed, wind direction, solar radiation, relative humidity and temperature. The meteorological monitoring shall take place at a location on or as close as practicable to the consent holder's solar secondary sewage sludge drying facility, and shall conform to Australian Standard AS 2922 as far as practicable, except that the monitoring mast may have a minimum height of 5 metres above ground level and may be located on or in the vicinity of the solar secondary sewage sludge drying facility building. A data logger shall be installed at the meteorological station that shall be downloaded every three months and at any other time at the request of the consent authority. The monitoring shall be undertaken in accordance with the recommendations in the 'Good Practice Guide for Air Quality Monitoring and Data Management' prepared by the Ministry for the Environment, 2003 and shall continue for the term of this consent.

General

11. There shall be no odour or particulate discharges resulting from the exercise of this consent that are offensive or objectionable at or beyond the property boundary to the extent that it causes an adverse effect in the opinion of an authorised officer of the consent authority.
12. The consent holder shall notify the consent authority as soon as practicable of any plant malfunction or breakdown that results in an abnormal discharge. The consent holder shall ensure that any malfunctions in control systems are repaired as soon as possible.

Review

13. The consent authority may, in accordance with sections 128 and 129 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 this consent for the purpose of:
 - (a) determining whether the conditions of this permit are adequate to deal with any adverse effect on the environment which may arise from the exercise of the permit and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the permit; or
 - (b) ensuring the conditions of this consent are consistent with any National Environmental Standards; or
 - (c) requiring the consent holder to adopt the best practicable option to remove or reduce any adverse effect on the environment arising as a result of the exercise of this permit.

Notes to Consent Holder

1. *If you require a replacement permit upon the expiry date of this permit, any*

new application should be lodged at least 6 months prior to the expiry date of this permit. Applying at least 6 months before the expiry date may enable you to continue to exercise this consent until a decision is made, and any appeals are resolved, on the replacement application.

Issued at Dunedin this day of

SLUDGE DRYING FACILITY PROPOSED LOCATION

SCALE 1:1500 @ A3

108 m
13 m
1.40 m
13 m

Rev	Date	Revision Details	By	Checked by	Project	Date	Scale	Drawn by	Checked by
1	15.04.13	Initial	WHS		1:12178	01			
2	16.05.13	Revised	WHS		1:4000 @ A3				
3	16.05.13	Revised	WHS		NTM 2000 & MSL				

ISSUED FOR REVIEW 15.04.2013

btw south
 consultants, engineers, architects & geotechnical
 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 71

SCHEDULE 2

LAND USE CONSENT

CONDITIONS OF CONSENT FOR RM 140133 : FULTON HOGAN LIMITED

GENERAL CONDITIONS

1. That the development must be undertaken/carried out in accordance with the plans:
 - 'General Layout – Proposed Solar Drying Building'. BTW South issued for consent 11 February 2014.
 - 'Solar Drying Facility', Boffa Miskell, Figure 1 Landscape Management Plan dated 17 July 2014 to be amended in terms of Condition 13a) & b) (below).
 - Site Plan including the "Facility Access Track" (no date recorded)
 - Preliminary Plan, General Layout dated 6 March 2014.

stamped as approved on 10 October 2014

and the application as submitted, with the exception of the amendments required by the following conditions of consent.

- 2a. This consent shall not be exercised and no work or activity associated with it may be commenced or continued until the following charges have been paid in full: all charges fixed in accordance with section 36(1) of the Resource Management Act 1991 and any finalised, additional charges under section 36(3) of the Act.
- 2b. The consent holder is liable for costs associated with the monitoring of this resource consent under section 35 of the Resource Management Act 1991 and shall pay to Council an initial fee of \$240. This initial fee has been set under section 36(1) of the Act.
3. All engineering works shall be carried out in accordance with the Queenstown Lakes District Council's policies and standards, being New Zealand Standard 4404:2004 with the amendments to that standard adopted on 5 October 2005, except where specified otherwise.

To be completed prior to the commencement of any works on-site

4. The consent holder shall install measures to control and/or mitigate any dust, silt run-off and sedimentation that may occur, in accordance with NZS 4404:2004 and 'A Guide to Earthworks in the Queenstown Lakes District' brochure, prepared by the Queenstown Lakes District Council. These measures shall be implemented **prior** to the commencement of any earthworks on site and shall remain in place for the duration of the project, until all exposed areas of earth are permanently stabilised.

