

ENTERED

31 August 2011

NZ Transport Agency  
Private Bag 106602  
Auckland City,  
**Auckland 1143**

- 2 SEP 2011

**Attention: David Greig**

Dear Sir

**RESOURCE CONSENT - DECISION ON APPLICATION****Application Details:**

File Ref: 22146

Application Numbers:	38519, 38835, 38836,
Applicant:	NZ Transport Agency
Activity Types:	Discharge To Air, Discharge Other, Discharge Other
Location:	Auckland Harbour Bridge (AHB) Waitemata Harbour Auckland

The Auckland Council has assessed and resolved to **grant** the above Resource Consent applications. A report detailing the decision is enclosed. Included with the report are the Resource Consent permits, which contain the conditions that must be met when undertaking the activities.

For information about your right to object or appeal this decision, please refer to the 'Objections and Appeals' information sheet enclosed. Also enclosed is a booklet entitled 'Now You Have Your Resource Consent', which provides important information relating to the on-going exercise of your Resource Consents. Please take time to read this material.

The above Resource Consents will commence on 30 August 2011, in accordance with Section 116 of the Resource Management Act (1991).

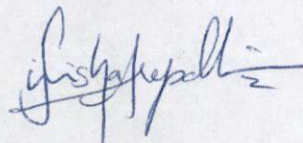
The Auckland Council has extended the time limit for issuing a decision for the above applications in accordance with Section 37A(5)<sup>1</sup> of the Resource Management Act 1991. Section 37A(5) allows the Council to extend a time period specified in the Act in relation to the processing of resource consents to any time period requested or agreed by a resource consent applicant.

In extending this time frame the following matters have been considered:

- The interests of any person who may be affected by the extension
- The interests of the community in achieving an adequate assessment of the proposal
- Council's duty to avoid unreasonable delay

If you have any queries regarding the decision on the consent applications, please contact Aimee Buckingham on s9(2)(a), and quote the application numbers.

Yours faithfully



**Sirisha Arepalli**  
Consents Administrator  
Natural Resources & Specialist Input Unit

**COPY FOR YOUR  
INFORMATION**

<sup>1</sup> Section 37A(2)(b) if the application was accepted before the 1 October 2009 or Section 37(5)(a) if the application was accepted before the 1 August 2003

Encl.

cc: Total Bridge Services  
PO Box 56416  
Dominion Road,  
**Auckland 1146**

**Attn: Johanna Taylor**  
**c/o Opus International**  
**Consultants**

## Objection and Appeal Information Sheet

### RIGHT OF OBJECTION (Applicant only)

Unless a Resource Consent application has been declined by the Auckland Council, the Applicant has the right to object to the Council in respect of the decision on an application if:

- a) the application was not notified; or
- b) the application was notified, but any submissions received have subsequently been withdrawn.

The reasons for objections under Section 357 of the Resource Management Act 1991 must be set out in writing and received by the Team Leader, Consents & Compliance Administration, Natural Resource & Specialist Input Unit, Auckland Council, within 15 working days of you receiving this letter.

The Council will consider the objection, and if a resolution cannot be reached, a hearing on the objection will be held. If a hearing is necessary you (the Applicant) will be contacted regarding the arrangements for this. If you are dissatisfied with the decision on your objection, you can appeal to the Environment Court under Section 358 of the Resource Management Act 1991, as outlined below.

### RIGHT OF APPEAL

The Applicant and/or Submitters may appeal the Council decision under Sections 120 and 358 of the Resource Management Act 1991, as outlined below.

### LODGING AN APPEAL

If you decide to lodge an appeal with the Environment Court under sections 120 or 358 of the Resource Management Act 1991 you must do so:

- a. within 15 working days of receiving this letter; **or**
- b. within 15 working days of receiving notice of the Council's decision on your objection on costs.

Refer to the Practice Notes of the Environment Court before lodging any proceedings. These Practice Notes give you a guide to the practice and procedure of the Environment Court. You can find the Practice Notes on the Ministry of Justice's website: [www.courts.govt.nz/courts/environmental-court](http://www.courts.govt.nz/courts/environmental-court)

You should also refer to the Resource Management (Forms, Fees, and Procedures) Amendments Regulation 2006 for the correct form for your proceedings. These forms are available on [www.mfe.govt.nz](http://www.mfe.govt.nz).

A cost of lodging most appeals with the Environmental Court is \$511.11 GST inclusive.

If you are in any doubt about the objection or appeal procedures you may wish to contact this office, or consult a lawyer, for further information.

## AUCKLAND COUNCIL

### Notification Determination and Resource Consent Decision Report

#### Discretionary Activities

**SUBJECT:** Application for resource consent made pursuant to section 88 of the Resource Management Act 1991 (RMA) by New Zealand Transport Agency (NZTA) to undertake maintenance works associated with the Auckland Harbour Bridge. Consent is required for:

- a discharge permit for the discharge of contaminants to air (Application 38519);
- a discharge permit to authorise the discharge of contaminants to the coastal marine area (CMA) (Application 38836); and
- a discharge (other) permit to authorise the discharge of washwater, wastewater and dry wastes to land where it will enter water (Application 38835).

**FROM:** Aimee Buckingham, Senior Planner - Major Infrastructure Team

**TO:** Andrew Gysberts, Major Infrastructure Team Manager

**DATE:** 30 August 2011

## SECTION 1 – DESCRIPTION OF APPLICATION

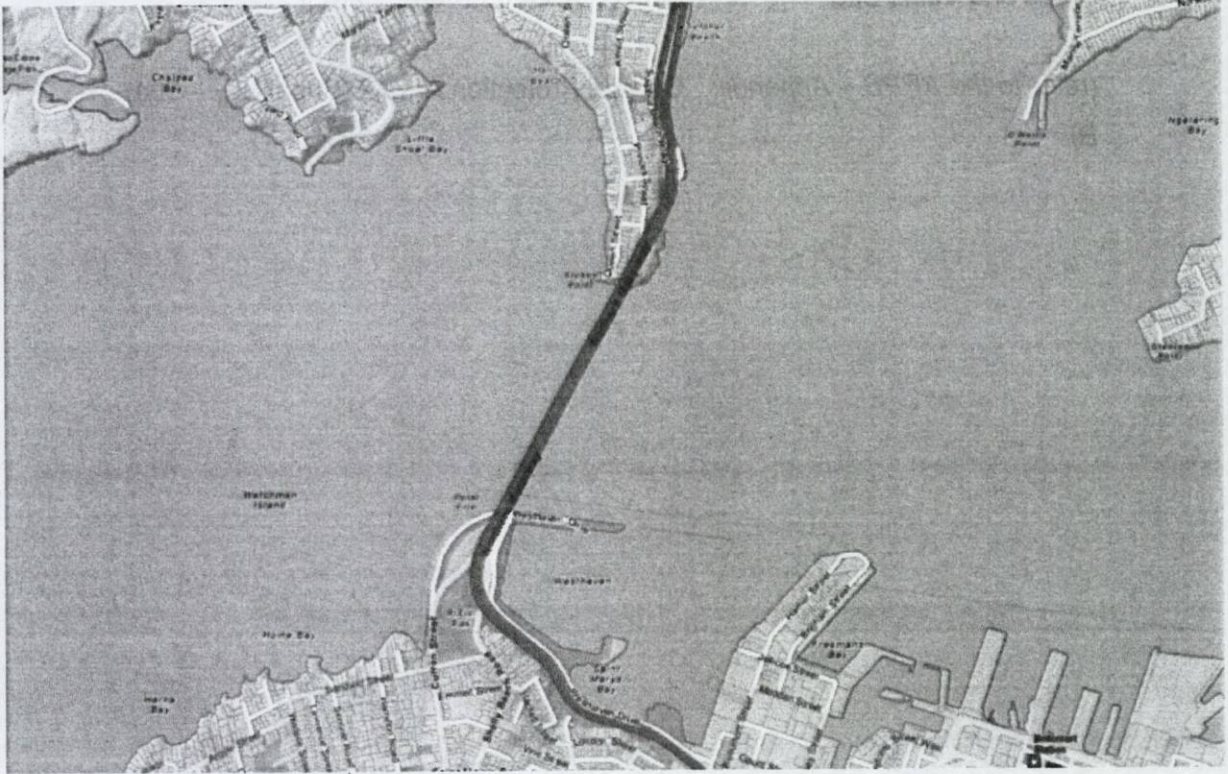
### 1.1 APPLICATION DETAILS

Applicant's Name:	New Zealand Transport Agency (NZTA)
Consent Numbers:	38519, 38835, 38836
File Number:	22146
Date Application Received:	10 December 2010
Date Application Accepted:	20 December 2010
Site Address/Location:	Auckland Harbour Bridge (AHB), Waitemata Harbour, spanning Stokes Point to Point Erin
Date of Site Visit:	N/A
Map Reference (NZTM):	1755715mE, 5922568mN
Site Area:	150,000m <sup>2</sup>
Legal Description:	N/A
Further Information Required:	Yes
Date Requested:	1 February, 13 April 2011
Date Received:	29 March, 5 April and 26 April 2011
Significant/Cultural Heritage features:	Headland Pa – Northcote Point Maori Heritage Site – Te Korenga Oka
Tangata Whenua Significant Site:	No

Significant Natural Heritage Coastal Protection Area 1 (Shoal Bay – 60c, 60d, 60f,  
Areas and Value Site: 60g) (Te Tokaroa Reef – 52a)

(refer to the ARPS – Appendix Coastal Protection Area 2 (Shoal Bay – 60a)  
B)

## LOCATION MAP



### 1.2 APPLICATION DOCUMENTS (PLANS AND REFERENCE DOCUMENTS)

Report: 'Auckland Harbour Bridge Maintenance Works: Application for Regional Consent' dated 10 December 2010, prepared by New Zealand Transport Agency (NZTA). Including appendices A-H.

Chart: AHB Maintenance – Quantification of discharges, Purpose: Explanation of quantification (including assumptions) in consent application. Dated 21 December 2010, from NZTA.

Correspondence: Response to Section 92 additional information request letter 'Auckland Harbour Bridge Maintenance (Permits 38519, 38835 and 38836)' and attached appendices 1 - 8, dated 29 March 2011, from NZTA, Ref: A0112 and 8/6/4/3/22.

Correspondence: Response to Section 92 additional information request letter 'Auckland Harbour Bridge Maintenance (Permits 38519, 38835 and 38836)' and attached appendices 9 & 10, dated 5 April 2011, from NZTA, Ref A0112 and 8/6/4/3/22.

Correspondence: Response to Section 92 additional information request letter 'Auckland Harbour Bridge Maintenance (Permits 38519, 38835 and 38836)' and attached memorandum from Dr Sharon De Luca, Principal Ecologist, Boffa Miskell (19 April 2011), letter dated 26 April 2011, from NZTA, Ref: A0112 and 8/6/4/3/22.

Plans: Page 8 of applicant's 'Auckland Harbour Bridge Maintenance Works: Application for Regional Consent' dated 10 December 2010, prepared by NZTA. Elevation of Truss Bridge, Elevation of Bridge Extension, Plan – Bridge Deck & Top Chord Lateral Bracing.

Technical Reviews:

Appendix A – Air Quality by Marijana Jovanovic, Auckland Council Resource Quality Officer (Air)

Appendix B – Discharge of Contaminants to land and the CMA by Andrew Noble, Auckland Council Water Quality Specialist

Appendix C – Marine Ecology and Biology by Dr Jarrod Walker, Auckland Council Marine Scientist

### 1.3 DESCRIPTION OF PROPOSAL

NZTA has applied to Auckland Council for the on-going maintenance of the Auckland Harbour Bridge (AHB) which is required to maintain its structural integrity. NZTA is seeking to obtain the required regional planning consents to enable ongoing maintenance works to continue.



The current consents have been in place since October 2001. Consent numbers 23954 and 23955 authorised the discharge of contaminants to ground and water from the maintenance of the AHB in accordance with section 15(1)(a) & (b) of the RMA 1991. Consent numbers 23954 and 23955 are due to expire 1 October 2011. Consent number 23956 authorised the discharge of contaminants into air from the maintenance of the AHB, including dry abrasive blasting, in accordance with section 15(1)(c) of the RMA 1991. Consent number 23956 is also due to expire 1 October 2011.

The NZTA has identified in their application documents the need to put in place improved environmental practices that accord with good practice for maintenance of their strategically important infrastructural assets.

The current proposal seeks resource consent approval to employ maintenance procedures and processes that are considered by NZTA to be the best practicable option (BPO). The proposed BPO includes implementing improved environmental controls and scheduling of works in conjunction with the progressive implementation of containment systems to reduce the release of contaminants to the environment.

NZTA have stated that maintenance activities on the AHB are required for safety, structural and aesthetic (visual) reasons and that such activities include:

- Washdowns
- Waterblasting
- Degreasing
- Dry abrasive blasting
- Wet abrasive blasting
- Mechanical and chemical paint stripping
- Control of lichens and moss

- Exterior steelwork painting (including priming, inhibitors, and paints)
- Internal box painting
- Concrete works
- Welding

The surface area of the bridge is approximately 150,000m<sup>2</sup> and approximately 10% is maintained annually. The frequency and scale of this maintenance depends on corrosion issues that develop and need attention.

The maintenance activities (pre-containment), the products used, the potential substances released to the environment and the extent and frequency are summarised in Table 4.1. of the application documents (pages14-15).

Figure 7.5 Source of Discharges – Maintenance activities and contaminant type on page 25 summarises that, proportionally, abrasive blasting creates the greatest quantity of contaminant discharges because of the use of garnet as an abrasive agent. Table 7.2 summarises the particle size distribution and indicates that approximately 5% of particles from abrasive blasting (blast product and paint debris) are less than PM<sub>10</sub>. In terms of particle size from paint overspray, all particles were identified as less than PM<sub>60</sub>.

Table 7.3 summarises the total amount (annual average) of blast agent from abrasive blasting to land and water which is 92 tonnes. Table 7.4 summarises the total amount (annual average) of coatings lost as overspray to land and water. Table 7.5 summarises the total amount (annual average) of historic and current coatings released during abrasive blasting. It is important to note that these are assumptions, page 27 explains the assessment outlined in Tables 7.3, 7.4 and 7.5 is based on product use rates (total amount used in an average year) and expected/known loss. The amount of product lost during maintenance activities is based on the experience of bridge maintenance contractors.

The overall discharges from blasting and spray painting result in a total 92 tonnes of garnet released per year and total contaminants of 3.5 tonnes per year

(Figure 7.6 shows the quantities of these contaminants which include MC Zinc from overspray, Miomastic from overspray, MC FerroX from overspray, Zinc Chromate from historic paint debris, Micaceous Iron Oxide from historic paint debris, Zinc Phosphate from historic paint debris, MC Zinc current paint debris, Miomastic current paint debris and MC FerroX current paint debris). The total zinc discharges (released from historic and current coatings during blasting and from spray painting overspray) is shown to be 1.4 tonnes per year.

NZTA states they are currently considering the implementation requirements for possible future containment systems and that the deployment of such systems will require substantial capital investment over several years. For this reason, NZTA are seeking consent be authorised for a maximum duration of 25 years. Tailored conditions are being sought to accommodate improvements in maintenance activity methodology from industry changes in respect to paint systems, containment methods or environmental control processes.

NZTA proposes the following staged introduction of containment of discharges through physical control systems:

- Pre-Containment Phase: Year 0 to Year 3
- Partial Containment Phase: Year 3 to Year 10 (defined as north of Pier 1 and south of Pier 5 – containment over land)
- Full Containment Phase: Year 10 + (containment as above, and over the CMA)

The containment systems proposed are described as typically enclosing work areas to capture airborne particulates and to manage fluids carrying this material. NZTA have stated that a minimum of 85% of particulate discharges will be captured through these systems in some areas. To implement the necessary containment systems, a series of enabling works must first be constructed. Details of the containment systems are found within Section 7.6 (pp39 to 46) and Appendix F of the application.

The various spans and different areas of the AHB are detailed in Figure 1 of Appendix F. Table 2 sets out the descriptions of the areas (A-I), their

maintenance requirements and frequency and Table 1 summarises the predicted containment level by zone.

**Table 1**

Area Ref	Name	Surface Area [sqm]	% of Total Area	% of Containment	Weighted Avg Containment	Dry abrasive blasting	Water blasting	Spray Painting	Frequency
A	Upper Overarch	2270	1%	85%	1%	y	y	y	12-15 yrs
B	Lower Overarch	4610	2%	0%	0%	y	y	y	12-15 yrs
C	Truss Bridge AW	27390	11%	85%	10%	y	y	y	7-12 yrs
D	Truss Bridge BW	11948	5%	85%	4%	y	y	y	7-12 yrs
E	Extensions External	36576	15%	85%	13%	y	y	y	10-12 yrs
F	Over Land	50698	21%	85%	18%	y	y	y	7-12 yrs
G	Street Furniture	4882	2%	100%	2%	n	n	n	12-15 yrs
H	Extension Internals	92000	38%	100%	38%	n	y	y	15+ yrs
I	Chord Internals	11440	5%	100%	5%	n	n	n	25+ yrs
	TOTAL	241814	100%		90%				

The chart entitled 'AHB Maintenance – Quantification of discharges' provides an explanation of the quantification (including assumptions) in the consent application.

