



# Roydon Quarry Draft Spill Management Plan

Proposed Roydon Quarry  
Templeton, Christchurch.

## REPORT DETAILS

**Project Name:** Draft Roydon Quarry Spill Management Plan

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<b>Document Author:</b>	Marsha Mason
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## AUTHORISATION FOR ISSUE

<b>Environmental Advisor</b>	Name:	Date:
<b>Quarries Divisional Manager</b>	Name:	Date:

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## 1.0 INTRODUCTION

### 1.1 Background

Fulton Hogan Limited (Fulton Hogan) is a leading infrastructure, construction, roadworks and aggregate supplier in New Zealand. Fulton Hogan currently has three fixed aggregate quarries located in the greater Christchurch area and began its operations in the Canterbury region over 50 years ago.

The Roydon Quarry site, located in Templeton, is proposed to be another long-term operation. Fulton Hogan has sought resource consents from Canterbury Regional Council and Selwyn District Council to authorise this proposed quarry and the associated activities. This Draft Spill Management Plan (SMP) has been prepared to accompany this consenting process.

The site is located within a block of land bound by Curraghs Road, Dawsons Road, Maddisons Road, and Jones Road, and comprises an area of approximately 170 hectares. The site is located on the edge of the Selwyn District, with the opposite side (east) of Dawsons Road being the western border of Christchurch City. The street addresses for site are 107 Dawsons Road and 220 Jones Road.

### 1.2 Document Purpose

During the daily operations at the proposed Roydon Quarry, there is some risk that a spill or leak could occur from the use of fuels and oils critical to the quarry's operations. It is everybody's responsibility to ensure that their actions resulting from day-to-day activities do not result in damage to the environment.

Ensuring all spill risks are identified and minimised, and that staff are trained to respond quickly to a spill, are all critical elements that must be in place to ensure adequate management of these activities associated with the Roydon Quarry. This plan has been prepared to ensure that the risk of spills is appropriately controlled and sets out the associated proposed consent conditions and minimum standard expected at this site.

A copy of the SMP shall be provided to the Canterbury Regional Council upon request.

### 1.3 Site Activities

The key activities that may present a risk of a spill of hazardous substances on this site are the refuelling of equipment, and maintenance of vehicles/machinery such as the repair of a hydraulic hose. The key hazardous substances relating to these activities are fuels and hydraulic fluids. Other hazardous substances that are typical on a quarry site are minimal levels of aerosols, greases, paints, and compressed gases such as oxygen and acetylene.

### 1.4 Proposed Consent Conditions

The consent conditions set out in Table 1, are proposed for spill management at Roydon Quarry and set out the framework to which this Draft SMP relates.

Table 1 also references the relevant sections of this Draft SMP against each requirement of the proposed conditions as they apply.

