

**BEFORE INDEPENDENT HEARING COMMISSIONER APPOINTED BY THE
INVERCARGILL CITY COUNCIL**

UNDER the Resource Management Act 1991 (RMA)

IN THE MATTER of an application for land use consent under section 88
of the RMA to erect three visitor accommodation
cabins on a Rural Zoned site at Bluff.

BETWEEN **Alan Watson**

Applicant

AND **INVERCARGILL CITY COUNCIL**

Consent Authority

**STATEMENT OF EVIDENCE OF RICHARD DAVID JOHNSON
FOR ALAN WATSON
1 August 2021**

INTRODUCTION

Qualifications and Experience

1. My full name is Richard David Johnson. I am a self-employed independent planning consultant.
2. I hold a Master of Arts with Honours from the University of Canterbury. I am a member (retired) of the New Zealand Planning Institute, and a member of the Resource Management Law Association.
3. I am a certified Hearings Commissioner under the MfE Making Good Decisions programme.
4. I have 45 years' of resource management and planning experience spanning both the public and private sectors. My experience includes both regional and district plan development, including the preparation of section 32 and section 42A reports for the Waimakariri District Plan as District Planner, and Nelson City Unitary Plan as the Divisional Manager Planning and Consents. I have reported on resource consents, and held delegated authorities to make decisions on resource consent matters, including s357 objections.
5. In 2013 I was appointed the foundation Manager of the Exclusive Economic Zone Applications team at the Environmental Protection Authority that was responsible for managing the processing of, and decision-making on, marine consents. I retired in 2020.
6. As an independent planning consultant I have undertaken policy analysis and preparing submissions for clients on various Resource Management Act 1991 (**RMA**) documents. I also have considerable experience in preparing and processing resource consent applications.
7. I have assisted Mr Watson with his application and provided advice on the Invercargill District Plan and the Resource Management Act 1991. I prepared the application the subject of this hearing.
8. I have visited the Site.

Code of Conduct

9. I have read and am familiar with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014. I have complied with the Code of Conduct in preparing this evidence and I agree to comply with it while giving any oral evidence during this hearing. Except where I

state that I am relying on the evidence of another person, my evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

Summary of Evidence

10. I have been retained by Mr Watson to prepare this statement of evidence on his application.
11. My evidence covers the following matters:
 - a) The background to this application
 - b) Issues raised by the reporting officer
 - c) The issues raised by the submitter
12. I have read the s42A report and the submitter's submission.

Background to the application

13. Mr Watson purchased the Site in 2005 with long term intentions of restoring and rehabilitating the Site by focussing on native re-vegetation. He presently does not intend to farm the Site, although he is aware of the options for permitted farming activities.
14. He secured resource consent in 2017 (RMA/2017/37) to "establish and operate visitor accommodation within the rural zone". That consent described the scale of the activity consented as
... the construction of a building with a floor area of 88m² and consisting of two one-bedroom units with ensuites for use as visitor accommodation. The accommodation will be available year-round and will be run by the occupants of the existing dwelling on the site. The total maximum occupancy of the units will be four people.
15. The consent was granted as applied for with one condition limiting signage.
16. Mr Watson has concluded that his plans for restoring the Site would be advanced if there was an income stream to support that initiative, and he also believes the Site would hold significant appeal for visitors who do not want the usual motel/hotel experience in the City.
17. He has proven the viability of visitor accommodation on the Site and wishes to expand that activity. Presently there is one cabin with two self-contained units in it. The proposal is for three additional self-contained cabins that are limited in scale to four persons each as can be see from the building plans in the application.
18. The proposal then effectively increases the number of lettable visitor accommodation units from two to five units.

19. Visitor accommodation is a discretionary activity under the District Plan Rule RURZ-R2.

PLANNING FRAMEWORK

20. As a discretionary activity the application is to be considered against s104B of the Resource management Act 1991. That states that the consent authority, after considering an application for a resource consent for a discretionary activity, may grant or refuse the application, and may impose conditions if consent is to be granted.