To be completed when works finish and prior to the operation of facility

5. Prior to the operation of the facility, the consent holder shall complete the following:
 - a) The provision of an access way to the facility that complies with the guidelines provided for in Council's development standard NZS 4404:2004 with amendments as adopted by the Council in October 2005. This access way shall be sealed within two years of the facility being operational.

- b) Any power supply or telecommunications connections to the building shall be underground from existing reticulation and in accordance with any requirements and standards of the network provider.
- c) All earthworked/exposed areas shall be top-soiled and grassed/revegetated or otherwise permanently stabilised.
- d) The consent holder shall remedy any damage to all existing road surfaces and berms that result from work carried out for this consent.

Ongoing Conditions

6. The consent holder shall implement, to the satisfaction of the Council's engineers, suitable measures to prevent deposition of any material on surrounding roads by trucks moving the material to and from the site. In the event that any material is deposited on the roads, the consent holder shall take immediate action at their expense, to clean the roads. The loading and unloading of material shall be confined to inside the building.
7. The consent holder shall install measures to control/and or mitigate any silt runoff and sedimentation that may occur. These measures shall be implemented prior to the commencement of any earthworks on site any shall remain in place for the duration of the project.
8. The consent holder shall specify procedures to be put in place to minimise the spread of dust during earthworks construction.
9. The consent holder shall ensure that the activities are so conducted that the following noise limits are not exceeded neither at, nor within, the notional boundary of any residential unit in the Rural General Zone, other than that of residential units on the same site (other than those that have provided affected party approval):

• Daytime (08:00-20:00)	50 dB $L_{Aeq}(15 \text{ min})$
• Night time (20:00 – 08:00)	40 dB $L_{Aeq}(15 \text{ min})$
• Night time (20:00 – 08:00)	70 dB L_{AFmax}
10. The consent holder shall maintain and update an Environmental Management Plan including for the management of odour from the solar secondary sewage sludge drying facility. This shall be submitted to the Manager : Resource Consents of the QLDC one month prior to the first delivery of secondary sewage sludge. The Environmental Management Plan shall be reviewed annually and the consent holder shall ensure the consent authority has the most up to date copy at all times. The Environmental Management Plan shall include all measures necessary to achieve compliance with the conditions of this consent, including (but not limited to):
 - (a) details of the best practicable options to prevent or minimise odour from the site;
 - (b) a full description of the facility;
 - (c) a site map showing the location of each discharge point at the facility;
 - (d) an operating and maintenance plan for the facility;
 - (e) methods to accurately record all odour complaints received as a result of the operation of the facility. A copy of all complaints shall be made available to the Council for audits and upon request;
 - (f) community liaison for community feedback on any odour issues; and
 - (g) assignment of responsibility for implementing and updating the plan and contact details for these people.
11. Vehicle movements entering and on site are restricted to a speed limit of 30 km per hour.
12. Truck movements in association with this consent are restricted to the following:

- A maximum of four truck deliveries to the site per day unless emergency works are required.
- A maximum of two truck loads of material leaving the site per week, Monday – Friday unless emergency works are required.

13a). Within six months of the granting of consent or prior to construction, whichever is the sooner, the amended Landscape Management Plan included with Boffa Miskell Limited's, (Ms Pflüger's) July 2014 Memo and referred to in Condition 1, is to be amended and resubmitted to QLDC for certification. The plan is to identify bunding 2 and 3 metres in height and 70 metres in length and 120 metres in length, to the north and east of the facility, respectively; with planting comprised of native shrubs and grasses that can be expected to reach 2 metres in height within 5 years of planting, to give a total screen height (bund plus plantings) of 4 and 6 metres, respectively; and such plantings shall be identified on the amended Landscape Management Plan and shall include species consistent with those listed in Appendix 1 (attached) together with planting densities and details of the heights of plants at the time of planting. Figure 1 (attached) provides a cross section of the 3 metre high bund to be constructed east of the facility. Planting shall be on both platforms of the bund.

b) In addition to the bund and planting referred to in a) the consent holder shall establish a 3 metre high black windbreak cloth fence and a row of Radiata pine trees on the eastern bund, such pine trees to be of a grade that achieves a height of not less than 1.2 metres when planted and the pine trees shall be kept trimmed to achieve a mature height of 3 metres (and an overall screen height of 6 metres). Figure 2 (attached) provides a sketch of the windbreak cloth fence and the planting on the 3 metre high bund to be constructed east of the facility.

c) The 3 metre high black windbreak cloth fence and the row of pine trees required in terms of b) is to be established as soon as practicable after the commencement of this consent; and the amended Landscape Management Plan required in terms of a), once certified, shall be implemented within the first available planting season; and all plants shall be irrigated and maintained as necessary. Should any tree or shrub die or become diseased it is to be replaced in the first available planting season. The pine trees shall be progressively removed when the native species achieve an equivalent height and serve a similar screen function.

