



ENVIRONMENTAL MANAGEMENT PLAN

FOR

POLYTAN NZ LTD

<p>BOYD WILSON TURF RESURFACE VICTORIA UNIVERSITY OF WELLINGTON KELBURN, WELLINGTON</p>		
<p>██████████</p> <p>Prepared By:</p>	<p>████████████████████</p> <p>Signature:</p>	<p>10 December 2024</p> <p>Date:</p>
<p>██████████</p> <p>Reviewed By:</p>	<p>████████████████████</p> <p>Signature:</p>	<p>10 December 2024</p> <p>Date:</p>

ENVIRONMENTAL POLICY

Polytan's policy forms the foundation for the project's environmental performance.

Polytan is committed to the achievement of sustainable development through the development, implementation, execution and maintenance of environmental principles and processes for the design, construction and operation of the project.

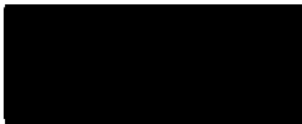
The firm will achieve its environmental objectives through the recognition and encouragement of a genuine respect for the environment and its protection.


In implementing this policy, Polytan will, during design, construction and operation of the project:

- Design strategies based on the three key performance areas (conservation of species, conservation of resources, and pollution control).
- Meet these targets.
- Monitor, review and continually improve environmental performance.
- Minimise the generation of waste.
- Use best available environmental protection techniques.

This commitment will be achieved by the production of a suitable project specific environmental management plan and the appointment of suitable personnel responsible for the monitoring and adjustment of environmental controls.

POLYTAN NZ LTD




Managing Director



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Title: Contract Environmental Management Plan
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Rev 0	10 December 2024	For Construction	[Redacted]

Management Review

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Endorsement of CEMP

[Redacted]

Project Engineer

10 December 2024
Date

[Redacted]

General Manager

10 December 2024
Date

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1. Overview

1.1. Purpose and Scope

This document has been prepared to ensure that environmental best practice is followed throughout all stages of the works as undertaken by Polytan NZ LTD. It exists also to ensure that compliance with the legislation listed in section 3 of this document.

The document covers a complete range of environmental issues. Whilst many of these issues are unlikely to arise during this project, this document has been prepared to provide comfort to the client that both Polytan and its associated sub- contractors are aware of the appropriate environmental measures that are required in any instance.

1.2. Polytan's Environmental Objectives

Polytan's environmental protection objectives with respect to the construction of a synthetic football field are to:

- Manage the delivery of the services so that adverse impact on the environment is limited,
- Maintain trust, good faith and cooperation between Polytan, the Client, and the community.
- Define Polytan's management of environmental protection when delivering construction projects,
- Provide guidance to the Client on Polytan's obligations in sports field construction.
- Set down the frequency and responsibilities for management review of this Plan.

Polytan's objectives will be met through good leadership, commitment and training.

1.3. Practice of Environmental Protection

Polytan will:

- Assess risks and plan work activities to eliminate or control foreseeable impacts or risks and comply with specified environmental protection requirements,
- Comply with relevant environmental, conservation, heritage, pollution, waste management and fire control legislation and regulations,
- Implement and maintain a risk-based performance evaluation program to verify that the Services are in compliance with this CEMP,
- Consult with employees and subcontractors and disseminate environmental information,
- Provide appropriate instruction and training for employees and subcontractors,
- Set up response procedures which will initially contain, then remedy, any environmental damage which does arise and
- Improve environmental protection measures and revise this CEMP promptly when deficiencies are identified.

1.4. Document Structure

Management Plans have been prepared for each of the key environmental issues relevant to the construction activities at the site, as follows:

- Traffic and Access Management Plan;
- Waste Management and Recycling Plan;
- Hydrocarbon and Hazardous Substances Management Plan;
- Noise and Vibration Management Plan;
- Water Resources Management Plan;
- Dust Impact Negation Plan;
- Vegetation and Fauna Management Plan;
- Heritage Management Plan;
- Stormwater Management Plan, and;
- Soil and Sedimentation Management Plan.

The Management Plans are outlined in **Sections 3.1 to 3.10**. The following components are identified for each Plan:

Purpose;
Scope;
Parties responsible for implementing the Plan; and
Procedures required.

An assessment of the potential environmental impacts and issues associated with the construction activities has assisted in determining the procedures outlines in each Management Plan.

1.5. Management of CEMP

Polytan has warranted that it will provide people, materials, resources and systems to properly perform the Services.

Polytan require the people to be competent, experienced and qualified to carry out the Services.

1.6. Summary of Legislative Requirements

Below is a summary of the legislative requirements for the Services under the Contract, excluding specific requirements that may be identified in a future REF for activities not listed in the contract documents.

