Technical Committee - 2 May 2018 Attachments

Minutes of a meeting of the Technical Committee held in the Edinburgh Room, Municipal Chambers, Dunedin City Council on Wednesday 21 March 2018, commencing at 10:30 am

Membership

Cr Andrew Noone	*(Chairperson)*
Cr Ella Lawton	*(Deputy Chairperson)*
Cr Graeme Bell	
Cr Doug Brown	
Cr Michael Deaker	
Cr Carmen Hope	
Cr Trevor Kempton	
Cr Michael Laws	
Cr Sam Neill	
Cr Gretchen Robertson	
Cr Bryan Scott	
Cr Stephen Woodhead	

Welcome

Cr Noone welcomed Councillors, members of the public and staff to the meeting.

1. APOLOGIES

No apologies were advised.

2. LEAVE OF ABSENCE

No Leave of absence were advised.

3. ATTENDANCE

Sarah Gardner	*(CEO)*
Nick Donnelly	*(Director Corporate Services)*
Tanya Winter	*(Director Policy, Planning & Resource Management)*
Sian Sutton	*(Director Stakeholder Engagement)*
Gavin Palmer	*(Director Engineering, Hazards & Science)*
Scott MacLean	*(Director, Environmental Monitoring & Operations)*
Sally Giddens	*(Director People & Capabilities)*
Ian McCabe	*(Executive Officer)*
Lauren McDonald	*(Committee Secretary)*
Chris Valentine	*(Manager Engineering)*
Dean Olsen	*(Manager Resource Science)*
Jean-Luc Payan	*(Manager Natural Hazards)*
Martin King	*(Manager Environmental Services)*
Peter Kelliher	*(Legal Counsel)*

4. CONFIRMATION OF AGENDA

The agenda was confirmed as tabled.

5. CONFLICT OF INTEREST

No conflicts of interest were advised.

6. PUBLIC FORUM

No public forum was held.

7. PRESENTATIONS

No presentations were held.

8. CONFIRMATION OF MINUTES

Cr Lawton advised she would abstain from voting due to the intermittent teleconference connection at the 31 January meeting.

Resolution

That the minutes of the meeting held on 31 January 2018 be received and confirmed as a true and accurate record.

Moved: Cr Noone
Seconded: Cr Hope
Abstained: Cr Lawton
CARRIED

9. ACTIONS

Status report on the resolutions of the Technical Committee

Report No.	Meeting	Resolution	Status
11.1 Director's Report on Progress	31/1/2018	*That Otago Regional Council enter into discussion with the Central Otago District Council (CODC) and the NZ Transport Agency (NZTA) with an aim to identifying, with acceptance by all parties, the STEDs in the Central Otago district and for the Dunstan Ward councillors to be kept informed as to progress.*	In progess
11.3 Managing the use of coal for domestic heating in Otago and New Zealand	31/1/2018	*Refer a paper to the Policy Committee for consideration for inclusion of Milton in AirZone 1. That the matter of the ability to enforce the current Regional Air Plan AirZone 1 provisions be considered by the Regulatory Committee*	CLOSED The resolutions to be addressed by the Policy and Regulatory Committees.
11.4 Review of surface water State of the Environment Monitoring (SOE)	31/1/2018	*That a paper be received on ORC's Freshwater Water Quality monitoring with details on the purpose of the monitoring to the 21 March 2018 committee meeting.* *That a paper be received on adding of Lake Dunstan to those lakes monitored by the ORC, be made available to the next committee round and include information on hydro lakes monitored in other regions.*	CLOSED Item 11.2 of the agenda 21/3/18

10. MATTERS FOR COUNCIL DECISION

NIL

11. MATTERS FOR NOTING

11.1. Floodbank Structural Integrity Assessment

The report outlined the Tonkin and Taylor quantitative and qualitative assessment of scheme floodbanks for the Lower Taieri, Lower Clutha and Alexandra flood protection schemes. The purpose of the assessment was to determine the level of risk posed to the community and ensure the agreed level of service is being achieved.

Chris Valentine, Manager Engineering spoke to the report and advised all three schemes were in good condition and the repairs identified in the Tonkin and Taylor were being addressed by staff.

Dr Palmer responded to questions on the structural integrity of the floodbanks (including the impact due to rabbit numbers), insurance cover, and planned works. He advised no significant rabbit numbers were identified, and the planned works would be prioritised by risk to floodbank integrity and costings were included in the draft 2018-2028 Long Term Plan consultation process.

Dr Palmer confirmed community meetings were being planned to be held in the coming weeks to share the report information with the community.

Resolution
a) That this report be noted.

Moved: Cr Woodhead
Seconded: Cr Scott
CARRIED

11.2. Review of surface water State of the Environment Monitoring
The report responded to a request for additional information on the existing surface water State of the Environment (SoE) monitoring sites at the Technical Committee, 31 January 2018.

The report outlined:

- the purpose of the ORC's water quality monitoring and the long term monitoring programme
- the proposed changes to the SoE network
- catchment investigations proposed in the 2018-2028 Draft Long Term Plan (LTP)
- consideration for the addition of Lake Dunstan to the alpine lakes being monitored.

Dr Olsen summarised the report and responded to questions from councillors.

Lake Dunstan
Dr Olsen advised that due to the short residence time in Lake Dunstan that it remain to be monitored as part of the river monitoring network (as per schedule 15). He clarified the difference between SoE and contact recreation monitoring and confirmed that contact recreation monitoring was reviewed annually, with guidance from territorial authorities on areas to be monitored.

It was agreed for a report to be brought to the Technical Committee on how contact recreational monitoring is undertaken, locations and recommendation for changes of/creation of monitoring sites. Dr Palmer confirmed monitoring undertaken in regard consents for the discharge of wastewater would also be included in the report.

Proposed changes to SOE network
Dr Olsen advised that option 2 outlined in the report provided a good balance and that some sites to be removed could be included in other monitoring programmes.

Cr Kempton left the room at 2:15pm and returned at 2:19pm.

A question was raised on monitoring undertaken in support of plan change 6A (water quality). Mr King outlined the catchment monitoring being undertaken from a compliance perspective.

Mrs Gardner suggested that a Council workshop be held ahead of a report to the Technical Committee to address water monitoring as a whole (including consent monitoring, schedule 15 monitoring, monitoring locations, freshwater issues and the Water Plan). She advised the executive team would address the matter and respond to Council.

It was agreed that a workshop be held at a convenient time to deal with matters in general associated with water monitoring.

Resolution
a) That this report is noted.

Moved: Cr Woodhead
Seconded: Cr Hope
CARRIED

11.3. Director's Report on Progress
This report provided an update on:

1. Climate, river flow and groundwater situation;
2. Groundwater monitoring in Glenorchy and Kingston;
3. Mt Roy Fire mudflow hazard;
4. Roxburgh debris flow hazards;
5. NZ SeaRise programme (South Dunedin);
6. Central Otago Stock Truck Effluent Disposal (STEDs), and;
7. Leith Flood Protection Scheme.

Central Otago Stock Effluent Disposal (STEDs) site
Dr Palmer confirmed the tender for the Brassknocker Road site had closed. He provided details for the site that had been promoted for Ripponvale Road and also another site investigated by OPUS.

Resolution
a) This report is received and noted.

Moved: Cr Hope
Seconded: Cr Lawton
CARRIED

12. NOTICES OF MOTION
No Notices of Motion were advised.

13. CLOSURE
The meeting was declared closed at 02:36 pm.

Chairperson

Stock Effluent Disposal Site Evaluation – Central Otago

NZ Transport Agency
Otago Regional Council

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Prepared by:

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Approved for Release by:

Rob Bond | Team Leader

Contents

1. Introduction

Stock truck effluent spillage on the road is a hazard and can cause loss of traction or in extreme cases loss of visibility where the discharge creates a spray on following vehicles. Dried effluent can become extremely slippery during frosts or following rainfall.

The Central Otago State Highway Network is subject to large volumes of Stock Truck movements every year. The general increase in dairy farming and particularly over wintering of stock in Central Otago has resulted in a substantial increase in the number of truck movements in to and out of the region over recent years.

With increased truck movements and stock numbers combined with the network shape and geography the potential for stock effluent impacts on the road surface and road corridor was seen to be increasing year on year. The Central Otago network is prone to such discharges due to the numerous sharp bends, steep inclines and roundabouts located on key transport routes.

In 2010 the number of stock effluent disposal events onto the State Highway surface and associated road reserves across the region triggered an investigation by the NZ Transport Agency in to assessing the key locations and distribution of events. The NZ Transport Agency commissioned Opus Consultants to appraise various locations across the State Highway Network for the suitability to site new stock effluent disposal sites.

The work completed by Opus in 2010 and again in 2014 was then used to open dialogue with the Otago Regional Council in terms of siting new disposal facilities on the Network.

This report builds on the work completed in 2010 and 2014 and in conjunction with Otago Regional Council identifies three key locations in Central Otago where a Stock Effluent Disposal Site (STED) could be located together with a further two sites which should be strongly considered for future development.

Where sites have been investigated and deemed unacceptable alternative sites have been recommended.

This report also provides outline concept designs for the proposed STED locations at each of the recommended sites.

SH8: Clyde-Springvale Intersection

Date: 28/5/15 Location: SH8 RP 310/9.49
Description: Stock effluent

Photo 1: Showing stock effluent impact on State Highway

SH8: Alexandra

Date: 28 May 2014 Location: SH8 RP 328/1.00
Description: Stock effluent.

Photo 2: Showing stock effluent impact on State Highway

SH8: Alexandra

Date: 28 May 2014 Location: SH8 RP 328/2.30
Description: Stock effluent.

Photo 3: Showing stock effluent impact on State Highway

2. Previous Work

During the period 2010-2014 Opus were commissioned by the NZ Transport Agency to assess the key locations of Stock Effluent impacts on the State Highway and also to assess potential sites for the development of an STED.

The work identified the following key areas of impact:

- SH8 North of Roxburgh
- SH8 Half Mile hill in Alexandra
- SH8 Springvale Road intersection at Clyde
- SH8 Clyde Hill
- SH8 Deadmans Point intersection at Cromwell
- SH8 Tarras, Ardgour Road
- SH8 Cluden Hill
- SH8 Lindis Pass

- SH85 Kyeburn intersection with SH87
- SH85 Ranfurly Township
- SH85 Williamsons Hill, Becks
- SH85 Chatto Creek, Tiger Hill
- SH85 Springvale Road intersection
- SH85 Galloway Road intersection

- SH8A Luggate Bridge approaches (both sides)

- SH6 Haast Pass
- SH6 The Neck (near Hawea)
- SH6 Maungawera Hill, Albert Town
- SH6 Luggate Hill (approaching Wanaka airport)
- SH6 Queensberry area
- SH6 Cromwell (Pisa moorings to Ripponvale, including the intersection with 8B)
- SH6 Kawarau Gorge (various)
- SH6 Victoria Bridge (Gibbston valley area)
- SH6 Frankton roundabout
- SH6 Wye Creek corner
- SH6 Devils Staircase
- SH6 Kingston

The work previously completed several key locations were considered suitable for an STED location, these were sited either on the State Highway or in close proximity on adjoining local authority side roads.

These were as follows:

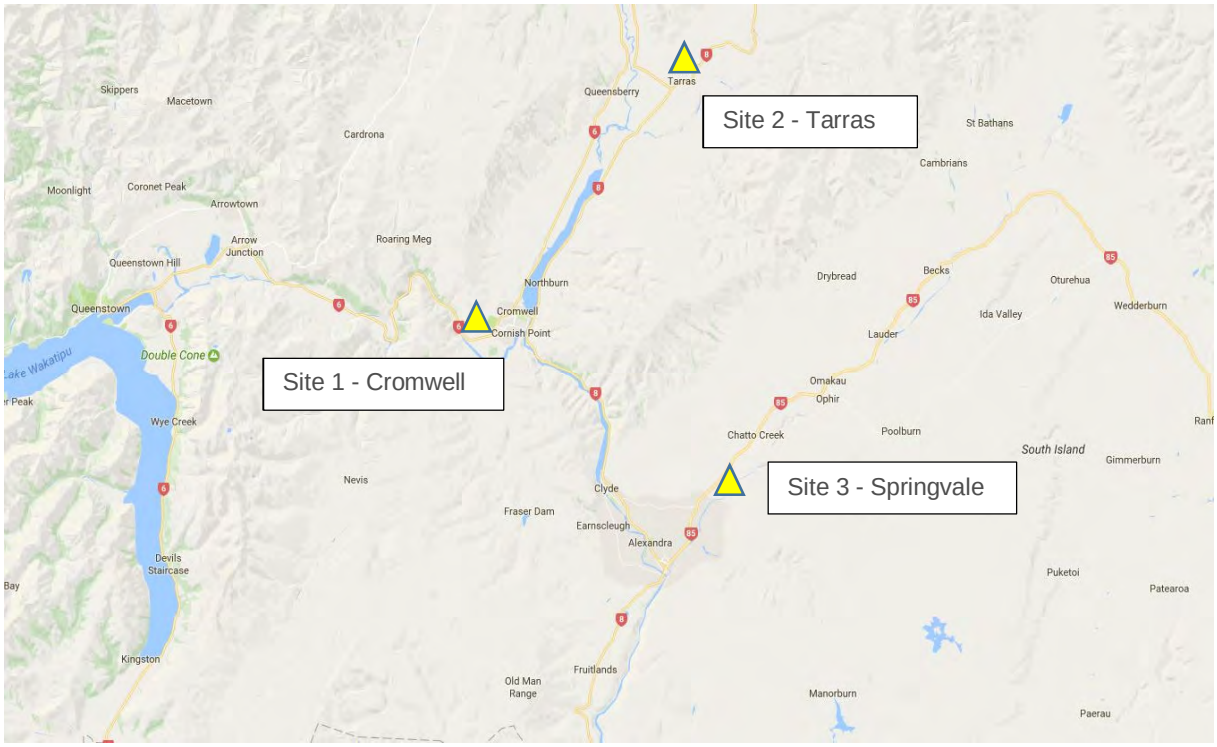
006-0938	6	938	0.4	Lowburn	Proposed	Highway	Access to boat ramp
006-0942	6	942	3.1	Cemetery Road	Proposed	CODC	Opposite Cromwell cemetery
006-0942	6	942	3.8	Ripponvale straight	Proposed	Highway	Near Sarita orchard
006-1024	6	942	6.8	Kawarau Gorge	Proposed	Highway	Adjacent to river
006-1024	6	1024	13.5	Kingston	Proposed-Southland/NZTA	Highway	Just past district boundary
008-0247	8	247	13	Tarras	Proposed	Highway	In pine trees
008-0297	8	297	0.1	Deadmans Point	Proposed	Highway	Near Bridge intersection
008-0310	8	310	9.5	Springvale Road	Proposed	CODC	Old weigh station site
008-0310	8	310	14.5	Alexandra	Proposed	Highway	In pine trees
008-0350	8	350	12.5	Coal Creek	Proposed	Highway	Opposite cannery
085-0062	85	62	1.2	Kyeburn	Proposed	Highway	In pine trees
085-0134	85	134	3.3	Omakau	Proposed	Highway	Opposite saleyards
085-0148	85	148	2	Moutere Disputed Spur Road	Proposed	Highway	Near intersection
085-0148	85	148	8.9	Springvale Road	Proposed	CODC	Opposite gravel pit

3. 2017 Site Evaluation Work

In 2017 following discussion with the ORC and interested stakeholders the NZ Transport Agency commissioned Opus to re-evaluate the proposed locations in terms of comments and recommendations received from the ORC and to conduct site evaluations on three key preferred sites.