14. All practical measures shall be undertaken to minimise any adverse effects on property, amenity values, wildlife, vegetation and ecological values.

15. There is to be no stockpiling on site and all material is to remain in the building until it is taken off site.

16. If the consent holder:

a) discovers koiwi tangata (human skeletal remains), waahi taoka (resources of importance), waahi tapu (places or features of special significance) or other Maori artefact material, the consent holder shall without delay:

- notify the Council, Tangata whenua and Heritage New Zealand Pouhere Taonga and in the case of skeletal remains, the New Zealand Police; and
- stop work within the immediate vicinity of the discovery to allow a site inspection by the Heritage New Zealand Pouhere Taonga and the appropriate runanga and their advisors, who shall determine whether the discovery is likely to be extensive, if a thorough site investigation is required, and whether an Archaeological Authority is required; and

any koiwi tangata discovered shall be handled and removed by tribal elders responsible for the tikanga (custom) appropriate to its removal or preservation. Site

work shall recommence following consultation with Council, the New Zealand Pouhere Taonga, Tangata whenua, and in the case of skeletal remains, the New Zealand Police, provided that any relevant statutory permissions have been obtained.

- b) discovers any feature or archaeological material that predates 1900, or heritage material, or disturbs a previously unidentified archaeological or heritage site, the consent holder shall without delay:
 - (i) stop work within the immediate vicinity of the discovery or disturbance; and
 - (ii) advise the Council, the Heritage New Zealand Pouhere Taonga and in the case of Maori features or materials, the Tangata whenua and if required, shall make an application for an Archaeological Authority pursuant to the New Zealand Pouhere Taonga Act 2014; and
 - (iii) arrange for a suitably qualified archaeologist to undertake a survey of the site.

In the event of a discovery in terms of a) or b) site work may only recommence following consultation with the Council.

- 17. No sign that refers to the solar secondary sludge drying facility shall be erected on the site in a position that is visible from State Highway 8A.

Term of Consent

- 18. Pursuant to section 123 of the Resource Management Act 1991 this land use consent is granted for a period that expires on 10 October 2049.

Review Condition

- 19. Within 10 working days of each anniversary of the date of this decision, or upon the receipt of information identifying non-compliance with the conditions of this consent, the Queenstown Lakes District Council may, in accordance with sections 128 & 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this resource consent for any of the following purposes:
 - (a) There is or is likely to be an adverse environmental effect as a result of the exercise of this consent, which was unforeseen when the consent was granted.
 - (b) Monitoring of the exercise of the consent has revealed that there is or is likely to be an adverse effect on the environment.
 - (c) There has been a change in circumstances such that the conditions of the consent are no longer appropriate in terms of the purpose of the above Act.

Advice Note

- 1. *This consent triggers a requirement for Development Contributions. For further information please contact the DCN Officer at the Queenstown Lakes District Council.*

Appendix 1 – Planting List

Native Planting Species for bunds

<i>Kunzea Ericoides</i>	Kanuka
<i>Leptospermum scoparium</i>	Manuka
<i>Sophora microphylla</i>	Kowhai
<i>Olearia bullata</i>	a member of the Asteraceae (Aster) family
<i>Coprosoma linariifolia</i>	a member of the Rubiaceae family
<i>Chionochloa rigida</i>	Snow Tussock
<i>Poa cita</i>	Silver Tussock
<i>Griselinia littoralis</i>	Broadleaf
<i>Pittosporum tenuifolium</i>	Kohuhu
<i>Cordyline australis</i>	Cabbage tree
<i>Coprosma propinqua</i> or <i>crassifolius</i>	Coprosma
<i>Hebe cupressoides</i> or <i>odorata</i>	Hebe
<i>Discaria toumatou</i>	Matagouri
<i>Pseudopanax crassifolium</i> or <i>ferox</i>	Lancewood

Figure 1: Cross section of 3 metre high bund

(NB. not to scale)

