

29 October 2004
File: WGN050079 [23976]
WGN_DOCS# 232536-v1

Non-notified resource consent application officer's report

Application granted with conditions

Date Granted: 29 October 2004

Applicant: Transit New Zealand
P O Box 27-477
Wellington

Consent Granted: **WGN050079 [23976]: Discretionary Activity**
Discharge permit to discharge contaminants to land associated with State highway and motorway network maintenance and cleaning activities in the Greater Wellington region.

Location: Greater Wellington region

Legal Description: State highway and motorway systems within Greater Wellington region

Duration of Consent: Thirty five years

Conditions Relate to: Mitigation measures, tidy up on completion of works, inspection of the receiving environment, and review procedures.

Report prepared by:

Recommendation approved:

TRACEY GRANT
Resource Advisor, Consents Management

LUCI RYAN
Manager, Consents Management

Reasons for decision: resource consent WGN050076 [23976]

1. Background

Transit New Zealand (Transit) has as its principal objective, the responsibility to promote policies and allocate resources to achieve a safe and efficient land transport system while maximising economic and social benefits. The State highway system comprises nearly 10,500km of highway, providing a strategic link with the 81,400km of local road managed by local authorities.

Transit is responsible for the ongoing maintenance and improvement of the State highway system. Transit proposes to maintain its roads and motorways (including bridges, tunnels, weigh stations and other road asset infrastructure) within Transit Region 9 (comprising the Kapiti Coast, Wellington and Wairarapa) by undertaking various activities such as routine washdown, tunnel cleaning, water cutting, water blasting, lichen removal, graffiti removal, and landslip debris washdown. The work is necessary to ensure that among other things, the skid resistance of the roads is maintained and that road assets remain of a high standard to ensure that the safety of users (both pedestrian and vehicular) is not compromised.

Transit holds a range of discharge to water and air consents for the cleaning and surface preparation of bridges in the Wellington region. A regional consent is being sought for the discharge of contaminants to land from the maintenance and cleaning of all the State highways and motorways within Region 9, including any tunnels, bridges, weigh stations and other road asset infrastructure such as signage, gantries and barriers. The consent is sought to cover the discharge of contaminants from maintenance and cleaning activities, including contaminants mobilised by those activities and additives to water used in those activities.

The majority of the discharges will go directly to land but in other areas the contaminants will enter a pipe that then discharges to surface water.

Greater Wellington Regional Council (Greater Wellington) has therefore chosen to consider a regional resource consent application for cleaning and maintenance activities. Greater Wellington requires operators to meet certain consent conditions for every job they carry out within the Wellington region, regardless of that location. The operator will be able to carry out work that is restricted by consent conditions, but unhindered by the resource consent process itself.

2. Proposal

Transit seeks a regional consent from Greater Wellington to cover discharges to land from State highway and motorway network maintenance and cleaning activities within Transit Region 9.

The following table provides indicative information on the types and frequencies of activities Transit, or its contractors, or agents will undertake as part of this regional consent application for water blasting, maintenance activities and associated discharge of contaminants to land.

Activity	Frequency	Washdown Products Used	General
Routine Tunnel Washing (Terrace Tunnel)	Rinsing every two weeks (one fortnight with water, the next fortnight with EnviroClean)	EnviroClean (dilution ration of 25L to 300L water)	Rinsed using cold water from hoses connected to a pressurised tanker. High- density polyethylene wall panels are washed to halfway height every 2 weeks. The walls need to be cleaned to ensure good reflectance for safe driving conditions.
Routine Tunnel Washing (Mt Victoria Tunnel)	Weekly	EnviroClean	Polypropylene wall panels up to 2m in height are cleaned weekly using Tergo EnviroClean with brushes. The walls are then rinsed with low pressure cold water hoses to remove the residual build up of dirt. Walkways and railings are also cleaned using cold water and brushes. A diversion system is set up in the Mt Victoria tunnel to direct all stormwater and washdown water to the sewer. Small quantities of excess detergent solution are disposed of down the diversion sump located in the southeastern corner. The Network Contractor is required to dispose of larger quantities to the liquid waste area of the Southern Landfill.
Mt Victoria Paint Preparation	Every four months	EnviroClean	Removal of all existing Bituguard paint with water blasting. Paint flakes removed are either washed to sewer or vacuumed up with a road sweeper machine and disposed of at an approved landfill before more Bituguard is reapplied. The swept material is then disposed of at an approved landfill.
Water Cutting of Road Surfaces	As required	Nil	A high pressure low volume rotary water spray machine is used to effectively 'cut' the loose bitumen, accident debris or spillage from the road surface to maintain and improve texture and skid resistance of the road surface for optimum safety. The machine has the ability to recover the majority of water used, and detritus dislodged which is disposed of at an approved landfill.
Water Blasting of	As required	Nil	High-pressure water blasting (approx.