ASSESSMENT OF ENVIRONMENTAL EFFECTS

21. Attached to my evidence is a fully detailed Site Plan of the proposed visitor accommodation development with distance measurements to relevant boundaries.
22. The application has set out fully the basis and context of the application.
23. It has a full assessment of potential environmental effects. These have been identified as:
- a) Visual amenity
 - b) Noise
 - c) Height of buildings
 - d) Vehicle access and movements
 - e) Car parking
 - f) Services
 - g) Natural hazards.
24. I consider that to be a fair sweep of possible effects from the proposal. The application concludes and, notwithstanding the submitter's views, I am strongly of the view that the potential adverse effects that may arise in relation to these matters are either less than minor, or simply will not arise.
25. To my mind any assessment of potential adverse effects in terms of the conventional measures of scale, intensity, frequency, nature and duration must recognise two basic propositions:
- a) Existing environment:

The Site is zoned Rural and has existing rural characteristics with low density development either in the form of structures or other features, low intensity land use, with most of the Site being left in a natural albeit regenerating state presently dominated by gorse.

In the vicinity of the Site there is a wee cluster of six houses near to the application site at the bend in Green Point Road. This does not make

that cluster rural residential as provided by zoning in the District Plan, nor any other form of closer development attached to which may be different amenity standards. The quality of environment for that cluster is set by the rural zone activity and development standards. The housing cluster exists but of itself that does not determine the environmental qualities against which any activity or development proposals are to be measured.

The remainder of Green Point Road is rural in function, outlook and development.

b) Permitted baseline:

I want to make the point that the District Plan allows for a range of permitted activities for a Rural Zoned site, and for which consents are not required subject to compliance with activity and development standards. This is recognised by Ms Ellis in her S42A Report.

These set the basis for the nature of potential effects that can legitimately arise in the Zone. They are relevant as the basis against which the effects of Mr Watson's three cabin proposal can be measured.

I draw the Commissioner's attention to the Council decision on the 2017 consent where this point is made:

The following would be permitted activities on this site (subject to environmental standards): five self-contained dwellings; homestay with up to five guests; a veterinary clinic; and animal boarding activity. Buildings in association with agriculture, up to 10 metres in height, are also permitted. It is considered that the environmental effects of a two-unit visit accommodation will be less than those that could be created by the permitted activities listed above.

That actually is not the full list of what the District Plan permits. That point is not made by Ms Ellis; her list of permitted activities misses some activities too.

The District Plan allows "agriculture" which is a very broad term enabling a wide range of animal husbandry, cropping and supporting structures and buildings:

Accessory Building

Means any building which is accessory to the principal activity on the site and includes but is not limited to garages, carports, tool sheds, glasshouses etc.

Agriculture

Means the use of land or buildings for the rearing, breeding and keeping of animals and/or the growing and harvesting of crops including, but not limited to:

1. Intensive farming of poultry, pigs and other species, and feedlots
2. Horticulture, hydroponics, seed production, viticulture and forestry
3. Bee keeping

4. The keeping and/or training of horses together with associated activities, including shelter planting, amenity plantings, land disturbance, storage buildings, the storage and use of fertiliser and disposal of waste produced on the site.

I do note that the zone also, somewhat curiously, provides for Residential Care Activities up to a maximum of eight persons. That is relevant for Mr Watson's visitor accommodation proposal that may, at full occupancy, provide for up to 16 persons.

26. In my opinion it is an important consideration in assessing Mr Watson's visitor accommodation proposal that the permitted activities do have associated built and activity standards for the Rural Zone and District-wide standards that in themselves may create different or additional effects to those currently experienced by landowners in Green Point Road. I am of the view that these standards have the potential for more significant adverse effects than those that may arise from this visitor accommodation proposal that is essentially a low level activity that in all likelihood will not operate at full capacity all of the time.
27. These built standards for permitted activities in the Rural Zone help set the context for measuring the relative potential effects of the use and development of three single storey cabins.
28. The only permitted built standards for the Rural Zone have been identified by Ms Ellis and are:
- Space Around Buildings: RURZ-R5*
A yard at least 4 metres deep shall be provided along all side and rear boundaries of any non-residential activity.
- Height of Structures: RURZ-R12*
All new buildings and structures, and additions to existing buildings and structures, are to be designed and constructed to comply with the following maximum height and recession planes:
- 1. Maximum height: 10 metres*
29. In my view this is a remarkably limited set of built standards for a Rural Zone. There are no standards for daylight admission (recession planes only apply on sites less than 1ha or adjoining a residential zone), site coverage, reflectivity, parking and loading, floor area controls.
30. There are district-wide built and activity standards for light spill, noise and relocated buildings that apply to the Site. The application makes clear that with respect to the first two, it will fully comply with these standards. The third standard is not relevant as no relocated buildings are proposed.