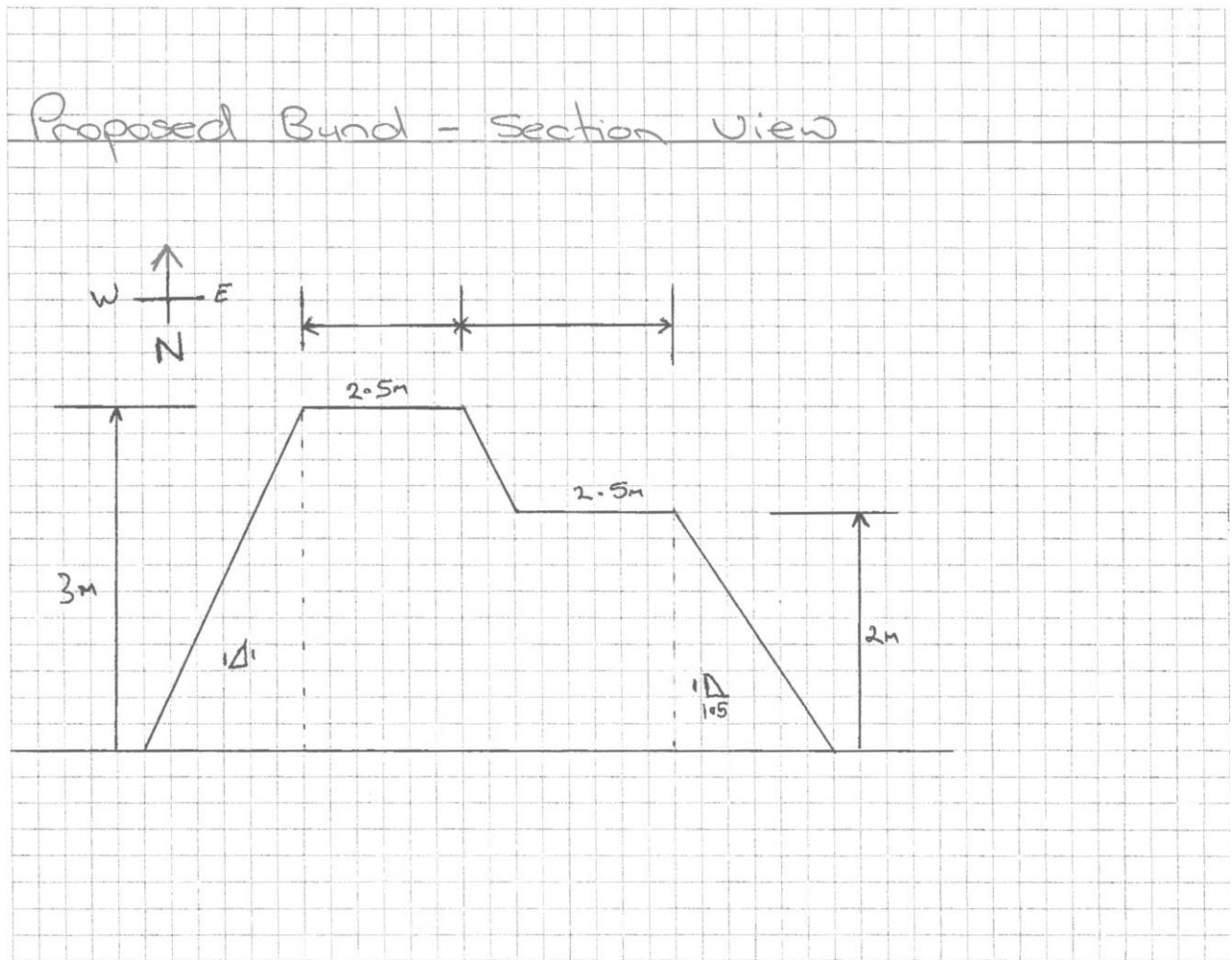
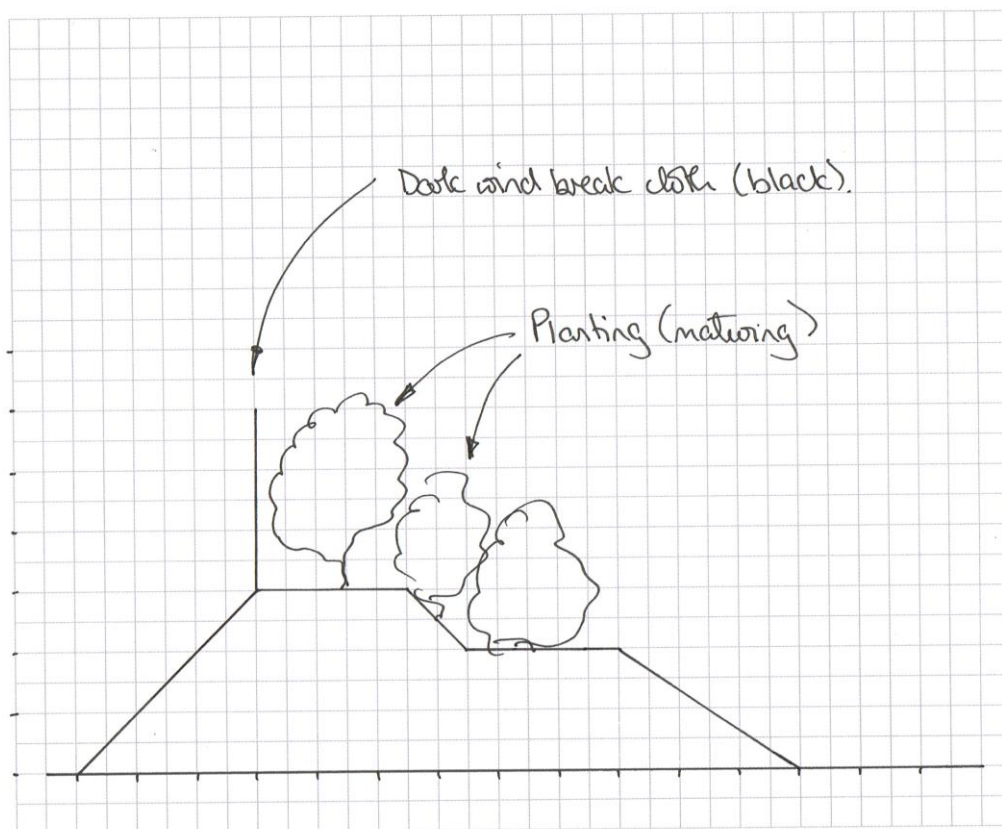
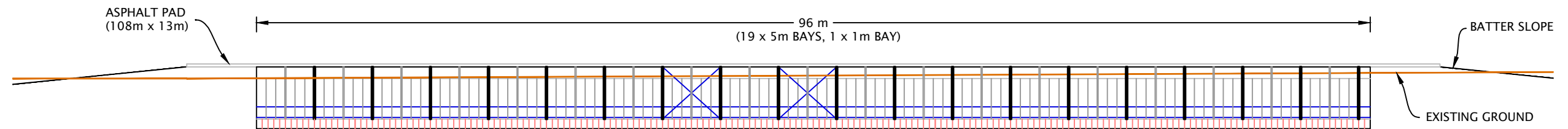