**Table 1: Draft SMP sections referenced against the Proposed Consent Conditions**

Proposed Canterbury Regional Council land use consent conditions for the Roydon Quarry		Document Reference (Section)
<b>Condition 32</b>		
The consent holder shall take all practicable measures to prevent leaks and avoid spills of fuel or any other hazardous substances in accordance with a Spill Management Plan. This shall include but not be limited to:		Section 2.0
a)	Refuelling or maintenance of vehicles or machinery maintenance shall not occur on the quarry pit floor with the exception of generators for mobile plant;	Section 2.3, Section 2.6
b)	Appropriate servicing and maintenance of vehicles and machinery such that they do not result in leaks or spills;	Section 2.4
c)	Only undertaking refuelling or maintenance on vehicles or machinery on hardstand surfaces that are roofed;	Section 2.4
d)	A spill kit capable of absorbing all fuel and oil products shall be kept on site and available at all times. All staff involved in the implementation of activities in condition (XX) are to be trained in the use of spill kits.	Section 1.6, Section 2.5
<b>Condition 33</b>		
The consent holder shall prepare and implement a Spill Management Plan for the site. The Spill Management Plan shall:		Section 3.0, Section 1.5
a)	Document the measures to prevent leaks and avoid spills of fuel or any other hazardous substance (including fuel reconciliations);	Section 2.0
b)	Set out the procedure to be undertaken in the event of a spill of fuel of any hazardous substance, in accordance with condition (x);	Section 3.0, Figure 1
c)	Set out staff training requirements for responding to spills; and	Section 1.6
d)	Be provided to Canterbury Regional Council on request.	Section 1.2
<b>Condition 34</b>		
In the event of a spill of fuel or any other hazardous substances:		
a)	The spill shall be cleaned up as soon as practicable, and measures taken to prevent a recurrence;	Section 2.5, Section 3.0
b)	The Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance shall be informed within 24 hours of a spill event exceeding four litres and the following information provided:	Section 4.0
i.	The date, time, location and estimated volume of the spill;	Section 4 (1)
ii.	The cause of the spill;	Section 4 (2)
iii.	The type of hazardous substance(s) spilled;	Section 4 (3)
iv.	Clean up procedures undertaken;	Section 4 (4)
v.	Details of the steps taken to control and remediate the effects of the spill on the receiving environment;	Section 4 (5)
vi.	An assessment of any potential effects of the spill;	Section 4 (6)
vii.	Measures to be undertaken to prevent a recurrence	Section 4 (7)

Note: similar conditions (55 to 58) are included in the Selwyn District Council resource consent and this plan will help ensure compliance with these conditions as well.

## 1.5 Site Responsibility

The overall management of the site will be the responsibility of the Roydon Quarry Manager or delegated authority and will include:

- Ensuring compliance with relevant resource consent conditions.
- Communicating the relevant resource consent requirements to staff, contractors and all other relevant parties.
- Ensuring compliance with the SMP and all other associated documents.
- Maintaining the hazardous substance inventory, stock reconciliations and ensuring adequate controls are implemented.
- Investigating effectiveness of operating procedures and communicating if any changes need to be made.
- Inspection and maintenance activities.
- Reviewing environmental incidents.
- Leading staff to ensure environmental responsibility is being practiced.
- Ensuring that spills on access roads onto the site are immediately addressed where they are a result of site activities and/or vehicles entering or exiting the site.

## 1.6 Training

All operational staff who will be undertaking works at this site will be trained and equipped to identify and minimise spill-related hazards, be capable of responding safely to all incidents, and shall be trained in the use of the spill kits.

To facilitate this, all Fulton Hogan employees will attend Fulton Hogan's internal comprehensive "Enviro Wise" programme which provides a three to four hour introduction to key environmental hazards, their controls and sustainability. Specifically, during this training programme, staff will be involved in a controlled practical spill response session where they are shown examples of spilt materials such as oil and cement, and the appropriate clean-up method to be used from a typical spill kit.

## 2.0 SPILL MANAGEMENT CONTROLS

The key approach to the management of hazardous substances on site is to reduce the risk of spills occurring. Attention in this area will significantly reduce the risk of business interruption, costs and wastage by minimising the occurrence of spills in the work area.

The following measures will be implemented for the storage and handling of hazardous substances and will be in line with the Health and Safety at Work Act (Hazardous Substances) Regulations.

### 2.1 Hazardous Substances Inventory

- An inventory of all hazardous substances, stating maximum volumes will be maintained on site.
- All Safety Data Sheets (SDS) for each substance will be available to ensure that the appropriate personal protective equipment (PPE) and clean-up/disposal methods can be referred to in the event of spill.

### 2.2 Storage

- The volumes of hazardous substances stored will be reduced as far as practicable. Any materials deemed surplus to requirements will be disposed of at an appropriate disposal facility.
- All hazardous substances will be stored within a designated area, separated by the prescribed separation distances and appropriate controls implemented as outlined in the Hazardous Substance Regulations.