31. Notwithstanding that assessment in the application, I do note Ms Ellis is recommending conditions to manage light spill and potential noise. I comment on those below in my review of the proposed conditions.
32. The Council in reviewing the application for completeness only identified two issues:
- a) Affected persons
 - b) The specifications and management of the on-site sewage system. Attached is further information on the proposed system. It is highly relevant that this is the system installed by Mr Watson for his house and the first two cabins. That system was approved by the City Council as part of the building works and a Code Compliance certificate issued.
33. Submitters have also raised a number of concerns relating to the effects of the proposed visitor accommodation. These are considered in the following part of my evidence.

ISSUES RAISED IN SUBMISSIONS

34. The following section considers the issues raised in Ms Fowler's submission. I have set it out for clarity as a series of responses to each submission point.
35. As a preliminary matter, I think it is important to identify those matters raised in submissions that are more properly civil or neighbour issues, rather than planning issues. These include matters around the fence, rubbish and so on. They should not weigh on the decision on the application.
36. Equally, I am firmly of the view that Mr Watson should not have been expected to do more than what the RMA requires by way of engagement/consultation with neighbours. I can understand how Ms Fowler may be aggrieved that there was no prior engagement before the application, but the fact is that the RMA requires no such engagement. The application has worked its way through the Act's processes and Ms Fowler is not disadvantaged in any way as she has through the limited notification process, and this hearing, the opportunity to be heard and to have her concerns considered by the Commissioner.
37. Relevantly the Fourth Schedule to the RMA *Information required in application for resource consent* in relation to clause 6(1)(f) states

(3) To avoid doubt, subclause (1)(f) obliges an applicant to report as to the persons identified as being affected by the proposal, but does not—

- (a) *oblige the applicant to consult any person; or*
- (b) *create any ground for expecting that the applicant will consult any person.*

38. Ms Fowler's submission points are:

1. *There has been no consultation with Greenpoint (sic) Road residents regarding a major commercial development on the road, this "Affected Person's Written Approval" paper is the first time I have been advised of the commercial development*

I have checked the Resource Management Act 1991 and can confirm there is no obligation under the RMA for an applicant to consult neighbours as I set out above in my evidence at para 36.

This is not a major commercial development; it is commercial but of a low key, and low scale nature. Mr Watson only advertises through AirBnB.

I can make available to the Commissioner a record of the use of the existing cabin. In summary it shows the cabin was used on eight occasions between December 2020 and May 2021 for a total of about 35 nights out of a possible approximate 180 nights.

In my opinion this reinforces the fact that the use of the Site for visitor accommodation is a low key, low intensity activity that will have much less effects than many permitted activities.

2. *Mr Watson has been remiss in his consultation with neighbours.*

I rely on my evidence in relation to the submission point above.

3. *This is classified as a Rural Zone and I understand that under current legislation, "visitor accommodation" is not listed as a permitted activity in a rural zone.*

Visitor accommodation is listed as a Discretionary Activity in the Rural Zone. It is entirely appropriate for an application such as this to be made. The application has not been rejected by the consent authority as not able to be made.

4. *This proposal affects 2 of my properties which share boundaries with the Watson property. There is a difference of opinion on the north/south boundary. Mr Watson states that his property boundary lies to the east side of the fence which has been the boundary fence for 60 plus years and has since been dismantled by Mr Watson.*

This is not a District Plan or an RMA matter. It is a civil matter between two land owners.