Figure 2: Sketch of windbreak cloth fence and planting

(NB. to scale)



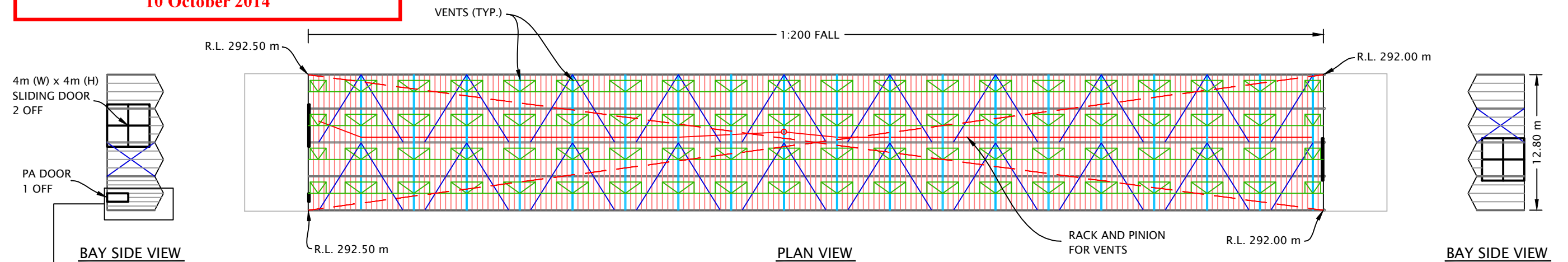


QUEENSTOWN LAKES DISTRICT COUNCIL

APPROVED PLAN:
RM140133

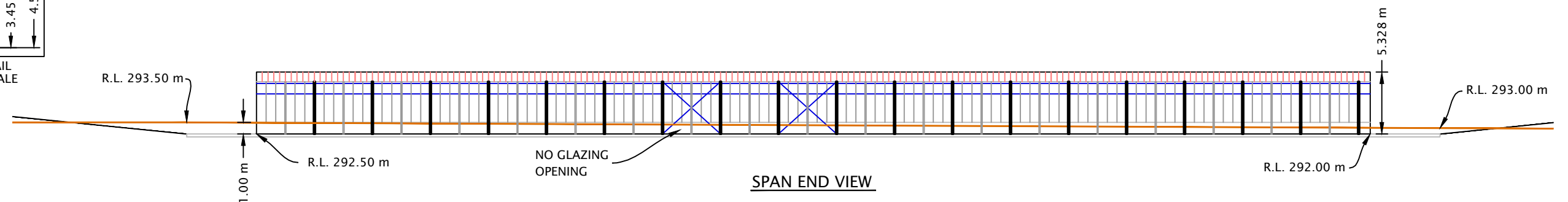
10 October 2014

SPAN END VIEW



PLAN VIEW

BAY SIDE VIEW



SPAN END VIEW

NOTES

- ⊙ - GEARMOTOR LOCATION (1 OFF)
 - X - VENTING ZONE
 - - DROPPER LOCATION (150mm)
 - POST HEIGHT - 4.5m
 - GABLE POSTS - 150x100x4
 - INTERNAL & SIDE POSTS - 125x125x5
- SIDE MID POSTS - 125x75x3
TRUSS CHORDS - 100x50x4
VENT SIZE - 3m WIDE x 1.065m DEEP
TOUGHENED ROOF GLASS 4mm
TOUGHENED SIDE & GABLE WALL GLASS 4mm
CONCRETE SLAB BY OTHERS