- New Zealand Standard 'Acoustics - Construction Noise' - NZS 6803:1999 for the relevant noise construction activities.
- Resource consent conditions specific for this project.
- Hazardous Substance and New Organisms Act 1996 for the relevant hazardous substance's environmental standards.
- National Environmental Standards for Air Quality incorporating Amendments as at 1 September 2005 for the relevant air quality standards.
- Councils Erosion and Sediment Control Guidelines
- Australian/New Zealand Water Quality Guidelines for Fresh and Marine Water, (Australian & New Zealand Environment & Conservation Council, 2001) for the relevant standards pertaining to discharges to water.
- Historic Places Act 1993 for the relevant archaeological and heritage standards/practices.
- Protected Objects Act 1975 for the relevant archaeological and heritage standards/practices.
- NZECP 34:2001 - New Zealand Electrical Code of Practice for Electrical Safe Distances - Ministry of Consumer Affairs
- Electricity (Hazards from Trees) Regulations 2003 (SR 2003/375)
- Conservation Act 1987;
- Energy Efficiency & Conservation Act 2000;
- Dangerous Goods Act, 1974 and Regulations; standards/practices;
- Wildlife Act 1953;
- National Environmental Standard for assessing and managing contaminants in soil to protect human health 2011; and
- National Policy Statement for freshwater management 2011.

* Polytan will notify the Client Representative before contacting any Regulating Authority.

1.7. Organisation and Environmental Policies

The principle responsibilities and authorities of Polytan staff with respect to the environment are:

1.7.1 Group Construction Manager

The Group Construction Manager is responsible for ensuring Polytan's delivery of the services meets Polytan's environmental objectives with respect to the sports field construction and that its protection of the environment:

- Is properly resourced with people, equipment and systems and
- Complies with all environmental legislation.

The Group Construction Manager's responsibilities to the client remain with him / her, however, the Group Construction Manager has delegated as follows:

1.7.2 General / Project Manager

The Project Manager has delegated authority from, and responsibility to, the Group Construction Manager as follows:

- Overall responsibility for environmental protection for the sports field construction, including:
 - Approving and regular evaluation of Polytan's environmental controls and this CEMP' and;
 - Ensuring, for both Polytan staff and subcontractors, documented environmental procedures are followed and records are kept;
- Encouraging the active involvement of all staff in the management of the environment;
- Coordinating CEMP activities of all personnel involved in the contract;
- Monitoring subcontractor performance and commitment;
- Arrange and ensure environmental protection training of both staff and subcontractors takes place as required by this Plan and the Environmental Emergency Plan;
- Act on corrective/preventive action notifications concerning environmental protection ensuring they are raised when appropriate and are closed out before the process or equipment is used again;
- Ensuring Polytan's response to environmental emergencies including:
 - Ensuring it is appropriately resourced with trained people and with the equipment and materials required and they are deployed;
 - Ensuring that processes and control systems needed for the plan are established, implemented and maintained;
 - Arranging and approving training which ensures that all personnel understand what is required of them in emergencies;
- Liaison with:
 - Regulatory agencies including determining which approvals, licences and permits are required and obtaining them;

- The client to ensure its environmental requirements are met and ensuring that variations to the scope or timing of the Services that impact on the environment are discussed with and agreed to by the client;
- Community Relations including addressing Environmental Impacts and being one of the 24-hour emergency contacts;
- Deliver Polytan's CEMP to the client for its approval within 14 days of the client accepting Polytan's Tender;
- Ensuring reporting on environmental issues takes place as required.

1.7.3 Site Manager

The Polytan site manager has delegated authority from, and responsibility to, the Project Manager for:

- Ensuring environmental hazards and risks are controlled in construction activities and work areas;
- Ensuring the requirements of approvals, licences and permits are met;
- Coordinating or conducting environmental site inspections;
- Monitoring subcontractor behaviour on work sites;
- Identifying training needs with respect to spills and other environmental incidents and arranging for employees and subcontractors to attend the training;
- Holding toolbox meetings and team briefings about managing environmental issues, incidents and emergencies;
- Being one of the 24-hour emergency contacts;
- Implementing incident and emergency procedures and arranging the supply of appropriate environmental incident and emergency equipment;
- Implementing environmental controls during the delivery of services and in work areas;
- Ensuring the requirements of obtaining approvals, licences and permits are met on site;
- Ensuring site personnel (including subcontractors) are appropriately inducted and trained in the use of equipment such as spill kits and comply with environmental protection procedures;
- Advising Project Manager of any environmental protection training needed;
- Site environmental protection inspections and noise checks;
- Ensuring environmental emergency equipment such as spill kits is available at all times and is appropriately located;
- Investigating incidents with Project Manager and client;
- Initiating non-conformance reports or corrective/preventive action notification (using the form appended to the Environmental Management Plan) when environmental protection problems are identified;
- Environmental assessment of subcontractors and their plant and equipment;
- Advising the Project Manager of any environmental or heritage issues the crews encounter; on site, and;
- Storage arrangements for hazardous substances.

1.7.3.1 When responding to Environmental Incidents

- Safety of Polytan's staff and subcontractors;
- Liaison with on-site Emergency Services Controllers when Project Manager is not on site;
- Safety of road users, and;
- Quickly preventing/minimising further environmental damage.

1.7.4 Nominated Environmental Management Representative

The Group Construction Manager has nominated the Project Manger to be Polytan's Environmental Management Representative with delegated authority from, and responsibility for being fully conversant with Polytan's Contract Environmental Management Plan and Environmental Emergency Plan and ensuring they are fully implemented for the Services under this project.

The Environmental Management Representative is to keep Polytan management informed of all issues relevant to the Plans.

