

Lessons learned from one of New Zealand's most challenging civil engineering projects: rebuilding the earthquake damaged pipes, roads, bridges and retaining walls in the city of Christchurch 2011 - 2016.

Resource Consent

Story: Dewatering

Theme: Construction

An example of a resource consent for dewatering.

This document has been provided as an example of a tool that might be useful for other organisations undertaking complex disaster recovery or infrastructure rebuild programmes.

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RESOURCE CONSENT CRC121310

Granted to: Christchurch City Council
Discharge permit: To discharge water and contaminants to water
Date effective from: 8 March 2012
Date effective until: 8 March 2022

Condition		Responsibility	Frequency	Due Date
1)	The discharge shall be only dewatering water, bore development and clarity testing and pressure testing water and contaminants taken in accordance with consent CRC121311.	Contractor	ongoing	
2)	The discharge shall be to land where it may enter surface water or surface waterbodies, either directly or via the Christchurch City Council stormwater network.	Contractor	ongoing	
PRIOR TO COMMENCING THE DISCHARGE				
3)	The Canterbury Regional Council, attention: CRC Compliance and Enforcement Manager shall be notified at least five working days before each discharge occurs and the notification shall advise of the location of the discharge point(s), the expected start date and duration, and shall identify the contamination risk zone(s) for the site from plan CRC121310, attached to and forming part of this consent.	Contractor	five working days before dewatering commences <i>(dewatering wells / spears, NOT pumping from trench)</i>	
4)	If the dewatering methodology is pumping water directly from the trench, the consent holder shall advise the Office of the relevant Runanga and Mahaanui Kurataiao Limited at least ten working days prior to commencing the work. If dewatering via pumping from a trench needs to occur and is unplanned, the consent holder shall advise the Office of the relevant Runanga and Mahaanui Kurataiao Limited as soon as practicable. The advice shall include the matters listed in condition 3.	Contractor	ten working days before dewatering commences <i>(pumping from trench only)</i>	If trench pumping is unplanned, then notify MKT and runanga as soon as practicable.
5)	The consent holder, and all persons exercising this consent, shall:			
	(a) Ensure that all personnel undertaking activities authorised by this consent are made aware of, and have access to, the contents of this consent document and the Contractor's Environmental Management Plan prior to the commencement of the works; and	Contractor	ongoing	
	(b) Have particular regard to any advice provided in response to condition (4) regarding practical measures for avoidance of adverse effects on sites of significance to tangata whenua.	Contractor	ongoing	
ENVIRONMENTAL MANAGEMENT PLAN				
6)	(a) The discharge shall be carried out in accordance with an Environmental Management Plan (EMP) produced by the relevant head contractor.	Contractor	ongoing	
	(b) An EMP for each head contractor shall be submitted in writing to the Canterbury Regional Council, Attn: RMA Compliance and Enforcement Manager, within three months of the first exercise of the consent.	Contractor	once within 3 months of consent	6 July 2012
	(c) The EMP shall include, but not be limited to, details on the following:	Contractor	ongoing	
	(i) Contact details for the Contractor;			
	(ii) Sediment Control measures;			
	(iii) Spill Response Plan;			
	(iv) Dewatering Procedures Plans for Contamination Risk Zones;			
	(v) Mitigation steps to address actual and potential adverse effects on sites of significance to tangata whenua and cultural values.			
	(d) The EMP may be amended at any time. Any amendments shall be:	Contractor	ongoing	
	(i) Consistent with the conditions of this resource consent; and			
	(ii) Submitted in writing to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, prior to any amendment being implemented.			
	(e) The EMP and any amendments shall be prepared by a suitably qualified person, with at least five years experience in the relevant field. The name of the person preparing any part of the EMP and their qualifications shall be provided to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, on request.	Contractor's environmental rep	once and amendments as required	
	Advice Note: The three levels of EMP associated with this project are:			