### 2.3 Refuelling and Maintenance of Vehicles and Machinery

- Refuelling or maintenance of vehicles/machinery will not occur on the quarry pit floor with the exception of generators for mobile plant. In the case that mobile plant must be refuelled within the quarry pit floor, a drip tray will be used during the refuelling process, with an appropriately-trained person supervising this process.

### 2.4 Servicing and Maintenance of Vehicles and Machinery

- The servicing and maintenance of vehicles will be undertaken within the designated hardstand area which is rooved, bunded and houses an oil-water separator system<sup>1</sup>.
- The maintenance of fixed and mobile crushing plant will be undertaken within the quarry pit area. Controls such as drip trays will be in place for activities that are at risk of spilling a hazardous substance.
- All maintenance of vehicles and machinery will be undertaken by a person that has been assessed as 'competent to operate' for this task.

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<sup>1</sup> In the case of a machine/vehicle breaking down on site where it is unable to be moved, emergency maintenance may need to occur on site prior to a full service being undertaken in the designated area.

## 2.5 Spill Kits

- A spill kit capable of absorbing all fuel and oil products shall be available at all times.
- Spill kits capable of absorbing fuel and oil products will be placed in critical areas such as at the workshop and during refuelling/maintenance of equipment within the quarry pit floor.
- Spill kits will be regularly inspected to ensure they are fully stocked.

## 2.6 Fixed Diesel Storage

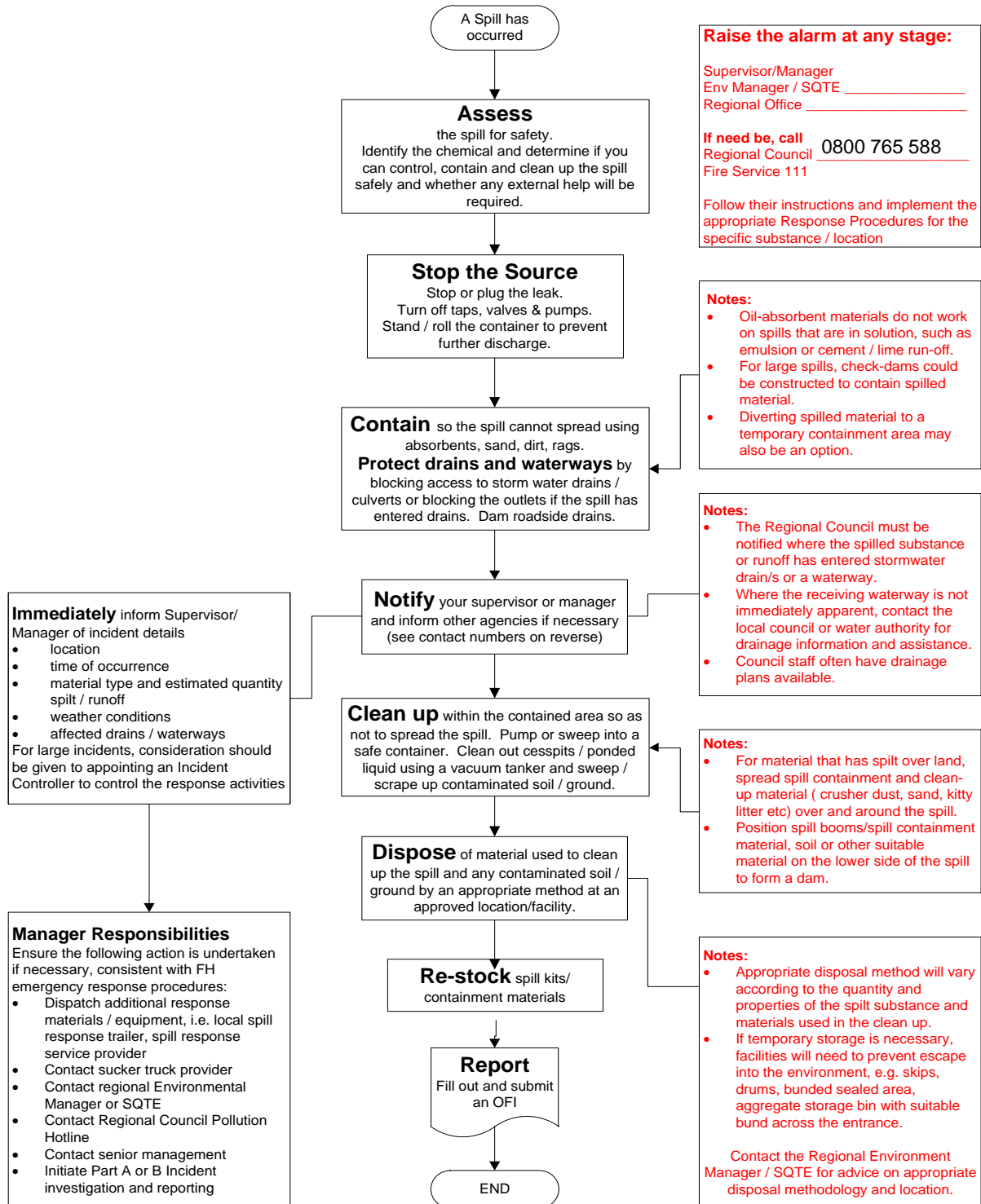
- Where any above ground, fixed storage tank occurs, it will be located on an impervious platform.
- All fixed tanks will have an integrated secondary containment system in the form of a double skin with a secondary containment volume not less than 110 percent of the total fuel storage volume of the tank.
- All fixed tanks will be fitted with an overfill protection device. All fittings will have dry break couplings and manual dips or checks of the capacity of the tanks will be taken prior to the delivery of fuel.
- All vehicle refuelling will take place on a bunded impervious hard stand, within an enclosed rooved area that houses an oil-water separator. This area will be designed to enable a refuelling truck to be located on the rooved hardstand area.
- During diesel delivery and refuelling, staff trained in the delivery of hazardous substances will supervise the filling process to ensure overflowing does not occur.
- Only approved personnel with fuel cards will have access to the fuel within this system.
- A monthly visual inspection for leaks and spills of the tank connections, pipework and ancillaries for leaks and system integrity will be undertaken by the Quarry Manager or delegate.
- Fuel stock reconciliation will be undertaken within 24 hours of any diesel being delivered and thereafter on a fortnightly basis. A monthly review of cumulated variances between the quantities of fuel used, use and stock on hand will be undertaken. If a discrepancy of more than 100 L or 0.5 percent is identified, whichever is smaller, then the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager will be notified within 24 hours.