The Environmental Management Representative is a point of contact within Polytan on these matters and is particularly responsible for communicating with the client representative and Council.

The Environmental Management Representative's other responsibilities are:

- Planning environmental controls;
- Regular evaluation and periodic audits of both staff and subcontractors at worksites;
- Preparing Site Environmental Checklists;
- Assisting site staff and subcontractors in their implementation of this CEMP;
- Delivering environmental induction and training;
- Keeping environmental records;
- Being conversant with complaints and pollution incidents and their resolution;
- Investigating, controlling and closing-out environmental Non-conformances;
- Being one of the 24-hour emergency contacts;
- Maintain the Register of Material Safety Data Sheets ("MSDS") as described in the Environmental Emergency Plan, and;
- Assisting the Project Manager in:
 - Determining which environmental, approvals, licences and permits are required and then in obtaining them;
 - Reviewing and updating this CEMP;
 - Monitoring the environmental performance of subcontractors.

1.7.5 Subcontractors

- Adopting the CEMP for all Services under Contract.
- Implementing the environmental controls at work sites correctly.
- Following all environmental procedures or controls put in place at work sites.

1.8. Environmental Approvals, Licenses, Permits

Polytan will ascertain from the appropriate authorities which approvals, licences and permits are required for the works.

Prior to the commencement of any works Polytan will obtain those as required.

1.9. Environmental Protection & Emergency Response Training

All Polytan and subcontractors' personnel will attend Polytan's Environmental Induction Meeting prior to the commencement of the works. The Project Manager and Site Manager will arrange and conduct this meeting.

Topics covered at this meeting will be at least the following:

- Polytan's environmental objectives in the project;
- Scope of the project;
- Organisation and Responsibilities;
- Site specific issues such as boundaries for vegetation clearing, importance of any trees of significant value, location of refuse bins, washing, refuelling and maintenance of vehicles, plant and equipment;
- Environmental Impacts, Safeguards and Control Measures;
- Sensitive areas, exclusion zones and other precautions to be taken;
- Waste Management and Reduction;
- Conditions of any environmental licences, permits and approvals;
- Reporting process for environmental harm/incidents;
- Lessons learnt from incidents;
- Control of subcontractors, and;
- Emergency response training including use of personal protective equipment and spill kits.

Any relevant environmental issues which become apparent during the project will be added to this topics list.

All Polytan and subcontractor personnel who wish to commence work during the project will undergo the same induction training provided by the Site Manager, and be obliged to sign the attendance record as proof that they have attended a work site induction briefing (A).

Only people who have been "Environmentally Inducted" will be permitted to work on worksites.

1.10. Environmentally Sensitive Areas

There are no known environmentally sensitive areas in close proximity and of danger by works executed under this project as identified in documents provided.

1.11. Control of Subcontractors

Subcontractors' CEMP's

Polytan will ensure the subcontractor applies its environmental management system for this project.

If the Subcontractor has its own CEMP:

- Document the duties of that subcontractor;
- Audit that subcontractor's CEMP and record the results;



- Induct that subcontractor's personnel in accordance with section 1.10 and Environmental Induction Form;
- Set down the responsibilities Polytan will retain for the management of site environmental protection issues;
- Set down a surveillance program to monitor and document effectiveness of each subcontractor's systems.

If the Subcontractor does not have its own CEMP:

Engage the subcontractor upon the basis that it will adopt this CEMP.

Subcontractor Non-conformance

In the event that a subcontractor is found to be not working to the requirements of the CEMP, Polytan will immediately issue a NCR with a Hold Point which stops the noncompliant process until corrective action is undertaken and the NCR is closed out.

2. Project Description

2.1. The Project

Boyd Wilson Turf Resurface

Project: Boyd Wilson Turf Resurface
Client: Vicotria University of Wellington
Address: Kelburn Parade, Wellington, 6012
Clients Representative: Philip McKague

Tel [REDACTED]

Polytan Senior Site Rep: [REDACTED]
[REDACTED]

Site Location:

2.2. Construction Activities

The project is to consist of the following construction activities:

Construction of one multisport turf including:

- Establishment onsite including temporary fencing, signage, etc.
- Identification, location and protection of all existing services onsite for the duration of the works;
- Site set out from the coordinates provided from construction issue drawings;
- All silt/sediment control works to be completed as per EMP & ESCP; to ensure no contaminated water can enter the existing stormwater network or discharge from site as runoff;
- Implementation of traffic control measures as prescribed in the traffic control plans (TMP);
- Carry out infill removal and sotckpile;
- Loading trucks with infill material and disposing of offsite;
- Rolling up and removal of old turf;
- Inspection and minor repairs to existing shockpad as required;
- Installation of new turf including linemarking;
- Installation of sand infill;
- Installation of performance infill;
- Site clean-up and demobilisation.

2.3. Timing and Staging

Construction dates are:

Construction commencement: 10^h December 2024

Contract Completion date: February 2024

Staging as per contract programme

2.4. Working Hours

Normal site working hours: Monday to Saturday 7:30am – 6:00pm

No other works to be undertaken outside of these hours without the express written consent of the Engineer. No noisy works to be undertaken before 8:00am

2.5. Project Risk Assessment and Control Measures

2.5.1 Site Specific Detail

The site sits at the end of Waiteata Road within the University grounds.