road surfaces or infrastructure			2000psi) is used to clean the road and infrastructure surfaces as well as remove some road surface markings when required. The majority of water is also suctioned up during the process.
Graffiti Removal	As required	Nil	Using high pressure water hoses and then painting over.
Slot Drain Clean out	As required	Nil	Slot drains of State highway bridges and flyovers are hosed out regularly to remove debris and vegetation buildup to ensure the stormwater capacity of the drain is not compromised.
Washdown of lichen and other similar moss/mould growths	As required	Nil	Using water blasting.
Washdown of landslips and slips onto State highways or motorways	As required	Nil	Diggers or shovels are used to remove the bulk of the earth and vegetation material. Hoses or water blasters are then used to remove the small particles from the road surface.
Washdown of State highways and motorways after disruption to the carriageway (eg: after drain, pipe or cable installation or relocation)	As required	Nil	Trenched material is generally removed off site and the trench is paved over. Any residual sediment or roading materials are swept up to be appropriately disposed of. Hosing or water blasting may be required as a last step to remove the finer sediments on the road surface.

Products used

Contractors will use detergents and paint (white acrylic paint and Bituguard) to carry out the network maintenance and cleaning. All detergents used are required by Transit to meet the ISO criteria for biodegradable products (these are ISO 10707, 7827, 9408, or 9439) and EnviroClean is highly diluted to the product specifications. The paint is lead free.

Tunnel maintenance

The Mt Victoria tunnel walls (polypropylene panels) and ceiling are regularly re-coated with Bituguard to maintain the surface reflectance. Water blasting is used to remove the paint prior to recoating. To prevent paint flakes entering the stormwater system, a diversion system is used to divert water used for cleaning purposes and any associated dislodged dirt, debris or paint flakes down a sump in the sewer. Where cleaning is undertaken at the ends or outside

of the tunnel, the contractor is required to minimise the risk of contaminants not entering the sewer.

Terrace tunnel cleaning is carried out using EnviroClean and hand held hoses.

Clean up of site on completion

Contractors are required to work to Best Practice Standards to minimise the adverse effects of the activities on the environment. Contractors will also ensure that no cleaning equipment such as brushes or rags are hosed down the stormwater system or are left behind at the site.

Collection and disposal of debris

In general the bulk of washdown water will be disposed of to land. Where the maintenance and cleanup activities cannot collect all debris/particulate matter through the operating machine, every effort will be made to sweep up larger particles to be disposed of at an approved waste disposal site/landfill.

Visual monitoring

The contractor is required to undertake visual monitoring to ensure that all equipment is working efficiently to minimise the level of contaminants in the washdown water being discharged.

If any faults are noticed, the contractor is required to repair the problem or alter the containment method as far as possible to ensure that the emission of the particulate matter is minimised as far as practicable.

3. Consultation

In accordance with the agreement between the Greater Wellington Regional Council and tangata whenua for non-notified applications, the application has been sent to Wellington Tenth Trust, Te Runanga o Toa Rangatira, Te Runanga o Raukawa, Te Runanganui o Taranaki Whanui ki te Upoko o te Ika a Maui and Ati Awa ki Whakarongotai Inc.

Wellington Tenth Trust advised that they had no issues with the application. Te Runanganui o Taranaki Whanui ki te Upoko o te Ika a Maui had no comment to make. No response was received from Te Runanga o Toa Rangatira, Te Runanga o Raukawa or Ati Awa ki Whakarongotai Inc.

4. Environmental effects

The proposed activity will involve the discharge of water and other contaminants from State highway and motorway networks, including loose paint, low levels of biodegradable detergents, organic growths (such as lichen and moss residue) and corroded steel debris; in small quantities over a short period of time on an intermittent basis.