#### 1.4 REASON FOR APPLICATION

Consent is required under the provisions of the following Regional Plans:

Auckland Council Regional Plan: Air Land & Water (Operative in Part 2010)  
(ACRP: ALW)

- In terms of Section 15(1)(a) of the RMA, the discharge of wastewater and/or washwater into water or onto land where it will enter water, arising from the cleaning, maintenance and repair of buildings, bridges and other structures is a controlled activity under Rule 5.5.63 of the ARP: ALW.

- In terms of Section 15(1)(a) of the RMA, the discharge of wastes as a result of wet or dry abrasive blasting is a controlled activity under Rule 5.5.64 of the ARP: ALW.
- In terms of Section 15(1)(c) of the RMA, the discharge of contaminants into air from dust generating activities is a restricted discretionary activity under Rule 4.5.61 of the ARP: ALW.

The ARP: ALW was made operative in part on 21 October 2010. Chapters 5 and 8, and schedules 3, & 9-13 were specifically excluded. These chapters / schedules are still subject to appeals on the decisions, and affecting the entire chapters / schedules. As the relevant provisions for the matters for consent are contained in Chapter 5, the activities are subject to the rules in both the Transitional Regional Plan 1991 (TRP) as the plan and the ARP: ALW, as the relevant proposed plan. As such, consent will be required under both plans.

Since no relevant rule exists under the TRP, in accordance with section 87B of the RMA, the status of the activity for the discharge of wastewater and wastes under this plan is considered discretionary.

- In terms of Section 12(3) of the RMA, the use of the CMA to discharge contaminants is a controlled activity under Rule 20.5.5 of the Auckland Council Regional Plan: Coastal 2004 (ACRP: C).

Overall, the application is a **discretionary** activity.

NZTA has acknowledged that the proposed future containment systems may require resource consent under the ARP: C and section 12 of the RMA for any consequential additional structure, use and activity. NZTA has stated that detailed design, implementation and associated methodologies would be the responsibility of the successful tenderer responsible for the future maintenance of the AHB. Accordingly, the scope of this current application is limited to seeking the requisite consents for discharges of contaminants arising from the ongoing maintenance of the AHB and, at this time NZTA does not seek consent for any coastal permits that may potentially be required for the partial and full

containment systems on the AHB which, as necessary, will be sought in the future.

With regards to stormwater discharge, NZTA holds an existing permit No. 30571. The applicant's response to question 4 of the section 92 response dated 29 March 2011 states as follows:

"To ensure there are no discharges, the stormwater catch pits are covered with boards when dry blasting and spray painting occurs. Dry blasting is used to prepare the surfaces above the carriageway, areas below the carriageway do not discharge to the stormwater catch pits. Those tendering for the AHB maintenance contract will be required to meet all relevant conditions of consents issued for activities on the AHB, including discharge permit 30571.

In the event that the future containment methodology utilises wet blasting resulting in the need to dispose of wash water via the stormwater system, then NZTA will revisit the stormwater discharge consent at that time and either apply for the necessary variation to the existing consent or seek new consents required to support the containment methodology chosen."

## **1.5 SITE AND NEIGHBOURHOOD / CATCHMENT / ENVIRONS DESCRIPTIONS**

The AHB spans the Waitemata Harbour with the southern abutment adjacent to Westhaven Marina (Westhaven) and the northern anchorage on and over Stokes Point, Northcote (also known as Te Onewa Reserve). The Waitemata Harbour is Auckland's main commercial and recreational marine resource. Visually the bridge is an iconic aspect of the Auckland region's visual landscape and is highly valued.

South of the AHB a range of marine activities occur in Westhaven, east to Wynyard Quarter and to the Ports of Auckland, with a backdrop of residential land use at St Marys Bay. North of the AHB are the residential areas of Bayswater and Belmont. Land use directly adjacent to the northern and southern

abutments of the bridge include residential, recreational, roading and commercial activities.

The Waitemata Harbour within the vicinity of the AHB is subject to the following provisions of the ARP: C as identified on Map Series 1 Sheet 29: General Management Area, Marina Management Areas (34, 35, 36, 48), Coastal Protection Area 1 (Shoal Bay – 60c, 60d, 60f, 60g, and Te Tokaroa Reef – 52a), Coastal Protection Area 2 (Shoal Bay – 60a). The application site is a Regionally Significant Landscape (rating 5), Stokes Point.

The land adjoining the northern end of the AHB is zoned Recreation 1, 2 and 3, Residential 3B and 3C in the Auckland Council District Plan (North Shore Section). Shoal Bay is designated as a Site of Special Wildlife Interest 14 and the following designations apply under the Auckland Council District Plan (North Shore Section): Coastal Conservation Area, Designation 108 for the purpose of the North Anchorage (AHB), Notable trees, Historic building, object or place (154 – Historic House, 88 – Northcote Point Flagpole, 86 – AHB Memorial, and Archaeological Site (54 – Headland Pa – Te Onewa).

The land adjoining the southern end of the AHB is zoned Open Space Activity Zone 2 and 5, Special Purpose Activity Zone 3 in the Auckland Council District Plan (Auckland City Isthmus Section). Designation A07-01 is SH1. The application site is also designated as Coastal Management Area and a small portion of the AHB crosses through E05-29 View Protection – Volcanic Cones Affected Areas.

## **1.6 BACKGROUND / SITE HISTORY**

The AHB spans the Waitemata Harbour, performing a nationally and regionally significant role in terms of economic growth and land use development being a vital transportation link. Equally the Auckland Harbour performs a nationally and regionally significant role and the NZTA must ensure this is maintained also. To maintain the AHB's function, a range of maintenance activities is required that create discharges to the local air, land and water environs.

In December 1951 the Auckland Harbour Bridge Act was passed which established the Auckland Harbour Bridge Authority (the Authority). The duties of the Authority were to construct, maintain, manage and control a bridge across the Waitemata Harbour from Point Erin to Stokes Point.

The Authority chose a steel structure for the bridge and construction began in 1956 with prefabricated sections being built on top of spans already in place and then floated into position in the harbour on barges. On 30 May 1959 the bridge was opened. Two extensions were put in place between 1968 and 1969 to address transport capacity needs.

Currently, the Bridge is managed by the NZTA via a maintenance contract with Total Bridge Services (TBS).

The AHB is made of different structural components detailed on Figure 3.1. The landward components of the bridge consist of three viaducts:

- South Steel Viaduct,
- North Steel Viaduct, and
- North Concrete Viaduct.

The seaward components of the AHB include steel spans and trusses, box girders and the south anchorage.

The application documentation identifies that the surface area of the AHB is approximately 150,000m<sup>2</sup>, with an average paint thickness of 800µm (0.8 mm). The current paint system used on the AHB is described as comprising one primer coat, one intermediate coat and one topcoat. The primer coats are made up of a zinc pigment suspended in a urethane binder, and the intermediate and topcoats comprise an iron oxide pigment in a urethane binder. Historical paint coatings include zinc phosphate, zinc chromate and a lead primer paint, which are stated to have not been used on the bridge since very limited applications in 1959.



The AHB is stated as vulnerable to paint deterioration and steel corrosion due to its marine location, thereby requiring continual maintenance to ensure it is structurally safe and fit for the required use. Routine works identified primarily involve surface preparation and cleaning, abrasive blasting and then coating with a specifically designed paint system. In addition, maintenance works such as welding and concrete works are intermittently undertaken to address minor strength issues.

## **SECTION 2 – DETERMINATION OF NOTIFICATION MATTERS**

### **2.1 STATUTORY PROVISIONS**

An application for resource consent **must** be publicly notified if the activity will have or is likely to have adverse effects on the environment that are more than minor, if the applicant requests it or if a national environmental standard or a rule in a plan requires it.

An application **may** be publicly notified if special circumstances exist.

Once a proposal is deemed to be either a discretionary activity or a non-complying activity the full range of matters under section 104(1) is applicable and the full range of actual and/or potential effects must be considered under section 95 – 95F of the RMA.

The consent authority must be satisfied that the adverse effects of the activity will be minor. If the adverse effects are more than minor, the application must be publicly notified [s95(C)]. If the consent authority is satisfied that the effects of the activity will be no more than minor, the application can be dealt with on either a limited notified or non-notified basis, depending on whether there are any affected persons and whether all the written approvals have been obtained.

In order for an application to proceed on a non-notified basis, the consent authority must be satisfied that the adverse environmental effects of the activity will be no more than minor. If the activity will have or is likely to have adverse

effects on the environment that are **more than minor**, the application must be publicly notified [s95A(2)(a)].

If the consent authority determines that adverse effects on people are likely to be **minor or more than minor** and the physical extent of those affected can not be established with enough certainty to ensure that notice can be served on all persons who are likely to be adversely affected then the application must be publicly notified.

If the consent authority does not publicly notify the application it must identify all affected persons in accordance with s95E and all affected order holders in accordance with s95F and give limited notification of the application to those affected persons or order holders by serving notice of the application on them.

## **2.2 REQUEST FOR THE APPLICATION TO BE PUBLICLY NOTIFIED [SECTION 95A(2)(B)]**

Under section 95A(2)(b) the applicant has not requested that the application be publicly notified.

## **2.3 REQUIREMENT FOR PUBLIC NOTIFICATION IN ACCORDANCE WITH A RULE IN A PLAN OR A NATIONAL ENVIRONMENTAL STANDARD (NES) (SECTION 95A(2)(C))**

The application is not required to be publicly notified in accordance with a rule in a plan or an NES.

## **2.4 NES AND REGIONAL PLAN RULES**

Where a rule in a plan or an NES specifically requires an activity to be publicly notified then a consent authority must publicly notify the application. However where a plan waives public notification, an assessment as to whether the application should be considered on a limited notified basis must still be undertaken unless a rule in the plan provides that the consent authority does not need to **serve notice** of an application on all adversely affected persons [95B].

In relation to the 'air quality' consent under Rule 4.5.61 of the ARP: ALW the paragraph relating to 'Non Notification' states that,

*'Applications for restricted discretionary activities shall be considered without public notification or the need to serve notice of the application on affected persons in accordance with Sections 95A(3) and 95B(2) of the RMA, unless in the opinion of the ARC there are special circumstances justifying public notification in accordance with Section 95A(4) of the RMA.'*

As the provisions contained in Chapter 5 are subject to appeals affecting the whole chapter, no rules in this Chapter have legal effect. In terms of background information, I consider it appropriate to mention the following 'non notification' clause from Chapter 5 in relation to the 'discharge other' consent under Rule 5.5.63 and Rule 5.5.64 of the ARP: ALW,

*'Applications for controlled activities shall be considered without public notification or the need to serve notice of the application on affected persons in accordance with Sections 93(1)(a) and 94D(3) of the RMA, unless in the opinion of the ARC there are special circumstances justifying public notification in accordance with Section 94C(2) of the RMA.'*

In relation to the 'coastal' consent under Rule 20.5.5.1 of the ARP: C states,

*'Applications for controlled activities will be considered without notification or the need to obtain the written approval of affected persons, in accordance with Section 94(1)(b) of the RMA, unless in the opinion of the ARC there are special circumstances justifying notification.'*

However, as discussed above the application is to be assessed as a discretionary activity pursuant to the TRP and therefore an assessment of adverse effects on the environment will be undertake in section 3.

## **SECTION 3 – ASSESSMENT OF THE ADVERSE EFFECTS OF THE ACTIVITY ON THE ENVIRONMENT**

### **3.1 STATUTORY CONSIDERATIONS**

In addition to the overall assessment of the environmental effects section 95D sets out criteria to be used by Council when forming an opinion as to whether adverse effects are minor or more than minor.

A consent authority that is deciding whether an activity will have or is likely to have adverse effects on the environment that are more than minor—

(a) must disregard any effects on persons who own or occupy—

(i) the land in, on, or over which the activity will occur; or

(ii) any land adjacent to that land; and

(b) may disregard an adverse effect of the activity if a rule or national environmental standard permits an activity with that effect (permitted baseline); and

(c) in the case of a controlled or restricted discretionary activity, must disregard an adverse effect of the activity that does not relate to a matter for which a rule or national environmental standard reserves control or restricts discretion; and

(d) must disregard trade competition and the effects of trade competition; and

(e) must disregard any effect on a person who has given written approval to the relevant application.

### 3.2 SECTION 95D - ASSESSMENT OF PERMITTED BASELINE

#### Discharge to Air

Rule 4.5.97 of the ARP: ALW states that discharges of solvents including VOC to air exceeding 10 tonnes per year are a discretionary activity. Discharges of solvents to air on site are approximately 3.5 tonnes per year and therefore are a permitted activity.

Discharges of solvents including Volatile Organic Compounds (VOC) to air occur on site during coating with specifically designed paint systems. This activity constitutes the permitted baseline and these adverse effects may be discounted.

#### Discharge Other

The permitted baseline applies only to those rules considered operative in accordance with section 19 of the RMA. As the provisions contained in Chapter 5 are subject to appeals affecting the whole chapter, no rules in this Chapter have legal effect. Accordingly it is considered there is no relevant permitted baseline for the Discharge Other consent.

#### Discharge to the CMA

Permitted activities for discharges of contaminants to the CMA provides for discharges of contaminants into the CMA associated with a limited range of activities and subject to performance standards. These activities include discharges from the cleaning, anti-fouling or painting of vessels, discharge of dye or tracer material for investigative purposes, the discharge of potable water from draining pipelines or water reservoirs. In all other instances, discharges are permitted (Rule 20.5.4.) where the discharge:

- does not contain contaminants that will have more than minor effects on the receiving waters and marine environment;
- will not result in certain changes / effects after reasonable mixing relating to conspicuous changes to visual clarity / colour of receiving waters, nor

conspicuous films, scums, foams, or floatable or suspended materials;  
any objectionable odour; or any significant adverse effects on aquatic life;

- the natural temperature of the receiving water should not be raised by more than 3 degrees Celsius;
- does not contain human sewage or hazardous substances.

Having regard to the dynamic nature of the receiving environment, the subjective nature of some of the performance standards, and the absence of appropriate data through monitoring, it is not possible to identify clearly the scale and extent of effects permitted by the ARP: C. Thus whilst it must be acknowledged that rules contemplate a degree of effects from the discharge of contaminants (e.g. no more than minor adverse effects on the receiving waters and the marine environment; no significant adverse effects on aquatic life; no conspicuous change to in the colour / visual clarity of water) the permitted baseline has been disregarded in this instance due to the scale and complexity of the proposal and the dynamic nature of the receiving environment..

### 3.3 ASSESSMENT OF EFFECTS (TO DETERMINE NOTIFICATION)

#### Discharge to Air

Rule 4.5.61 of the ARP: ALW states:

*"The discharge of contaminants into air from any dry abrasive, vacuum or sweep blasting process that uses abrasive material for blasting containing no more than 5 per cent dry weight free silica that does not comply with Rule 4.5.52, Rule 4.5.53 or Rule 4.5.54 is a Restricted Discretionary Activity."*

Rule 4.5.24 outlines the matters to which the Auckland Council shall restrict the exercise of its discretion when assessing applications under Rule 4.5.61. These matters are:

- (a) The requirement to discharge and consideration of alternatives; and*
- (b) The quantity, quality and type of discharge and any effects arising from that discharge; and*

- (c) The methods to minimise the discharge and to avoid, remedy or mitigate any adverse effects of the discharge; and*
- (d) The location of the discharge; and*
- (e) Monitoring; and*
- (f) The duration and review of the consent.*

The applicant has concluded on page 39 of their AEE that:

"Once containment is in place, the discharge of dust and PM10 during dry abrasive blasting will be significantly reduced. Overall it is considered that the discharge of dust and PM10 will give rise to no more than minor effects."

The AHB and its maintenance to ensure its functioning and structural integrity are of fundamental importance to the wider Auckland Region as part of the regional and national transportation network.

The range of different options considered (section 92 response dated 26 April 2011 (Table 1, page 2)) were: status quo; reactive maintenance; alternative coatings (1) which would rely on changing the existing coating to a coating which has reduced environmental impacts (removal of the existing coating system would still be required); alternative coatings (2) which would change from the existing coating to a coating which has increased environmental impacts, this would only be implemented if the coating had a significantly longer lifespan and/or required less maintenance; and the final option of containment up to 85%.

The applicant assessed the options against identified criteria (as detailed on pages 3 and 4 of the section 92 response dated 26 April 2011). Table 2 on page 4 identifies the Options 1-8 and the criteria analysis, with additional consideration of financial implications as set out in criterion 9 (identified in Table 4). Option E "Containment" was considered the Best Practicable Option (BPO) since it provides the highest level of environmental benefit and has certainty of implementation, whilst at the highest cost.