Access to the site will be via Waiteata Road. All vehicles and deliveries must enter and leave the site through this location.

Any vehicles brought to site will be parked within the site or within parking areas further up Waiteata Road.

Truck turning area will be in front of the Boyd Wilson Arena. Parking has been closed in this area.

Noise levels shall be monitored to ensure there are no adverse effects on neighbouring properties.

Soil and silt management plans are in place to avoid contamination of the waterways and existing networks with any contaminated runoff. Adjacent roadways will be kept free of dirt and deposits by regular sweeping.

2.5.2 Importation of Materials

All materials delivered to site will be via Waiteata Road.

2.5.3 Sediment & Erosion Control

Prior to commencement of works

- All erosion and sediment controls would be in place prior to the commencement of work and maintained until all works are completed and disturbed surfaces have stabilised.

- All controls must adhere to the ESCP and any relevant consents.

During construction

- All erosion and sediment controls would be inspected weekly and within 24 hours of a major rainfall event to ensure they are maintained in proper working order throughout the time they are in place.
- Stockpile sites would be in a designated area outside drainage flow paths and protected with sediment fencing.
- All erosion and sediment controls would always be kept clear of debris and cleared of sediment if filled to 50 – 60% capacity.
- Fuels and chemicals would be stored in bunded areas away from drainage lines.
- Construction works would be managed such that areas outside the scope of the works remain as undisturbed as far as possible.
- Works would be stopped if conditions are not suitable, such as during and after heavy rain.

Following construction

- All disturbed surfaces would be reinstated and stabilised as soon as possible after completion.
- Following completion of the works, the site would be cleared of all debris, spoil and foreign matter.

2.5.4 Flood Risk Management

- Regular forecast checks of the Met service site would be undertaken during the works program to monitor for storms and rainfall events.
- In the event of flooding rain, all works would stop, and all plant and equipment would be removed to higher ground above the 1 in 100-year flood level.
- In the event of flooding no workers would be directed into flood waters.
- Any debris and spoil accumulated within the works site as a result of flooding would be removed to the designated stockpile area.
- All environmental controls would be reinstated as soon as possible following flooding.

2.5.5 Land Use Amenity

- During the construction phase, works would be managed such that areas outside the scope of the works remain undisturbed as far as possible.

2.5.6 Noise Management

- Construction vehicle movements and construction hours would be limited to 7:30am to 6:00pm Monday to Saturday.
- No work would be undertaken on Sunday or Public Holidays without written consent.
- The noise level generated by plant and equipment on site would comply with limits set by New Zealand Standard 'Acoustics - Construction Noise' - NZS 6803:1999 for the relevant noise construction activities.
- Typical level of noise at a nominal distance of 10m for this type of machinery is in order of 70 – 90 dBA.
- All equipment would be well maintained and fitted with adequately maintained silencers.

2.5.7 Air Quality

- Watering of stockpiles and exposed areas such as unsealed access roads and compound areas would be undertaken as required.
- Vehicles and plant would be serviced at regular intervals.

2.5.8 Hazard Management

- If flood rains are likely, works at the site would stop and the site would be made safe with all plant and equipment removed from the site to higher ground.
- A workplace risk assessment would be undertaken prior to commencement of works, identifying safety and environmental hazards at the work site.
- All works would be carried out in accordance with this plan and the local authority erosion and sediment control guidelines.
- Any dangerous goods and or hazardous substances (including fuels and chemicals) would be used and stored in accordance with Dangerous Goods Act, 1974 and Regulations; standards/practices.

2.5.9 Cultural Heritage Management

- If materials are found, which are believed to be Maori Pa sites or cultural remains, the works are to stop immediately in the vicinity of the find. In such an instance, it is the responsibility of the Site Supervisor to contact the Senior Project Manager. The Senior Project Manager is to contact the Client Representative as listed in Section 5.11 who will advise of the appropriate course of action.

2.5.10 Waste Minimisation & Management

- Excess spoil that cannot be reused on site would be removed and transported to an approved facility for reuse as appropriate.

3. Environmental Management Plans

3.1. Traffic and Access Management Plan (to be read in conjunction TMP)

Purpose

The purpose of the Traffic and Access Management Plan is to control vehicle access to the site, minimise their impact on the environment and maintain security.

Scope

The Traffic and Access Management Plan applies to all activities associated with project execution.

Responsibilities

All employees and sub-contractors are responsible for undertaking the actions listed in this Traffic and Access Management Plan.

Procedures

- 1) Existing security fencing and site temporary fencing will always be utilised in order to restrict access to the site. Machinery will be stored within the confines of the safety barriers during construction.
- 2) Wherever possible, access will be gained through existing, established access points as per the appended TMP.
- 3) Where access is required to cross open space, movement will be confined to one route to minimise impacts on surrounding land.
- 4) Access tracks will be designed to minimise erosion impacts, such that run-off is diverted to appropriate drainage paths, avoiding concentration of flow where possible.
- 5) Vehicle movements will be restricted to the designated access tracks only, unless pre-approved.
- 6) All temporary construction tracks will be rehabilitated when site activities are completed.