The methods to be used to clean the State highway network include high pressure low volume water hoses and suction machines. In the majority of routine maintenance cases, the bulk of any loose particulate matter is sucked up

and disposed of at an appropriate waste facility. In the Mt Victoria Tunnel, a stormwater diversion system exists and during cleaning/maintenance dislodged debris, paint and water is diverted down a sump to the sewer.

Paint, corroded material and detergent

The main contaminants that will be released into the environment mixed with residual water, will include paint, corroded material and detergent.

The detergents to be used are EnviroClean which is a safe environmental cleaner; and Simple Green, a non-toxic, biodegradable cleaner, meeting stringent Environmental Protection Agency (EPA) standards. I consider that because of the non-toxic nature of the proposed detergents and the dilution, the effects on the environment will be no more than minor.

Although large amounts of paint could potentially have an adverse effect if released into the environment, the paints are lead free and the amounts involved are in such small concentrations. I consider that when mixed with water, there will be no discernible effect on the surrounding environment. Furthermore, in the Mt Victoria tunnel, where potentially large amounts of paint flakes will be dislodged, a diversion system is in place which allows any water, dirt, debris and paint flakes dislodged during cleaning to be diverted down a sump to the sewer. I have recommended a condition of consent requiring the diversion system be used when removing paint in the Mt Victoria tunnel.

I consider that given the intermittent nature of the discharge and the small amount of contaminants that could be potentially discharged, any adverse effects associated with the discharge will be no more than minor.

Mitigation measures

All detritus produced during cleaning and maintenance activities involving water cutting, is immediately sucked from the surface and recovered by machine for disposal at an approved landfill. Furthermore, the machine recovers the majority of water used.

Transit has advised that the contractors are required to work to Best Practice Standards to minimise the adverse effects of the activities on the environment. This includes ensuring that no cleaning equipment such as brushes or rags are hosed down the stormwater system or are left behind at the site, and visual monitoring is undertaken to ensure that all equipment is working effectively to minimise the level of contaminants in the washdown water being discharged. I have recommended conditions of consent, so that if any faults are noticed, the contractor is required to repair the problem or alter the containment method to ensure that the emission of the particulate matter is minimised as far as possible. I have recommended a condition of consent, which requires the consent holder to monitor and repair containment measures, and to ensure no cleaning materials are left on site.

Conclusion

The proposal to clean and maintain State highways and motorways in the Greater Wellington region is necessary to ensure that skid resistance of roads is maintained, and the safety of users (both pedestrian and vehicular) is not compromised.

The proposed activity may result in some minor discharges of contaminants to land and water. Given the small amount of contaminants that could potentially be discharged, together with the short term and intermittent basis of the discharge and the proposed mitigation measures, I consider that the potential adverse effects on the environment will be no more than minor. I am also satisfied that there will be no adverse effects due to the proposed activity on other parties beyond the area of the activity.

5. Statutory framework

5.1 Resource Management Act 1991

Part II (Section 5) of the Resource Management Act 1991 (the Act) defines its purpose as the promotion of sustainable management of natural and physical resources. Sections 6, 7 and 8 of Part II define the matters a consent authority shall consider when achieving this purpose. I consider that the activity relating to this consent application is consistent with Part II of the Act.

Section 15 of the Act relates to the discharge of contaminants into environment, and states that:

- (1) *No person may discharge any -*
 - (a) *Contaminant or water into water; or*
 - (b) *Contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water; or*
 - (c) *Contaminants from any industrial or trade premises into air; or*
 - (d) *Contaminants from any industrial or trade premises onto or into land –*

unless the discharge is expressly allowed by a rule in a regional plan and in any relevant proposed regional plan, a resource consent, or regulations.
- (2) *No person may discharge any contaminant into the air, or into or onto land, from*
 - (a) *Any place; or*

- (b) *Any other source, whether moveable or not, -*
- in a manner that contravenes a rule in a regional plan or proposed regional plan unless the discharge is expressly allowed by a resource consent, or regulations, or allowed by section 20A (certain existing lawful activities allowed).*

The proposed discharge is not expressly allowed by a rule in any regional plans, an existing resource consent, or regulations. Therefore, resource consent for the discharge of contaminants to land is required. The relevant plan is the Regional Discharges to Land Plan for the Wellington Region (RDLP).