5. *The fence between 40 Greenpoint (sic) Road and 58 Greenpoint road is no longer usable due to the development at 58 Greenpoint Road. Last year I found a white plastic bag full of rubbish that had been thrown into my property which could have only come from the Watson property, I threw it back into their property, I did not follow up with discussion with Watsons believing that it would not happen again and it hasn't, however, with increased commercial activity this could be a problem again and the fence has been removed.*

In my opinion these are neighbour issues, not planning issues related to this application.

I do not believe the submitter can assume an increase in rubbish over the boundary arising from the application.

6. *There is increased activity on the gravel road, trucks shifting gravel and dirt are currently (and have been for the last month) running at sometimes 3-4 times per day, putting pressure on and further damaging the road and needing additional involvement by council.*

For the record I note that in response to an enquiry from another neighbour the Council's RMA Monitoring Officer visited the Site. In her email to Mr Watson on 11 March 2021 and others she reported that:

Council's Roading contractor is satisfied that the truck movements have not damaged the road, though they have noted that maintenance needs to be scheduled, and have scheduled this.

Fulton Hogan have confirmed the volume and contents of the fill they are delivering, and I am satisfied that this is compliant with the relevant rules regarding earthworks and cleanfill.

Also, and at para 7.3.4 of her s42A Report (but numbered 7.3.3.1) Ms Ellis confirms that:

The Council's Roading Manager considered the application and he did not request any condition to be imposed relating to the vehicle crossing. He advised that the site is located on an unsealed rural road and that dust may be a potential issue at times, but due to the scale of the proposed activity this is not expected to differ greatly from what would be produced by a permitted activity on the site. The Roading Manager noted that the Council has no plan to extend and seal Green Point Road at this point in time.

My assessment of the permitted rural activities, especially any of the agricultural activities, or a vet clinic, is that they may involve truck movements and may involve much higher numbers of movement than the 3-4 per day being experienced. Certainly Rural Zone permitted activities will create potentially much more general traffic than Mr Watson's three cabin visitor accommodation proposal.

In my experience District Plans tend to adopt a common standard of about 8-12 vehicle movements per day per site, or per vehicle generating activity, so the number of truck movements and their effects would seem to be quite unremarkable and I would assess that as less than minor.

Green Point Road is a local rural road which has its primary purpose access to property. In fulfilling that function it is the Council's responsibility to maintain local roads so they are fit for purpose. I think it is relevant that Ms Ellis's S42A Report contains no requirements from the Council's Road Asset Managers in terms of road upgrades.

For completeness I note that following an enquiry from a neighbour the Council's RMA Monitoring Officer visited the Site

7. The corner of at 40 Greenpoint (sic) Road is already under considerable stress as is the open drain which runs the length of the road, there is no plan to resolve these issues. The stability of this road needs addressing.

This is an issue for the Council as road controlling authority, not the applicant. In my opinion, if the road needs upgrading now then that issue sits with the Council. It is not fair nor reasonable for the applicant to address deferred maintenance issues, or to get Green Point Road to a proper standard for a rural local road.

8. A commercial venture on 58 Greenpoint road (sic) will put added pressure on an already sensitive gravel road, and quiet, rural residential area

In my opinion, I doubt three cabins for visitors will significantly change the existing rural environment; it is not identified in the District Plan as a rural residential environment. It is the use of the three cabins that give rise to the effects, not that the cabins are available on a tariff basis ("commercial"). It is clear to me, and consistent with my experience in administering District Plans, that any of the permitted activities could generate a degree of change to the existing environment; this is a 10ha site with the capability of supporting a range of permitted rural and agricultural activities which could significantly change the existing environment.

9. A commercial venture will need additional sewerage tanks and run off from these (which naturally runs off downhill) I am worried about how this will affect my property given that runoff does tend to run downhill.

The servicing proposal for wastewater (para 47-50 of the application) is that wastewater will be disposed of to a new additional and separate effluent treatment field that matches the one that presently services the dwelling and cabins 1 and 2.

The existing on-site sewage system has been assessed by the Council as a Building Consent Authority. It has issued a Certificate of Compliance for that

system. On that basis I see no reason why the exact same on-site sewage proposal for Cabins 3-5 will not be accepted by the Council.