Based on the applicant's AEE, section 92 responses and the importance of the continued functioning of the AHB, it is considered that the applicant has a

requirement to discharge to the air and the alternatives have been adequately analysed.

Marijana Jovanovic from the Air Quality Team has provided a technical review of the application in terms of the discharge to air (see Appendix A). The author adopts Ms Jovanovic's assessment and conclusions. The following are the key points from the technical review:

- Particulate matter (PM<sub>10</sub>) and Total Suspended Particulate (TSP) are the main pollutants of concern arising from activities on site. The two main emission sources from the maintenance process are wet abrasive blasting and dry abrasive blasting, with all emissions to air fugitive (not coming from one source).
- The health effects of particulate matter, as identified by MfE (publication Ministry for the Environment (2001) Good Practice Guide for Assessing and Managing the Environmental Effects of Dust Emissions) are described as:  
*"There can also be minor health effects, such as eye irritation, when the dust is airborne. Indirect stress-related health effects could also arise, especially if dust problems are allowed to persist for an unreasonable length of time. Some nuisance dust may have the potential to cause other types of health effects because of the presence of specific biologically active materials. For instance, some mineral dusts contain quantities of quartz, which can cause the lung disease known as silicosis when persistent at high concentrations. Other dusts may contain significant amounts of toxic metals such as mercury or lead."*
- Garnet Sand B and C are the abrasive agents used for dry abrasive blasting. The application documentation (Table 1) identifies the particle size distribution with 5% less than PM<sub>10</sub>. The total PM<sub>10</sub> emissions were calculated using available information about the AHB size and amount of material used for the maintenance of the structure. This particle size assessment includes particles containing basalt. As basalt is no longer used as a blasting agent on the AHB it is likely that the proportion of PM<sub>10</sub> discharges from dry abrasive blasting presented in Table 1 have been overestimated.



- Abrasive blasting of the AHB structure produces a discharge of dust and particulate that includes deposits, blasting media, rust and old paint particles. These released materials and particles could contain toxic or potentially toxic substances in very small quantities (originating from different paint applied or blasting media) such as lead, asbestos, chromium and zinc chromate.
- Lead primer paint was applied to the AHB in very limited applications in 1959. Very small areas remain where lead primer was used. Due to the nature of this contaminant, and to avoid adverse effects, dry abrasive blasting of surfaces coated with paints containing lead with concentrations greater than 5000 parts per million by weight in the dry film or containing other hazardous air pollutants was prohibited by the current consent and should be prohibited by way of a condition of consent should consent be granted.
- The Applicant has been using and proposes to use abrasive products with less than 0.5% free silica.
- Particulate greater than PM<sub>10</sub> is generally considered to be non-inhalable or respirable. Therefore, the effects are generally limited to dust nuisance and surface deterioration through abrasive or corrosive properties of the dust. The proposed environmental controls set out in the draft EMP will minimise dust emissions (and the associated effects).
- The smaller particles (those with diameter size of less than PM<sub>10</sub> including PM<sub>2.5</sub> with diameter size of 2.5µm) are considered to be more harmful as they are inhalable and can be carried deep into the lungs. The application identifies that 5% of particles discharged into the air during abrasive blasting of AHB structure will be PM<sub>10</sub> or less.
- The applicant calculated the proportion of dry abrasive blasting discharges that are likely to be of particle size 10 µm or less for each containment phase (pre-containment, partial containment and full containment). These are discussed below under each heading.

Ms Jovanovic has stated that appropriate controls to minimise potential effects on residential properties and human health from dust and PM<sub>10</sub> have been identified in the draft EMP and include:

- Wet abrasive blasting only out to pier 1 and 5 prior to containment.

- No discharges over Stokes Point prior to containment.
- Dry Abrasive blasting on the bridge can only be undertaken when wind speed is less than than 7 m/s.
- Containment systems north of pier 1 and south of pier 5 by the end of Year 3 to capture 85% of discharges from dry abrasive blasting.
- Further implementation of containment systems between pier 1 and 5 by Year 10, with 85% of contaminants captured by containment systems.

#### **Pre-Containment Phase: Year 0-3**

- For the pre-containment phase the applicant has calculated that 132.1 kg of PM10 per year will be discharged into air during the abrasive blasting of the AHB structure.
- Neighbouring residential properties and commercial premises are exposed to emissions and therefore have the potential to be affected by dust and contaminants discharged into the air during maintenance of the AHB. The recreational users of the reserve and harbour coastal areas as well as travellers using the AHB are affected by discharges only for a limited period of time.
- A review of the Council complaints' history associated with the current air discharge consent, (number 23956 was issued in October 2001), identifies two complaints that have been received from the public. One complaint, received by Auckland Regional Council (ARC) in December 2005, related to discharges of dust during the abrasive blasting, and the second complaint, received by ARC in October 2006 related to deposited dust on residential properties. In both cases, the complaints were resolved by the applicant through direct discussion with the complainants. There have been no complaints lodged with ARC or AC since 2006.
- The applicant proposes to continue the current practice of regularly informing the surrounding businesses and residents about location, extent and timing of maintenance works that involve dry abrasive blasting and spray painting on the AHB.

- The containment at piers 1 and 5, in the areas closest to the sensitive receptors, will be installed by the end of Year 3, with the performance standard for the containment system to capture 85% of particle discharges.

Ms Jovanovic concludes the following in respect of this stage:

- Because the data about the level of dust and PM<sub>10</sub> discharges are not available, it is not possible to determine the level of the nuisance and health effects of dust and PM<sub>10</sub> discharges before the containment systems are in place at piers 1 and 5.
- However, considering the complainant history and existing management control systems implemented by the applicant during the maintenance of the AHB, Ms Jovanovic is of the opinion that dust and PM<sub>10</sub> discharges are unlikely to have a more than minor effect on sensitive receptors in the pre-containment phase.

#### **Partial Containment Phase: Years 3 - 10**

- The applicant calculated that 111.28 kg of PM10 per year will be discharged into air during the abrasive blasting of AHB structure. It is predicted that discharges of PM10 out to pier 1 and pier 5 will be reduced from 24.5 kg/year (pre-containment phase) to 3.68 kg/year (post- containment phase).
- During the partial containment phase, containment will be implemented over the central span of the AHB. This will mean that effects of discharges of dust and PM10 will also be reduced on the receptors exposed for short periods of time (the recreational users of reserve and harbour coastal areas as well as travellers using the AHB).
- Therefore, it is expected that the nuisance and health effects will be less than minor in this phase.

#### **Full Containment Phase: Year 10+**

- It is expected that Full Containment will achieve a minimum of 85% capture of particulate discharges in most of the areas of the AHB. The lower overarch is

not able to be contained due to restraints in the size of area around the steelwork and restrictions associated with the disturbance of live traffic lanes.

- The applicant calculated that 31.04 kg of PM10 per year will be discharged into air during the abrasive blasting of the AHB structure. The discharges of PM10 out at pier 1 and 5 will remain at 3.68 kg/year. It is predicted that discharges of PM10 at the central span will be reduced from 87.8 kg/year (post-containment phase) to 13.17 kg/year (full containment phase). At the upper overarch discharges will be reduced from 6.6 kg/year (post containment phase) to 0.99 kg/year (full-containment phase).
- Therefore, it is expected that the nuisance and health effects will be less than minor in this phase.

### **Monitoring**

Although NZTA had proposed a draft monitoring programme for discharges of PM<sub>10</sub>, TSP, metals in particulate, and paint solvents, including isocyanates, into the air. Upon further thought and discussion with the applicant it was considered that the proposal to capture 85% of dry discharges and 100% of wet discharges is the BPO. Rather than having monitoring conditions to determine the offsite levels of contaminants discharged into air from Year 0 to Year 3 during the Pre-containment Phase, it would be more appropriate to concentrate monitoring conditions on the applicant undertaking a calibration test annually to verify the Partial-Containment system and Full Containment system is performing to meet the authorised discharge quantity (performance standards). Conditions 15(k) and 16(k) have been recommended accordingly.

### **Conclusion on Air Quality Effects**

Ms Jovanovic's technical review considers that the proposal by NZTA to implement the new maintenance procedures of the AHB, including the containment systems, will result in a reduction of offensive or objectionable discharges into the air. Ms Jovanovic has stated that it is difficult to quantify the emissions into air from the proposed maintenance operations of the AHB due to their fugitive nature and to other sources of similar air pollutants in the area.

Ms Jovanovic has concluded that, based on the information provided in the application and subject to the proposed consent conditions, adverse effects resulting from emissions of dust and particulate matter from the proposed activity and across the life of the consent, will be less than minor.

I adopt Ms Jovanovic's assessment that effects resulting from the discharge to air will be less than minor when taking into consideration the EMP (that will be conditioned), the monitoring conditions proposed which request the calibration test as part of the Partial Containment Plan and Full Containment Plan and the fact that the NZTA are proposing to contain the discharges in stages resulting in a minimum of 85% containment. This is a significant improvement to the existing situation and will result in improved environmental outcomes.

#### **Discharge to the CMA**

In the CMA, the Te Tokoroa Reef to the west and Shoal Bay to the north, are the two identified Coastal Protection Areas (CPAs). As CPA 1 zones, these areas are recognised for their high intrinsic and ecological value. Schedule 3 of the ARP: C describes the values of these CPAs in detail.

The AHB maintenance activities have been assessed under rules in both the ARP: ALW and ARP: C. These are Rule 5.5.63 and 5.5.64 of the ARP: ALW and Rule 20.5.5 of the ARP: C. Rule 20.5.5 deals with discharges of contaminants from the maintenance of existing lawful structures such as the AHB, in the coastal marine area.

In regard to Rule 20.5.5, the applicant's AEE and section 92 response dated 29 March 2011 states that: "No conspicuous oil or grease films/scums or foams are anticipated." The applicant has stated in answer to Question 17 of the section 92 letter that the garnet-based abrasive currently used as the blasting agent in the maintenance of the AHB is a pink colour and can cause some temporary effects on the colour in the harbour. An email dated 20 May 2011 from Andrew Noble, Water Quality Specialist from the Auckland Council explained that, in his opinion, the blasting agent would be very transient and would sink quickly and disperse easily. It is considered that the discharge will not, after reasonable mixing, give

rise to the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or any conspicuous change in the colour or visual clarity of the water in the CMA.

Section 4.5 below discusses these matters further under section 107(2) of the RMA.

Rule 20.5.5.1 lists the matters over which the Auckland Council will have control under Rule 20.5.5 of the ARP: C:

- a.) the volume and level of contamination; and*
- b.) the method of discharge and the effects arising from the method chosen; and*
- c.) the provision of adequate facilities for the collection, treatment, and disposal of any discharge; and*
- d.) the duration of consent; and*
- e.) the monitoring of the consent.*

Rule 5.5.63 covers the discharge of wastewater and/or washwater into water or onto land where it will enter water and Rule 5.5.64 covers dry abrasive blasting. Both these activities will occur during bridge maintenance. The matters Council can exercise control over with regard to the ARP: ALW are essentially replicas of each other, with the exception of the notification of affected parties prior to works commencing and the duration of the discharge for Rule 5.5.64 (dry abrasive blasting).

The combined matters the Council can exercise control over pursuant to Rules 5.5.63 and 5.5.64 are:

- (i) the duration of the discharge;*
- (ii) the volume and level of contamination;*
- (iii) the method of discharge and effects arising from the method chosen;*

*(iv) the provision and adequacy of equipment for the collection, treatment and disposal of any discharge;*

*(vi) the notification of affected parties prior to works commencing; and*

*(v) the requirements for and specification of consent monitoring.*

Andrew Noble, Water Quality Specialist from the Auckland Council provided a technical review to assess the effects of the proposal to land and to the CMA (see Appendix B). In Mr Noble's technical review he has stated:

"...the assessment of effects to the (land and) marine environment should be confined to the pre/partial containment phases as the full containment phase should have a less than minor effect on marine life."

I concur with this statement. I also consider the effects would be less than minor on marine life after full containment is in place (Year 10+) as up to 85% of discharges would be contained. I concur that the assessment of effects to (land) and the CMA should be based on the pre and partial containment phases.

Mr Noble states "Regarding the volume and level of contamination the proposal is phased whereby pre and partial containment graduates to full containment. In the meantime the question is whether the volume and level of contamination of the maintenance discharge during the pre and partial containment phase will have adverse effects on the marine environment. It stands to reason that the partially contained phase will have less potentially adverse effects than the pre-containment phase."

I concur with Mr Noble's statement that the partially contained phase (Years 3 to 10) will have less potentially adverse effects on the CMA than the pre-containment phase (Years 0 to 3). This is because the containment systems would capture up to 85% of discharges over land during the partial containment phase north of Pier 1 and south of Pier 5.

As part of the section 92 responses dated 5 and 26 April 2011, the applicant provided a technical report and further memorandum from Dr Sharon De Luca,

Principal Ecologist, Boffa Miskell. A Coastal Processes report prepared by Tonkin & Taylor was also provided by the applicant in the section 92 response dated 5 April 2011.

The technical reports concluded that, while the heavier contaminants such as garnet sand would pre-dominantly settle out under the AHB, the other contaminants such as paint flakes and heavy metals would be dispersed diffusely throughout the Waitemata Harbour. Dr De Luca concluded that "Containment of the maintenance works over the CMA is estimated to be in place by 2021. Given our assessment of the sensitivity of the receiving environment, the depth of likely sediment deposition and the concentration of contaminants likely to occur as a result of the AHB maintenance works, we do not consider that there is significant risk to the marine environment in the intervening 10 year period."

Dr De Luca's memorandum provided with the section 92 response dated 26 April 2011 provided a discussion around the cumulative effects of both sand and contaminant deposition over the next 10 years. Dr De Luca concluded "We remain confident in the conclusion provided in our original s.92 response. That is, given our assessment of the sensitivity of the receiving environment, the depth of likely sediment deposition and the concentration of contaminants likely to occur as a result of the AHB maintenance works, we do not consider that there is significant risk to the marine environment over the next 10 year period."

Dr Jarrod Walker, Marine Scientist from the Auckland Council, provided a technical review (see Appendix C) to assess effects on aquatic life. Dr Walker stated: "...the effects of sand discharges from the Harbour Bridge can be considered less than minor as the subtidal channel bed sediments in the near vicinity of the Harbour Bridge are composed of sand and shell with a significant channel supporting considerable tidal flow and depths."

In regard to the cumulative effects of contaminants as a consequence of the continuing maintenance of the AHB using the current containment practices, Dr Walker considered that the conclusion made by Boffa Miskell that there will be no significant risk to the environment over the next 10 years due to the maintenance works on the AHB was made on scant marine ecology data. Dr Walker



concluded "In my professional opinion, the maintenance work on the Harbour Bridge is contributing to a regional problem which is more than minor. However, disentangling the effect the maintenance of the Harbour Bridge has on the marine environment from harbour wide discharges is very difficult. Furthermore, such effects will be continuing until the proposed containment practices are put in place."

In Mr Noble's technical review, he states

"Dr Walker's conclusion in his technical review is that the maintenance work of the AHB is contributing to a regional problem which is more than minor is contextualised by the following statement that '...disentangling the effect the maintenance of the Harbour Bridge has on the marine environment from harbour wide discharges is very difficult' and I would suggest beyond the requirements of the NZTA application. This is because the applicant is re-applying for a maintenance discharge which, while being a contributor to a known regional stormwater discharges problem, is certainly not the only contributor and therefore cannot be held responsible for a regional problem. In my opinion when the maintenance discharges are considered in isolation they should have a less than minor adverse effect on the marine environment over the next decade before full containment of contaminants can be employed. This is why conditions need to be imposed that reflect the pre, partial and post containment phases."

#### **Conclusion – Effects on the CMA**

I concur with Mr Noble that, when the maintenance discharges are considered in isolation, they would have a less than minor adverse effect on the marine environment over the next decade before full containment of contaminants can be employed.

I concur with the applicant, Dr Walker and Mr Noble, that the effects arising from the abrasive blasting in terms of the pure garnet itself on the CMA would be less than minor in the pre/partial containment phases.

### Discharge of Contaminants to Land

Sections 7.4.2 on pages 35/36, page 38 and Appendix E of the applicant's AEE address contaminant effects on local soils. On page 38 the applicant states: "Given this information, the NZTA is undertaking a separate study to further characterise the contaminants found, identify the origin if possible and address all regulatory responsibilities. This application does not cover that activity." NZTA have been working with the Earthworks and Contaminated Land Team to carry out a contaminated site investigation in anticipation for an application to be made.

Mr Nobles' technical review states:

"Garnet sand has been chosen which should be pure and inert depending on the way it is mined and graded. Therefore, effects to land arising from the abrasive blasting in terms of the pure garnet itself should be less than minor."

"Once on the ground the paint will get assimilated into the soil or get washed into stormwater and enter the harbour. The three modern paints used are MC Zinc, Wasser Miomastic, MC FerroX A which will have a lesser effect than those of the past and therefore should have a less than minor effect on the land beneath the bridge."