ISSUED FOR CONSENT 11.02.2014

btw south
surveyors . planners . engineers . land & g.i.s services
CROMWELL
Unit 7, Cromtrade
2 McNulty Road
PO Box 302, Cromwell 9342,
New Zealand
ph 03 445 9905, fax 03 445 0194



Client
FULTON HOGAN

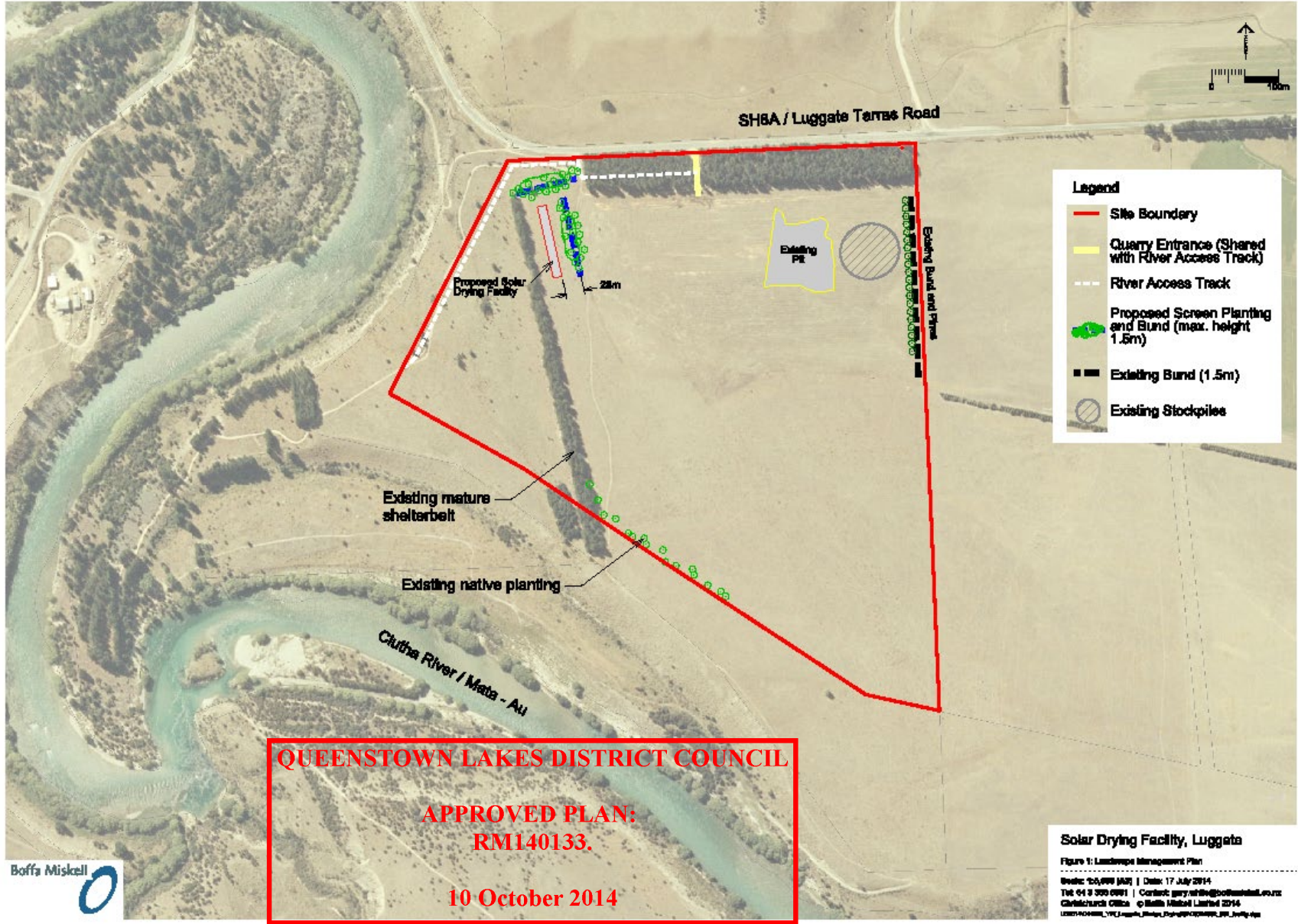
NOTES
- All dimensions shown are in metres unless otherwise shown
- Copyright on this drawing is reserved
- Check any electronic data against the hardcopy plan to ensure it is the latest version
- If this plan is being used as part of sale and purchase agreement then it is done so on the basis that it is preliminary only, final dimensions and areas may vary on final survey