I have been advised there has been no issues with the performance of the existing effluent field and that there has been no evidence of treated effluent moving beyond the Site. The effluent load for the new effluent treatment field will likely be less than the existing field which supports the permanently occupied existing dwelling.

Attached to my evidence are copies of

- a) Sewage Plant BF6 – Specifications – 2015
- b) OSET-NTP-Trial 9 – Performance - Certificate-biolytix
- c) Part of CCC for Building Consent 2009-1374-A issued by the Council

The Site Plan attached to my evidence shows that the existing effluent treatment field is at its nearest point 5.0m from the Site boundary, and the additional effluent treatment field that is proposed is at its nearest point 9.0m from the Site boundary.

In my opinion no off-site effects from the operation and management of the on-site effluent treatment fields are likely.

10. There has already been a change in the water run-off into my property since development began resulting in increased water seeping into 40 Greenpoint (sic) Road. It is very possible that the balance of the natural water table in this hill has be upset.

In my opinion this is not an issue for this application. It may be a Regional Council issue.

The earthworks undertaken are well within permitted activity limits of up to 2000m³ per site in a 12 month period (SOIL-R2 set out in Appendix 7 of the application). The three cabins have quite small footprints of 57m² or a total of 171m² and there will be some ground levelling for access/parking.

11. Mr Watson has also moved substantial earth on the corner where properties 58, 38 and 40 meet and created a runoff of water from the hill. A hothouse has been erected here. which I expect will use the runoff water which is being collected in 2 white tanks which have been submerged into the ground. There is runoff from this area which eventually channels into both 38 and 40 Greenpoint (sic) Road. This is a serious concern.

I do not believe that the alleged works are relevant or actually related to the application. The permitted activity standards for earthworks allow for quite substantial volumes of earthworks in a 12 month period.

12. There will be increased traffic use of the road if a commercial venture is allowed

I rely on my evidence and opinions set out in relation to submission points 6 - 8. In my opinion, an increase in traffic use of the road would be an inevitable consequence of most activities permitted in the Rural Zone. Any traffic increase may be a change to today's road use characteristics of Green Point Road, but it cannot be said that the District Plan does not foreclose such a change.

13. There will be increased noise and light usage

The application states that there will be little change to the noise/lighting environment (para 26 – 29 for noise and Appendix 7 for the assessment of LIGHT-R1/R2 Lightspill and NOISE-R2) and any effects will be less than minor. I support that position given the ability to design lighting to minimise effects, and given the low scale/low intensity of use of the Site as proposed.

The applicant is aware of, and will comply with, the Dark Sky lighting requirements. He does not intend to install security lighting; this is counter to the experience he is offering close to, but very different to, a City stay.

14. There will be increased risk for children who use this road as there is no signage in terms of being aware of children.

A local rural road is capable of carrying, and is designed to carry, much more traffic than will be generated by the application for three visitor accommodation cabins even if they get heavy patronage.

In my opinion the issue of road safety is one for the Council. I note there is no evidence that the application will generate sufficient risk to road users nor that some mitigation is required. It is relevant that the Council's Road Asset Managers have not identified this as an issue arising from the proposal.

THE COUNCIL'S SECTION 42A REPORT

39. Ms Ellis' s42A report does not identify any significant issues arising from the application.

40. At her para 7.1 she states:

While the proposal is not specifically provided for within the District Plan and will be developed in a way outside the norm of the Rural Zone, the nature and scale of the proposed is unlikely to result in significant effects outside of what can be operated as a permitted activity on the site, with appropriate sit(sic) management.

As set out in my assessment of effects and consideration of the relevant District Plan Objectives and Policies below, I have reached the conclusion that this land-use

proposal will promote the sustainable management of Invercargill's physical resources.

41. In my opinion that is a fair conclusion based on the facts and circumstances of the application.
42. As points of clarification I note that:
 - a) Application summary page 1: The existing dwelling is a permitted activity. It is not part of the visitor accommodation activity and will not be available for use by tariff.
 - b) Section 2: I confirm that there is no intention to provide for tent sites, nor RV vehicles. The application is only for three additional visitor accommodation units. I will table an amended site plan.
 - c) 7.2.3.3: FENZ has approved the proposal for firefighting water supplies as Ms Ellis confirms at 7.3.3.2. The approval is at Appendix 8 of the application.
 - d) Details of the sewerage system proposed to be installed will be tabled at the hearing. In any event this is an issue for the Building Act stage.