"The volume and level of contamination from full containment will represent the final phase of the proposal. That is to reduce the discharge to 15 percent of the existing discharge. Therefore, the method of discharge and effects arising from the method chosen will be much reduced and will result in a less than minor effect on land once deployed."

Mr Noble has recommended that monitoring focus on whether the containment system is reaching less than 15% total contaminants loss by mass. (i.e. 10T abrasives used therefore > 8.5T recovered).

I concur with Mr Noble's statements. Given the improvement to past practices, the monitoring which will be put in place and the proposal which aims to partially contain discharges within Year 3 – 10 and fully contain discharges (up to 85%)

by Year 10+, effects of the discharge of contaminants to land beneath the AHB are considered to be less than minor.

### **Navigation and Safety**

The application was assessed by Jim Dilley, Deputy Harbourmaster at the Auckland Council in terms of navigation and safety (see appendix D). Mr Dilley has stated that the proposal is satisfactory in terms of navigation and safety and has asked that a condition be included for the applicant to notify the Harbourmaster's Office prior to commencing any work within the main navigation span. This is current practice and is noted in Appendix G of the application documents. A condition will also be included for the applicant to notify the Harbourmaster's Office (as well as Pollution Response) in the case of any spill of Hydrocarbons from the bridge.

### **Noise**

The maintenance works will need to be undertaken in compliance with the following:

- i) relevant noise standards of the ARP: C where the AHB is located over the CMA;
- ii) in compliance with the relevant noise standards of the Auckland Council District Plan (North Shore Section) where the AHB is located above Stokes Point; and
- iii) in compliance with the Auckland Council District Plan (Auckland City Isthmus Section) where the AHB is located above Point Erin and Westhaven.

As a result of such compliance, the adverse effects in terms of noise are considered to be less than minor.

### **Odour**

Given that the proposal is to contain discharges over land from Year 3 to Year 10 and contain discharges over the CMA from Year 10+, it is expected that adverse

effects in terms of odour would be less than minor. This is particularly true when compared to the current maintenance works which have been carried out without containment for many years.

Condition 32 of Consent 38519 is recommended to ensure that beyond the boundary of the site, there shall be no dust or odour caused by discharges from the site, which in the opinion of an enforcement officer, is noxious, offensive or objectionable.

#### **3.4 DO SPECIAL CIRCUMSTANCES EXIST**

There are no special circumstances that exist in relation to this application which would require the application to be publicly notified.

#### **3.5 RECOMMENDATION ON NOTIFICATION**

It is recommended that this application be processed on a **non notified** basis for the following reason:

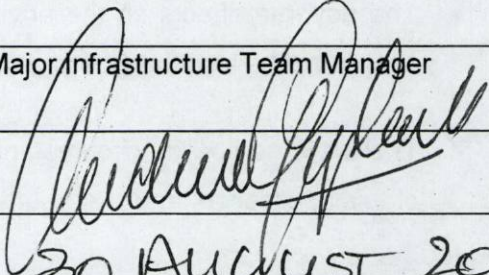
- The adverse effects on the environment of the activity for which consent is sought will be less than minor, and
- There are no special circumstances that exist that would warrant notification of this application, and
- There are no persons considered adversely affected by the granting of this consent.

**3.6 NOTIFICATION DECISION**

Reported and Recommended by: Aimee Buckingham  
Title of Reporting Officer: Senior Planner - Major Infrastructure Team  
Signed: AJB  
Date: 30/8/11

**3.7 DETERMINATION OF NOTIFICATION**

Acting under delegated authority and for the reasons set out in the above assessment, Consent Number 38519, 38835, 38836 shall be non-notified.

Team Manager: Andrew Gysberts  
Title: Major Infrastructure Team Manager  
Signed:   
Date: 30 AUGUST 2011

## SECTION 4 – ASSESSMENT OF APPLICATION

### 4.1 STATUTORY CONSIDERATIONS

When considering an application for a discretionary activity the consent authority must have regard to Part 2 of the Resource Management Act 1991 (RMA) (Purposes and Principles – sections 5 to 8), sections 104, 104B, and sections 105 and 107.

The statutory considerations under section 104 provide the 'legal framework' within which the application is addressed. Amongst other things, this framework requires consideration of any actual or potential effects on the environment; the relevant provisions of national environmental standards, national policy statements (including the NZ coastal policy statement); regional policy statements and regional plans (both operative and proposed); and any other relevant and reasonably necessary matters to determine the application.

All considerations are subject to Part 2 of the RMA, which sets out the purpose and principles that guide this legislation. This means the matters in Part 2 prevail over other provisions of the RMA or provisions in planning instruments (e.g. regional plans) in the event of a conflict. Section 5 states the purpose of the RMA and sections 6, 7 and 8 are principles intended to provide additional guidance as to the way in which the purpose is to be achieved.

The application of Section 5 involves an overall broad judgement of whether a proposal will promote the sustainable management of natural and physical resources. The RMA's use of the terms "*use, development and protection*" are a general indication that all resources are to be managed in a sustainable way, or at a rate which enables people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety. The enabling and management functions found in section 5(2) should be considered of equal importance and taken as a whole.

Sections 6, 7 and 8 of the RMA provide further context and guidance meaning to the constraints found in section 5(2)(a),(b) and (c). The commencing words to

these sections differ, thereby laying down the relative weight to be given to each section.

Section 6 of the RMA sets out the matters of national importance which need to be recognised and provided for and includes among other things and in no order of priority, the protection of outstanding natural features and landscapes, the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna, and the protection of historic heritage. The AHB is a key piece of infrastructure located in an urban and highly modified environment. Any relevant matters are considered in the evaluation section of this report.

Section 7 of the RMA requires the consent authority to give particular regard to those matters listed in the section. Section 7 matters are not expressly ranked in order of priority. Therefore, all aspects of this section are to be considered equally. In the case of this particular proposal the following matters are considered relevant: In the case of this particular proposal the efficient use of natural and physical resources, the maintenance and enhancement of amenity values, the intrinsic values of ecosystems, and the maintenance and enhancement of the quality of the environment are central to the proposal. Any relevant matters are considered in the evaluation section of this report.

Section 8 of the RMA requires the consent authority to take into account the principles of the Treaty of Waitangi. This section of the RMA recognises the relationship of Tangata Whenua with natural and physical resources and encourages active participation and consultation with Tangata Whenua. Any relevant matters are considered in the evaluation section of this report.

Section 104(2) allows any adverse effects arising from permitted activities set out in a national environmental standard or a plan to be excluded from the assessment of effects related to the resource consent. Generally it is only the adverse effects over and above those forming the baseline that are relevant when considering whether the effects are minor. It is at the Council's discretion whether to apply the assessment of the permitted baseline to any proposal.

When considering an application for resource consent, the Council must not have regard to trade competition or the effects of trade competition [104(3)(a)(i)] or any effect on a person who has given their written approval to the application [section 104(3)(a)(ii)] and may disregard an adverse effect of any activity on the environment if a national environmental standard or operative plan permits an activity with that effect [section 104(2)].

Under section 104B a consent authority may grant or refuse consent for a discretionary activity or non complying activity and may impose conditions.

Sections 105 and 107 address certain matters [in addition to the matters in section 104(1)], relating to discharge permits and coastal permits where the proposal would otherwise contravene section 15 (or section 15A) of the RMA. Section 108 provides for consent to be granted subject to conditions and sets out the kind of conditions that may be imposed.

## **4.2 SECTION 104 EVALUATION**

### **4.2.1 Section 104(2) - Assessment of the Permitted Baseline**

#### Discharge to Air

Rule 4.5.97 of the ARP: ALW states that discharges of solvents, including VOC, to air exceeding 10 tonnes per year are a discretionary activity. Discharges of solvents to air on site are approximately 3.5 tonnes per year and therefore are a permitted activity.

In that regard, discharges of solvents, including VOC, to air occur on site during coating with specifically designed paint systems constitutes the permitted baseline and these adverse effects may be discounted.

#### Discharge Other

The permitted baseline applies only to those rules considered operative in accordance with section 19 of the RMA. As the provisions contained in Chapter 5 are subject to appeals affecting the whole chapter, no rules in this Chapter



have legal effect. Accordingly it is considered there is no relevant permitted baseline for the Discharge Other consent.

#### Discharge to the CMA

Permitted activities for discharges of contaminants to the CMA provides for discharges of contaminants into the CMA associated with a limited range of activities and subject to performance standards. These activities include discharges from cleaning, anti-fouling or painting of vessels, discharge of dye or tracer material for investigative purposes, the discharge of potable water from draining pipelines or water reservoirs. In all other instances, discharges are permitted (rule 20.5.4.) where the discharge:

- does not contain contaminants that will have more than minor effects on the receiving waters and marine environment;
- will not result in certain changes / effects after reasonable mixing relating to conspicuous changes to visual clarity / colour of receiving waters, nor conspicuous films, scums, foams, or floatable or suspended materials; any objectionable odour; or any significant adverse effects on aquatic life;
- the natural temperature of the receiving water should not be raised by more than 3 degrees Celsius;
- does not contain human sewage or hazardous substances.

Having regard to the dynamic nature of the receiving environment, the subjective nature of some of the performance standards, and in the absence of appropriate data through monitoring, it is not possible to identify clearly the scale and extent of effects permitted by the ARP:C. Thus, whilst it must be acknowledged that rules contemplate a degree of effects from the discharge of contaminants (e.g. no more than minor adverse effects on the receiving waters and the marine environment; no significant adverse effects on aquatic life; no conspicuous change to in the colour / visual clarity of water), the permitted baseline has been disregarded in this instance, due to the scale and complexity of the proposal and the dynamic nature of the receiving environment..

#### **4.2.2 Section 104(1)(a) – Consideration of the Actual and Potential Effects on the Environment**

As concluded in section 3.3 above, effects on the environment are considered to be less than minor.

Positive effects are considered to result from this proposal. These include the containment of a minimum of 85% of discharges which will result in improved environmental outcomes when compared to the existing maintenance activities currently taking place.

#### **4.2.3 Section 104(1)(b)(i) and (ii) – Consideration of the Relevant National Environmental Standards and other Regulations**

The Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins and Other Toxics) Regulations 2004 (NES) must be considered in relation to discharges of PM<sub>10</sub> from this activity.

Regulation 17(1) of the NES states that:

*“Regulations 17A to 17C apply to an application for a resource consent to discharge PM<sub>10</sub> into an airshed before 1 September 2013, if—*

- (a) the concentration of PM<sub>10</sub> in the airshed already breaches its ambient air quality standard; and*
- (b) the discharge to be permitted by the resource consent is likely to increase significantly the concentration of PM<sub>10</sub> in the airshed.”*

For the purposes of the NES, the Auckland urban airshed corresponds to the area enclosed within the Metropolitan Urban Limit.

Because the Auckland urban airshed is in breach of the PM<sub>10</sub> Environmental Standards for Air Quality, the ARC developed a straight-line path ('SlIP') with an appropriate action plan of key reduction initiatives to ensure compliance by 2013.

At an Environmental Management Committee meeting held on 9 October 2006, the ARC approved a PM<sub>10</sub> emissions reduction strategy for the Auckland urban airshed that involves no overall decrease in emissions from industrial sites. However, included within this is an intention to seek a 15% reduction in emissions from existing activities – either on renewal of consent or by review – so as to allow for new industries to expand.

The annual mass emission of total particulate from the applicant's site is 132Kgs, whereas the current Auckland Council emission inventory indicates that industrial emissions of PM<sub>10</sub> into the Auckland airshed are 810 tonnes per year. Therefore it is considered that the applicant's site is not a significant source and therefore mitigation or offsets are not required and the NES does not need to be considered further.

#### **4.2.4 Section 104(1)(b)(iii) – Consideration of any relevant provisions of a National Policy Statement**

There are no National Policy Statements relevant to this application.

#### **4.2.5 Section 104(1)(b)(iv) – Consideration of any Relevant Provisions of the New Zealand Coastal Policy Statement 2010 (NZCPS)**

The relevant objectives and policies of the NZCPS 2010 include:

- Safeguarding the integrity, form and functioning of the coastal environment and sustaining its ecosystems;
- The preservation of the natural character of the coastal environment, with policies protecting natural features, natural landscapes, historic heritage from inappropriate subdivision, use and development;
- Taking into account the principles of the Treaty of Waitangi – Te Tiriti o Waitangi, and kaitiakitanga; maintaining and enhancing public open space qualities and recreation opportunities along the coastal environment, and providing public access to it, with walking access emphasised;

- Ensuring coastal hazard risks, including from climate change and tsunamis, are managed; managing the use, subdivision and development within the coastal environment, with regard to the location and form of coastal settlement/urban areas;
- The social, economic, and cultural wellbeing for people and communities from some activities within the coastal environment, and/or which can have functional need to be in the coastal environment, but without compromising the other values of the coastal environment;
- In addition it is anticipated that reclamation should generally be avoided, and that in the first instance natural coastal defences are more appropriate than hard structures, and as appropriate ought to be protected, maintained or enhanced.

The relevant matters of the NZCPS to this proposal are:

Policy 1

- (1) Recognise that the extent and characteristics of the coastal environment vary from region to region and locality to locality; and the issues that arise may have different effects in different localities.
- (2) Recognise that the coastal environment includes:
  - (i) Physical resources and built facilities, including infrastructure, that have modified the coastal environment.

Importantly, the AHB is recognised as a regionally-significant item of infrastructure that serves the wider Auckland region and, to an extent, all of New Zealand for social and economic wellbeing, and it is recognised that this part of the Waitemata Harbour is highly modified.

The proposal is consistent with Policy 2 which relates to the Treaty of Waitangi, tangata whenua and Maori heritage. This is an existing maintenance activity which seeks improvement by containing discharges which would result in improved environmental outcomes and effects that are less than minor.

The partial and full containment, monitoring and consent conditions are consistent with Policy 3 which seeks to adopt a precautionary approach towards proposed activities whose effects on the coastal environment are uncertain.

The partial and full containment systems, monitoring and consent conditions are considered to be consistent with Policy 4 which seeks to provide for the integrated management of natural and physical resources. The partial and full containment system will minimise discharges to the air, CMA and land.

The proposal is considered consistent with 6(1)(a), 6(1)(b) and 2(a) which recognise that the provision of infrastructure is an activity important to the social, economic and cultural well-being of people and communities. Public infrastructure should be enabled to provide for the reasonably foreseeable needs of population growth without compromising the other values of the coastal environment. Again the importance of the AHB is stressed as an item of significant infrastructure which serves the wider Auckland and national interest. NZTA's proposal to contain discharges will ensure the functioning of this vital transport infrastructure without compromising the values of the coastal environment. Policy 6(2)(c) recognises that there are activities that have a functional need to be located in the CMA and provision should be made for those activities in appropriate places. This is the case for the AHB and the on-going maintenance activities to ensure its structural integrity.

Policy 13 relates to the preservation of natural character and Policy 14 promotes restoration or rehabilitation of the natural character of the coastal environment. As discussed in section 3.2 under 'Discharge to the CMA' it was established that effects on the coastal environment would be less than minor and the partial and full containment systems proposed would improve the existing situation of existing maintenance practices.

By installing the partial and full containment system and monitoring to ensure an annual calibration test via conditions, the NZTA will be working toward the enhancement of water quality (by reducing discharges) and this is considered to be consistent with Policy 21.

Regard has been had to Policy 23 which relates to the discharge of contaminants to the water in the coastal environment. In section 3.2, the assessment of effects determined that, when the maintenance discharges are considered in isolation, they should have a less than minor adverse effect on the marine environment over the next decade before full containment of contaminants can be employed. Section 3.2 explains that NZTA provided various marine ecology reports and a coastal processes report as part of their section 92 responses to address the sensitivity of the receiving environment and the effect the contaminants may have.

The relevant provisions of the NZCPS have been considered and it is concluded that the proposal is consistent with these.

#### **Hauraki Gulf Marine Park Act 2000 (HGMPA)**

The purpose of HGMPA is to integrate the management of the natural, historic, and physical resources of the Hauraki Gulf, its islands, and catchments and establish objectives for the management of the Hauraki Gulf, its islands, and catchments. Further it requires regulators to recognise the historic, traditional, cultural, and spiritual relationship of the tangata whenua with the Hauraki Gulf and its islands. It establishes the Hauraki Gulf Marine Park and a Hauraki Gulf Forum.

Section 7 of the HGMPA relates to the interrelationship between the Hauraki Gulf, its islands, and catchments and the ability of that interrelationship to sustain the life-supporting capacity of the environment of the Hauraki Gulf. Further it considers the life-supporting capacity of the environment of the Gulf and its islands to provide for the historic, traditional, cultural, and spiritual relationship of the tangata whenua of the Gulf with the Gulf and its islands. Furthermore, it provides for the social, economic, recreational, and cultural well-being of people and communities to use the resources of the Gulf by the people and communities of the Gulf and New Zealand for economic activities and recreation and to maintain the soil, air, water, and ecosystems of the Gulf. Finally, it considers the islands to be matters of national significance.