The preferred sites were:

- SH6 - Bannockburn area of Cromwell
- SH8 - near Tarras
- SH85 - north of Springvale Road intersection



As part of the evaluation, each site was inspected and assessed in terms of a brief identified by both NZTA and ORC.

In addition a further four sites were identified as being potentially suitable and should also be considered for future development. These additional sites were:

- Roxburgh, Gorge Creek Hill
- Alexandra, Golf Course Straight
- Cromwell, Bendigo Loop Road
- Gibbston, Victoria Flats

Each of the sites is discussed in detail below.

4. Site Evaluation

In terms of evaluation each site was assessed for the following key criteria:

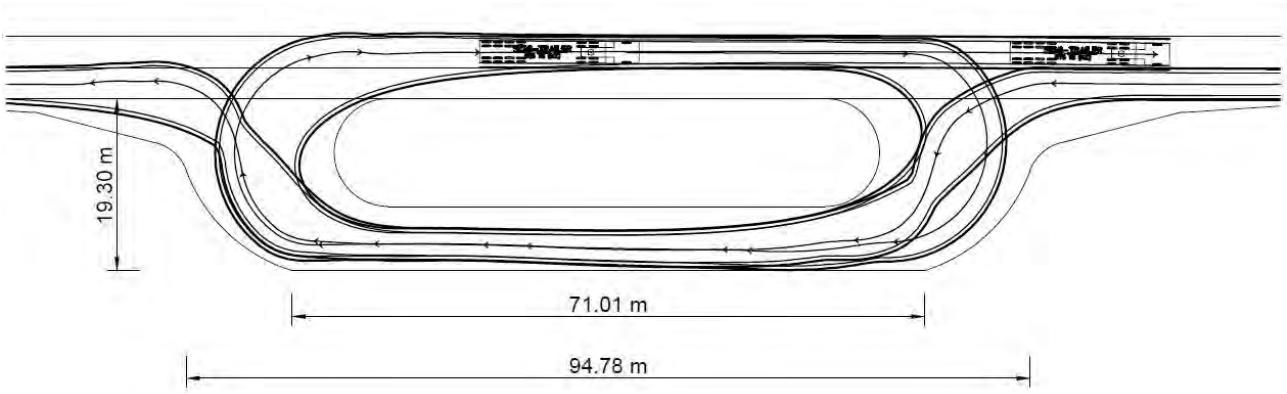
1. The STED must be located wholly within the road reserve.
2. Does the site allow safe exit and entry in both directions?
3. Are there any conflicts with proposed future works or developments?
4. Are there any environmental or social restrictions or implications on the site (such as proximity to residential properties or businesses)?
5. Is it possible to landscape or improve the visual amenity of the site?

Should any site fail on the first 4 of the above criteria then alternative sites in the close proximity to the three key locations should be included as part of the site evaluation.

In terms of assessing the space and land requirement for the STED location previous designs showing turning circles and safe operating distances were provided by NZTA together with recent designs and consent requirements from examples recently constructed in Southland.

An example of the provided detail is shown below:

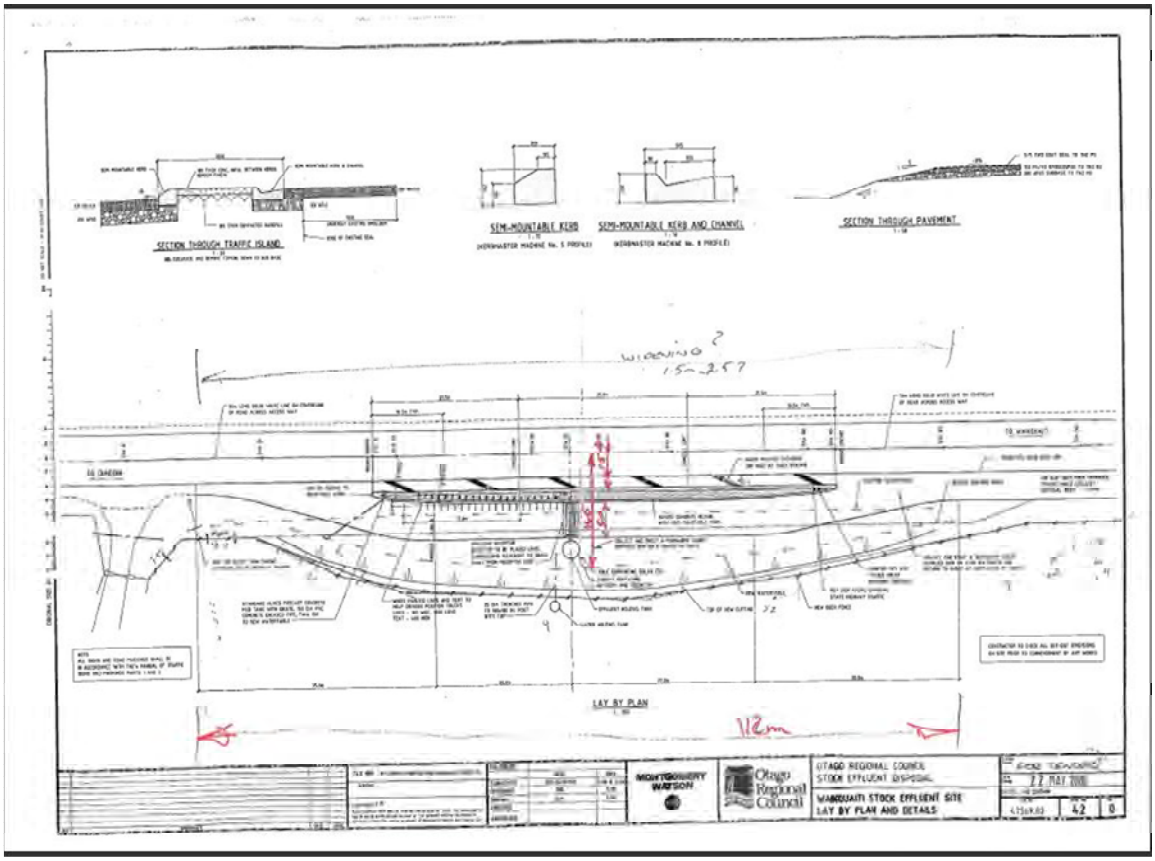
Example of STED layout.



The STED layout shows a typical width of the facility as being approximately 20m from the edgeline of the highway and permitting turning in and out of the facility in both directions. The overall length of the facility is approximately 100m.

In terms of site selection additional considerations such as site distance, gradient and off highway topography as well as proximity to residential properties, existing infrastructure or other sensitive land use must also be considered.

An Alternative layout for constrained sites is shown below for an existing STED site north of Dunedin near Waikouaiti.



4.1. Site 1: Cromwell, Pearson Road

The proposed location of the STED is on the approach to the Kawarau Gorge shortly after Pearson Road on the true left beside the Kawarau River.

The site adjoins land owned by The Crown.

4.1.1. Route Location

SH6 RP 942/6.2 - 6.4 LHS.

4.1.2. Road Reserve

On the basis of existing information the full road reserve at this location is 40m wide.

Beyond the existing edge line to the highway, on the left hand side there is approximately 25m of available reserve.

At the location proposed there is sufficient length of reserve available to site the facility.

The site layout is shown on Drawing DWG C01.

4.1.3. Site Photographs

Photo 4: Site to be located on left side of photo

Photo 5: Site to be located on right side of photo

4.1.4. Safety and Environmental Aspects

As can be seen on the above photographs there is possibly limited site visibility for traffic coming from Queenstown approaching the proposed site.

In addition due to the proximity of the adjacent fruit stalls and residential properties there may be conflicting traffic movements that would need to be considered as part of the detailed design.

In terms of landscaping the area around the STED it is possible to accommodate various landscaping features at this location to soften the impact of the facility on the surroundings. The entrance to the gorge is a notable area of attractive scenery.

Within close proximity to the site there are four residential dwellings and a fruit stall. All are located within 200m of the proposed site.

4.1.5. Site Constraints

A relatively New Variable Message Sign (VMS) board has also been installed close to the proposed location and potential conflicts in terms of blocking visibility and also in siting the STED will also need to be considered. This may result in the need to relocate the VMS or move the STED.

4.1.6. Evaluation

Whilst there is sufficient road reserve available there are various safety concerns, environmental impacts and social impacts that would raise significant opposition to the development of an STED at this location.

On this basis this site is not recommended.

4.2. Site 2: Cromwell, Ripponvale Straight

The proposed location is sited on the Ripponvale Straight – near Sarita orchard on the right hand side of the State Highway.

The site adjoins land owned by 45 South Cherry Orchards Ltd.

4.2.1. Route Location

SH6 RP 942/3.8 - 4.0 RHS.

4.2.2. Road Reserve

On the basis of existing information the full road reserve at this location is 40.23m wide.

Beyond the existing edge line to the highway, on the right hand side there is approximately 25m of available reserve (RHS).

At the location proposed there is sufficient length of reserve available to site the facility, (over 100m).

The site layout is shown on Drawing DWG C02.

4.2.3. Photographs

Photo 6: Site to be located on the right hand side of the photo.

Photo 7: Site to be located on the left hand side of the above photo.

4.2.4. Safety and Environmental Aspects.

The proposed site location has no immediate traffic conflicts and has very good site visibility in both directions.

In terms of proximity to residential properties or businesses the proposed site is located some 400m away from the closest dwelling.

It is also considered relatively easy to screen/landscape the site.

4.2.5. Site Constraints

In terms of development constraints it is considered likely that widening of the existing shoulder would be required on the approach from Cromwell (photo 6 above).

4.2.6. Evaluation

In terms of the key considerations there would not appear to be any significant constraints on developing this site.

This site is therefore recommended for further consideration.

4.3. Site 3: Tarras, Lindis Peaks Straight

The proposed location of the STED is on the right hand side of the State Highway approaching Tarras from the Lindis Pass.

The site adjoins land owned by Lindis Peak Station.

4.3.1. Route Location

SH8 RP 247/13.8 - 14.0 RHS.

4.3.2. Road Reserve

On the basis of existing information the full road reserve at this location is 60.35m wide.

Beyond the existing edge line to the highway, on the right hand side there is approximately 45m of available reserve (RHS).

At the location proposed there is sufficient length of reserve available to site the facility, (over 100m).

Currently the land beyond the existing fence is under a 'Licence to Occupy 'granted to Lindis Peaks Faming Ltd and contains two pivot irrigators. Negotiations with the occupier will be required but should not raise any issues as the proposed STED site will have little impact on the operation of these irrigators.

The site layout is shown on Drawing DWG C03.

4.3.3. Photographs

Photo 8: Site to be located on right side of photo

Photo 9: Site to be located on left side of photo

4.3.4. Safety and Environmental Aspects

The proposed site location has no immediate traffic conflicts and has very good site visibility in both directions.

In terms of proximity to residential properties or businesses the proposed site is located some 800m away from the closest dwelling.

It is also considered relatively easy to screen/landscape the site.

4.3.5. Site Constraints

In terms of development constraints it is considered likely that widening of the existing shoulder would be required on the approach from the Lindis end of the straight (photo 8 above).

4.3.6. Evaluation

In terms of the key considerations there would not appear to be any significant constraints on developing this site.

This site is therefore recommended for further consideration.

4.4. Site 4: Springvale Road, Intersection Site

The proposed location of the STED is on the left hand side of Springvale Road opposite the gravel pit. The site is not accessed directly from the State Highway.

The site location is accessed from a Central Otago District Council owned road.

The site adjoins land owned by K & K Larson.

4.4.1. Route Location

CODC Local Road, adjacent to SH85, RP 148/8.9.

4.4.2. Road Reserve

On the basis of existing information the full road reserve at this location varies but is around 40.23m wide.