	<ul style="list-style-type: none"> Level 1: SCIRT overarching EMP outlines high level tools, strategies and guidelines. Very broad. Level 2: EMPs of head contractors. These are more detailed. Level 3: Project level management plans / procedures. Various names for these, but are generally a hazard/risk assessment which includes site specific environmental matters. 			
	This condition refers to a Level 2 EMP produced by the Contractor, and not a project specific Level 3 EMP.			
DISCHARGE METHOD AND LIMITS				
7)	(a) The discharge shall not cause erosion of the bed or banks of the surface waterway.	Contractor	ongoing	
	(b) The discharge shall only occur over erosion protection or via an established stormwater outfall pipe. Erosion protection measures shall be inspected and maintained by the Contractor at least once per week. A record of the inspections shall be kept in a log book and provided to the Canterbury Regional Council on request.	Contractor	once per week (inspection and recording)	ongoing
8)	No discharge shall occur if water within the receiving waterway, at or downstream of the discharge point, has overtopped the banks and is flooding adjacent land. The discharge may recommence once these floodwaters have receded and the flow in the waterway is completely contained within the river channel.	Contractor	ongoing	
9)	All dewatering water shall pass through a sediment removal device prior to discharge.	Contractor	ongoing	
10)	(a) The concentration of total suspended solids in the discharge leaving the site shall not exceed 150g/m ³ .	Contractor	ongoing	
	(b) The discharge may only exceed the limit specified in Condition (10)(a) if all practicable measures to reduce the suspended sediments in the discharge have been undertaken and the written agreement of the Canterbury Regional Council, RMA Compliance and Enforcement Manager has been obtained.	SCIRT Lead Planner (as identified by Contractor)	as required	
11)	The discharge shall be in accordance with the Dewatering Procedure Plan, attached to and forming part of this consent, for the applicable Contamination Risk Zone identified in plan CRC121310, attached to and forming part of this consent.	Contractor	ongoing	
12)	When required by the Dewatering Procedure Plan, the oil water separator shall be designed and sized to remove floatable hydrocarbons and achieve a discharge concentration not exceeding 5 milligrams of total petroleum hydrocarbon per litre of water.	Contractor	ongoing	
MONITORING				
13)	For the purposes of conditions (14) to (19) and the Dewatering Procedure Plan which forms part of this consent, a suitably qualified Environmental Specialist is defined as a person with a relevant tertiary qualification and at least two years experience in contaminated land matters, including the identification and assessment of contaminated soil and groundwater.	Contractor / SCIRT	ongoing	
14)	At least ten samples of dewatering water shall be taken per month across the infrastructure rebuild dewatering discharges. The samples shall be taken at the end of the treatment train, before the discharge leaves the site and from a variety of sites discharging under this consent (including variation in dewatering methodology, location and duration) to the satisfaction of the Canterbury Regional Council. The samples shall be analysed for total suspended solids.	Contractor as coordinated by SCIRT sustainability advisor / planner	10 samples per month	Advise IST of 2 proposed tests by 15th of month. IST to collate and agree. Contractor to arrange tests and get results back to IST by 25th of month.
15)	A sample of dewatering water shall be taken from the first ten Zone 1 High Risk and the first ten Zone 2 Medium Risk zones, as identified on plan CRC121310, where dewatering discharges occur. The samples shall be taken at the end of the treatment train, before the discharge leaves the site. The samples shall be analysed for all contaminants that an Environmental Specialist considers are likely to occur in the discharge.	SCIRT sustainability advisor / planner with input from environmental specialist	once, within first 48hrs of dewatering commencing	
		Contractor's environmental rep to advise SCIRT of dewatering projects in high and med risk areas	as required, until samples are taken (condition 15)	
	Advice Note: Analysis for total suspended solids in these samples is not required as this is dealt with under condition (14).			
16)	Analysis of samples taken in accordance with condition (14) and (15) or taken at the discretion of the Environmental Specialist in	Contractor	ongoing	

	accordance with the Dewatering Procedure Plan, shall be undertaken using the most appropriate method by a laboratory that is certified for that method of analysis by an accreditation authority such as International Accreditation NZ (IANZ).			
17)	The results of the analyses undertaken in accordance with condition (16), along with the name(s) of the person(s) who collected the samples, the location, and the date and time of sampling shall be provided to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, once per month.	SCIRT Lead Planner	once per month	by 30th day of month
18)	The discharge shall be observed for contaminants in accordance with the Dewatering Procedure Plan for the applicable Contamination Risk Zone.	Contractor / site foreman	as required, two hourly	ongoing
19)	Where site visits are undertaken by an Environmental Specialist, in accordance with the Dewatering Procedure Plan, a record of the	Contractor's environmental rep	ongoing	ongoing
	These records, including any sampling results or photographs, shall be submitted in writing to the Canterbury Regional Council, Attn: RMA Compliance and Enforcement Manager, and the Office of the relevant Runanga twice per year during the last five working days of April or October, or upon request.	IST environmental rep	twice per year	last five working days of April and October
ANNUAL REPORTING				
20)	A report shall be submitted to Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, the Office of the relevant Rūnanga, and to Canterbury Regional Council and Christchurch City Council state of the environment monitoring co-ordinators, by 31 August each year addressing the following matters:	SCIRT Lead Planner	once per year	31 August every year
	(a) A summary of all repair works where dewatering water was discharged during the year ending 30 June, including the location of the discharge, and a brief description of the nature of the works undertaken.			
	(b) A summary of the results of the analyses of samples obtained in accordance with conditions (14) and (15).			
ADMINISTRATION				
21)	The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of:	ECan	if required	
	(a) dealing with any adverse effect on the environment which may arise from the exercise of this consent and which it is appropriate to deal with at a later stage; or			
	(b) requiring the consent holder to carry out monitoring and reporting instead of, or in addition to, that required by the consent.			
22)	The lapsing date for the purposes of section 125 of the Resource Management Act shall be 31 March 2017.			