Section 8 outlines objectives for the management of the Hauraki Gulf. These include the protection, maintenance and, where appropriate, enhancement of: its life-supporting capacity; natural, historic and physical resources; cultural and historic associations; the contribution of natural, historic and physical resources to social and economic wellbeing; and, the contribution of natural, historic and physical resources to recreation activities and the enjoyment of the Hauraki Gulf.

The intention of the application is one which seeks to sustain the life supporting capacity of the environment of the Hauraki Gulf and its islands. The application proposes to install containment systems to reduce discharges to the land, air, water and ecosystems of the Gulf and ensure there is an area for recreation use with high amenity values in the future. The NZTA is working to provide and maintain the AHB (an important item of infrastructure) which provides for the social, economic, recreational, and cultural well-being of people and communities while safeguarding effects towards the Hauraki Gulf and its islands. The proposal will not damage or alter any site or item that is identified to be of historic, traditional, cultural or spiritual significance to the community. The proposal is an improvement to the current practices and seeks to contain discharges.

For the reasons discussed above and in section 3.2 (the assessment of environmental effects) it is concluded that the proposal is in accordance with the purpose and management of the HGMPA, with specific regard to s7 and 8 of the Act.

#### **4.2.6 Section 104(1)(b)(v) – Consideration of the Relevant Provisions of the Auckland Regional Policy Statement.**

The ARPS is a strategic document which sets out the direction of managing the use, development and protection of the natural and physical resources of the Auckland region. This document became operative in 1999. In 2005, the ARC publicly notified Proposed Change 6, in response to the Local Government Amendment Act 2004 (LGAAA) which sought to amend, amongst other things, the regional overview and strategic direction of the ARPS and mainly consisted

of changes to Chapter 2 (Regional Overview and Direction) and Chapter 4 (Transport).

These amendments sought to codify the growth and transport strategies that had been promulgated and agreed to in the Regional Growth Strategy and the associated Sector Agreements.

As at 31 July 2007, the ARC released decisions regarding Proposed Change 6 and matters now lie within the appeal period.

Given the position of proposed Change 6 I consider that some weighting should be given to the decision version of Plan Change 6 although the proposal must also be assessed against the operative policy statement.

The strategic objectives and policies of the ARPS provide a framework to achieve the integrated consistent and co-ordinated management of the Regions resources. This framework is based upon not compromising the strategic direction of containment and intensification and the avoidance of adverse effects on the environment.

Under the ARPS, matters related to environmental protection, such as the coastal environment, water quality, water conservation and allocation and air quality have specific objectives, policies and methods to achieve sustainable and integrated management of major natural and physical resources in the Region.

The relevant provisions of the Auckland Regional Policy Statement have been considered as follows:

Chapter 2 of the ARPS provides an overview of the major resource management pressures and issues in the region and establishes a strategic approach for the management of these resources. Strategic Objective 2.5.1(2) is to "*maintain and enhance the overall quality of the environment of metropolitan Auckland...*". This has been slightly modified by Proposed Plan Change 6 as Proposed Objective 2.6.1(2) to "*maintain and enhance the overall quality of the environment of the Auckland Region...*". It is considered that NZTA's application to contain discharges from the maintenance of the AHB is consistent with this approach.



The proposal, when compared to existing maintenance practices, is considered to maintain the overall quality of the surrounding environment.

Chapter 3 states the broad issues which are of resource management significance to Tangata Whenua and which are of importance to involve Tangata Whenua in the resource management processes. The application is an existing activity where the applicant seeks to improve the current situation by partially containing the discharges (over land) by year 3 and containing the discharges up to 85% by year 10+. The application seeks positive environmental change to the methodology and, therefore, discharges to air, land and water will be reduced and mitigated where possible. The proposal is considered to be consistent with the matters of significance to iwi. The containment will ensure that sites of significance are not adversely affected and, in this respect, the proposal is also considered to be consistent with the objectives and policies relating to cultural and natural heritage as set out in Chapter 6.

Issue 7.2.3 of Chapter 7 'Coastal Environment' recognises that regional infrastructure needs to use the coastal environment to meet technical or route requirements to enable the Auckland community to provide for its social, economic and cultural wellbeing. However these activities need to be accommodated in a way that will result in the sustainable management of the natural and physical resources of the coastal environment. NZTA's proposal, which includes ongoing maintenance activities which cause discharges that will be partially contained and then fully contained (up to 85%), is considered to be an example of sustainable management of the natural and physical resources in the coastal environment.

The proposal is consistent with Policy 7.4.10(1), (2) and (3) where the use (being the maintenance activities and their discharges to the environment) has given regard to the matters listed in (2) and where NZTA has taken a precautionary approach as mentioned in (3).

The proposal is consistent with Policy 8.4.1 from Chapter 8 which refers to water quality. It has been established that, while the maintenance activities of the AHB

cannot be avoided, the discharge of contaminants will be remedied and mitigated.

Chapter 10 – Air Quality, is not affected by Plan Change 6. In general, the ARC's objective in relation to air quality is to "avoid, remedy, or mitigate deterioration of air quality in the Region" [Objective 10.3(1)] and "avoid, remedy or mitigate adverse effects that arise from the discharge of contaminants into air from .... industrial and trade premises [Objective 10.3(2)(ii)].

Policies 10.4.7(1) to (4) give effect to the above objectives and state:

- "1. Adverse effects due to discharges to air from industrial and trade premises in the Auckland Region will be minimised and shall comply with criteria for such discharges specified in Regional or District Plans, regulations or conditions of resource consent.*
- 2. Sufficient monitoring of industrial discharges shall be undertaken to demonstrate compliance with regional rules, regulations or conditions of resource consents.*
- 3. Industrial emission testing shall be carried out to standard methods as specified in regional or district plans, regulations or conditions of resource consent.*
- 4. Adequate separation distances shall be maintained between industrial or trade premises that discharge, or have the potential to discharge noxious, dangerous, offensive or objectionable contaminants to air and adjacent land uses".*

This application is consistent with the above policies in that:

- the proposal seeks to minimise discharges to air through the use of an EMP, sufficient monitoring to ensure an annual calibration test to ensure the containment systems capture the required discharges which will be imposed by proposed conditions through the development of the Partial Containment Plan and the Full Containment Plan and the use of containment systems

over land within 3 years and contained fully (up to 85% of discharges) within 10 years.

- the imposition of containment over land within 3 years will ensure that there are adequate separation distances between the AHB and the residential area and reserve area at Stokes Point and the open space and special purpose zones of the Westhaven area to the south. In the first 3 years leading up to containment over land, Condition 34 will be recommended so that suitable screens are used at all times.
- it is recognised that this is an existing maintenance activity for the AHB which is an existing vital piece of infrastructure which serves the wider Auckland region.
- the NZTA are proposing improvements to their current practices which will result in improved environmental outcomes.

#### **4.2.7 Section 104(1)(b)(vi) - Consideration of the provisions of the relevant Regional Plans.**

##### **Relevant Objectives and Policies**

##### **Chapter 2 - Values** of the ARP: ALW (operative in part 2010)

The provisions of the Values chapter seek to recognise, provide and give effect to Part 2 of the RMA in terms of the Regional Council's responsibilities for the management of the air, land and freshwater resources of the Auckland Region. The objectives and policies of this chapter form one part of the assessment against which resource consent applications are evaluated to determine whether they promote the sustainable management of natural and physical resources.

The Auckland Region's air, land and water resources are complex and interrelated. Managing these resources requires a good understanding of them, their current state (pristine or degraded), their interrelated nature and the effects that use and development has on them.

The Values chapter considers natural values; use and development; and Tangata Whenua values. Issues considered relevant to this proposal are:

*Objective 2.2.3.1 - To enable appropriate use and development of air, land and freshwater resources, while recognising the characteristics, constraints and availability of these resources.*

The proposal is considered to allow for the appropriate use and development of the air, land and water resources.

*Objective 2.2.3.4 – To provide for the ongoing operation, maintenance, development and upgrading of physical infrastructure, in a manner that meets regional growth requirements and supports the economic, social and cultural wellbeing of the Region's people and communities and provides for their health and safety, while avoiding, remedying or mitigating adverse effects on the environment.*

*Objective 2.2.3.7 – To maintain and where practicable to enhance the quality and amenity values of Auckland's air, land and freshwater resources.*

*Policy 2.2.4.4 – The use, development, upgrading or maintenance of network utility infrastructure shall be considered appropriate where:*

- (a) It is consistent with the strategic directions of the ARPS; or*
- (c) It is to improve environmental outcomes that result from the operation of this infrastructure; or*
- (e) Significant adverse effects on natural and physical resources are avoided, remedied or mitigated.*

The maintenance activities of the AHB will be undertaken using an up to date EMP, the BPO given the current technology at the time, and improved practices to contain discharges to the environment. The proposal meets these objectives and policy to provide and maintain this important piece of transport infrastructure for the growing Auckland region to ensure that people can provide for their economic, social and cultural wellbeing without being detrimental to the sustainable management purpose of the RMA.

*Policy 2.2.4.10 – A precautionary approach shall be taken to proposals for use and development where there are potentially significant adverse effects, that cannot be fully assessed due to a lack of scientific or technical knowledge and where there is a threat of serious or irreversible harm to the environment.*

*In assessing any applications, the ARC or its agents may consent to an application and impose conditions that will ensure that the effects of the activity are avoided, remedied or mitigated. These conditions may include but are not limited to any or all of the following:*

- (a) That consent conditions be reviewed in order to avoid, remedy or mitigate any adverse effects that may be generated by the activity; and*
- (b) That the consent holder be required to regularly monitor the effects of any activity at an appropriate frequency; and*
- (c) That bonds be imposed to ensure that any works or actions required by any consent are undertaken; and*
- (d) That the duration of any consent is limited to a period that is appropriate to the circumstances.*

The application is consistent with the intention of Policy 2.2.4.10. Recommended consent condition 11 will ensure that the Environmental Management Plan will be updated prior to each stage of works and will cover monitoring through a calibration test required by recommended Conditions 15(k) and 16(k). In addition to this the Review Condition will ensure that the conditions may be reviewed annually. To ensure that practices avoid, remedy or mitigate any adverse effects that may be generated by the AHB maintenance activities.

*Policy 2.2.4.16 – Use and development of air, land and freshwater shall consider any effects on sites, buildings, places or areas which have cultural heritage values and which are identified in the ARC's Cultural Heritage Inventory, and should avoid, remedy or mitigate, adverse effects on these resources.*

**Chapter 2.3** of the ARP: ALW relates to tangata whenua concerns and the issues relevant to this proposal are the health and safety effects of spray drift in close proximity to marae, papakainga, waterbodies and other sensitive areas; the

effects of dust emissions; the inappropriateness of discharging liquid wastes directly to waterbodies. As far as practicable, all liquid wastes (in particular sewage and stormwater) need to be in the first instance, discharged to land for treatment.

Regard has been had to objectives 2.3.3.1-2.3.3.3 and policies 2.2.4.16, 2.3.4.1 and 2.3.4.2 in that the proposal seeks the ongoing discharges associated with an existing activity, and with progressive increases in efficiency of containment of discharged contaminants, to 85% containment from year 10 onwards. The application seeks positive environmental change to the methodology and therefore discharges to air, land and water will be reduced and mitigated where possible.

**Chapter 3** of the ARP: ALW details the different Air Quality Management Areas (AQMAs). In this case, the AHB relates to both the Urban AQMA (where the AHB crosses over land at Stokes Point and Point Erin) and the Coastal Marine AQMA. The application will also be assessed (below) by the objectives and policies of the ARP: C.

**Chapter 4 – Air Quality** of the ARP: ALW (operative in part 2010)

The following objectives and policies of the ARP: ALW (operative in part 2010) are considered relevant:

*Objective 4.3.1 – To maintain air quality in those parts of the Auckland Region that have excellent or good air quality and enhance air quality in those parts of the Region where it is poor or unacceptable.*

*Objective 4.3.2 – To avoid, remedy or mitigate significant adverse effects from the discharge of contaminants into air on human health, amenity and environment. In particular:*

- (b) To maintain or enhance existing amenity within the Urban AQMAs; and*
- (c) To maintain existing levels of amenity within Industrial and Rural AQMAs and the Coastal Marine AQMA.*

*4.3.9 - To avoid significant adverse effects on human health and the environment arising from the discharge of contaminants into air from individual sources including industrial processes.*

The adverse effects from discharges from the dry abrasive blasting of the AHB have historically formed a part of the local air quality, and therefore will not result in any further degradation of local air quality. Furthermore, the proposed improvements via implementation of the containment systems will improve local air quality by reducing the contaminants discharged. This approach is considered to be consistent with these objectives of Chapter 4.

The implementation of Policy 4.4.5 is generally reflected in the consent conditions included in most consents to discharge into air. The implementation of appropriate consent conditions will ensure that the proposal is generally consistent with policies 4.4.3 and 4.4.5 in terms of dust and PM<sub>10</sub> discharges.

The AHB is located in both an Urban Air Quality Management Area (UAQMA) and Coastal Marine Air Quality Management Area (CMAQMA) with forty percent of the surface area of the bridge extending over urban land while the other part is above the coast.

The land adjoining the southern end of the Harbour Bridge is zoned Open Space Activity 5 and Special Purpose Activity 3 under the Auckland Council District Plan (Auckland City Isthmus Section). Open Space Activity 5 is to provide for a wide range of recreational activities and leisure activities. Special Purpose Activity 3 is a transport corridor zone intended to preserve transport corridors throughout the Isthmus. The land adjoining the northern end of the Harbour Bridge is zoned as mixed Residential and Recreation, with Shoal Bay (east of the motorway designation) identified as a 'Site of Special Wildlife Interest' under the Auckland Council District Plan (North Shore Section).

As such, given the location of the site within two AQMAs, Urban and Coastal, consideration must be given to the Policies 4.4.7 and 4.4.8.

The relevant provisions for the coastal AQMA are those relevant to most discharges of contaminants into air in the ARP: ALW and the general objectives and policies of the ARP: C. The management approach for the coastal AQMA is to maintain existing high levels of amenity anticipated in the CMA. The purpose of the UAQMA is to ensure a high level of amenity commensurate with the relevant provisions of the underlying District Plan zones and to protect human health, particularly for sensitive sectors of the population from the adverse effects of air discharges. Therefore, existing amenity within the Urban Air Quality Management Area must be also maintained as stated in Policy 4.4.25.

Maintaining a separation distance between dry abrasive blasting and sensitive receptors would be the most appropriate way of minimising the effects of an unanticipated discharge. As the AHB is an existing item of fixed infrastructure it is not possible, nor feasible to introduce separation distances between dry abrasive blasting and surrounding sensitive receptors. Therefore, in accordance with Policy 4.4.7(b), the proposal intends to manage its effects in a manner commensurate with the receiving environment. Furthermore, policies 4.4.8 and 4.4.25 require a high standard of emission control to avoid adverse effects on the amenity values in the surrounding area.

To mitigate the environmental effects of discharges arising from the bridge maintenance activities, the proposal includes the following mitigation measures: improved environmental controls as part of quality control systems; scheduling of work to reduce risk; and the progressive implementation of containment systems. These have already been discussed in section 3.2 of this report where it was determined that the effects from air discharges would be less than minor. Accordingly it is considered that the proposal is consistent with policies 4.4.7 and 4.4.8.

Policy 4.4.9 relates to the BPO, and states that:

*"The Best Practicable Option shall be employed in accordance with the definition in Section 2 of the RMA to avoid or minimise significant adverse effects from the discharge of contaminants into air".*



The BPO is generally adopted for minimising industrial discharges and to ensure consistency across industry. The BPO is the undertaking of 'best practice' for pollution control by an industry whilst considering the receiving environment to ascertain what level of residual effect is acceptable, the financial implications for the industry and the current state of technical knowledge.

In regards to this application, the greater capture of contaminants is proposed by implementation of containment systems together with existing controls as a BPO.

The NZTA has advised that containment systems as the BPO will be addressed considering the:

- Nature of discharges from the AHB maintenance activities and the sensitivity of the receiving environment to adverse effects;
- Financial implications, and the effects on the environment of a range of options;
- Current technical knowledge and environmental control used in New Zealand and overseas (in assessing whether the proposed management operations and containment systems at the AHB can be considered as the BPO, the operations at other similar sites overseas have been investigated by the applicant); and
- Successful application on the AHB.

As acknowledged in the application documentation and in Ms Jovanovic's review, at this stage the exact designs of the proposed containment systems and associated works remain unknown as these will be subject to detailed design as part of any contract awarded for the ongoing maintenance of the AHB. However, it is considered that the proposal has demonstrated, via consideration of overseas examples, that the intended level of containment should be reasonably feasible to achieve.

It is concluded that the proposal is consistent with the relevant air quality policies in Chapter 4 of the ARP: ALW.