3.2. Waste Management and Recycling Plan

Purpose

The purpose of the Waste Management and Recycling Plan is to effectively manage all wastes generated during project execution, including minimising waste generation and maximising reuse/recycling of materials wherever feasible.

Scope

The Waste Management and Recycling Plan applies to all activities associated with project execution.

Responsibilities

All employees and sub-contractors are responsible for undertaking the actions listed in this Waste Management and Recycling Plan.

Procedures

Solid Wastes:

- 1) All waste materials will be collected and transported off-site for disposal at an appropriately licensed disposal facility. There will be no on-site disposal of waste materials.
- 2) Waste disposal containers will be provided for collection of all waste materials generated during construction.
- 3) All waste containers will be emptied at appropriate frequencies to avoid the bins becoming full and overflowing.
- 4) Green waste from vegetation clearance will be disposed off site.
- 5) Any waste oils and/or hazardous substances (refer Section 3.4) will be collected and contained in a bunded area or container prior to off-site disposal or recycling. The collection area will be sized to store enough containers such that off-site transport and disposal is most efficient, i.e. minimising the number of trips required whilst also minimising the potential environmental and safety hazards associated with storing the waste materials.
- 6) Hardened paints and resins may be disposed at an off-site landfill once in solid form.

Liquid Wastes:

- 1) 'Liquid waste' refers to wastewater generated from ablutions, wash-down of plant and machinery and all other wastewater generated from project execution.
- 2) All liquid wastes will be collected and transported off-site for disposal at an appropriately licensed disposal facility. There will be no on-site disposal of wastewater.



- 3) A licensed liquid waste transporter is required to transport effluent, chemicals and other listed liquid wastes.
- 4) Effluent from the construction office(s) ablutions may be collected in a tank and periodically pumped out by a licensed contractor for disposal off-site, or in an installed septic system. Effluent will be disposed in accordance with requirements of the RMA and Local Council.

General:

- 1) Receipts will be kept for all off-site waste disposal events, if required.
- 2) A waste management register will be kept detailing the type of waste collected, amounts, date/time, by whom, and the disposal location.
- 3) Fire prevention and precautions and the requisite equipment are dealt with in the Site-Specific Safety Management Plan and MSDS's for the relevant substances,

3.3. Hydrocarbon and Hazardous Substances Management Plan

Purpose

The purpose of the Hydrocarbon and Hazardous Substances Management Plan is to manage the storage, handling and application of hydrocarbons and other hazardous substances during project execution, in order to minimise impacts to the environment, and to meet statutory requirements.

Scope

The Hydrocarbon and Hazardous Substances Management Plan applies to all activities associated with project execution.

Responsibilities

All employees and sub-contractors are responsible for undertaking the actions listed in this Hydrocarbon and Hazardous Substances Management Plan.

Procedures

- 1) Any fuels, when stored on site, will be in a secure compound, with an earthen bund. The bund will be constructed to allow safe entry and storage of a mobile tanker and the bund will be able to contain at least the maximum volume of the tank.
- 2) No other diesel or unleaded fuel storage facilities (either mobile or stationary) shall be installed at the site, without prior approval.
- 3) Approval for mobile tanker access to site will be conditional on the vehicle being fitted with a suitably sized spill kit.
- 4) The bund will be constructed with a low point suitable for pumping out liquid. Any uncontaminated rainfall will be pumped out of the bund as soon as possible after the rainfall event.
- 5) In the event of sabotage or spillage of diesel into the bund, the liquid in the bund shall be pumped out by a licensed liquid waste contractor at the earliest possible opportunity, to prevent soakage of fuel into the ground.
- 6) All equipment, materials and substances brought onto site shall be advised to the Site Manager. Any hazardous substances will be identified and recorded in the project logbook to be in the site office along with all relevant MSDS's.
- 7) Material Safety Data Sheets (MSDS's) shall be supplied with any hazardous substances delivered to the site and these will be kept by the Site Manager in the site office.
- 8) Any hazardous substances should be stored and handled in accordance with the Dangerous Goods Act, 1974 and Regulations; standards/practices, and relevant MSDS's and Hazardous Substance and New Organisms Act 1996 for the relevant hazardous substance's environmental standards



- 9) Any spills of hazardous substances should be immediately contained and removed. Where a significant spill occurs, the Regional Council shall be notified. Any clean-up required shall be undertaken promptly as per the requirements of the relevant MSDS. Where required, the assistance of an environmental consultant will be sought.
- 10) Polytan has prepared an environmental emergency plan. This plan forms Appendix C.
- 11) Fire prevention and precautions and the requisite equipment are dealt with in the Site-Specific Safety Management Plan and MSDS's for the relevant substances,

3.4. Noise and Vibration Management Plan

Purpose

The purpose of the Noise and Vibration Management Plan is to manage noise and vibration effects during construction activities, in order to minimise impacts to nearby residents, livestock and native flora and fauna, and to meet statutory requirements.

Scope

The Noise and Vibration Management Plan applies to all activities associated with project execution. This Plan does not address OHS&R obligations regarding noise impacts on workers, which is addressed in the SSSP.

Responsibilities

All employees and sub-contractors are responsible for undertaking the actions listed in this Noise and Vibration Management Plan.