**GENERAL LAYOUT - PROPOSED SOLAR DRYER BUILDING
LUGGATE**

Rev.	Date	Revision Details	By	Surveyed	Signed	Date	Job No.	Drawing No.
-	-	-	-	MSB	Signed	29.06.13	s12178	01
				Drawn	Signed	Date	Scale	
				RAF	Signed	10.03.14	1:200 @ A1 1:400 @ A3	
				Designed	Signed	Date	Datum & Level	Rev.
				Liquitek	Signed	06.03.14	NZTM 2000 & MSL	-

L:\S12178 - Fulton Hogan\CAD\Sudge Drying Facility\S12178_SDF_BUILDING_SECTIONS.dwg Plotted: 11.03.2014

Fig 3: Amended facility layout plan, showing recommended additional bund along the eastern façade of the facility at a distance of 28m from the facility and a length of 120m.



QUEENSTOWN LAKES DISTRICT COUNCIL

APPROVED PLAN:
RM140133

10 October 2014

SH8A / Luggate Tarras Road

Facility access track

Proposed Solar
Drying Facility

Existing
Pit

Existing Bund and Pines

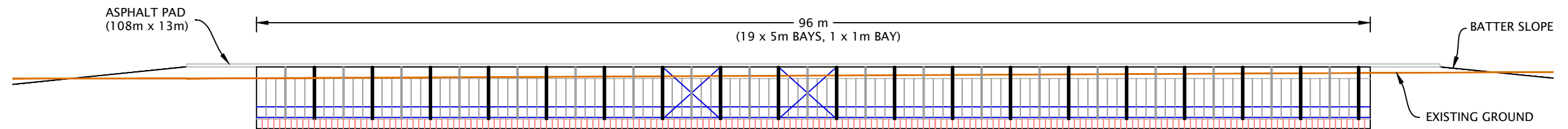
Existing mature
shelterbelt

Existing native planting

Clutha River

Legend

- Site Boundary
- Quarry Entrance (Shared with River Access Track)
- River Access Track
- Proposed Screen Planting and Bund (max. height 1.5m)
- Existing Bund (1.5m)
- Existing Stockpiles