Proposed conditions

43. Condition 2: Landscape Plan

I consider the Condition is not justified by the facts and circumstances of the application. It is not supported by Ms Ellis' conclusion at her para 7.3.2 Rural Amenity sub para 5:

Altogether, as the information in the application indicates the proposal should not adversely affect the visual amenity of the surrounding area in terms of built form as the character of the proposed buildings are in compliance with the District Plan rules for the zone and do not introduce a significant change in the area.

There is some cost to preparation of such plans and the retention of the indigenous vegetation will provide sufficient screening. What is trying to be achieved as mitigation of potential amenity effects could be simply required by a condition such as proffered below:

The indigenous vegetation between the proposed units and the north eastern boundary shall be retained.

44. Condition 3: Water Management Plan.

I would have thought methods of stormwater disposal, and the capacity of the sewerage system were Building Act matters. In the event that the Condition remains, I have an issue about the condition reserving a

secondary approval to the Council that, if not given, will frustrate the exercise of the consent. Good planning practice does not allow for secondary and merits-based approvals to follow the primary consideration of an application. The condition should be very specific about what is required in the water plan so that it may be certified as meeting that specification, not subject to a merits-based assessment. That is the purpose of this hearing.

45. Condition 4: limit on guests to 15 at any one time

The applicant has designed the three new units to be able to accommodate four persons based on a young family group (two parents/two children). In proposing a limit on the number of guests on site at any one time, Ms Ellis has not made any connection to why this is needed as a condition. I do not understand what adverse effect this condition seeks to address.

With the greatest respect, the number of guests that the five units can accommodate is self-determining because of their size and configuration. The units could accommodate up to 20 guests and if a condition is considered necessary, then that should be the number.

46. Condition 5: Office hours

In my opinion it is unrealistic for a visitor accommodation activity to be bound to the proposed hours, if that is a mechanism to manage potential noise effects, particularly the 6.00pm close of the reception/office. This is especially so when Condition 6 enables visitors to be hosted by clients up to 10pm at night. If the intent is to minimise traffic and potential noise from the activity in favour of neighbours, then I am reminded of permitted activities in the Zone such as vet clinics, residential care facility, home stays and animal boarding activities that will not be so bound.

I am not aware of any visitor accommodation facility that would shut its reception at 6pm. I suggest that the reception should close either at 10pm to match visitor hours, or at least allow it to be open till 9pm.

47. Condition 7: Lightspill.

This should not be a condition. It is simply a re-statement of the permitted activity standard under Rule LIGHT-R2. The applicant has to comply with this standard anyway.

CONCLUSION:

48. In my view, the erection and operation of an additional three self-contained cabins for visitor accommodation on a Site with two cabins already consented does not give rise to any significant resource management issues.
49. As a Discretionary Activity visitor accommodation is, subject to proper assessment, a possible activity in the Rural Zone. Certainly the application, and the s42A assessment, confirm that it is likely to have few, if any, adverse effects. There is nothing in the use of the site for visitor accommodation that cannot be avoided or mitigated, if in fact any such effects arise that require such management responses.
50. It is in the applicant's interests actually, to maintain and enhance the amenity values and environmental quality of the Site and surrounding area, to provide a high quality setting for his guests. The proposal, as confirmed by Ms Ellis, will maintain and enhance the values and qualities of the Rural Zone.
51. In my view the proposal is an efficient use of natural and physical resources and will provide for the economic and social wellbeing of the applicant and provide choice of location, environmental setting and style of visitor accommodation for visitors to Southland.
52. The proposal will achieve the purpose of the Act, and does represent a sustainable use of the natural and physical resources of the Site.
53. Consent can be granted.



17 August 2021

Appendix 1: Site Plan



Sheet #	1
Drawn By:	aj design
Date:	22/07/2021
Scale:	NTS
project:	Green Point Holiday Park 58 Green point Road Bluff
part site plan	
Rev.	