### 3.0 SPILL RESPONSE PROCEDURE

In the event of a spill, the spill shall be cleaned up as soon as practicable in accordance with the following Spill Response Procedure set out in Figure 1.

**Figure 1: Spill Response Procedure**



#### 4.0 REPORTING

The Canterbury Regional Council, Attention: Regional Leader – Monitoring and Compliance will be informed within 24 hours of a spill event exceeding 4 L, and the following information will be provided:

1. The date, time, location and estimated volume of the spill.
2. The cause of the spill.
3. The type of hazardous substance(s) spilled.
4. The clean-up procedures undertaken.
5. Details of the steps taken to control and remediate the effects of the spill on the receiving environment.
6. An assessment of any potential effects of the spill.
7. Measures to be undertaken to prevent recurrence.

Internally, this information will be reported on Fulton Hogan's Opportunity for Improvement (OFI) Form and raised in the Case Action Management System (CAMs). If a major spill (>100 L), or recurring smaller spills occur, then this will be investigated using the Part B process to prevent recurrence.

## 5.0 DOCUMENT REVIEW

Fulton Hogan will review this document on a five-yearly basis, or under the following circumstances:

- For the purpose of improving the efficacy of spill management control measures at the site.
- For ensuring consistency and compliance with the conditions of Canterbury Regional Council and Selwyn District Council resource consent requirements.
- Following significant environmental incidents.
- At the completion of environmental audits.