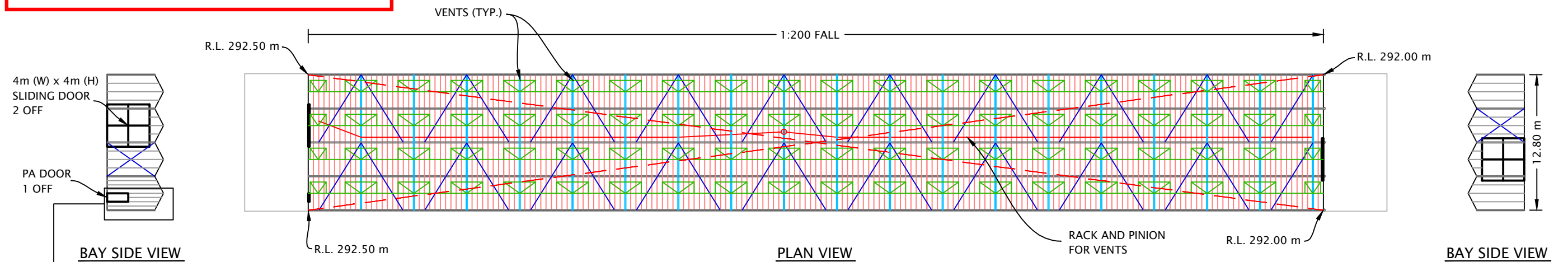


QUEENSTOWN LAKES DISTRICT COUNCIL

APPROVED PLAN:
RM140133

10 October 2014

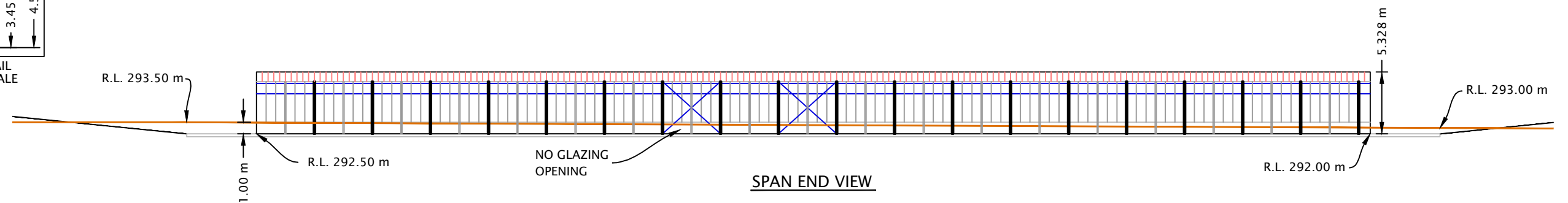
SPAN END VIEW



PLAN VIEW

BAY SIDE VIEW

BAY SIDE VIEW



SPAN END VIEW

NOTES

- ⊙ - GEARMOTOR LOCATION (1 OFF)
- X - VENTING ZONE
- - DROPPER LOCATION (150mm)
- POST HEIGHT - 4.5m
- GABLE POSTS - 150x100x4
- INTERNAL & SIDE POSTS - 125x125x5
- SIDE MID POSTS - 125x75x3
- TRUSS CHORDS - 100x50x4
- VENT SIZE - 3m WIDE x 1.065m DEEP
- TOUGHENED ROOF GLASS 4mm
- TOUGHENED SIDE & GABLE WALL GLASS 4mm
- CONCRETE SLAB BY OTHERS

ISSUED FOR CONSENT 11.02.2014

btw south

surveyors . planners . engineers . land & g.i.s services
CROMWELL
Unit 7, Cromtrade
2 McNulty Road
PO Box 302, Cromwell 9342,
New Zealand
ph 03 445 9905, fax 03 445 0194



Client
FULTON HOGAN

NOTES
- All dimensions shown are in metres unless otherwise shown
- Copyright on this drawing is reserved
- Check any electronic data against the hardcopy plan to ensure it is the latest version
- If this plan is being used as part of sale and purchase agreement then it is done so on the basis that it is preliminary only, final dimensions and areas may vary on final survey

**GENERAL LAYOUT - PROPOSED SOLAR DRYER BUILDING
LUGGATE**

Rev.	Date	Revision Details	By	Surveyed	Signed	Date	Job No.	Drawing No.
-	-	-	-	MSB	Signed	29.06.13	s12178	01
				Drawn	Signed	Date	Scale	
				RAF	Signed	10.03.14	1:200 @ A1 1:400 @ A3	
				Designed	Signed	Date	Datum & Level	Rev.
				Liquitek	Signed	06.03.14	NZTM 2000 & MSL	-

L:\S12178 - Fulton Hogan\CAD\Sudge Drying Facility\S12178_SDF_BUILDING_SECTIONS.dwg Plotted: 11.03.2014