Appendix 2: District-wide standards

- a) *LIGHT-R2* The generation of lightspill, measured at the boundary of the site, shall not exceed the following: Rural 5 lux
- b) *NOISE-R2* Noise Levels from Activities: 1. All activities are to be designed and operated so that the following noise limits are not exceeded in the Rural Zone When measured at any point within the boundary of any other site within a Zone:

Day time 0700 - 2200	Night time 2200 - 0700
L _{Aeq} L _{Amax}	L _{Aeq} L _{Amax}
65dB 85dB	45dB 70dB

NOISE-R3 Exemptions:

1. Within the Rural, Residential 4, Airport Protection and Otatara Zones, any operational equipment which is mobile during its normal use and which is associated with primary production (e.g. tractors, harvesters and farm vehicles) is exempt from the noise limits detailed in *NOISE-R2* above. This includes items such as motorbikes and chainsaws used as part of primary production activity, but does not include recreational motorbike tracks or long term sawmilling. This exemption does not include fixed motors or equipment, forestry operations between 2200 and 0700 the following day, factory farming, bird scaring devices and frost fans.
- c) *RELO RELOCATED BUILDINGS: RELO-R2*
The relocation of any accessory building on to a site is a permitted activity

Appendix 3: Sewerage System specifications



On-site Effluent Treatment National Testing Programme (OSET NTP)

PERFORMANCE CERTIFICATE Biolytix BioPod On-site Domestic Wastewater Treatment System, OSET NTP Trial 9, 2013/2014

System Tested

The Biolytix BioPod system is an aerated biological trickling filter with a vermicomposting wastewater treatment unit using tiger worms within 3 layers of aerated drainage and humus matrix elements. Effluent gravitates through the matrix elements and discharges into the pump well below.

The manufacturer's rated design capacity is 1,800 litres/day. Total liquid volume is 1,351 litres within a 3,000 litre tank: (aerobic treatment 893 litres; pump chamber 458 litres). Emergency storage is 1,649 litres. No tertiary treatment (such as UV disinfection) is incorporated. The manufacturer's stated service requirement is annual.

Test Flow Rate

The Biolytix BioPod system was tested at 1,000 litres/day (equivalent to servicing a 3-bedroom 5 to 6 person household) over an 8 month (35 week) period November 2013 to July 2014 followed by a 1 month (4 week) high load effects test involving 5 days at 2,000 litres per day then 1,000 litres/day over the following 3 weeks.

Testing and Evaluation Procedures

A total of 37 treated effluent samples of organic matter (BOD₅) and suspended solids (TSS) at generally six day intervals during weeks 9 to 35 were tested and evaluated against the secondary effluent quality requirements of the joint Australia/NZ standard AS/NZS 1547:2012.

A total of 16 treated effluent samples of organic matter (BOD₅), total suspended solids (TSS), total nitrogen (TN), ammonia nitrogen (NH₄-N), total phosphorus (TP) and faecal coliforms (FC) at generally six day intervals during weeks 23 through 35 were tested and the results benchmarked and rated on their median values. In addition, the energy used by the treatment system was assessed on the mean of consumption levels over the benchmark period.

AS/NZS 1547:2012 Secondary Effluent Quality Requirements

These requirements are that 90% of all test samples must achieve a BOD₅ of ≤ 20 g/m³ and TSS of ≤ 30 g/m³ with no one result for BOD₅ being >30 g/m³ and no one result for TSS being >45 g/m³. The Biolytix BioPod system achieved a performance level of 100% for BOD₅ and 100% for TSS based on the full set of 37 test results in weeks 9 to 35, with no results exceeding the maximums. The Biolytix BioPod system thus meets the secondary effluent quality requirements of AS/NZS 1547:2012.

Benchmark Ratings

The Biolytix BioPod system achieved the following effluent quality ratings for the sixteen benchmarking results in weeks 20 to 35.