Beyond the existing edge line to the local road, on the left hand side there is approximately 15m of available reserve (LHS).

At the location proposed there is sufficient length of reserve available to site the facility, (over 100m).

The site layout is shown on Drawing DWG C04.

4.4.3. Photographs

Photo 10: The proposed STED location is on the left of the photo

Photo 11: The proposed STED location is on the far right hand side of the Photo.

4.4.4. Safety and Environmental Aspects

The proposed site location has very poor forward site visibility when approaching from Clyde.

The proximity of the entrance way to the gravel pit may also cause traffic conflicts and turning issues and the site is located within close proximity to a major intersection.

It is understood that there was a serious accident recently reported at the intersection associated with visibility issues.

In terms of proximity to residential properties or businesses the proposed site is located some 200m away from the closest residential dwelling and is located directly opposite an active gravel pit.

It is considered relatively easy to screen/landscape the site from the Springvale road side of the site but it may be more difficult to landscape towards the State Highway.

4.4.5. Site Constraints

In terms of development constraints it is considered likely that a substantial amount of earthworks will be required to level and create a platform for the STED. In addition further culverting and improvements to local drainage channels will be required.

4.4.6. Evaluation

In terms of the key considerations there would appear to be various constraints relating to traffic safety, site development requirements and landscaping associated with developing this site.

This site is therefore not recommended.

4.5. Site 5: Springvale, Brassknocker Road

The proposed location of the STED is on the left hand side of State Highway 85 close to Brassknocker Road intersection.

The site adjoins land owned by J & R Simpson.

4.5.1. Route Location

SH85 RP 148/5.8 - 6.0 LHS.

4.5.2. Road Reserve

On the basis of existing information the full road reserve at this location is approximately 40.23m wide.

Beyond the existing edge line on the left hand side there is approximately 20m of available reserve (LHS).

At the location proposed there is sufficient length of reserve available to site the facility, (over 100m).

Currently the Road Reserve land beyond the existing fence is being occupied by the adjoining land owner. Negotiations with the occupier will be required but should not raise any issues as the proposed STED site will have little impact on the farming operations.

The site layout is shown on Drawing DWG C05.

4.5.3. Photographs

Photo 12: The STED is to be located on the left side of the photo

Photo 13: The STED is to be located on the right side of the photo

4.5.4. Safety and Environmental Aspects

The proposed site location has good forward site visibility when approaching from both directions.

The site is however located opposite to a minor side road intersection, the side road is a gravel road.

In terms of proximity to residential properties or businesses the proposed site is located some 800m away from the closest residential dwelling.

It is considered relatively easy to screen/landscape the site.

4.5.5. Site Constraints

In terms of development constraints it is considered likely a minor amount of earthworks will be required to level and create a platform for the STED. In addition further culverting (culvert extension) and improvements to local drainage channels will be required.

In designing the layout at this location consideration will need to be given to potential conflicting traffic movements with the Brassknocker Road (side road) intersection.

4.5.6. Evaluation

In terms of the key considerations there would appear to be some minor constraints relating to traffic safety and site earthworks. However the intersection is not a major intersection and has good visibility in both directions, the amount of earthworks and drainage improvements are relatively minor and there are no social or other environmental impacts associated with the location.

This site is therefore recommended for further consideration.

4.6. Site 6: Roxburgh, Gorge Creek Hill

The proposed location of the STED is on the left hand side of State Highway 8 (increasing RP) close to Gorge Creek.

The site adjoins land owned by Gorge Creek Station Ltd.

4.6.1. Route Location

SH8 RP 343/4.2 LHS.

4.6.2. Road Reserve

On the basis of existing information the full road reserve at this location is approximately 40.23m wide.

Beyond the existing edge line on the left hand side there is approximately 20m of available reserve (LHS).

At the location proposed there is sufficient length of reserve available to site the facility, (over 100m).

Currently the land beyond the existing deer fence is under a 'Licence to Occupy 'granted to Gorge Creek Station Ltd for a baleage storage area. Negotiations with the occupier will be required but should not raise any issues as the proposed STED site will have little impact on the operation of this area.

The site layout is shown on Drawing DWG C06.

4.6.3. Photographs

Photo 14: The STED is to be located on the left side of the photo

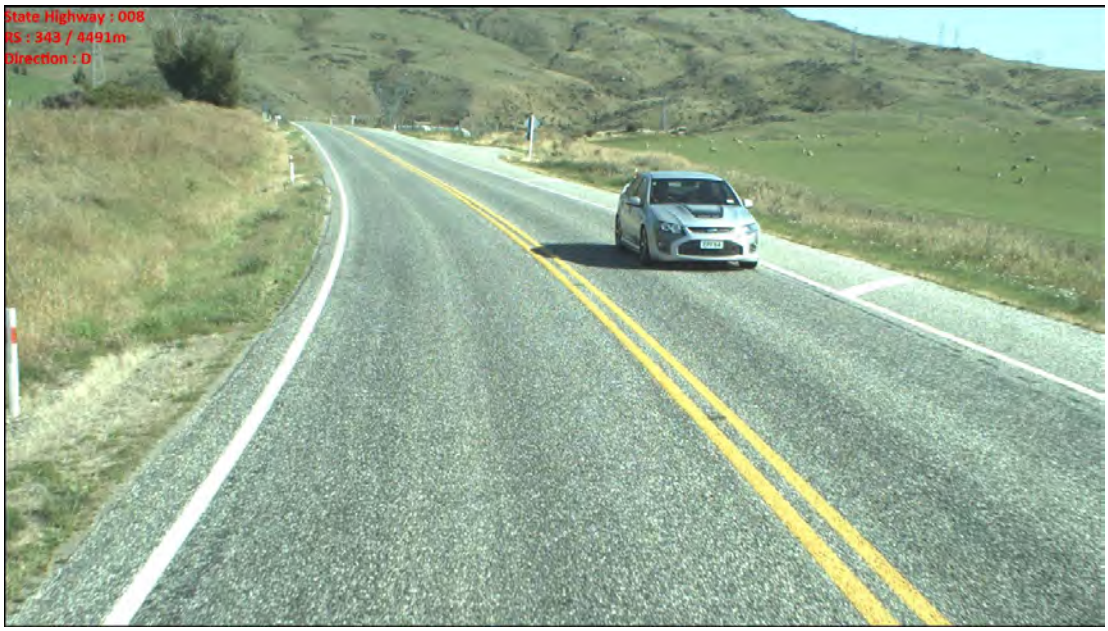


Photo 15: The STED is to be located on the right side of the photo

4.6.4. Safety and Environmental Aspects

The proposed site location has limited forward site visibility of approximately 200-250m when approaching from both directions. This should not cause any traffic issues as the area adjacent to site is often used by the Highway Maintenance contractor with numerous heavy vehicle movements.

There are no immediate residential properties in close proximity to the site.

It is considered relatively easy to screen/landscape the site.

4.6.5. Site Constraints

In terms of development constraints it is considered likely a moderate amount of earthworks will be required to level and create a platform for the STED.

It would be beneficial to widen the true RHS of the highway at this location, (left side of photo 15 above).

4.6.6. Evaluation

In terms of the key considerations there would appear to be some minor constraints relating to site earthworks. There are no social or other environmental impacts associated with the location.

This site is therefore recommended for further consideration.

4.7. Site 7: Alexandra, Golf Course Straight

The proposed location of the STED is on the right hand side of State Highway 8 (increasing RP) close to Airport Road intersection on the Golf Course Straight approaching Alexandra.

The site adjoins land owned by the Central Otago District Council.

4.7.1. Route Location

SH8 RP 310/14.5 – 14.7 RHS.

4.7.2. Road Reserve

On the basis of existing information the full road reserve at this location is limited (approximately 20m).

At the location proposed there is sufficient length of reserve available to site the facility, (over 100m).

The site layout is shown on Drawing DWG C07.

4.7.3. Photographs

Photo 16: The STED is to be located on the right side of the photo

Photo 17: The STED is to be located on the left side of the photo

4.7.4. Safety and Environmental Aspects

The proposed site location has good forward site visibility when approaching from both directions. It is considered relatively easy to screen/landscape the site.

The site is however located close to airport road intersection and is on the approach towards Alexandra township as well as adjacent to the Clutha River.

In terms of proximity to residential properties or businesses the proposed site is located approximately 250m away from the closest residential dwelling. However the land opposite to the site has been subdivided and is for sale as residential development land. Residential properties could therefore be sited within 100m.

The area of the proposed STED is also now the location of a local business utilising the pines area for dog-sled races and touring. The access point in the photo above is the muster point for the new business.

It is likely that there will be some local opposition to the siting of the site due to the proximity of the Alexandra Township, the local business and new subdivisions.

4.7.5. Site Constraints

In terms of development constraints it is considered likely a minor amount of earthworks will be required to level and create a platform for the STED.

4.7.6. Evaluation

In terms of the key considerations there would appear to be some constraints relating to earthworks and environmental/social considerations.

This site is therefore not recommended.

4.8. Site 8: Cromwell, Bendigo Loop Road

The proposed location of the STED is on the right hand side of State Highway 8 (increasing RP) close to the Bendigo Loop Road intersection north of Cromwell.

The site adjoins land owned by H & K English.

4.8.1. Route Location

SH8 RP 271/1.9-2.1 RHS.

4.8.2. Road Reserve

On the basis of existing information the full road reserve at this location is approximately 40.23m wide.

Beyond the existing edge line on the right hand side there is approximately 20m of available reserve (RHS).

At the location proposed there is sufficient length of reserve available to site the facility, (over 100m).

The site layout is shown on Drawing DWG C08.

4.8.3. Photographs

Photo 18: The STED is to be located on the right hand side of the photo

Photo 19: The STED is to be located on the left hand side of the photo

4.8.4. Safety and Environmental Aspects

The proposed site location has good forward site visibility when approaching from both directions.

In terms of proximity to residential properties or businesses there are no immediate residential dwellings in close proximity.

It is considered relatively easy to screen/landscape the site.

4.8.5. Site Constraints

In terms of development constraints it is considered likely a minor amount of earthworks will be required to level and create a platform for the STED.

4.8.6. Evaluation

In terms of the key considerations there would appear to be some minor constraints relating to site earthworks. There are no social or other environmental impacts associated with the location.

This site is therefore recommended for further consideration.

4.9. Site 9: Gibbston, Victoria Flats

The proposed location of the STED is on the right hand side of State Highway 6 (increasing RP) close to Victoria Flats Road intersection.

The site adjoins land owned by Waitiri Station Ltd.

4.9.1. Route Location

SH6 RP 956/11.1 – 11.3 RHS.

4.9.2. Road Reserve

On the basis of existing information the full road reserve at this location is approximately 20.23m wide.

Beyond the existing edge line on the right hand side there is approximately 15m of available reserve (RHS). However the site inspection suggests that this measurement may be very tight.

At the location proposed there is sufficient length of reserve available to site the facility.

The site layout is shown on Drawing DWG C09.

4.9.3. Photographs

Photo 20: The STED is to be located on the right hand side of the photo

Photo 21: The STED is to be located on the left hand side of the photo

4.9.4. Safety and Environmental Aspects

The proposed site location has good forward site visibility of 300m minimum when approaching from both directions.

The site is located 250m from Victoria Flats Road which accesses the Central Otago landfill and this should not create any traffic issues.

In terms of proximity to residential properties or businesses the proposed site is not located within effective distance of any residential dwelling.

It is considered relatively easy to screen/landscape the site.

The corridor width available is limited (Approx 15m) and adjoining land may need to be purchased to accommodate the full proposed STED design.

4.9.5. Site Constraints

In terms of development constraints it is considered likely a minor amount of earthworks will be required to level and create a platform for the STED.

Some minor land purchase may be required to site the desired design layout.

4.9.6. Evaluation

In terms of the key considerations there would appear to be some minor constraints relating to developable area and site earthworks. However the site has good visibility in both directions, the amount of earthworks and drainage improvements are relatively minor and there are no social or other environmental impacts associated with the location.

The site is located on the western side of the Kawarau Gorge and as such this site is the only STED proposed on the Queenstown side of the region.

This site is therefore recommended for further consideration.

5. Recommendations

Several sites across the region have been inspected and assessed in terms of suitability for the development with a STED in accordance with the criteria established by ORC and NZTA.