Section 105 of the Act provides for an application for a discharge permit to do something that would contravene section 15. A consent authority must, in addition to the matters in section 104(1), have regard to:

- (a) *the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and*
- (b) *the applicant's reasons for the proposed choice; and*
- (c) *any possible alternative methods of discharge, including discharge into any other receiving environment.*

I consider that the applicant has provided adequate information regarding the nature of the discharge and the sensitivity of the receiving environments, as well as the reasons for the proposed discharge. The most practicable method of discharge available to the applicant has been selected for the proposed activities.

Section 107 of the Act places restriction on the grant of certain discharge permits.

- (1) *Except as provided in subsection (2), a consent authority shall not grant a discharge permit to do something that would otherwise contravene section 15 or section 15A allowing –*
- (a) *The discharge of a contaminant or water into water; or*
- (b) *A discharge of a contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water; ...*
- if, after reasonable mixing, the contaminant or water discharged (either by itself or in combination with the same, similar, or other contaminants or water), is likely to give rise to all or any of the following effects in the receiving waters:*
- (c) *The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials:*

- (d) *Any conspicuous change in the colour or visual clarity:*
 - (e) *Any emission of objectionable odour:*
 - (f) *The rendering of fresh water unsuitable for consumption by farm animals:*
 - (g) *Any significant adverse effects on aquatic life.*
- (2) *A consent authority may grant a discharge permit ... to do something that would otherwise contravene section 15 or section 15A that may allow any of the effects described in subsection (1) if it is satisfied –*
- (a) *That exceptional circumstances justify the granting of the permit; or*
 - (b) *That the discharge is of a temporary nature;*
 - (c) *That the discharge is associated with necessary maintenance work –*
- and that it is consistent with the purpose of this Act to do so.*

I consider that a discharge permit may be granted by Greater Wellington for the proposed works, as the discharge will be of a temporary nature and the discharge will be associated with necessary maintenance work on the specified structures throughout the region. I consider that it is consistent with the purpose of the Act to grant the discharge permit to land.

5.2 Regional plans

5.2.1 Regional Discharge to Land Plan for the Wellington Region

The discharge of contaminants to land associated with the proposed activity has been considered under the RDLP.

The discharge of stormwater and washdown water are currently being discharged as permitted activities under rules 1, 3 and/or 18 of the RDLP

Rule 1 of the RDLP provides for the discharge of any contaminant onto land, provided the contaminants are stormwater discharged into a pipe which then discharges to surface water, as a permitted activity.

Rule 3 of the RDLP provides for the discharge of contaminants into or onto land as stormwater collected from any motorway, road, street, roof, yard, paved surface, grassed surface or other structure (but not including stormwater discharged into a pipe which discharges into surface water)... as a permitted activity.

No definition of 'stormwater' is provided in the RDLP or in the Act. The definition of stormwater in the Regional Freshwater Plan for the Wellington Region (RFP) is *'the water and contaminants from land or the external surface*

of any structure as a result of rainfall'. This definition was added by Plan Change 1 to the RFP, notified on 9 February 2002. Because the definition does not explicitly include the discharge of contaminants from cleaning and maintenance activities, Transit is applying for consent for the discharge of contaminants to land from State highway and motorway network maintenance and cleaning activities in accordance with Rule 2 of the RDLP. Rule 2 RDLP provides for discharges to land not provided for as permitted activities to be considered as Discretionary Activities.

Under the RDLP there are a number of objectives and policies relating to the maintenance of water quality in the Wellington region. In particular, Policy 4.2.19 indicates the Council's intent to provide for discharges of liquid contaminants to land which are not likely to have adverse environmental effects.

I consider that the proposed activity is consistent with the relevant policies contained in Section 4 of the RDLP.

5.3 Regional Policy Statement

The Regional Policy Statement (RPS) contains several objectives and policies aimed at maintaining and protecting land and water quality in the region. The relevant chapters are Chapter 5 (Freshwater), Chapter 6 (Soil and Minerals), and Chapter 9 (Ecosystems). I consider that the proposed activity is consistent with these policies and objectives.

6. Reasons for waiver of notification

Notification under Section 93(1)(b) of the Act is not required, as I am satisfied that the adverse effects of the proposed activity on the receiving environment will be minor. I consider that notification of the application under Section 94 of the Act is not required as I do not consider there to be any parties who will be adversely affected by the proposed activities.