Indicator Parameters	Median	Std Dev	Rating	Rating System				
				A+	A	B	C	D
BOD (mg/L)	3.5	2.6	A	<5	<10	<20	<30	≥30
TSS (mg/L)	10	2.5	B	<5	<10	<20	<30	≥30
Total Nitrogen (mg/L)	37.8	4.2	D	<5	<15	<25	<30	≥30
NH ₄ -Nitrogen (mg/L)	13.8	3.7	C	<1	<5	<10	<20	≥20
Total phosphorus (mg/L)	4.3	0.6	B	<1	<2	<5	<7	≥7
Faecal Coliforms (cfu/100mL)	1,200,000	895,000	D	<10	<200	<10,000	<100,000	≥100,000
Energy (kWh/d) (mean)	0.4	0.04	A	0	<1	<2	<3	≥3

This Performance Certificate is specific to the Biolytix BioPod model as specified above when operated at a flow rate of 1,000 litres/day, and is valid for 5 years from the date below. For the full OSET NTP report on the performance of the Airtech 9000 system contact Biolytix Ltd, Penrose, Auckland, Ph: +64 9 579 1080 or 0800 700 818, Email: karl@biolytix.com.

Authorised By:

Ray Hedgland, Technical Manager, OSET NTP
20 February 2015

On-site Effluent Treatment National Testing Programme, c/- Technical Manager, 2/12 Mt Blanc Pl, Northpark, Howick, AUCKLAND 2013 Mob: 021 626 772 E-mail: ray@hedgland.co.nz

Biolytix BioPod (BF6) Wastewater Treatment System

Specifications

The Biolytix BioPod (BF6) is an onsite treatment system designed to treat wastewater from domestic sources. It uses a single tank configuration based on an enhanced trickling filter process which mimics a natural soil habitat. The BF6 is certified to comply with AS/NZS 1546.3:2008 and must be operated in accordance with this standard.

Effluent Quality

The BF6 wastewater treatment system generates secondary treated effluent of the following quality:

- 5-day Biochemical Oxygen Demand (BOD₅) <20 mg/L
- Suspended solids <30 mg/L

The effluent must be disposed of as stipulated by the local Territorial Authority. AS/NZS 1547:2012 describes discharge options for secondary-treated effluent. However, the Territorial Authority regulations applying to a specific site may be different and more stringent and should be consulted before making a decision.

Maximum Loading

- Flow rate: 1800 L per day
- Organic loading as BOD₅: 700 g per day
- Suspended solids loading: 700 g per day

Important: The actual maximum loading of an installed BF6 is limited by the capacity of the dispersal system it discharges to. For example, if the BF6 is connected to a land dispersal system with a capacity of 800 L/day, then the BF6 must not be loaded at more than 800 L/day.

Operation

- Emergency storage capacity: 1650 L
- Temperature and humidity: Operates under normal temperature and humidity conditions experienced in New Zealand and the Pacific Islands.
- Noise < 40 dB L_{Aeq} at a distance of 1 m
- Electricity consumption (per year): Treatment process 44 kWh; effluent pump typically 165 kWh (per year). Effluent pump power use can vary significantly depending on the size and location of the dispersal system and the actual household water usage.
- Maintenance: Requires at least an annual service (Note: Some Regional Authorities require at least two services per year regardless of the type of on-site wastewater system)
- Minimum serviceable life: 15 years





**NEW ZEALAND'S
MOST ECO-FRIENDLY
WASTEWATER
TREATMENT SYSTEM**

Biolytix 
Wastewater Naturally

2009/1374A

SOURCE OF POTABLE WATER : roof catchment and storage tanks.

AVERAGE DIALY USAGE :

500L - based on 200L/h/day – not 140L as in the Standard. Recent experience is tending to suggest that water usage in modern dwellings may be considerably higher than the 140L figure adopted in the Standard. The increased figure will also add buffering against uncertainties in the design loading rate. – (3500L per week)

NUMBER OF BEDROOMS : 1

NUMBER OF PERSONS DESIGNED FOR :
2.5 average.

The applicant intends to develop up to six one bedroom units on the property in the future and accordingly this is influencing the choice of treatment system. The Biolytix BF6 is capable of providing treatment for up to six bedrooms or 10 persons and it is hoped to utilize it for the additional units.

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