On the basis of the investigations and site measurements taken the following sites are recommended for further assessment and development as a Stock Effluent Disposal facility:

1) Site 2: Cromwell, Ripponvale Straight (SH6)
2) Site 3: Tarras, Lindis Peaks Straight (SH8)
3) Site 5: Springvale, Brassknocker Road Intersection (SH85)
4) Site 6: Roxburgh, Gorge Creek Hill (SH8)
5) Site 8: Cromwell, Bendigo Loop Road (SH8)
6) Site 9: Gibbston, Victoria Flats (SH6)

SITE LOCALITY PLAN

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Revision	Amendment	Approved	Revision Date
A	Issued for Discussion		

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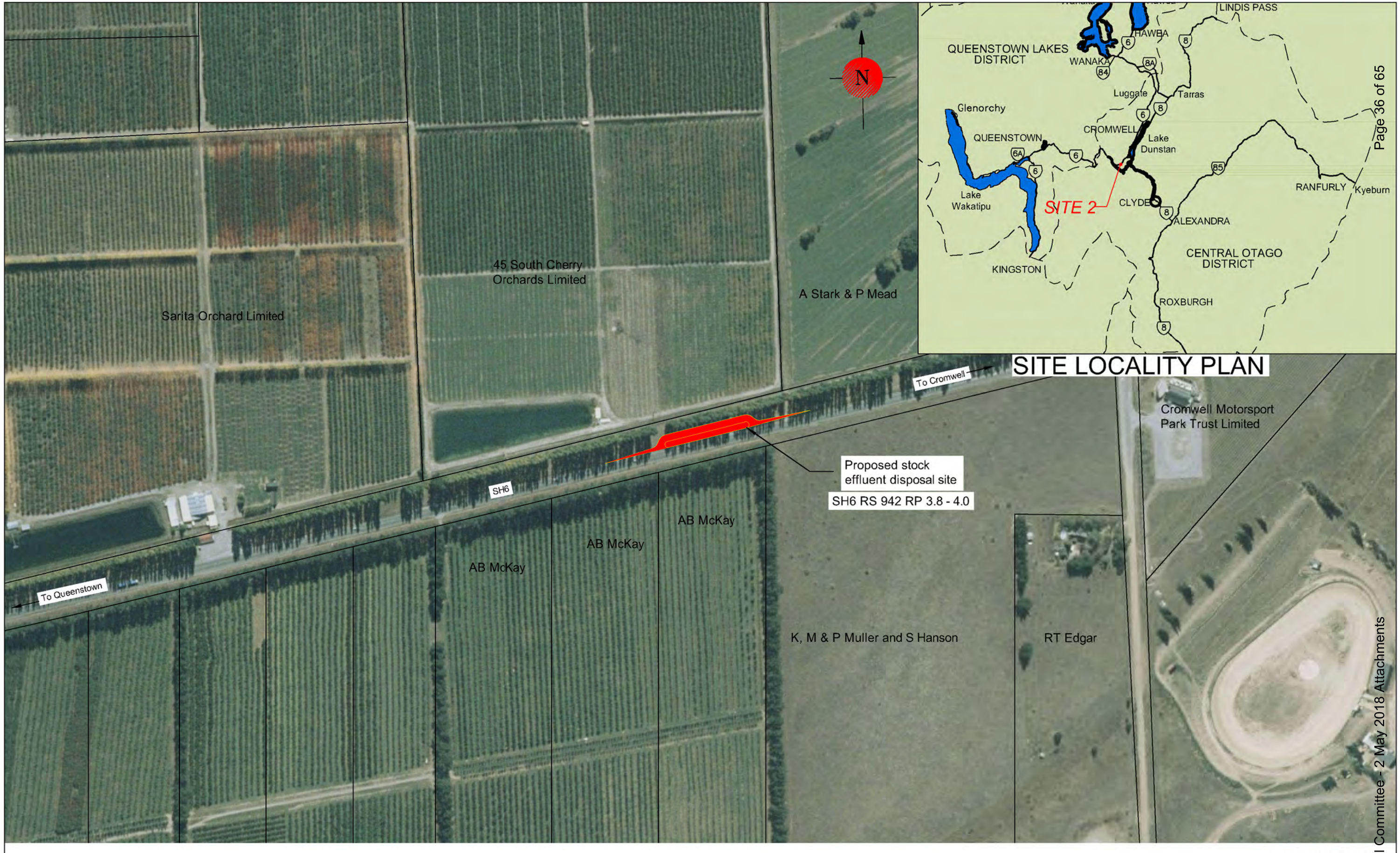
NICK GOODWIN	N.T.S	

Project:
NEW ZEALAND TRANSPORT AGENCY
REGION 13 SH 6 RS 942 RS 6.2 - 6.4
PROPOSED STOCK EFFLUENT DISPOSAL SITES

Sheet:
SITE 1: CROMWELL
PEARSON ROAD SITE

Project No.	Sheet No.	Revision
6-XT177.62(505_01)	C01	A

Original Sheet SizeA3 [420x297] Plot Date 2017-05-11 at 10:22:58 a.m. Path G:\NZTA\PS 0177 Central Otago SH NM\6XT17762 (Additional Services)\505GX Stock Effluent Disposal_SED_ site assessment\rawings\1. Kawrerau Gorge\Drawing\6-XT177.62(505_01)_C01(A).dwg C01(A)



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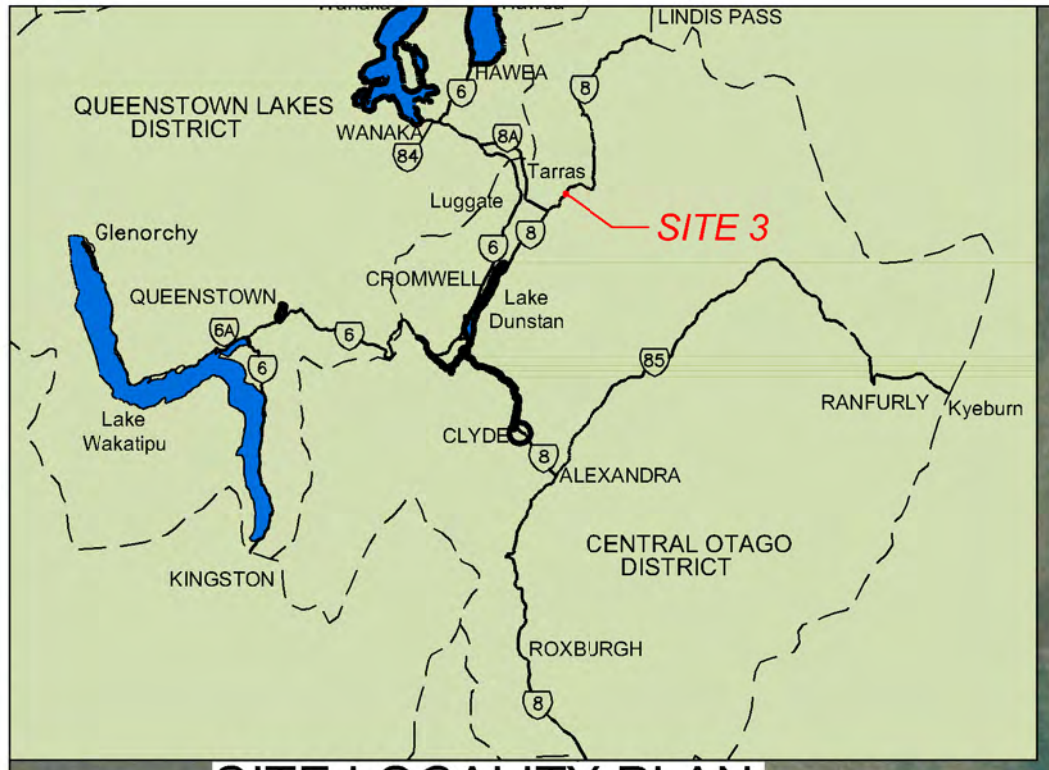
Project
NEW ZEALAND TRANSPORT AGENCY
REGION 13 SH 6 RS 942 RS 3.8 - 4.0
PROPOSED STOCK EFFLUENT DISPOSAL SITES

Sheet
SITE 2: CROMWELL
RIPPONVALE STRAIGHT

Project No.	Sheet No.	Revision
6-XT177.62(505_01)	C02	A

Original Sheet SizeA3 [420x297] Plot Date 2017-05-11 at 10:22:05 a.m. Path G:\NZTA\PS 0177 Central Otago SH NM\6XT17762 (Additional Services)\505GX Stock Effluent Disposal_SED_ site assessment\rawings\2. Ripponvale Straight\6-XT177.62(505_01)_C02(A).dwg C02(A)



SITE LOCALITY PLAN

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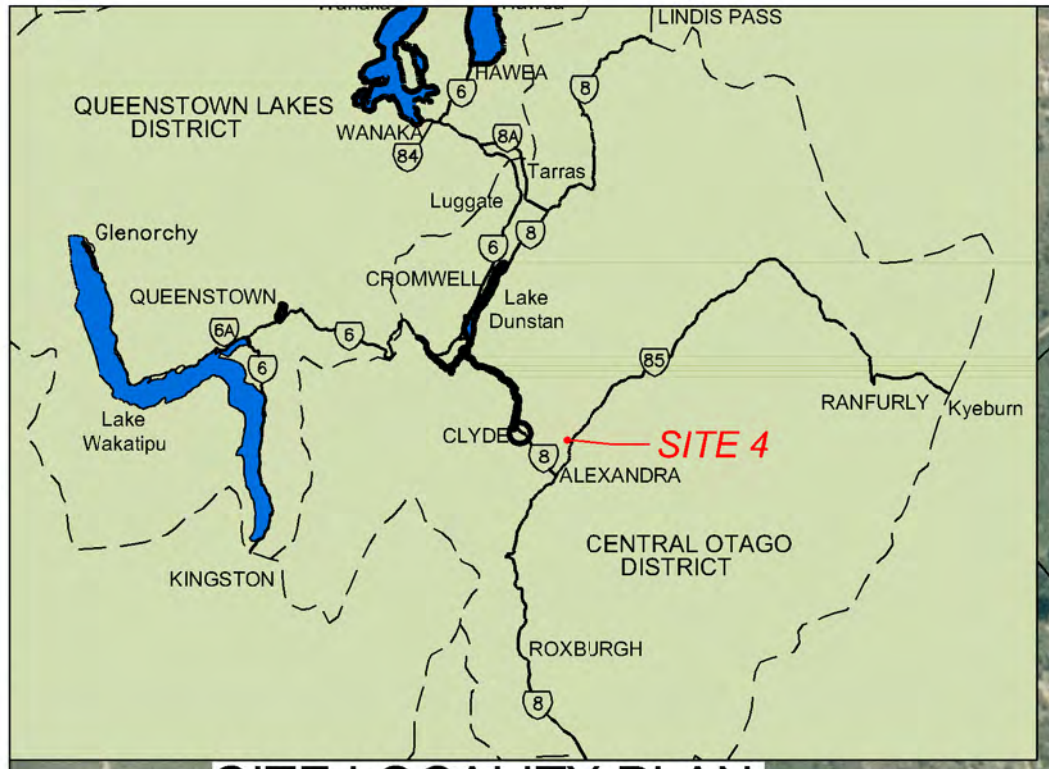
Project
NEW ZEALAND TRANSPORT AGENCY
REGION 13 SH 8 RS 247 RP 13.8 - 14.0
PROPOSED STOCK EFFLUENT DISPOSAL SITES

Sheet
SITE 3: TARRAS
LINDIS PEAKS STRAIGHT

Project No.	Sheet No.	Revision
6-XT177.62(505_01)	C03	A

Original Sheet Size:A3 [420x297] Plot Date: 2017-05-11 at 10:20:48 a.m. Path:G:\NZTA\PS 0177 Central Otago SH NM\6XT177.62 (Additional Services)\505GX Stock Effluent Disposal_SED_ site assessment\drawings\3. Tarras\6-XT177.62(505_01)_C03(A).dwg C03(A)



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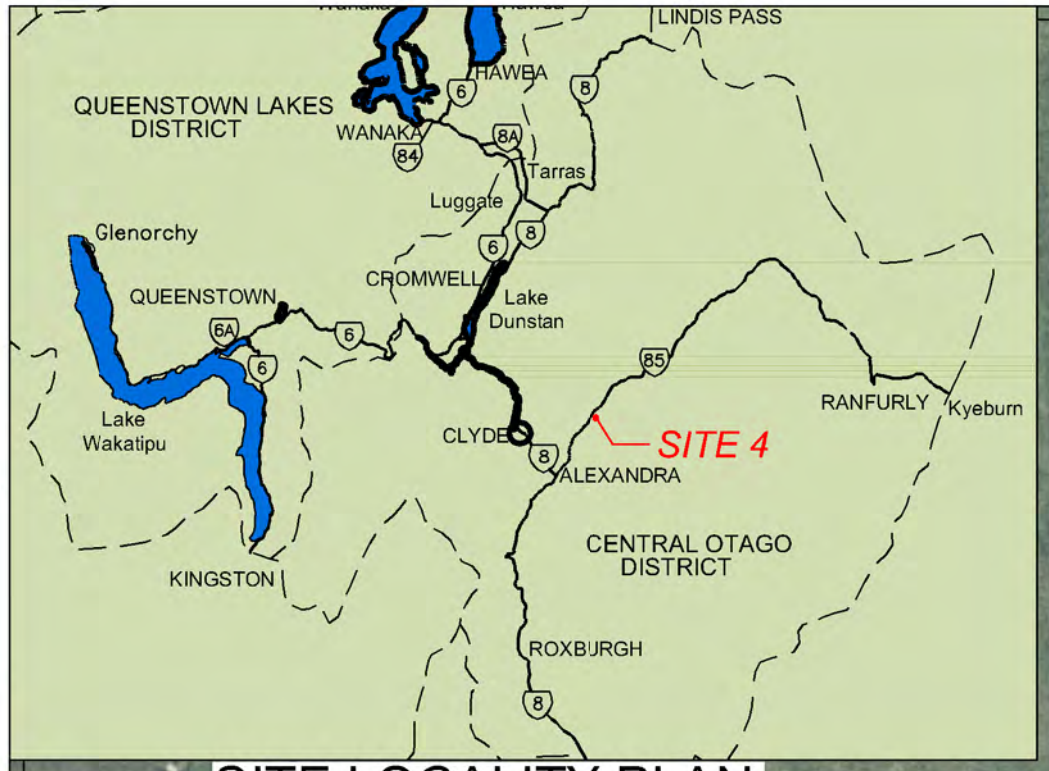
Project
NEW ZEALAND TRANSPORT AGENCY
CODC LOCAL ROAD
PROPOSED STOCK EFFLUENT DISPOSAL SITE

Sheet
SITE 4: SPRINGVALE ROAD INTERSECTION SITE

Project No.	Sheet No.	Revision
6-XT177.62(505_01)	C04	A

Original Sheet Size A3 [420x297] Plot Date 2017-05-11 at 10:18:23 a.m. Path G:\NZTA\PS 0177 Central Otago SH NM\6XT17762 (Additional Services)\505GX Stock Effluent Disposal_SED_ site assessment\rawings\4. Springvale Road\5-XT177.62(505_01)_C04(A).dwg Layout1