Procedures

- 1) Equipment must be equipped with proprietary noise abatement devices such as mufflers and enclosures, where treatment is available. Noise abatement devices will be maintained in an efficient condition and operated in an efficient manner.
- 2) Normal working hours for construction activities will be as detailed in Section 2 of this EMP. Further monitoring shall take place in consultation with the nearby Events Centre to ensure their day to day activities are not affected.
- 3) Where work activities are planned outside of normal hours, adjacent residents will be notified of proposed start and finish times for construction activities, prior to commencement. Specific additional notification will be given for any unusually noisy construction activities.
- 4) The use of horns and engine breaks will be avoided when approaching or departing the sites.
- 5) The use of sirens is not permitted on site, except in the event of an emergency or as required under the SSSP.
- 6) Equipment emitting high noise levels will be situated to maximise the distance to the nearest residence, where feasible.
- 7) Care should be taken when dropping materials from a height and when loading/unloading.
- 8) Compaction equipment shall be sized such that it meets the requirements of the level of compaction required without causing undue impact on nearby residents, livestock and native flora and fauna, and to meet statutory requirements.
- 9) Compaction equipment shall be maintained to a high start and in good working order prior to being engaged on site.



- 10) Care shall be taken around any existing building foundations and above/below ground services to avoid any damage their structural integrity. Compaction equipment shall be sized such that no damage is done to these items.
- 11) Noise and vibration levels shall be controlled and monitored as part of the routine environmental inspections as required by this plan.
- 12) Noise levels will be controlled via working in the timeframes permitted.
- 13) All noise generated by plant and equipment will be maintained within the standards as set in New Zealand Standard 'Acoustics - Construction Noise' - NZS 6803:1999 for the relevant noise construction activities.
- 14) All equipment will be maintained and fitted with noise suppression devices.

3.5. Water Resources Management Plan

Purpose

The purpose of the Water Resources Management Plan is to minimise impacts to water resources by reducing water consumption during construction activities wherever feasible. In terms of minimising impacts to water quality, that is the key purpose of the Sediment Erosion and Drainage Management Plan, however the two Plans are linked.

Scope

The Water Resources Management Plan applies to all activities associated with site construction.

Responsibilities

All employees and sub-contractors are responsible for undertaking the actions listed in this Water Resources Management Plan.

Procedures

- 1) Water for construction activities and support services shall either be sourced locally, or delivered to site.
- 2) Polytan will identify any water source it intends to use for dust control, earthworks/pavement compaction, on-site concrete batching and the like, obtain any required licences, permits or approvals and comply with any conditions they or Legislation impose.
- 3) Drinking water will be either imported or filtered rainwater.
- 4) The natural waters (streams etc.) and groundwater shall not be used for construction.

3.6. Dust Impact Negation Plan

Purpose

The purpose of the Dust Impact Negation Plan is to manage the effects of dust during construction activities, in order to minimise impacts to nearby residents, livestock and native flora and fauna, and to meet statutory requirements.

Scope

The Dust Impact Negation Plan applies to all activities associated with project execution.

Responsibilities

All employees and sub-contractors are responsible for undertaking the actions listed in this Dust Impact Negation Plan.

Procedures

- 1) All materials stockpiled on site will be kept to a minimum for the day's activities to prevent digression to nearby properties and native flora and fauna during times of high wind.
- 2) Stripped areas of earth will be kept to a minimum during construction.
- 3) If it becomes evident that weather conditions are causing dust to migrate to nearby properties and native flora and fauna; construction activities will cease until such time as; 1) dust can be controlled through the use of water truck; or, 2) inclement weather conditions abate.
- 4) A water truck will be present on site with enough capacity to douse the entire construction site during high winds. This vehicle will remain on site until such time as earthworks are completed.
- 5) If materials are to be stockpiled on site, they shall be rolled to a tight bund to avoid the effects of wind.

3.7. Vegetation and Fauna Management Plan

Purpose

The purpose of the Vegetation and Fauna Management Plan is to manage the effects of the construction activities on vegetation and fauna in order to minimise impacts to plants, trees and other vegetation as well as native wildlife and to meet statutory requirements.

Scope

The Vegetation and Fauna Management Plan applies to all activities associated with project execution.

Responsibilities

All employees and sub-contractors are responsible for undertaking the actions listed in this Vegetation and Fauna Management Plan.

Procedures

- 1) All existing plants and trees on site are to be preserved using every precaution necessary to prevent damage or injury thereto except as otherwise allowed as part of the works.
- 2) All site personnel shall observe the limits of clearing and are made aware of the importance of any trees of significant value.
- 3) All native wildlife will be protected. No firearms will be allowed on site except for security purposes permitted by law.
- 4) All wildlife will be protected.

3.8. Heritage Management Plan

Purpose

The purpose of the Heritage Management Plan is to protect and preserve all heritage sites from any damage or effects caused by construction activities.

Scope

The Heritage Management Plan applies to all activities associated with project execution.

Responsibilities

All employees and sub-contractors are responsible for undertaking the actions listed in this Heritage Management Plan.