**Chapter 5 – Discharges to Land and Water and Land Management** (proposed plan) of the ARP: ALW

This chapter contains provisions relating to land management and water quality. The objective that is most relevant to the discharge of contaminants is 5.3.1 which seeks to protect, maintain or enhance the quality of land and water in the region by:

- (a) Maintaining areas of high environmental quality;*
- (b) Minimising adverse effects on degraded natural and physical resources where these cannot be avoided; and*
- (c) Enhancing degraded areas where practicable.*

Policy 5.4.44 encourages the reuse of washwater. It further states that washwater disposal to land will be acceptable where it will not result in contaminant runoff or the accumulation of contaminants, such as hydrocarbons and heavy metals, above acceptable levels in the receiving environment. Washwater should only be discharged to water where other options including disposal to the sanitary sewer are impractical, and a thorough evaluation of the assimilative capacity of the receiving environment has been carried out proving the discharge will not give rise to any significant adverse effects.

In this case, based on the technical reviews of Dr Walker and Mr Noble, and as discussed in section 3.2 it was concluded that effects on the CMA would be less than minor and that effects on land using the modern paints would be less than minor. Furthermore the phased containment of discharges (up to 85%) in the future, monitoring via the verification of an annual calibration test, and the use of the EMP will improve the current situation and result in a positive environmental outcome. The proposal is considered to be consistent with objective 5.3.1 for these reasons.

**Chapter 2 – Management Areas and Areas of Significant Conservation Value** of the ARP: C discusses the importance of CPAs1 and CPAs2. Due regard has been had to these areas as mentioned in the assessment of environmental effects, section 3.2 above, where it was determined that effects on

the CMA would be less than minor. Technical reviews provided by Dr Sharon De Luca, Dr Jarrod Walker and Mr Andrew Noble all address effects on the CPA1 areas Te Tokoroa Reef (CPA 52) and Shoal Bay – Ngataringa Bay (CPA 63).

It is noted that this is premised on modelling and assumptions submitted as part of the application, and that the current state of the environment is unknown. It is considered that the proposal which seeks to contain up to 85% of discharges will improve the existing state of the coastal environment.

**Chapter 3 – Natural Character, and Chapter 5 – Natural Features and Ecosystems** of the ARP: C

Chapter 3 gives effect to section 6(a) of the RMA which requires as a matter of national importance the preservation of the natural character of the coastal environment and its protection from inappropriate subdivision, use, and development.

The objectives 3.3.1, 3.3.2 and policies 3.4.1 to 3.4.4 are considered to relate to this application. Of particular importance is policy 3.4.2 which states that in assessing the actual or potential effects of subdivision, use and development on natural character particular regard shall be had to:

- (a) preserving the natural character of the coastal marine area in Coastal Protection Areas 1 and 2;*
- (d) protecting appropriate remaining elements of natural character in those areas characterised by modification and development.*

Chapter 5 is premised on section 6(b) of the RMA which requires that the ARP: C recognise and provide for “the protection of outstanding natural features and landscapes from inappropriate subdivision, use and development”.

The objectives and policies of Chapter 5 aim to protect the dynamic functioning of physical coastal processes and the integrity, functioning and resilience of ecosystems within the coastal environment. Policy 5.4.5 specifically refers to cumulative effects.

The policies of the ARP: C reflect the NZCPS and as stated in section 4.2.5 the proposal is considered to be consistent with these policies. By installing the partial and full containment systems to capture up to 85% of discharges and monitoring via conditions to ensure implementation of an annual calibration test is undertaken, and through the implementation of the EMP, the applicant will be working toward minimising adverse effects on the remaining natural character of the CMA in CPAs 1 and 2, protecting natural character in an area characterised by modification and development and protecting the dynamic functioning of physical coastal processes and resilience of ecosystems.

Regard has been had to these policies in Chapter 3 and 5 of the ARP: C outlined above. In section 3.2, the assessment of effects determined that when the maintenance discharges are considered in isolation they should have a less than minor adverse effect on the marine environment over the next decade before full containment of contaminants can be employed. Section 3.2 explains that NZTA provided various marine ecology reports and a coastal processes report as part of their section 92 responses to address the sensitivity of the receiving environment and the effect the contaminants may have.

**Chapter 6 – Coastal Matters of Significance to Tangata Whenua** of the ARP:  
C

This chapter reflects section 6(e) and 7(a) of the RMA and seeks to recognise that the CMA has characteristics of special spiritual, historical and cultural significance to Tangata Whenua. The coastal marine area and associated resources comprise some of the most important taonga to Maori. The wellbeing of the coastal marine area and associated resources, and the ability to use, develop and protect such resources according to Maori culture and traditions is fundamental to all aspects of Maori wellbeing.

The objectives and policies of Chapter 6 of the ARP: C have been considered and the proposal is considered to be consistent with these. As mentioned above in section 4.2.5 in relation to Policy 2 of the NZCPS, section 4.2.6 in relation to the objectives and policies of in Chapters 3 and 6 of the ARPS, and in relation to the objectives and policies in Chapter 2.3 of the ARP: ALW, it was determined

that this is an existing maintenance activity which seeks improvement by containing discharges which would result in improved environmental outcomes and effects that are less than minor.

#### **Chapter 20 – Discharges of Contaminants** of the ARP: C

Objective 20.3.1 of the ARP: C aims to maintain appropriate water and sediment quality in the CMA. For the reasons set out in section 3.2 of this report, and section 4.2.6 in relation to the discharge of contaminants under Policy 23 of the NZCPS, it is considered that the proposal will have a less than minor effect on marine water quality.

In addition objective 20.3.2 seeks to adopt the BPO for avoiding, remedying or mitigating the adverse effects from stormwater and wastewater discharges on the coastal environment.

The BPO was assessed by the applicant in their application documentation and in their section 92 responses dated 29 March and 26 April 2011. Section 3.2 under the heading 'Discharge to Air' addressed consideration of alternatives and the criteria the applicant used to analyse the different alternatives and how they came to the conclusion that "containment" was the BPO. These provided a summary of international bridge maintenance practices in order to benchmark AHB maintenance activities against practices on similar bridges (acknowledging site and bridge specific variables must be applied). The applicant considers that the BPO proposed is suitable for a period of 25 years as it provides for the lowest level of discharges without precluding other improvements in the future. Whilst also not prejudicing effective cost recovery for the necessary capital investment (and certainty) in design and implementation of BPO containment (and paint system) methodologies.

It is considered appropriate in this instance to recommend a s128 Review Condition which will cover matters such as ensuring that the BPO is consistently applied to all maintenance works throughout the duration of the consent.

Policy 20.4.3 of the ARP: C states, "*Any proposal to discharge contaminants or water into the coastal marine area (unless the discharge is prohibited) shall be*

*considered appropriate only if it can be demonstrated that it is the best practicable option (as defined in s2(1) RMA) in terms of preventing or minimising the adverse effects on the environment having considered whether:*

*(d) the receiving environment is able to assimilate the discharged contaminants and water, with any adverse effects being avoided where practicable, remedied or mitigated particularly within:*

*i the areas identified in Tables 8.1 and 8.2 and Map Series 5, Sheets 1-4 (Degraded and Susceptible Areas and Areas of High Ecological Value Susceptible to Degradation) of the Auckland Regional Policy Statement;*

*ii those Coastal Protection Areas, set out in this Plan, which are based upon ecological rather than geological values:*

*(e) the adverse effects on the present and foreseeable use of the receiving waters have been avoided where practicable, remedied or mitigated, particularly in areas where there is;*

*i high recreational use;*

*ii relevant initiatives by Tangata Whenua (established under regulations relating to the conservation or management of fisheries) including Taiapure, rahui or Whakatupu areas;*

*iii the collection of fish and shellfish for consumption;*

*iv areas of maintenance dredging.*

*(f) any adverse effects on people or communities have been avoided where practicable, or remedied or mitigated;*

*(g) adverse effects on the present and reasonably foreseeable use of the receiving waters for recreational purposes and the suitability of fish and shellfish for consumption have been avoided, where practicable, or remedied or mitigated;*

(i) *the discharge after reasonable mixing, does not either by itself or in combination with other discharges, give rise to any or all of the following effects:*

*iv. any significant adverse effects on aquatic life;*

(j) *the discharge complies with relevant, appropriate and accepted international or national Codes of Practice and Environmental Guidelines."*

Subparagraph (d) requires that discharges only occur where the receiving environment is capable of assimilating the contaminants. The assessment of effects section of the report concludes that the environment is capable of assimilating the effects of the discharges and the effects would be less than minor. Accordingly the proposal is considered to be consistent with the above policy. Subparagraphs (e), (f) and (i)(iv) relate to use of receiving water or effects on aquatic life, as discussed in the assessment of effects this was considered to be less than minor.

The intent of the ARP: C is considered to be satisfied because the proposed containment systems, and practices employed by the EMP will minimise the effects on the CMA especially in comparison to current practices. For the reasons discussed in the assessment of effects, I consider there to be less than minor effects on marine water quality or marine life.

As discussed in section 3.2 under the heading 'Discharge to the CMA' it is considered that the discharges will not, after reasonable mixing, give rise to the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or any conspicuous change in the colour or visual clarity of the water in the CMA. The updated EMP required by Condition 11 will ensure that measures will be taken to avoid these effects.

### **Conclusion**

It is concluded that the proposal, overall, is consistent with the relevant objectives and policies of the ARP: ALW and the ARP: C for the reasons set out in the paragraphs above.

### **Relevant Rules**

The plan rules have been developed to address the issues covered in the objectives and policies and are instrumental in assessing the effect of an activity. The plan rules have already been set out and addressed in the assessment of environmental effects (section 3.2) above.

#### **4.3 CONSIDERATION OF ANY OTHER MATTERS – SECTION 104(1)(C)**

In this case there are no other matters that are considered necessary to determine the application.

#### **4.4 MATTERS RELEVANT TO DISCHARGE OR COASTAL PERMITS (SECTION 105)**

Section 105 of the RMA requires the consent authority to have regard to additional matters in relation to a discharge permit or a coastal permit that would contravene section 15 or section 15B of the RMA.

It is considered the provisions of section 105 have been met subject to appropriate conditions of consent to ensure there is no significant adverse effect on the receiving environment. The conditions will include the implementation of the EMP which will be updated and replaced at the end of each phase, the implementation of containment systems which will eventually capture up to 85% of discharges, and monitoring through an annual calibration test to ensure the containment systems are meeting their performance standards.

It is further considered the applicant's reasons for the proposed choice are appropriate in the circumstances and there are no alternative methods of



discharge applicable in this case. It is irrefutable that the applicant has a responsibility to undertake the ongoing maintenance of the AHB as part of its statutory obligations. As discussed in sections 3.2 and 4.2.7, the applicant has considered a range of alternatives as part of their assessment of the BPO. The proposal to contain the discharges to the extent and phasing for which consent is sought, and as reviewed, was considered to be the BPO. Thus the degree of containment of contaminants discharged broadly appears to accord with BPO and is considered achievable. This is notwithstanding that detailed design specific to the circumstances of the AHB have not been provided and will form part of the recommended conditions (via the EMP) as part of the contractual requirements (and necessary to satisfy the performance standards that form the basis of the consent sought). As mentioned previously, it is considered appropriate in this case to include a review Condition.

#### **4.5 RESTRICTIONS ON GRANT OF CERTAIN PERMITS (SECTION 107)**

The consent authority must have regard to the restriction on the granting of certain discharge permits that would contravene sections 15 or 15A of the RMA.

It is considered the proposal satisfies the provisions of section 107 because the implementation of the EMP will ensure that effects relating to section 107(1)(c), and (e) to (g) will be avoided prior to containment. The containment systems will ensure that these effects are further avoided in the future.

In regard to section 107(1)(d) '*any conspicuous change in the colour or visual clarity*' of the receiving waters – NZTA have concluded that the garnet sand currently used is a pink colour and can cause some temporary effects on the colour of the harbour. Given the forthcoming procurement process it may be that this product is not used in the future. As discussed in section 3.2 it was outlined that the discharge was considered to be very transient and would not be expected to change the colour or visual clarity of the water.

Section 107(2)(b) refers to the exception that the discharge is of a temporary nature and section 107(2)(c) provides that a consent authority may grant a discharge permit where the provisions of section 107(1)(c) to (g) are not met if

the discharge is associated with 'necessary maintenance work' and that it is consistent with the purpose of the this Act to do so. The applicant is of the view that the maintenance works are necessary for the upkeep of the AHB. I concur with this approach and consider that any change in colour would only be temporary and the maintenance works are required for the upkeep of the AHB.

#### **4.6 CONSIDERATION OF PART 2 (PURPOSE AND PRINCIPLES) OF THE RMA**

Section 104(1) requires the consideration of any resource consent application to have regard to specific factors, subject to Part 2 of the RMA ("Purposes and Principles"). The purpose of the RMA is to promote the sustainable management of natural and physical resources. Sustainable management means the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while: sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and safeguarding the life-supporting capacity of air, water, soil, and ecosystems; avoiding, remedying or mitigating any adverse effects of activities on the environment.

The proposal is considered to meet the purposes of the RMA and be a sustainable development of the air/land/water resources which will provide for the efficient use of the air/land/water resources whilst ensuring any adverse effects on the environment will be appropriately avoided, remedied or mitigated through the recommended conditions of consent. Having considered the other matters set out in Part 2 of the RMA, it is concluded that the proposal will not affect any matters of national importance (section 6). Regard has been had to the identified matters of section 7 of the RMA. It is concluded that the application does not compromise the matters identified under section 7 of the RMA. Furthermore, it is considered the proposal does not have any implications on the application of the principles of the Treaty of Waitangi.

#### **4.7 LAPSING OF CONSENT**

Section 125 of the RMA provides that if a resource consent is not given effect to within five years of the date of the commencement (or any other time as specified) it automatically lapses unless the consent authority has granted an extension. In this case, It is considered five years is an appropriate period for the consent holder to implement the consent due to the nature and scale of the proposal.

#### **4.8 DURATION OF CONSENT**

It is considered appropriate to set a term of 25 years for permits 38519, 38835 and 38836 because the implementation of the new maintenance procedures and containment systems in the following phases (listed below) is based on the ability for NZTA to deliver the BPO which is constrained in part by the ability to fund the ultimate solution.

- Pre-Containment Phase: Year 0 to Year 3
- Partial Containment Phase: Year 3 to Year 10 (north of Pier 1 and south of Pier 5 – containment over land)
- Full Containment Phase: Year 10 + (containment over the CMA)

In the applicant's section 92 response dated 29 March 2011, NZTA explain in their answer to question 10 that the timing of the implementation of the containment practices is closely linked to the availability of funding and funding cycles.

A letter dated 21 December 2010 from NZTA explains "A short term consent provides no certainty for the NZTA (and its contractor) of its ongoing responsibilities and provides no incentive during the current procurement process for future holders of the maintenance contract to seek innovative ways to reduce discharges."

Page 2 of the application document states "An important aspect of the AEE is the length/duration of authorisation sought which is based on the certainty needed by

the NZTA to be able to successfully implement the contaminant containment processes committed to.”

It is agreed that the applicant is seeking to implement the BPO and in order to do so they require a long term discharge consent over 25 years to ensure that there is adequate funding to implement the required containment systems in phases.

It is recognised that the applicant aims to improve current maintenance practices by containing their discharges through a series of phases and in order to achieve this a duration of 25 years is required. The proposal seeks to achieve environmental benefits by avoiding, remedying and mitigating adverse effects on the environment which requires significant capital investment. Accordingly, to achieve efficient use of natural and physical resources it is necessary to have a timescale of 25 years to achieve the detailed design and initial roll out through phases (Pre-Containment Phase, Partial Containment Phase and Full Containment Phase) with an appropriate feed back loop. The timeframe also accommodates future advances in technology to achieve the BPO. I concur with this approach and recommend that the duration of the permits 38519, 38835, 38836 be for a period of 25 years.

#### **4.9 CONCLUSION**

NZTA seek discharge permits to air, land (discharge other) and the CMA for up to 95.5 tonnes per year of contaminants, comprised of 92 tonnes of garnet sand and 3.5 tonnes of heavy metals and paint associated with the on-going maintenance activities of the AHB. The consent duration sought is for 25 years. The proposal is in three stages, the 'Pre-Containment Phase: Year 0 to Year 3', 'Partial Containment Phase: Year 3 to Year 10' and 'Full Containment: Year 10+'.

The receiving environment consists of the soil under the sections of the AHB which are over land, the CMA under the remaining sections, and in regard to the discharge to air, the sensitive receptors which will be affected by dust and particulate discharges associated with the proposed maintenance activities.

The assessment of effects (section 3.2) determined that the effects in terms of garnet sand and contaminant discharges to air, land and the CMA on the receiving environment would be less than minor subject to the imposition of conditions, an EMP, and monitoring to ensure that the discharges are being contained up to 85%.