SITE LOCALITY PLAN

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Project: NEW ZEALAND TRANSPORT AGENCY
REGION 13 SH 85 RS 148 RP 5.8 - 6.0
PROPOSED STOCK EFFLUENT DISPOSAL SITES

Sheet: SITE 5: SPRINGVALE
BRASSKNOCKER ROAD

Project No.	Sheet No.	Revision
6-XT177.62(505_01)	C05	A

Original Sheet SizeA3 [420x297] Plot Date 2017-05-11 at 10:20:05 a.m. Path G:\NZTA\PS 0177 Central Otago SH NM\6XT17762 (Additional Services)\505GX Stock Effluent Disposal_SED_ site assessment\rawings\5. Brassknocker road\5-XT177.62(505_01)_C05(A).dwg C05(A)

SITE LOCALITY PLAN

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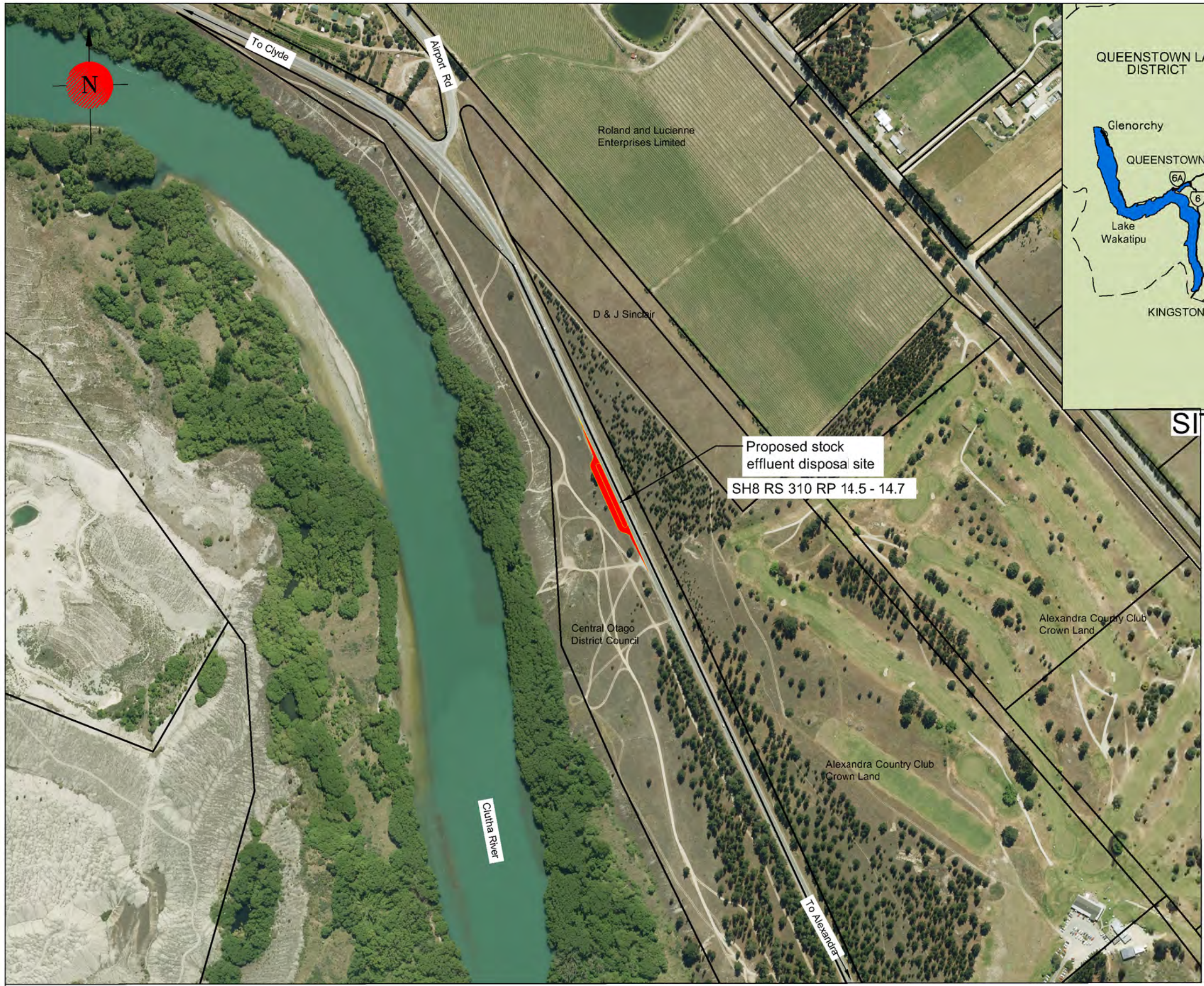
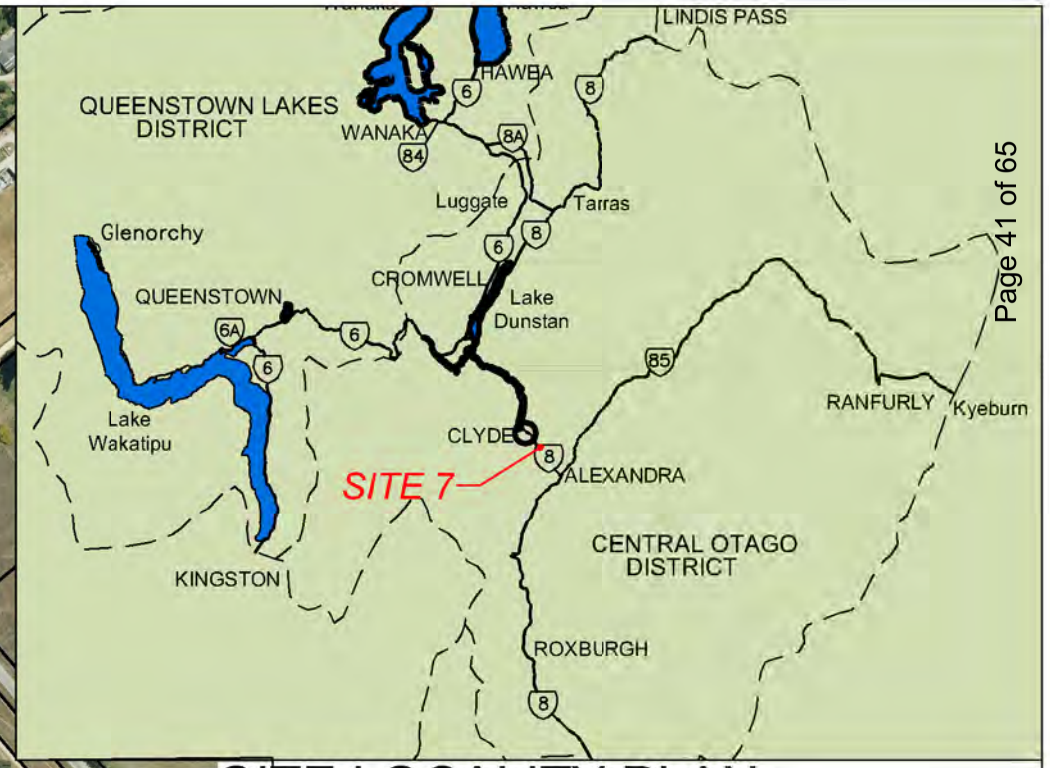
Project
NEW ZEALAND TRANSPORT AGENCY
REGION 13 SH 8 RS 343 RS 4.2 - 4.4
PROPOSED STOCK EFFLUENT DISPOSAL SITES

Sheet
SITE 6: GORGE CREEK HILL

Project No.	Sheet No.	Revision
6-XT177.62(505_01)	C06	A

Original Sheet SizeA3 [420x297] Plot Date 2017-05-22 at 1:17:57 p.m. Path G:\NZTA\PS 0177 Central Otago\SH NM\6XT17762 (Additional Services)\505GX Stock Effluent Disposal_SED_ site assessment\avings\7. Gorge Creek Hill\5-XT177.62(505_01)_C06(A).dwg C06(A)





SITE LOCALITY PLAN

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Drawn	Scales	Project No.	Sheet No.	Revision
NICK GOODWIN	N.T.S	6-XT177.62(505_01)	C07	A

Project: NEW ZEALAND TRANSPORT AGENCY
REGION 13 SH 8 RS 310 RS 14.5 -14.7
PROPOSED STOCK EFFLUENT DISPOSAL SITES

Sheet: SITE 7: ALEXANDRA GOLF COURSE STRAIGHT

Original Sheet Size:A3 [420x297] Plot Date: 2017-05-22 at 1:20:11 p.m. Path:G:\NZTA\PS 0177 Central Otago SH NM\6XT17762 (Additional Services)\505GX Stock Effluent Disposal_SED_ site assessment\avings\8. Alexandra Golf Course Straight\5-XT177.62(505_01)_C07(A).dwg C07(A)

SITE LOCALITY PLAN

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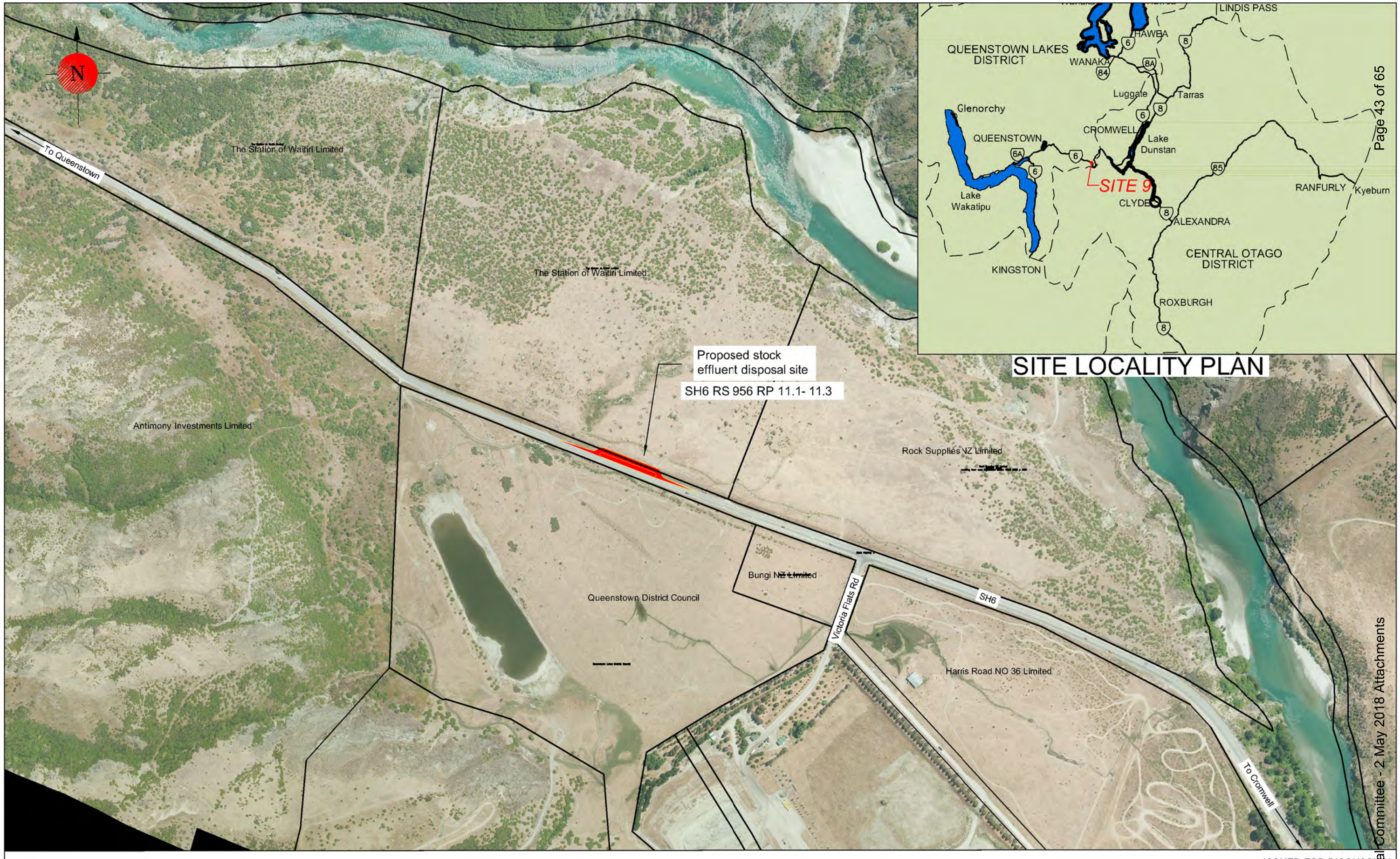
Drawn	Scales
NICK GOODWIN	N.T.S

Project:
NEW ZEALAND TRANSPORT AGENCY
REGION 13 SH 8 RS 271 RS 1.9 - 2.1
PROPOSED STOCK EFFLUENT DISPOSAL SITES

Sheet:
SITE 8: BENDIGO LOOP RD

Project No.	Sheet No.	Revision
6-XT177.62(505_01)	C08	A

Original Sheet Size:A3 [420x297] Plot Date: 2017-05-22 at 1:23:21 p.m. Path:G:\NZTA\PS O177 Central Otago\SH NM\6XT17762 (Additional Services)\505GX Stock Effluent Disposal_SED_ site assessment\cavings\9. Loop Road\5-XT177.62(505_01)_C08(A).dwg C08(A)



SITE LOCALITY PLAN

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Project
NEW ZEALAND TRANSPORT AGENCY
REGION 13 SH 6 RS 956 RS 11.1 - 11.3
PROPOSED STOCK EFFLUENT DISPOSAL SITES

Sheet
SITE 9: VICTORIA FLATS

Project No.	Sheet No.	Revision
6-XT177.62(505_01)	C09	A

Original Sheet Size:A3 [420x297] Plot Date: 2017-06-06 at 11:46:25 AM Path: G:\NZTA\PS 0177 Central Otago SH NM\6XT17762 (Additional Services)\505GX Stock Effluent Disposal_SED_ site assessment\cavings\10. Waitiri\6-XT177.62(505_01)_C09(A).dwg C09(A)

Emergency Management Otago
Te Rākau Whakamarumaru Ōtākou

Otago CDEM Group Submission to the Ministerial Review

Better responses to natural disasters and other emergencies in New Zealand

Introduction

This submission is made to the Ministerial Review as detailed above and addresses the Terms of Reference (TOR) as provided to the CDEM Sector.