Procedures

- 1) All staff commencing work on site will have received training regarding their responsibilities under the Resource Management Act, and;
- 2) All staff is made aware of any relevant sites/areas which must be avoided.
- 3) If Polytan encounters any previously unknown Maori object or material (including skeletal remains) suspected of being of Maori origin, it will cease all construction work that might cause damage or disturbance.
- 4) Polytan will then notify the client immediately in accordance with the Historic Places Act 1993 for the relevant archaeological and heritage standards/practices; and Protected Objects Act 1975 for the relevant archaeological and heritage standards/practices.
- 5) Polytan will ensure that all personnel working on site have received training regarding their responsibilities under the Act and are made aware of any relevant sites/areas which must be avoided. Such sites/areas will be identified on a site map, to be made available to all relevant personnel during the Services.
- 6) Should any previously unknown item be encountered which is suspected to be a relic or heritage item, all works will stop and measures to protect the item from damage or disturbance will be taken. The client Representative will be notified immediately.

3.9. Stormwater Management Plan

Purpose

The purpose of the Stormwater Management Plan is to ensure that there is no direct discharge of contaminated water from the construction works into existing stormwater infrastructure.

Polytan will plan and carry out the whole of the Services to comply with Erosion and Sediment control guidelines for the relevant standards pertaining to the construction and maintenance of erosion and sediment control measures for soil disturbing activities.

Polytan will provide adequate controls to ensure that any water entering the waterways or stormwater drainage system from areas it disturbs complies with the aforementioned standards.

Scope

The Stormwater Management Plan applies to all activities associated with project execution

Responsibilities

All employees and sub-contractors are responsible for undertaking the actions listed in this Stormwater Management Plan.

Procedures

- 1) All storm water inlets, grated sumps, etc. within the construction footprint will be fitted with approved storm water sediment filtering devices. These will be maintained for the duration of the demolition and pavement construction components of the works.
- 2) Stormwater sediment filtering devices shall be monitored during rainfall events to ensure operation.
- 3) All vehicles leaving site will be subjected to appropriate inspection and stabilised access facilities (if required) to ensure no excess sediment is discharged into stormwater lines outside the construction footprint.
- 4) Alteration to the existing stormwater line and grated pits will only be carried out during dry weather.
- 5) All refuelling use and storage of hazardous materials will comply with Hydrocarbons and Hazardous Materials Management Plan above.
- 6) Appropriately constructed and situated wash out areas will be used when washing out concrete trucks and washing down plant and equipment.

3.10. Soil and Sedimentation Management Plan

Purpose

The purpose of the Soil and Sedimentation Management Plan is to manage the effects soil and sedimentation runoff during construction activities, in order to minimise impacts to nearby residents, livestock and native flora and fauna, and to meet statutory requirements. Further details of the outcomes of this plan are included in the erosion & sediment control plan.

Polytan will plan and carry out the whole of the Services to comply with the Resource Management Act and Council Erosion and Sediment control guidelines for the relevant standards pertaining to the construction and maintenance of erosion and sediment control measures for soil disturbing activities.

Polytan will provide adequate controls to ensure that any water entering the waterways or stormwater drainage system from areas it disturbs complies with the aforementioned standards.

Scope

The Soil and Sedimentation Management Plan applies to all activities associated with project execution.

Responsibilities

All employees and sub-contractors are responsible for undertaking the actions listed in this Soil and Sedimentation Management Plan.

Procedures

- 1) All materials stockpiled on site will be kept to a minimum for the day's activities to prevent digression to nearby properties and native flora and fauna during times of high wind.
- 2) If it becomes evident that weather conditions are causing dust to migrate to nearby properties and native flora and fauna; construction activities will cease until such time as; 1) dust can be controlled through the use of water truck; or, 2) inclement weather conditions abate.
- 3) A water truck will be present on site with enough capacity to douse the entire construction site during high winds. This vehicle will remain on site until such time as earthworks are completed.
- 4) All stormwater inlets, grated sumps, etc. within the construction footprint will be fitted with approved stormwater sediment filtering devices. These will be maintained for the duration of the demolition and pavement construction components of the works.
- 5) Stormwater sediment filtering devices shall be monitored during rainfall events to ensure operation.

- 6) All vehicles leaving site will be subjected to appropriate inspection and stabilised access facilities (if required) to ensure no excess sediment is discharged into stormwater lines outside the construction footprint.

Appendix A – Spill Prevention & Containment Procedures

Spill Prevention

Purpose

To fulfil Polytan's commitment to providing a work site free from the risk of environmental incidents.

Scope

This procedure outlines the actions that will be followed to prevent and contain spills at the worksite. It outlines the measures to be employed to control and remove chemical, fuel and lubricant spillage.

The activities covered by this procedure include:

- Refuelling, maintenance or cleaning of plant and equipment including concrete agitators, bitumen spray bars and asphalt pavers.
- Use of adhesives and polyurethane binders.
- Use of solvents and cleaning agents.

Procedure - Preventing spills

No hazardous material will be stored within 50 metres of a waterway.

All Polytan vehicles will carry the MSDS as described in the Environmental Emergency Procedure. These are also available at the 24-hour contact number.

All hazardous liquids will be stored in imperviously bunded areas. The bunded areas:

- Will conform with applicable New Zealand Standards;
- Will each have a capacity (after allowing for the reduction in bund capacity caused by containers sitting on the floor of the bund) of not less than 120% of the volume of the largest container stored in the bunded area.