7. Term of consent

I consider a thirty-five year term to be acceptable as the effects of the proposal (i.e. cleaning and maintenance of the State highway and motorway network) will be no more than minor, and the maintenance works will be programmed to occur over a number of years. The maximum term of consent that can be granted is thirty five years pursuant to Section 123(d) of the Act.

8. Recommendation

That under Sections 104B, 105, 107 and 108 of the Resource Management Act 1991, Transit New Zealand be granted the following consent:

Discharge permit WGN050079 [23976] permit to discharge contaminants to land associated with State highway and motorway network maintenance and cleaning activities in the Greater Wellington region, for a term of thirty-five years subject to the following conditions:

- (1) *The cleaning and maintenance activities shall be undertaken in accordance with the application and associated documents lodged with the Wellington Regional Council on 8 October 2004.*
- (2) *If material to be dislodged or removed during any cleaning and maintenance processes contains toxic substances, then the consent holder shall fully contain the cleaning area to the satisfaction of the Manager, Consents Management, Wellington Regional Council.*

For the purposes of this consent, “toxic substances” shall include, but not be limited to, substances that contain lead, arsenic, chromium or asbestos.

- (3) *If the material to be dislodged is non-toxic, the consent holder shall adopt the best practicable option at all times to minimise the discharge of debris from the cleaning and maintenance operations. The best practicable option shall include, but not be limited to:*

- (a) *collecting (sweeping up) of large particles such as blast debris, paint rust, grime, loose bitumen particles to be disposed of at an approved waste disposal site/landfill;*
- (b) *ensuring as many contaminants (washdown water, dilute cleaning detergent, paint flakes) as possible enter the sewer system during cleaning and maintenance of the Mt Victoria tunnel; and*
- (c) *ensure as much detritus and water is removed from the surface as possible during water cutting.*

- (4) *All work areas and the surrounding area shall be cleared of accumulations of any large particles of material (such as blast debris, paint, rust, grime, loose bitumen particles) at the end of each cleaning session and by the end of each working day.*

Any debris shall be disposed of at an appropriate facility. If debris is to be stored before removal from the cleaning and maintenance site, it shall be removed to a storage container and covered. No debris shall be swept into a watercourse.

- (5) *The consent holder shall regularly inspect the receiving environment, including surrounding land surfaces and watercourses, during cleaning and maintenance operations. Any conspicuous deposit of material from the cleaning and maintenance activities, shall, as far as is practicable, be collected and disposed of as specified in condition 4.*
- (6) *The consent holder shall regularly inspect the equipment to ensure it is working efficiently so as to minimise the level of contaminants in the washdown water being discharged.*

- (7) *The consent holder shall ensure that all operators undertaking the cleaning and maintaining understand and comply with these consent conditions prior to commencing any work and shall pass a copy of this consent to any operator or contractor implementing the activities authorised by this consent.*
- (8) *There shall be no noxious, dangerous, offensive or objectionable emissions from the exercise of this consent.*
- (9) *The Wellington Regional Council may review any or all conditions hereof by giving notice of its intention to do so pursuant to section 128 of the Resource Management Act 1991, within six months of the first, third, fifth, seventh, tenth, fifteenth, twentieth, twenty-fifth and thirtieth anniversaries of the date of grant of this consent, for any of the following reasons:*
- (a) *To deal with any adverse effects on the environment of discharges to land which may arise from the exercise of this consent and which are appropriate to deal with at a later stage; or*
- (b) *To be consistent with Occupational Safety and Health Guidelines.*
- (10) *The cleaning and maintaining equipment and containment systems shall be operated and maintained such that:*
- (a) *Fugitive discharges of contaminants to land from these systems are minimised; and*
- (b) *The efficiency of the containment systems is sustained at an optimum level as far as is practicable.*

9. Reason for conditions

Adherence to the above conditions for discharge permit WGN050079 [23976] should ensure that the effects of the proposed activities have no more than a minor impact on the receiving environments of land and water in and around the State highways and motorways under the jurisdiction of Greater Wellington Regional Council.

Application lodged:	8/10/04	Application officially received:	8/10/04
Applicant to be notified of decision by:	8/11/04	Applicant notified of decision on:	29/10/04
Time taken to process application:	14 working days		