Purpose of the Review

As stated in the Terms of Reference (TOR), the key purpose of the review is to provide advice to the Minister with "the most appropriate operational and legislative mechanisms to support effective responses to natural disasters and other emergencies in New Zealand."

The aspiration is defined as *"to ensure that New Zealand's emergency response framework is world leading, and well placed to meet future challenges",* however, what "world Leading" means is unclear and from the outset we wish to record our concern that the focus of the review appears to be "Wellington Centric" as reflected by the membership of the Technical Advisory Group (TAG). We clarify that we mean no disrespect for the members of the TAG, merely that because civil defence is almost invariably delivered locally and the makeup, in our view, should have included a higher level of representation from both operational local government (i.e. a Mayor experienced in responding to a local event), a representative from the CDEM Special Interest Group (i.e. a CEG Chair), and an experienced CDEM Regional Manager.

That said, the Otago Group fully supports the review process as both timely and necessary and thanks the Ministers involved for commencing, and progressing, this review.

The Challenges

it is acknowledged that there are significant challenges across the country with how CDEM is structured, resourced, perceived by the public, and delivered to the community, as it is neither uniform or consistent. Some of the challenges include;

- CDEM is not seen as being a nationally professional organisation with a consistent identity, region to region, despite a high degree of cooperation and mutual support between regional groups.

- Resourcing (which includes funding and allocation of Local Authority staff training time) varies greatly region to region, depending on the priority given to it, which affects CDEM capability significantly. In Otago, this is most clearly shown by past decisions to only fund a .5 position in Queenstown Lakes and a .5 in Central Otago, both of which are at significant risk from multiple and complex natural hazards. This has changed under the current leadership of the Otago CEG and Joint Committee.

- The Ministry do not "lead" CDEM in NZ as they are, in effect, a policy driven entity who advise and encourage, but do not direct activity, with the exception being during a national declaration when they are required to activate and lead the National Crisis Management Centre (NCMC). Transitioning from business as usual to leading an effective NCMC during a national emergency is an extremely difficult step under any circumstances. National resources are stretched thin, as they have been in every recent major event, many staff lack extensive role-specific training, and the relationships between NCMC and Groups are tenuous which makes delivering high quality leadership to the sector almost impossible. This situation is, in many cases, replicated within local and regional CDEM Groups with the same challenges around consistency, quality and regularity of training. Unless the issues of training and resourcing are addressed through this review, we will always get what we've got before, because we will continue to do what we have always done.

- Organisational silos remain a significant barrier to an effective response as significant skills, which could be employed to lead components of a response, are often overlooked, or are not fully exploited. As an example, the Kaikoura earthquake response showed the effectiveness of having the logistics function supported by trained and experienced NZDF personnel embedded in the EOC, as opposed to an under-resourced and inconsistently trained section at Group level.

- There are also significant philosophical divisions around the decision to declare a state of emergency, and although there is a published guideline (DGL13/12), which details when and how a state of emergency may be declared, it fails to note the importance of public confidence in the process. This was highlighted in Otago on November 14th, 2016, when Dunedin City declared for a short period following the tsunami warnings (specifically for reasons of public confidence) the declaration elicited significant concerns from MCDEM. Conversely in the recent earthquakes and fires in Canterbury, concern was expressed by the Minister when the authorities involved either did not declare, or were slow to do so.

Outcomes

The following details the specified outcomes sought by the review with Otago Groups recommendations following each outcome.

Outcome 1: The emergency response system is fit for purpose and aligns with stakeholder expectations.

Outcome 1 focuses on the "Emergency Response System". CDEM in New Zealand is mandated to address four specific priorities, these being; Reduction, Readiness, Response, and Recovery. It is our view that the review should first and foremost review and recommend what should be the primary focus of CDEM activity as this has a significant bearing on the outcomes of the review process.

There are significant differences between the manner in which Groups structure their delivery of CDEM to their region. Over the past 18 months the Otago Group has undergone a major reorganisation with the creation of a fully regionalised delivery model but with locally domiciled and dedicated staff. These staff are supported by a Regional Office providing carefully considered specialist skills (see figure: 1) to support the local staff. Each local authority is a full partner in the delivery of regional services, however the bulk of the funding for the Group's activities is provided through a targeted regional rate.

Figure: 1 Otago Group Regional Support Structure

We believe that we now have the appropriate structure in place to address the areas we are tasked with, accompanied by a realistic funding base. However, the current system still relies heavily on each TLA willingly contributing significant time and effort to achieve effectiveness. The current legislation is "enabling" rather than "directive", thereby allowing local authorities to choose their level of preparedness and resources which are often at a low level as "core business" does not always include a focus on CDEM. This drastically effects operational performance in terms of capability and capacity.

Outcome 1: Recommendations

- Consideration needs to be given to which of the 4 R's stays with CDEM. Should the current priorities continue, or should the main focus be on Readiness and Response with Reduction and Recovery sitting primarily with Local Authorities (with CDEM providing support)?

- The current legislation needs to change to become more directive to require TLA's to meet an acceptable minimum standard. This should also apply to MCDEM across all its activities. Effective monitoring and reporting of capability should be undertaken on a bi-annual basis

- Under (Section 17(d) of the Act, Groups are obligated to "respond to and manage the adverse effects of emergencies", however the legislation does not provide effectively for the coordinating role of a controller in non-declared emergencies, neither does it provide any protection from liability

- The level of professionalisation of the CDEM Sector needs to be improved to better define CDEM as a nationally consistent and effective organisation. This would require nationally consistent branding, leadership processes, public communications, and greater public recognition of the role CDEM undertakes.

Outcome 2: New Zealand has the appropriate response capability and capacity for civil defence emergency management responses.

The current system relies on local authorities providing most of the trained personnel to staff emergency operations centres during an event. Nationally, training provision is inconsistent both in content and quality. The introduction of the Integrated Training Framework (ITF), supported by most CDEM Groups and led by the Waikato Group, provides the basis for improvement however, this is still in its early stages of development and delivery. There is no requirement for EOC staff in functional management roles to be fully trained to a national standard, qualified or experienced.

Consistent and readily accessible training is critical to the development of an effective CDEM capacity. Insufficient priority has been placed on this over preceding years and this needs to be significantly increased with both the development of remainder of the ITF and much-strengthened requirements for local authorities to prioritise training of their personnel.

Professional development (including experience gained supporting actual responses) of full time CDEM staff is critical. The introduction of a Training Institute would enable the development and delivery of greater capability and capacity across the country. This Institute could, and should, be partnered with other international training programmes (i.e. the ASEAN ACE Programme led by the AHA Centre in Jakarta).

One of the recommendations from the Christchurch earthquake review was the establishment of a cadre of well trained and certified professional emergency management staff (from both CDEM and Partner Agencies) able to deploy in support of a response. This recommendation has not been implemented but should be revisited. A rapid response unit of this kind would significantly improve our ability to mount a well-resourced, effective response to sudden onset events. Maritime New Zealand's national response team provides a model of how this could be done, drawing on trained staff from local government, through longstanding MOUs, to provide a ready response team able to deploy within hours to a major oil spill anywhere in the country. Applying a similar approach to CDEM would overcome the resourcing challenges experienced by many smaller local authorities confronted with a sudden onset emergency. This cadre, bringing with them a much higher level of training and experience, would make a major impact in the effectiveness and timeliness of response activities. In the absence of a nationally mandated cadre, the Otago Group is focusing on developing strong

relationships with our local authorities, key agencies, stakeholders, and bordering CDEM Groups. However, our ability to develop stronger links within an Emergency Operations Centre environment with partner agencies is heavily influenced by the national policy of the agency, more than it is through local relationships, with a consequent element of uncertainty over each agency's ability to commit.

EMIS, the MCDEM mandated information management system, has never been nationally adopted and its functionality has been widely criticised. The lack of a universal, fit-for-purpose and easy to use platform for sharing information within and between groups, and with NCMC, is a critical hindrance to gaining a common operating picture and situational awareness.

Outcome 2: Recommendations

- All CDEM staff, both professional and TLA-based responders, must be trained to nationally consistent standards and exercised regularly.

- A national cadre of deployable key staff needs to be developed and appropriately trained to a very high standard. These should include;
    - Controllers
    - Response Managers
    - PIM
    - Welfare

  This group of people would provide a significant increase in capacity and capability across the Country, and could also be used to support emergency responses in other countries where New Zealand has a strategic relationship (which would also provide valuable operational experience among the cadre).

- The creation and operation of an Emergency Management Institute, resourced appropriately and staffed by qualified and experienced personnel (both operational and academic) should be a priority. The FEMA Emergency Management Institute in Emmetsburg, Maryland provides a relevant example.

  Note: If an Institute is contemplated, the opportunity of linking with Australia to create an "Australasian" Institute should be considered. This would also support a greater collaboration between Australian State Emergency Services and New Zealand CDEM operational personnel.

- The role of Controllers needs to be better specified, and supported. The aim must be to ensure that each local authority, and CDEM Group, can deploy fully qualified and competent Controllers who are familiar with the local communities and their Hazardscape. Where this is not practical due to the size or resources available to a local authority, arrangements with neighbouring authorities to deploy trained Controllers from elsewhere should be mandatory, and an active programme of relationship development ensured. The role of Partner Agencies (specifically Police, Fire, & NZDF) needs to be re-specified and Legislation changed to require emergency services (including CDEM) to collaborate within a newly specified emergency operating structure. This would allow the integration of high level skills into an EOC such as;

    - Fire Service – Operations
    - Police - Planning & Intelligence
    - NZDF – Logistics & Air Operations

- An urgent change needs to be made to the way public alerting occurs. The current practice of a MCDEM staff member, and a GNS scientist, being woken by an event alert, trying to decipher its magnitude (from their bedroom), and then providing what has proven in the past to be confusing advice to CDEM staff around the Country, who then also need to wake up, try to decipher the consequences for their potentially affected communities (also from their bedroom), and only then start to get the message out, is untenable. A 24/7/365 "awake" process needs to be created and resourced with the ability to make rapid assessments and decisions, followed by an immediate national alert sent through the new Cell Broadcasting system, thereby considerably speeding up both the timeliness and effectiveness of an alert to the public.

- A nationally standardised approach to the delivery of CDEM, including branding, region to region needs to be developed and mandated. This would support a more professional approach in the eyes of the public, and in providing a more effective support network across the country.
- A stronger relationship with IWI needs to be developed to both leverage off and provide greater support for the skills and abilities both groups bring to the response "table".

- Scrap and replace EMIS with an internationally proven, integrated and effective cloud based information sharing system. This needs to be intuitive and simple to use because in a response, many of the personnel brought in to staff an EOC or ECC won't be familiar with it. The system needs to be capable of supporting BAU functions to ensure it is used in "peacetime", which will encourage its adoption.

- Develop and resource much greater use of GIS Systems to support more effective decision making and rapid sharing of information locally, regionally, and nationally.

- Change CDEM legislation to provide much greater protection for all those undertaking CDEM activities, both in declared and non-declared events.

Outcome 3: Clearer definition of who determines the need for and declares a state of emergency and at what point the Director CDEM can step in to declare.

It is a truism that all emergencies are local. To maintain public trust and confidence, it is important that emergencies continue to be managed by local authorities who are best placed to understand the needs and expectations, challenges, strengths, and weaknesses, of their communities. In New Zealand, the only “Cavalry” we have to ride to the rescue is contained within our communities and across the 4 Rs, work is undertaken regularly to prepare them for an event. This should not change. Decision making around preparedness, response and recovery must also be made at a local level.

CDEM Groups should continue to provide leadership and support and as noted, the Otago Group is comfortable that our current model will deliver on our community’s needs and expectations. Local and Regional Controllers need to have a high level of training, skills, and aptitude and able to gain and maintain the confidence of their communities, local elected members, and senior TA management. They need to be supported by fully trained functional managers (i.e. PIM, Welfare, Operations, Planning & Intelligence, Logistics).

This also affects the decision to declare a state of emergency. The Otago CDEM Group strongly supports the decision to declare remaining in the hands of local elected members as per the current process. Local declarations are, and should be, made by people who understand their communities, are well informed by good situational awareness, are respected, and are the “face” of their community. This current process of a declaration being made by a local Mayor, in consultation with the Controller, and with local emergency services, is the most appropriate. A change to legislation to introduce a formal Regional Declaration (currently still defined as a local declaration) should be considered and this would sit with regional authority elected Chair. National declarations should

remain as they are currently made by the Minister, and we note that the MCDEM Director does not have the power under the current act to perform this function.

Outcome 3: Recommendations

- Continue the current process of declaring an emergency but strengthen the relationship between the Ministry and Regional CDEM to ensure a better understanding of the reasons for a declaration. This includes a better understanding of the need for public confidence as a key reason to declare, and not simply an activation of additional powers.