The proposal meets the objectives, policies and rules of the NES (Relating to Certain Air Pollutants, Dioxins and Other Toxics Regulations 2004), NZCPS, HGMPA, ARPS, ARP: ALW (operative in part 2010) and the ARP:C 2004.

The proposal is considered to meet Part 2 of the RMA by promoting the sustainable management, use, development and protection of natural and physical resources (being the air, land and coastal marine area in the Waitemata Harbour) which enables the people of the wider Auckland region to provide for their social, economic, and cultural wellbeing through the use of the AHB a significant item of transport infrastructure.

The proposal is considered to be the BPO and the implementation of containment systems which will ultimately reduce discharges by up to 85% is considered to create a significant positive environmental outcome. The proposal is a vast improvement to the current maintenance practices.

It is concluded that the discharge of garnet sand and contaminants through the maintenance practices of the AHB would not adversely affect the life-supporting capacity of the air, land and water or the coastal and marine area for the reasons set out in this report.

## **SECTION 5 – RECOMMENDATION AND CONDITIONS**

### **5.1 RECOMMENDATION**

It is recommended that pursuant to sections 104, 104A, 104C, 104F, 105, 107, 107E and 108 of the Resource Management Act 1991, consent is to be granted to the discretionary activity application by New Zealand Transport Agency to carry out maintenance works resulting in:

- a discharge permit for the discharge of contaminants to air (Application 38519);
- a discharge permit to authorise the discharge of contaminants to the coastal marine area (CMA) (Application 38836); and
- a discharge (other) permit to authorise the discharge of washwater, wastewater and dry wastes to land where it will enter water (Application 38835)

at the Auckland Harbour Bridge (AHB), being Consent Numbers 38519, 38835 and 38836 for the following reasons:

1. The proposal will be consistent with Part 2 of the Resource Management Act 1991 by promoting the sustainable management of natural and physical resources. Overall it is considered the cumulative safeguards of section 5(2)(a) to (c) have been met and the proposal thereby meets the purpose of the RMA.
2. The proposal is consistent with the relevant provisions of the Auckland Regional Policy Statement, in particular the integrated management of the Region's natural and physical resources.
3. The proposal is consistent with the relevant objectives and policies of the ARP: ALW because it meets the requirements of the relevant objectives, policies and assessment criteria of the rules. Further, the installation of containment systems will reduce the effects of discharges to air, land and water.
4. The proposal is consistent with the relevant objectives and policies of the ARP: C because it meets the requirements of the relevant objectives, policies and assessment criteria of the rules. Further, the installation of containment systems will reduce the effects of discharges to the coastal environment.
5. The proposal contributes to the social, economic and cultural well being of people and their community because it provides for the maintenance of an

important transport infrastructure item that serves the people of the wider Auckland region while mitigating against effects on the environment.

6. The overall adverse effects on the receiving environment are less than minor. Subject to the imposition of conditions, a live Environmental Management Plan and the implementation of containment systems the effects can be further avoided, remedied or mitigated.
7. The application merits the granting of a resource consent pursuant to sections 104, 104C, 104E, 104F, 105, 107, 107A-D, 107E and 108 of the Resource Management Act 1991.
8. The sensitivity of the receiving environment to the adverse effects of the discharge will not be compromised given the level of the discharge, the application of suitable control technology and appropriate on site management techniques.
9. It is considered that the implementation of containment systems over land, north of Pier 1 and south of Pier 5 by Year 3 and the implementation of containment systems over the coastal marine area by Year 10+ to capture a minimum of 85% of contaminants is considered to be the Best Practicable Option.

## 5.2 CONDITIONS APPLYING TO PERMITS 38519, 38835 AND 38836

The consents shall be subject to the following conditions:

### A. GENERAL

1. Pursuant to section 36 of the Resource Management Act 1991, consents 38519, 38836 and 38835 (or any part thereof) shall not be exercised until such time as all charges in relation to the receiving, processing and granting of these resource consents are paid in full.
2. The consents referenced 38519, 38836 and 38835 shall expire on 30 August 2036 unless they have lapsed, been surrendered or been cancelled at an earlier date pursuant to the Resource Management Act 1991.
3. Access to the relevant parts of the AHB shall be available at all reasonable times to enable the servants or agents of the Auckland Council to carry out inspections, surveys, investigations, tests, measurements or take samples whilst adhering to the Consent Holder's health and safety policy (see advice note number 4).
4. The activities granted under these consents shall be operated in accordance with the documentation submitted to the Auckland Council as part of applications numbered 38519, 38835 and 38836, where not amended by the conditions of this resource consent. No alterations shall be made to the plant or processes that do not, or are not likely to, comply with the provisions of this consent, a regional rule or regulations under the Resource Management Act 1991.

### Review Condition

5. That the conditions of this consent may be reviewed by the Major Infrastructure Team Manager pursuant to Section 128 of the Resource Management Act (1991), by the giving of notice in accordance with Section 129 of the Act, on 30 August 2012 and annually thereafter in order to:



- a) Deal with any significant adverse effect on the environment arising from the exercise of the consent that was not foreseen at the time that the application was considered;
- b) Consider the adequacy of conditions that prevent nuisance beyond the boundary of the site, particularly if complaints have been received on a frequent basis and which have been validated by an enforcement officer;
- c) Consider developments in emission control technology and management practices that would enable practical reductions in discharges to air, the CMA and land; and
- d) To take into account any act of parliament, regulation, national policy statement or relevant regional plan that relates to limiting, recording or reducing emissions authorised by this consent.

#### **Documentation**

- 6. The documentation below, submitted in support of the application, forms part of this consent and supplies reference information for these permits:
  - a) Report: 'Auckland Harbour Bridge Maintenance Works: Application for Regional Consent' dated 10 December 2010, prepared by NZTA. Including appendices A-H.
  - b) Chart: AHB Maintenance – Quantification of discharges, Purpose: Explanation of quantification (including assumptions) in consent application. Dated 21 December 2010, from NZTA.
  - c) Correspondence: Response to Section 92 additional information request letter 'Auckland Harbour Bridge Maintenance (Permits 38519, 38835 and 38836)' and attached appendices 1 - 8, dated 29 March 2011, from NZTA, Ref: A0112 and 8/6/4/3/22.
  - d) Correspondence: Response to Section 92 additional information request letter 'Auckland Harbour Bridge Maintenance (Permits 38519, 38835 and 38836)' and attached appendices 9 & 10, dated 5 April 2011, from NZTA, Ref A0112 and 8/6/4/3/22.
  - e) Correspondence: Response to Section 92 additional information request letter 'Auckland Harbour Bridge Maintenance (Permits 38519, 38835 and

38836)' and attached memorandum from Dr Sharon De Luca, Principal Ecologist, Boffa Miskell (19 April 2011), letter dated 26 April 2011, from NZTA, Ref: A0112 and 8/6/4/3/22.

### **Navigation and Safety**

7. The Consent Holder shall notify the Harbourmaster's Office in writing 10 (ten) working days prior to commencing any maintenance works within the main navigation span of the AHB specifying the duration, nature and location of works. The consent holder shall advise the Harbourmasters Office a minimum of 24 hours prior to any change in works duration, nature or location.
8. The Consent Holder shall notify the Harbourmaster's Office and the Pollution Response Team in the case of any spill of hydrocarbons which enters the Waitemata Harbour from the AHB and, in which event, the Spill Response Plan will immediately be deployed as required by the provision of the Spill Response Plan required by Condition 11.

### **B. CONTAINMENT AND DISCHARGE**

9. The Consent Holder shall implement the following containment works:
  - a) Pre-Containment Phase: Year 0 to 3, 30 August 2011 to 30 August 2014. 'Pre-Containment' means the maintenance works that will be carried out prior to the deployment of the proposed containment systems (including any structures);
  - b) Partial Containment Phase: Year 3 to Year 10, Partial Containment to be in place by 30 August 2014. 'Partial Containment' shall be considered to be a method which controls and collects:
    - 85% of the mass of all dry discharges and spray paint generated during maintenance works; and
    - 100% of the mass of washwater used for treatment before discharge other than in Zone B, the 'Lower Overarch' (as specified on 'Figure 1 –

Proposed Zones for Encapsulation') which has 100% discharge of all contaminants;

and shall be deployed in the areas north of Pier 1 and south of Pier 5;

c) Full Containment Phase: Year 10+, Full Containment to be in place by 30 August 2021. 'Full Containment' shall be considered to be a method which controls and collects:

- 85% of the mass of all dry discharges and spray paint generated during maintenance works; and
- 100% of the mass of washwater used for treatment before discharge other than in Zone B, the 'Lower Overarch' (as specified on 'Figure 1 – Proposed Zones for Encapsulation') which has 100% discharge of all contaminants;

and shall be deployed in the area defined as 'partial containment' and the area between Pier 1 and Pier 5 (over the CMA).

#### **Authorised Discharge Quantity**

10. During the Pre-Containment phase, the maximum discharge mass from bridge maintenance activities shall not exceed 95.5 tonnes per annum of contaminants, comprised of 92 tonnes of garnet sand per annum and 3.5 tonnes per annum of paint associated with the maintenance activities of the AHB.

### **C. MANAGEMENT PLANS**

#### **Environmental Management Plan (EMP)**

11. Except as specified in Table 1 below; the Consent Holder shall submit an EMP to the Major Infrastructure Team Manager for written approval within 60 (sixty) working days of the commencement of this consent and such EMP shall include a:
  - Spill Response Plan
  - Partial Containment Plan (PCP)
  - Full Containment Plan (FCP)

**Table 1: Provision of Management Plans**

<b>Plan</b>	<b>Timing for Inclusion within EMP</b>
Spill Response Plan (SRP)	60 days of grant of consent
Partial Containment Plan (PCP)	6 months prior to Partial Containment being implemented
Full Containment Plan (FCP)	6 months prior to Full Containment being implemented

12. The EMP shall provide for, but not be limited to, addressing the following matters:

a) Methodologies to manage the effects of maintenance activities:

- Washdowns
- Waterblasting
- Degreasing
- Dry abrasive blasting
- Wet abrasive blasting
- Mechanical and chemical paint stripping
- Control of lichens and moss
- Exterior steelwork painting (including priming, inhibitors, and paints)
- Internal box painting
- Concrete works
- Welding

b) Implementation of continuous improvement processes to modify the EMP performance;

c) Measures to ensure the Spill Response Plan contained in the EMP is operational at all times;

13. Any future amendments to the EMP or plans therein resulting from the implementation of the consent shall be forwarded to the Major Infrastructure Team Manager for written approval prior to their implementation/acceptance.

14. The consents shall be implemented in accordance with the EMP. Where there is conflict between the consent conditions and the EMP, the consent condition shall prevail unless alternative agreement is reached between the Consent Holder and the Major Infrastructure Team Manager.

**Partial Containment Plan (PCP)**

15. The Consent Holder shall provide to the Major Infrastructure Team Manager details of the Partial Containment methodology within a Partial Containment Plan. The Partial Containment Plan (PCP) shall be included within the Environmental Management Plan required by Condition 11. The Partial Containment Plan is to include, at a minimum, scale plans (elevations, site plan and cross sections as necessary) and suitable information to address the following:
  - a) The size, location and purpose of any plant or equipment necessary to enable containment (e.g. air filtration units, ducting, compressors, etc);
  - b) The duration which the containment structure will be in place;
  - c) The methods by which the wet and/or dry discharges generated will be captured within the containment structure;
  - d) The method of cleaning and/or disposal of wet and/or dry waste product from the containment structure and from the site;
  - e) The method of confirming that 85% of dry waste product has been contained. The 85% containment shall be calculated by measuring the amount of product used less the amount of product recovered to confirm the amount lost to the environment. Any method shall also take into account (and detail) assumptions on the weight of the material removed from the AHB;
  - f) The method of confirming that 100% of wet waste product has been contained.

- g) The extent of structures which will be attached to, under, over or around the existing bridge including attachment methods and details of any modifications to the bridge structure necessary to attach the containment structures. This is to include any temporary structures necessary to install/remove the containment structure and details of any earthworks or vegetation works;
- h) Confirmation that any plant or equipment will meet applicable noise controls;
- i) Where the works proposed are to be carried out in stages, a staging plan shall be included;
- j) Any conditions when maintenance works will cease or not be carried out (e.g. wind speed, wet weather etc);
- k) The Consent Holder shall undertake a calibration test annually to verify the containment structure is capturing 85% of the mass of all dry discharges and spray paint generated during maintenance works, and capturing 100% of the mass of washwater used for treatment as detailed in Condition 9.b). Exact details of the calibration test shall be provided as part of the Partial Containment Plan; and
- l) Methods to ensure the structural and containment integrity of the containment system prior to maintenance works commencing on each day, and throughout that day while works are undertaken.

#### **Full Containment Plan**

16. The Consent Holder shall provide to the Major Infrastructure Team Manager, details of the proposed Full Containment methodology within a Full Containment Plan. This shall trigger the updating of the EMP required by Condition 15 and will supersede the Partial Containment methodology of the EMP. The Full Containment methodology is to include, at a minimum, scale plans (elevations, site plan and cross sections as necessary) and suitable information to address the following:

- a) The size, location and purpose of any plant or equipment necessary to enable containment (e.g. air filtration units, ducting, compressors, etc);
- b) The duration which the containment structure will be in place;
- c) The methods by which the wet and/or dry discharges generated will be captured within the containment structure;
- d) The method of cleaning and/or disposal of wet and/or dry waste product from the containment structure and from the site;
- e) The method of confirming that 85% of dry waste product has been contained. The 85% containment shall be calculated by measuring the amount of product used less the amount of product recovered to confirm the amount lost to the environment. Any method shall also take into account (and detail) assumptions on the weight of the material removed from the AHB;
- f) The method of confirming that 100% of wet waste product has been contained;
- g) The extent of structures which will be attached to, under, over or around the existing bridge including attachment methods and details of any modifications to the bridge structure necessary to attach the containment structures. This is to include any temporary structures necessary to install/remove the containment structure and details of any earthworks or vegetation works;
- h) Confirmation that any plant or equipment will meet applicable noise controls;
- i) Where the works proposed are to be carried out in stages, a staging plan shall be included;
- j) Any conditions when maintenance works will cease or not be carried out (e.g. wind speed, wet weather etc);

- k) The Consent Holder shall undertake a calibration test annually to verify the containment structure is capturing 85% of the mass of all dry discharges and spray paint generated during maintenance works, and capturing 100% of the mass of washwater used for treatment as detailed in Condition 9.c). Exact details of the calibration test shall be provided as part of the Full Containment Plan; and
- l) Methods to ensure the structural and containment integrity of the containment system prior to maintenance works commencing on each day, and throughout that day while works are undertaken.

#### **D IMPLEMENTATION OF CONTAINMENT**

##### **Pre-Start Meeting – Partial Containment Phase**

17. Prior to the Partial Containment Phase works commencing, a pre-start meeting (attended by the Consent Holder and representatives from the Major Infrastructure Team, Air Quality Team, Wastewater Team and Coastal Team from Auckland Council) is to be held after the Partial Containment Phase structure has been constructed and prior to any maintenance works commencing within the contained area (being north of Pier 1 and south of Pier 5). The purpose of the pre-start meeting is for the Consent Holder to identify any modifications or improvements to the Partial Containment methodology prior to the first set of works commencing. Meeting minutes including agreed action points shall be recorded and circulated between the Consent Holder and Auckland Council within 10 (ten) working days of the meeting being held.

##### **Debrief Meeting – Partial Containment Phase**

18. Within 60 (sixty) working days subsequent to the Partial Containment Phase works commencing, a debrief will be held between the Consent Holder and representatives from the Major Infrastructure Team, Air Quality Team, Wastewater Team and Coastal Team from Auckland Council. The purpose of the debrief meeting is for the Consent Holder to identify any modifications or



improvements to the Partial Containment methodology prior to the ongoing implementation of the Partial Containment Plan. Meeting minutes including agreed action points shall be recorded and circulated between the Consent Holder and Auckland Council within 10 (ten) working days of the meeting being held.

#### **Update EMP following Debrief Meeting – Partial Containment Phase**

19. The Partial Containment Plan and EMP shall be amended (following the process outlined in Conditions 13 and 14 to include changes to the containment proposal as identified in the pre-start meeting minutes and debrief meeting minutes under Conditions 17 and 18 above. The amended EMP shall be submitted to the Major Infrastructure Team Manager for approval in accordance with Condition 13.

#### **Partial Containment Phase - Ongoing Implementation**

20. The Consent Holder shall notify the Major Infrastructure Team Manager in writing (location, start date, finish date) of any maintenance works proposed which utilise the Partial Containment Plan 10 (ten) working days before commencement.
21. Within 5 (five) working days of any removal of the containment structure, the Consent Holder shall advise the Major Infrastructure Team Manager that works have been completed.