A register is maintained of all chemicals kept on site.

Empty chemical containers will be removed from site and either:

- Returned to the supplier (where possible) or;
- Disposed of in accordance with the relevant legislation.

All staff will be made aware of this procedure.

If a spillage occurs the following procedure will be followed.

- Immediately identify the spilled material and notify the Site Manger. Subcontractors are to notify Polytan site personnel.
- Refer to MSDS for Personal Protective Clothing needed.
- Assess the need for containment
- If containment is required, contain using earth mound and/or absorbent socks/spill kit.
- Use the relevant clean up procedure in MSDS to clean the pavement, shoulders and other affected areas and structures.
- Dispose of material using a licensed contractor, and keep records of disposal on site.
- Complete an Incident Reporting Form and forward it to the Project Manager

Appendix B – Environmental Emergency Plan Scope of this Plan

This Environmental Emergency Plan (“EEP”) sets down Polytan’s management of environmental emergencies during the Services.

It deals with:

- Being prepared for emergencies and;
- Responding to and managing emergencies.

The following are of significance:

- Incidents and accidents (including vehicle fires) on the construction site;
- Refuelling, maintenance or cleaning of plant and equipment including concrete agitators, bitumen spray bars and asphalt pavers.
- Spill of large volumes of polyurethanes

This Plan is part of Polytan Contract Environmental Management Plan and complements Polytan’s Safety Incident Plan. It should be read with them.

The Plan addresses requirements of the Resource Management Act, 1991 (RMA).

Principle

In the event of an emergency the first consideration is the safety of Polytan and client personnel and the public. Following the safety of the staff and the public the next consideration is the minimisation of damage to the environment.

Purposes of this Plan

This Plan aims to make staff aware of the requirements for the timely planning and safe response to incidents in order to minimise damage to the environment.

Polytan’s Key Site Personnel

Site Manager and Project Manager will be the first point of contact when an incident or spill occurs. They can be contacted 24 hours a day.

In the event of Polytan finding or being notified of an incident or accident or environmental emergency on the construction site or in the Services to which Polytan is required to respond any one of these people will mobilise Polytan’s emergency people and their equipment and ensure the relevant Procedure, Communication Strategy and Reporting is being followed

The names and contact numbers for these people will be given to all staff and contractors at their induction. They will also be displayed in the site offices together with the numbers of emergency services (e.g. ambulance, fire brigade, spill clean-up services).

A copy of the Environmental Emergency Procedure & Communication Strategy flowchart will be kept in every Polytan vehicle.

Emergency Contacts

Name	Position	Daytime Contact No.	Mobile phone No.
██████████	General Manager		██████████
██████████	Project Manager		██████████

Material Safety Data Sheets

Polytan's site manager will maintain an up-to-date master file ("Register") of Material Safety Data Sheets ("MSDS") for all materials used by Polytan in performing the Services and for materials it reasonably expects could be spilt or be found burning in vehicle fires on the network e.g. bitumen, fuels, pesticides, strong acids and alkalis, paint, adhesives, solvents.

Controlled, updated copies of these MSDS will be immediately to hand:

- In all Polytan vehicles and
- Prominently displayed on all worksites.

Containment Measures

In the event of spillage of fuels, paint and/or chemicals on then Polytan will:

1. Identify the spilled material and, from its Material Safety Data Sheet ("MSDS"), determine what precautions need to be taken e.g. wearing Personal Protective Equipment;
2. Stop the source of the spill;
3. Use containment equipment/kits to contain the spill in accordance with the MSDS;
4. Block nearby drainage channels with earth or sandbags;
5. If the spill occurs in the vicinity of a natural watercourse or in an environmentally sensitive area take immediate extra precautions such as construction of earth mounds downstream of the spill, blocking-off natural drainage channels with earth or sandbags;
6. Treat any chemical spill according to the MSDS;
7. If the spill is large or if the above measures appear to be inadequate, call the Fire Brigade and give them location, UN number and Hazchem code and size of spill;
8. Excavate and store (in labelled drums) contaminated material and transport it to an approved waste management facility.
9. Raise an Environmental Incident Report and report the incident to the Project Manager or their representative,
10. Notify the Clients Representative

Activity	Material	Method
Collecting	Liquid	Pump into tank or drum
	Powders	Shovel or suck into tanks or drums
Cleaning	Liquids (water soluble)	Hose down with water-do not use more than necessary Pump into tank or drum
	Liquids (non-water soluble)	Hose down with high pressure water jet-do not use more than necessary Pump into tank or drum
	Powders	Shovel. Use a broom to pick up remainder.
	<i>If in doubt about what to use as a cleaning agent</i>	
Disposal	All	By a "controlled waste facility" ("Controlled Waste Facility" is defined to mean a waste facility of a class specified in the regulations)

Follow Up Action

1. Send any staff exposed to hazardous materials, including smoke or fumes, to health authorities to assess any effect upon their health,
2. Restore Emergency Equipment to original state,
3. Advise the Project Manager of any improvements to this Plan

Appendix C – Environmental Procedure, Communications & Reporting