- Acknowledge the differences between a local, regional, or national declaration which reflects the scale of an event. Clearer understanding and agreement on trigger points between different levels of authority and states of emergency should be well embedded across the Country.

- Legal protection for Controllers during declared and non-declared events must be addressed nationally.

Outcome 4: The chain of command and control, coordination, and decision making during an emergency is effective and appropriate.

Responding to a major natural disaster is akin to fighting a war and no defence force would approach an impending battle with the structure, resources, and level of training CDEM currently operates with.

Effective command, coordination, and control, comes from the activities of well trained, experienced, well-resourced, and demonstrably effective personnel who are recognised as capable of operating in a crisis environment. **This requires a much stronger national commitment (and requirement) towards ensuring consistent standards and levels of resources exist across the country.**

Consistent processes and procedures under CIMS are essential to ensure inter-operability between agencies involved in the response.

All staff filling leadership positions in an EOC or ECC must be well trained and experienced, and fully understand the operating and command structure, including the respective functions and responsibilities of NCMC, Group and local CDEM.

Outcome 4: Recommendations

- Within the establishment of dedicated national multi-agency response teams, ensure a cadre of trained Controllers are included.

- Change the legislation to ensure that trained and certified controllers can operate in any location across the Country and are not constrained by not having been "approved" by local authorities.

- Change Legislation to require a standardised approach and operating model across all agencies involved in emergency response. In NZ, CIMS is the standard model but acceptance and use varies greatly, **most notably in emergency services**.

- Legislate the requirement for consistent and standardised training and education of all key leadership roles within the EOC. At a minimum, there should be an internationally recognised certification for Controllers and ideally the certification would be extended to the managers of Public Information Management, Welfare, Operations, Planning & Intelligence and Logistics.

- Provide for greater involvement and collaboration between all CDEM stakeholders by ensuring legislation requires each agency to align and support the development of effective response capability.

Outcome 5: Information flows, allowing timely and accurate communication to Ministers, agencies, stakeholders and to the public

The effectiveness of every emergency response since the Canterbury earthquakes, if not before, has been measured largely by the public's perception of how well it was managed. The quality of communication with impacted communities and stakeholders, with and between partner agencies, and to the Government has been a critical element in influencing how each of these audiences has assessed the success or failure of the response, and how much - or little - trust and confidence there has been in CDEM.

As such, the Public Information Management (PIM) function is a critical part of the CDEM response structure at every level - local, group and national. While the imperative for PIMs in NCMC may be to keep the Minister informed, followed by agencies and stakeholders, with the public at the bottom of the list (as set out in Outcome 5), the reality for Controllers, Mayors and their PIMs at local and group

level is that the needs of their community and stakeholders will always be the top priority, with the Minister and agency partners a close second.

Underpinning Outcome 5 is acknowledgement of the immediacy of "news" via social media, digital and broadcast media; the universal expectation that information, corroboration and comment will be available from CDEM - even before a response is fully underway - and the impact of citizen journalism.

All of these elements make it impossible to "manage" the media or control the messaging in the traditional sense, but they also provide new opportunities for CDEM to inform, communicate and engage directly with our communities and target audiences, and to retain their trust and confidence as an authoritative source. To do this, the PIM team must be fully staffed by well trained personnel who can activate immediately - operating remotely if necessary - to provide authenticated information swiftly and update it often in an evolving situation.

In the Otago Group, we have acknowledged this by creating a new role within our CDEM Group for a permanent full-time Public Information Manager to develop the capability of the Group PIM team as well as those in our local EOCs. The other key element of this role is improving community awareness of Otago's complex Hazardscape, increasing preparedness, and creating resilience.

As noted previously, consistent training and the recruitment of qualified, experience staff are key to the successful delivery of all functions in a response - this applies particularly to Public Information. In most cases, PIM team members at local and group level are drawn from local authority communications staff, supplemented by other council or contract staff. At NCMC, MCDEM's communications team supplies the core capability, augmented by other government communications staff. At present, there is no requirement for any of these staff, at any level, to be trained, qualified or experienced in the skills required to deliver public information effectively in the fast-paced environment of an emergency response. In smaller councils without dedicated communications resources in-house, PIMs range from librarians and receptionists to planners. Their skill levels and experience vary and even those with a communications background do not necessarily have the skillset or the temperament to operate successfully under pressure.

There is currently no national PIM training programme and while it was previously recommended that PIMs attended a course, this was not a requirement either for PIM managers or for team members. The previous training regime was withdrawn pending the development of a new PIM course within the Integrated Training Framework, which is not yet complete. There is no consistent exercise programme for PIMs either, it being left to each Group and local CDEM organisation to decide whether and how to exercise its PIM function.

Although there are generally accepted functions that exist within PIM (set out in MCDEM's PIM handbook), there is no consistent PIM structure in use across the sector. This makes it more difficult for staff brought in from other councils or agencies to assist in a local response to assimilate quickly.

Most local EOCs use their home council's IT systems, email, filing and document management systems, and their BAU access rules also make it very difficult for incoming team members to become operational quickly. Given the immediacy of the PIM function, these delays are a barrier to effective, timely communication.

With the arguable exception of Auckland Council, no local authority or CDEM Group in the country can deploy a full public information management team for a sustained response lasting more than a couple of days without outside assistance. In the 2011 Christchurch earthquake response, the PIM structure required 48 people to be fully staffed on a 24-hour basis across three shifts - even allowing that some positions did not have to be filled overnight. While that is at the extreme end of the scale, the PIM team in Kaikoura was drastically under-resourced with just four-five people for the first week (initially there was only one). The reality is that every significant emergency response will require outside resources to be brought in to supplement local staff. This needs to be acknowledged, planned for, and welcomed.

There are two aspects to address:

1. the need for a national roster of highly qualified and experienced Public Information Managers and PIM team members, drawn from councils, CDEM Groups, around the country, and from government agencies, who can be deployed at short notice to support or lead PIM teams, or fill key roles in any location.
2. The need for all local authorities to accept, welcome and assimilate outside assistance in their CDEM activation without parochialism, resentment or deliberately obstructive behaviour.

For this to occur, there needs to be a universally accepted trigger for requesting outside assistance, and consistent protocols for receiving and assimilating those staff. This is not exclusive to the PIM function.

Outcome 5: Recommendations

For the CDEM sector to meet the high public and political expectations of sustained, effective, and timely communications, the following will be required:

- Mandatory extensive training to a nationally set standard for all PIM managers, including compulsory participation in a regular exercise programme

- A comprehensive and nationally consistent training programme for PIM team members, augmented by exercises to test systems, procedures and skills, as well as PIM's integration with other core EOC / ECC / NCMC functions

- A nationally consistent basic PIM structure for all EOCs and ECCs including social media, media liaison, community relations and stakeholder engagement functions as a minimum, to enable inter-operability when staff from outside an impacted area are brought in to assist. This does not preclude local variations but ensure a consistent foundation.

- The relationship between the PIM, the All of Government Communications Manager, and the Controller, when an AOG Communications Manager is deployed into the field, needs to be clearly defined.

- Identify a pool of trained, experienced, and fully equipped PIMs and other PIM team members from around the country who can be deployed at short notice to an EOC, ECC, and the NCMC. Their ability and experience to operate in an EOC, ECC or NCMC should be certified in advance.

- Establish national protocols for triggering outside assistance in a response and incorporating those resources into EOCs, ECC and NCMC.

- Develop a National Public Information Strategy

- Establish and support a national reference group and forum for Public Information Management to strengthen networks, develop best practice and advise on training and development for PIM.

- Invest more resources in an ongoing CDEM public education programme, led nationally and supported by Group and local delivery

Conclusion

The greatest challenge in the Civil Defence Emergency Management environment is that for many years New Zealand dodged a series of bullets. We now clearly understand that "What never happens … happens" but to date we seem to be stuck in the cycle of doing the same thing yet expecting a different outcome. Were this not the case then CDEM would not be under scrutiny for failing to meet the expectations of our community, our stakeholders, and Government. CDEM nationally is charged with the protection of life and property and in many instances, activation and responses are required without notice requiring instant decision making under extreme pressure, and in potentially life threatening circumstances.

When levels of training, resourcing, consistency, and "national trust', have not been established and embedded in advance, it is unreasonable to expect that a fully professional and effective response will occur in all cases, and is it unacceptable that when those failures occur, criticism is levelled at the people who were simply doing their best under very trying circumstances.

The development of mutual trust and respect across all sectors of CDEM, starting with National Government, needs to be a primary focus of the outcomes of this review. During crisis events, we must be **"Team New Zealand"** and not siloed, organisationally focused, and blinkered.

In order to provide the high quality, professional and effective response that our communities rightly expect, changes are required at every level. The experiences of 2010 & 2011, the last eight months in Kaikoura, Hurunui and Wellington, and the Port Hills fire, show us that whether our smallest local authorities or our large metropolitan areas are involved, CDEM is not yet adequately resourced, trained or prepared, and that past lessons have still not been learned despite being punched in the face repeatedly.

To ensure this does not continue, enabling changes in legislation are required, a significant improvement in training and experience is needed, and changes to the CDEM Sector are required to produce a professional and effective CDEM Team.

This does not, and should not, remove the responsibility of Local Government to continue to lead and deliver CDEM services to their communities, but would rather provide a significant improvement in the support for, and leadership of, a nationally supported and effective CDEM organisation, delivered locally and regionally, coordinated by a new and effective "National Emergency Management Agency".

The Otago Group wishes to support these changes actively and collaboratively and we welcome the opportunity for both scrutiny of our operational structure, and for the opportunity to support implementation of the review and future development of CDEM capability in New Zealand.

Submission presented by;

Otago Civil Defence & Emergency Management Group Joint Committee

Stephen Woodhead
Chair
Chairman – Otago Regional Council

Tim Cadogan
Mayor
Central Otago District Council

Gary Kircher
Mayor
Waitaki District Council

Jim Boult
Mayor
Queenstown Lakes District Council

Dave Cull
Mayor
Dunedin City

Brian Cadogan
Mayor
Clutha District Council

Emergency Management Otago

Peter Bodeker
Chair - Otago Coordinating Executive Group
Chair - National CDEM Special Interest Group
Chief Executive – Otago Regional Council

Chris Hawker
Regional Manager / Group Controller

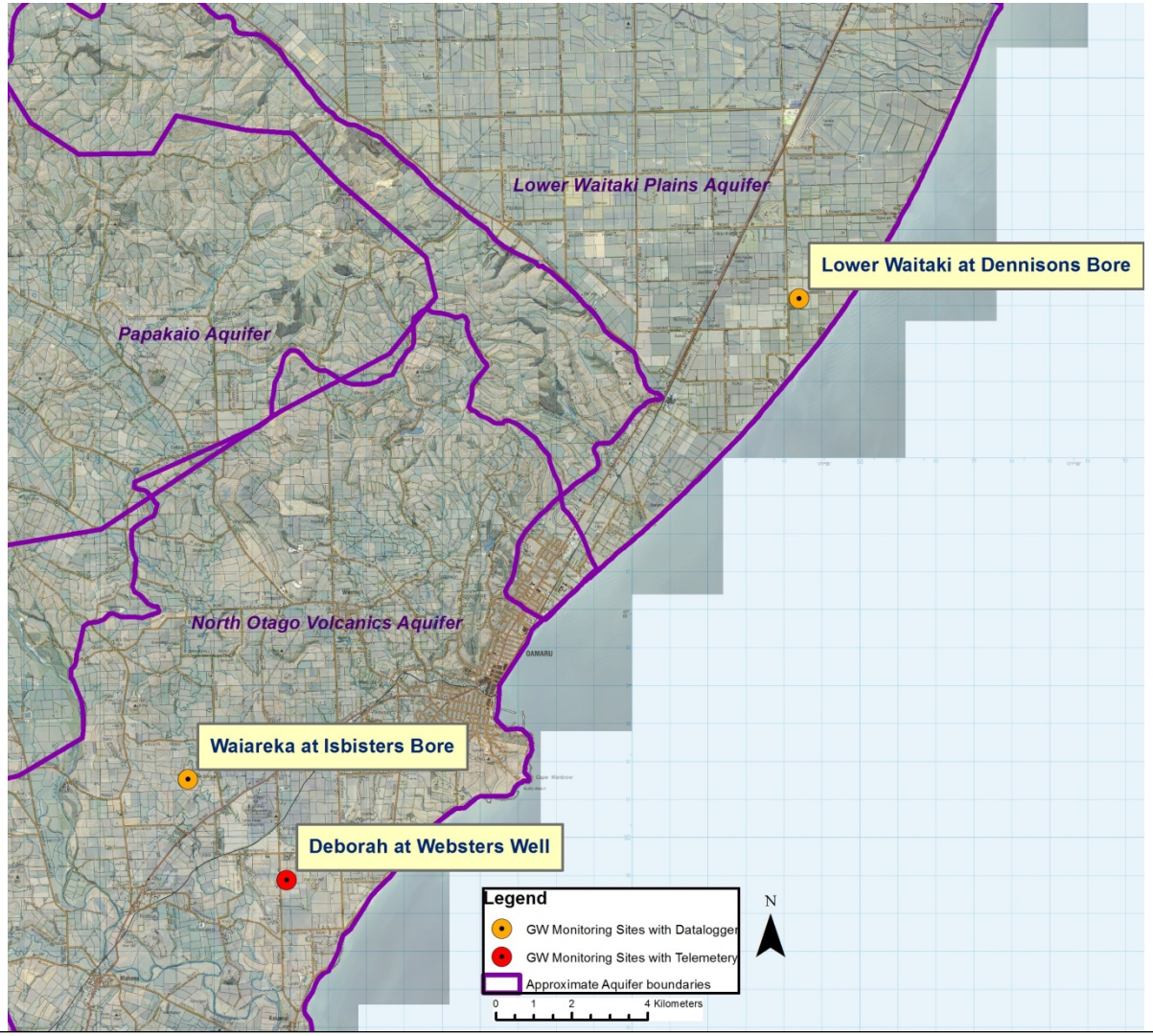
Michele Poole
Public Information Manager