#### **Pre-Start Meeting - Full Containment Phase**

22. Prior to the Full Containment Phase works commencing, a pre-start meeting (attended by the Consent Holder and representatives from the Major Infrastructure Team, Air Quality Team, Wastewater Team and Coastal Team from Auckland Council) is to be held after the Full Containment Phase structure has been constructed and prior to any maintenance works commencing within the contained area (being north of Pier 1 and south of Pier 5; and between Pier 1 and Pier 5 – containment over the CMA). The purpose of the meeting is for the Consent Holder to identify any modifications or improvements to the Full

Containment Plan. Meeting minutes including agreed action points shall be recorded and circulated between the Consent Holder and Auckland Council within 10 (ten) working days of the meeting being held.

#### **Debrief Meeting – Full Containment Phase**

23. Within 60 (sixty) working days subsequent to the Full Containment Phase works commencing, a debrief will be held between the Consent Holder and representatives from the Major Infrastructure Team, Air Quality Team, Wastewater Team and Coastal Team from Auckland Council. The purpose of the debrief meeting is for the Consent Holder to identify any modifications or improvements to the Full Containment Plan prior to the ongoing implementation of the Full Containment Phase works. Meeting minutes including agreed action points shall be recorded and circulated between the Consent Holder and Auckland Council within 10 (ten) working days of the meeting being held.

#### **Update EMP following Debrief Meeting – Full Containment Phase**

24. The Full Containment Plan and EMP shall be amended (following the process outlined in Conditions 13 and 14 to include changes to the containment proposal as identified in the pre-start meeting minutes and debrief meeting minutes under Conditions 22 and 23 above. The amended EMP shall be submitted to the Major Infrastructure Team Manager for approval in accordance with Condition 13.

#### **Full Containment Phase – Ongoing Implementation**

25. The Consent Holder shall notify the Major Infrastructure Team Manager in writing (location, start date, finish date) of any maintenance works proposed which utilise the Partial Containment Plan 10 (ten) working days before commencement.
26. Within 5 (five) working days of any removal of the containment structure, the Consent Holder shall advise the Major Infrastructure Team Manager that works have been completed.

## CONDITIONS SPECIFIC TO PERMIT 38519 – DISCHARGE TO AIR

### *Discharge permit to authorise the discharge of contaminants to air arising from the proposed maintenance activities of the AHB*

Note: the general conditions applying to this consent (Nos. 1-26) are listed at the beginning of these consents (38519, 38835 and 38836).

#### **Abrasive Agent**

27. The Consent Holder shall use garnet sand as the abrasive medium when undertaking dry abrasive blasting as identified in the material safety data sheet provided in the application documentation unless otherwise approved by the Major Infrastructure Team Manager. (Appendix 6 of section 92 response from NZTA dated 29 March 2011).
28. The Consent Holder shall use garnet sand (containing no more than 5% dry weight free silica) as the abrasive medium when undertaking dry abrasive blasting.

#### **Air Quality**

29. All processes on site shall be operated, maintained, supervised, monitored and controlled to ensure that emissions authorised by this consent are maintained at the minimum practicable level.
30. Beyond the boundary of the site, there shall be no dust or odour caused by discharges from the site, which in the opinion of an enforcement officer, is noxious, offensive or objectionable.
31. No discharges from any activity on site shall give rise to visible emissions, other than water vapour and clean steam, to an extent which, in the opinion of an enforcement officer, is noxious, dangerous, offensive or objectionable.
32. Beyond the boundary of the site, there shall be no discharges to air of any hazardous air pollutant, caused by discharges from the site, which is present at a

concentration that causes, or is likely to cause adverse effects to human health, the environment or property.

## **PRE-CONTAINMENT PHASE**

### **Process Conditions**

33. That no dry abrasive blasting shall be undertaken when wind speeds are greater than 7 m/s, averaged over 5 minutes, or when:
  - a) undertaking maintenance work north of Pier 1 when the wind is from the southwest or southeast quarters; or
  - b) undertaking maintenance work south of Pier 5 when the wind is from the northwest quarter.
34. That, in order to minimise the drift of blast debris and paint spray, suitable screens shall be used at all times when undertaking dry abrasive blasting and/or spray painting of the AHB and extensions north of Pier 1 and south of Pier 5.

### **Works Notification and Incident Reporting**

35. That the Consent Holder shall provide residences and businesses within 200 metres of any blasting or painting with a quarterly update of the proposed schedule of work for the upcoming quarterly period. The information shall include details of how to contact NZTA (including a phone number) if they consider themselves to be affected by dust from the scheduled works.
36. The Consent Holder shall keep a log of the following:
  - a) the addresses of residents and businesses provided with the quarterly update;
  - b) a log of any queries and / or complaints received by NZTA under Condition 40, detailing the name and address, nature of query and/or complaint, and action undertaken by NZTA in response;
  - c) A copy of this log shall be submitted to the Major Infrastructure Team

Manager on a quarterly basis.

### **Logging and Reporting Conditions**

37. A log shall be maintained of the results of all daily, weekly and monthly inspections and visual assessments of all emissions control equipment and of any visual dust emissions from the site or processes.
38. That all records that are required by the conditions of this consent shall be made available upon request by an enforcement officer during working hours and shall be kept for a minimum of 2 years from the date of each entry.
39. That an enforcement officer shall be notified as soon as practicable in the event of any significant discharge to air, which results or has the potential to result in a breach of conditions numbered 1 to 40 or adverse effects on the environment.  
The following information shall be included:
  - a) Details of the nature of the discharge;
  - b) An explanation of the cause of the incident; and
  - c) Details of remediation action taken.
40. All air quality complaints that are received shall be recorded. The complaint details shall include:
  - a) The date, time, location and nature of the complaint.
  - b) The name, phone number and address of the complainant, unless the complainant elects not to supply these details.
  - c) Weather conditions, including approximate wind speed and direction, at time of the complaint.
  - d) Any remedial actions undertaken by NZTA.

Details of any complaints received and remedial actions undertaken by NZTA shall be provided to the Major Infrastructure Team Manager within 24 hours of receipt of the complaint(s).

#### **Advice Notes**

1. The Consent Holder is advised that the date of the commencement of this consent will be as determined by Section 116 of the RMA. The provisions of Section 116 are summarised in the covering letter issued with this consent.
2. The Consent Holder is advised that, pursuant to Section 126 of the RMA, if this resource consent has been exercised, but is not subsequently exercised for a continuous period of two years, the consent may be cancelled by the Auckland Council unless other criteria in Section 126 are met.
3. The Consent Holder is advised that the Auckland Council may at any time undertake source emission testing and/or any other monitoring to ensure compliance with the conditions of this consent. The Consent Holder is advised that it will be required to pay for the costs of this monitoring.
4. Prior access to the relevant parts of the AHB shall be arranged between the Consent Holder and AC.
5. The Consent Holder is advised that this application does not cover consent for the construction or occupation of the containment structures (temporary or permanent). It is the responsibility of the Consent Holder to apply for either a variation to Permit 31115 (or its successor) or if a further coastal construction or occupation consent is required they must apply for this.
6. If any washwater treatment is to utilise the existing stormwater infrastructure, the Consent Holder is advised that it is their responsibility to obtain either a variation of the existing stormwater discharge consent or if a further stormwater discharge consent is required it is the responsibility of the applicant to apply for this.

### 5.3 APPROVAL UNDER DELEGATED AUTHORITY

#### 5.3.1 Adequacy of Information

It is considered the information submitted with the application is sufficiently comprehensive to enable the consideration of the following matters on an informed basis:

- a) An understanding of the nature and scope of the proposed activity as it relates to the regional plan.
- b) The extent and scale of any adverse effects on the environment.
- c) The identification of persons who may be adversely affected.

Report Prepared by: Aimee Buckingham

Title: Senior Planner - Major Infrastructure Team

Signed: AOB

Date: 30/8/11

Consent granted as Recommended.

Acting under delegated authority and for the reasons set out in the above recommendations, Consent Number 38519, 38835, 38836 shall be granted subject to the conditions set out in Section 5.

Team Manager: Andrew Gysberts

Title: Major Infrastructure Team Manager

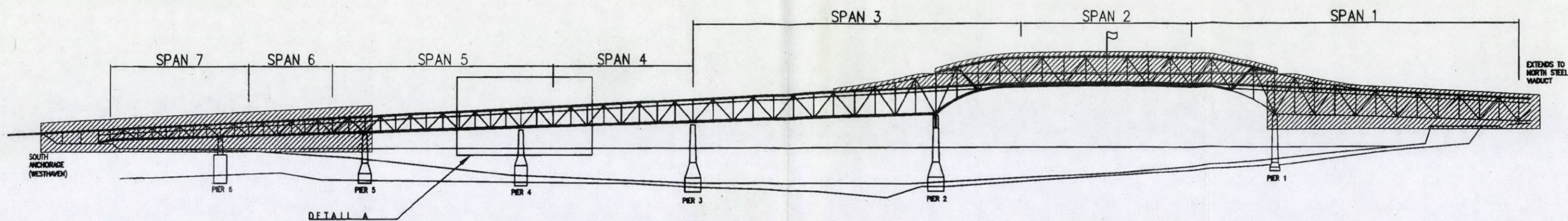
Signed: Andrew Gysberts

Date: 30 August 2011

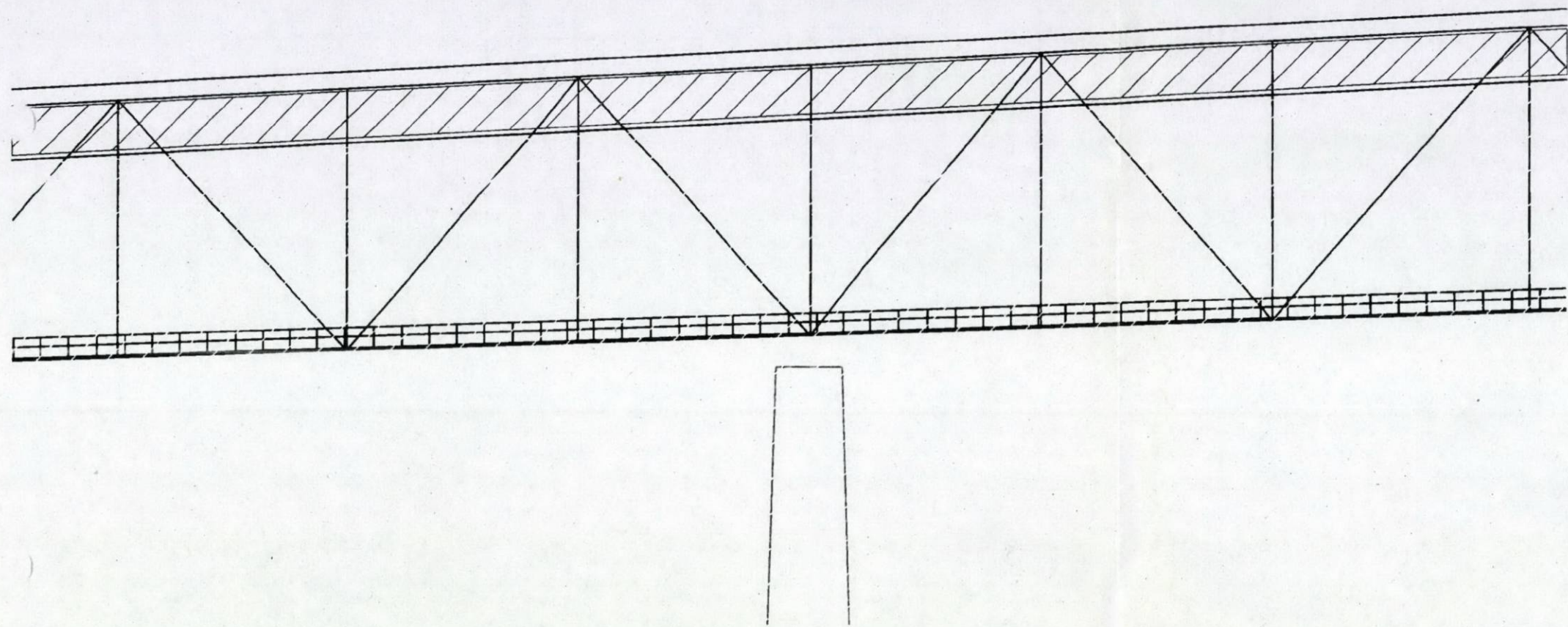
## SECTION 6 – DEFINITIONS

AC	Means Auckland Council
ARC:	means Auckland Regional Council
ACRP:C:	means Auckland Council Regional Plan: Coastal
ACRPS:	means Auckland Council Regional Policy Statement
HGMPA:	means Hauraki Gulf Marine Park Act (delete if you have not used in the report above)
LGAAA:	means Local Government Amendment Act 2004
Manager:	means Major Infrastructure Team Manager
NES	Means National Environmental Standard
NZCPS:	means New Zealand Coastal Policy Statement 2010
ACRP:ALW	means Auckland Council Regional Plan: Air, Land and Water (operative in part 2010)
RMA:	means Resource Management Act 1991 and further amendments





AUCKLAND HARBOUR BRIDGE - ELEVATION



DETAIL A - TYPICAL ELEVATION ON TRUSS BRIDGE

COLOUR KEY TABLE			
AREA A- UPPER OVER ARCH		AREA F- OVERLAND	
AREA B- LOWER OVER ARCH		AREA G- STREET FURNITURE	
AREA C- TRUSS BRIDGE ABOVE W/W		AREA H- EXTENSION INTERNAL	
AREA D- TRUSS BRIDGE BELOW W/W		AREA I- CHORD INTERNAL	
AREA E- EXTENSIONS EXTERNAL			

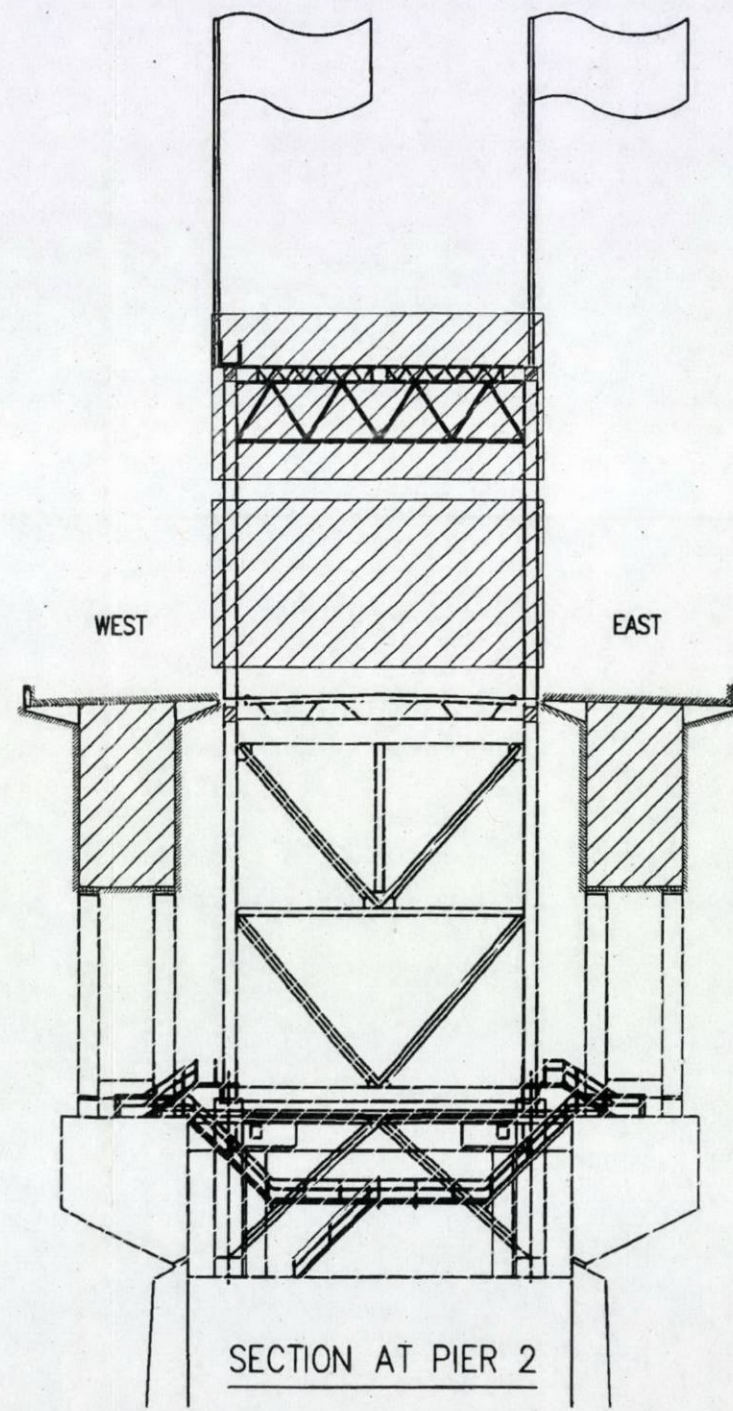


FIGURE 1 - PROPOSED ZONES FOR ENCAPSULATION