Appendix B: Monitoring Bores Location Maps

M1 - North Otago

Reference Bore:

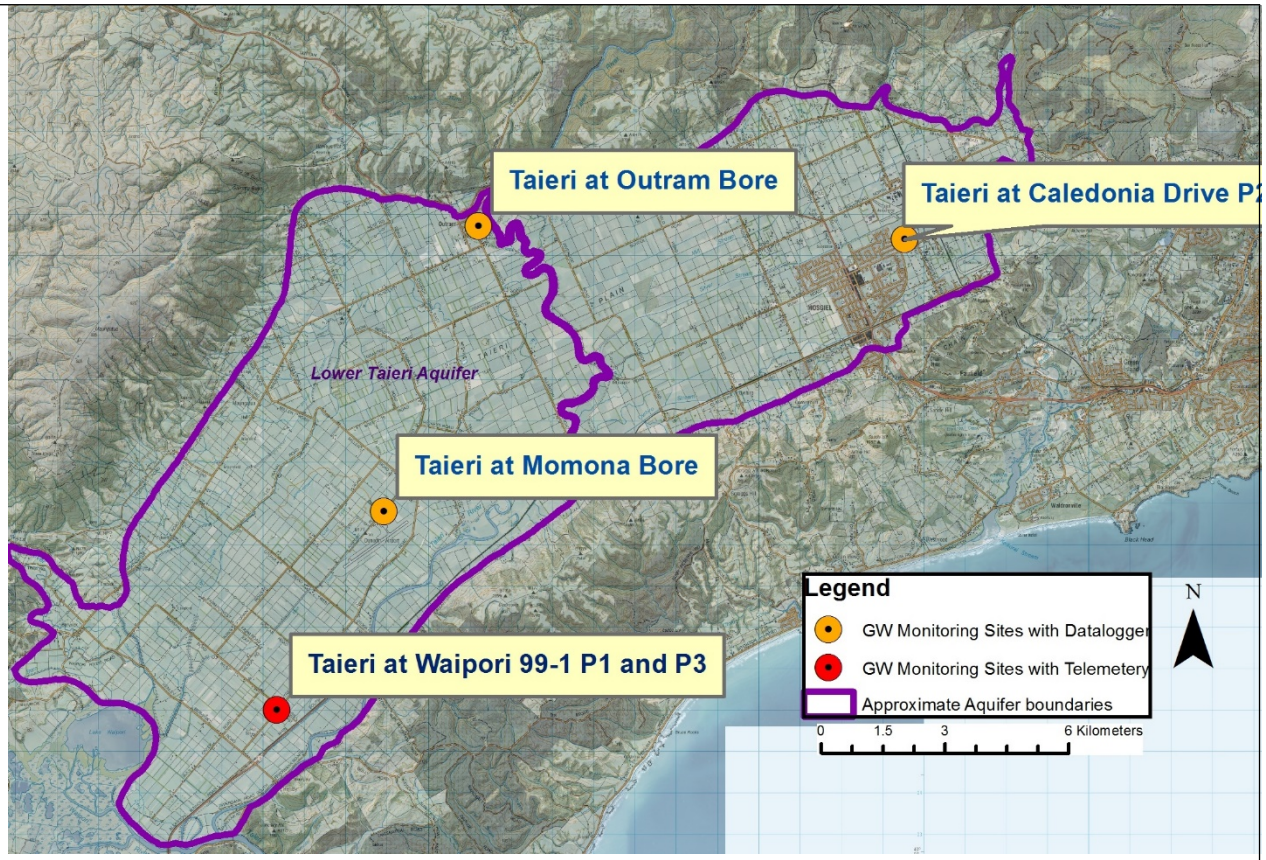
- ✓ ***Websters Well for North Otago Volcanics Aquifer***



M2 - Lower Taieri Plains

Reference Bores:

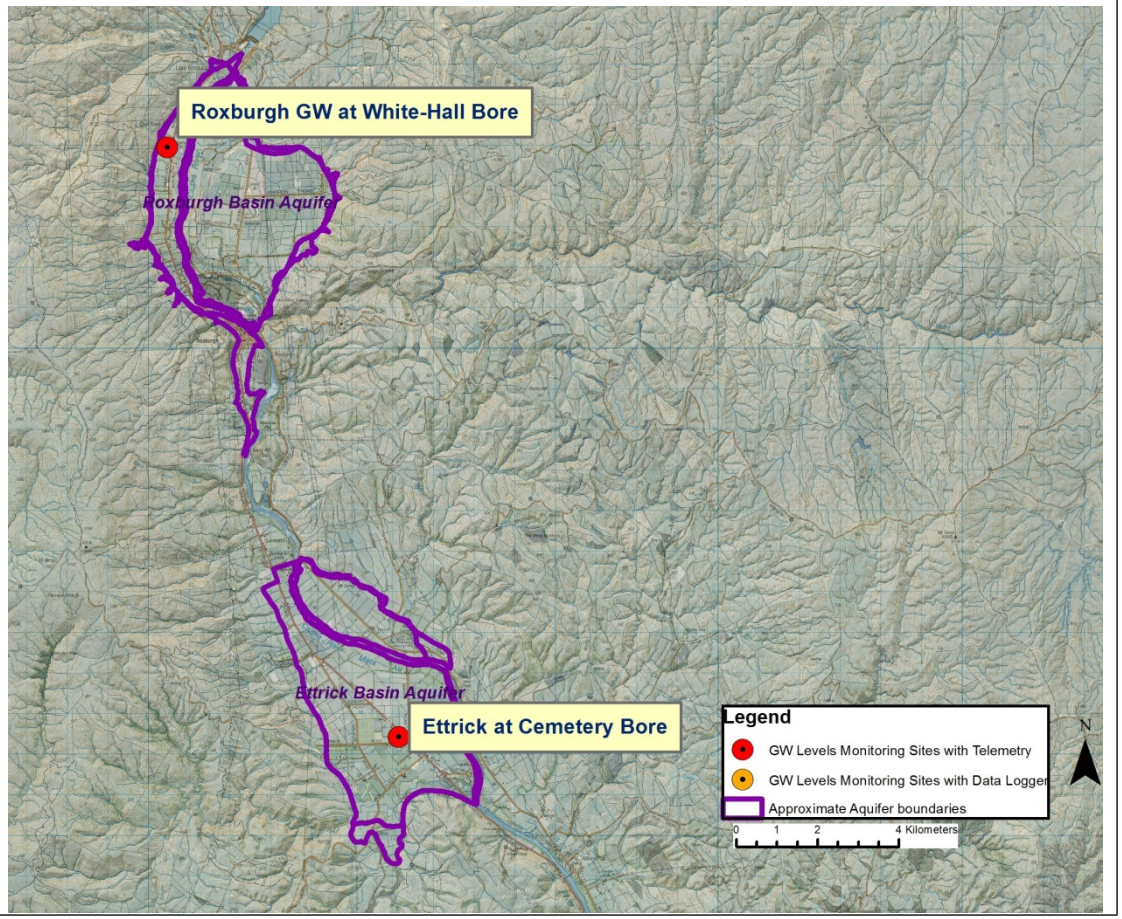
- ✓ ***Momona Bore for West Lower Taieri Aquifer***
- ✓ ***Harleys-Caledonia Drive Well, Piezo. 2 for East Lower Taieri Aquifer***



M3 - Central Otago

Reference Bores:

- ✓ ***Cemetery Bore for Ettrick Basin Aquifer***
- ✓ ***White-Hall Bore for Roxburgh Basin Aquifer***

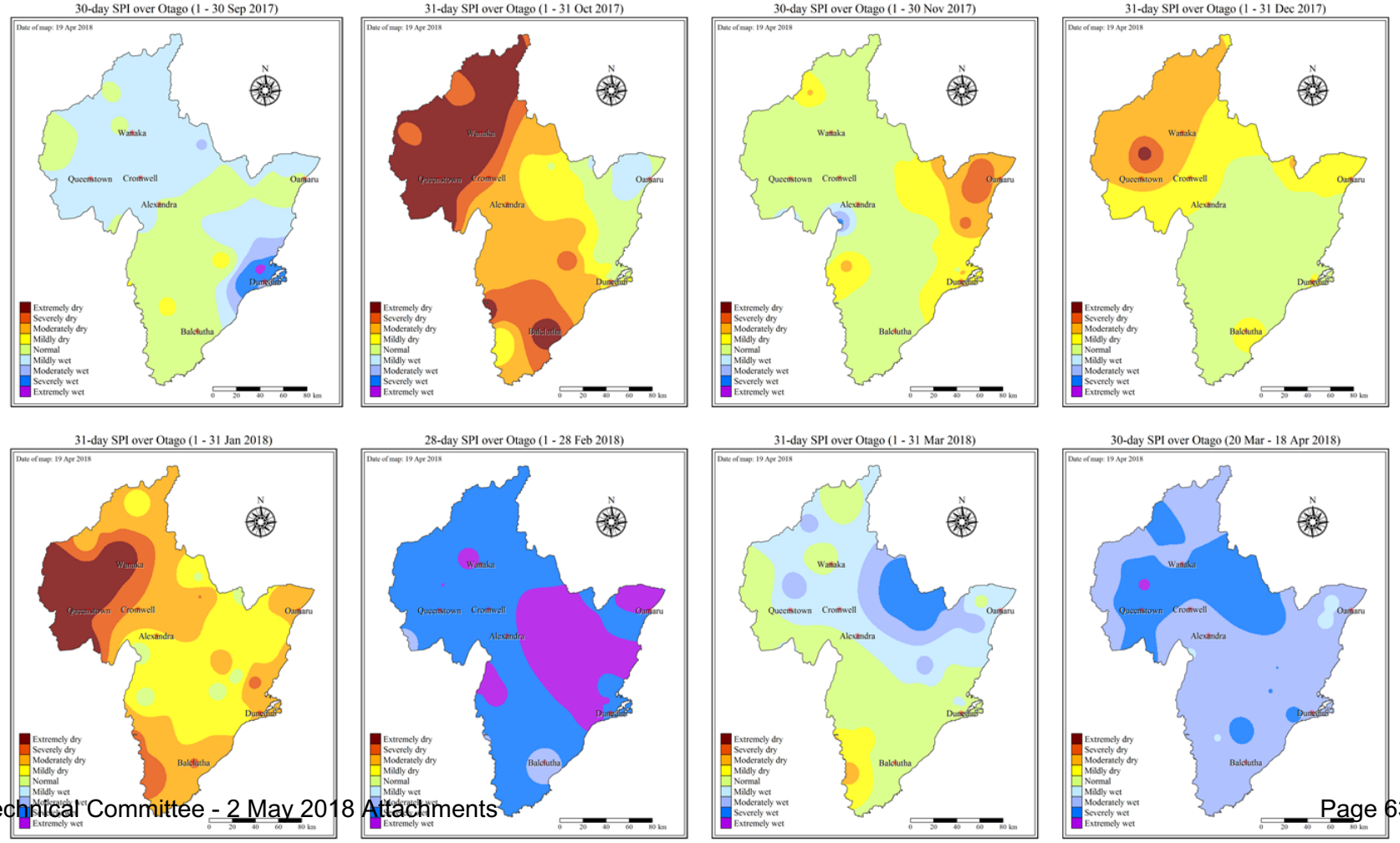


Appendix C – Climate tables and figures – additional information

Rainfall

Less than normal rainfall was received between October 2017 and January 2018 in Central and South Otago. Cyclone Fehi brought significant rainfall event in early February 2018 with well above normal rainfall recorded for Taieri and North Otago, followed by several rainfall events during late February and March, and mid-April for Upper Taieri and Central Otago. Below normal rainfall occurred across much of Otago during the early part of the season (October 2017-January 2018), while above normal rainfall in February reversed this situation (Figure 2).

Figure C1; 2: Monthly distributions of the Standardised Precipitation Index (SPI) across Otago since September 2017



Groundwater Levels for the Restriction Bores
Table 2: Minimum groundwater levels on restriction bores (October 2017 - December 2017)

Aquifer	Aquifer reference Bore	Reference Map in Appendix	Aquifer maximum height (m above datum)	Restriction levels (m above datum)			Oct-17		Nov-17		Dec-17	
				25% restriction*	50% restriction	100% restriction	Lowest aquifer height (m above datum)	Numbers of days below 25% restriction level	Lowest aquifer height (m above datum)	Numbers of days below 25% restriction level	Lowest aquifer height (m above datum)	Numbers of days below 25% restriction level
North Otago Volcanic Aquifer	Websters Well	M1	130.8	126	125.5	125	130.034	-	129.67	-	129.665	-
Lower Taieri West	Momona Bore	M2	101.24	100	99.5	99	100.857	-	100.416	-	100.097	-
Lower Taieri East	Harleys Well, Piezo. 2*		112.5**	110.5	110	109.5	112.139	-	111.358	-	111.038	-
Ettrick Basin	Cemetery Bore	M3	172.29	170.29	169.79	169.29	171.852	-	171.675	-	171.418	-
Roxburgh Basin	White-Hall Bore		189.5	188	187.8	187.5	189.993	-	189.668	-	189.418	-

* Harleys Well replaced by Caledonia Drive Bore, Piezo 2
** The very important water table rise observed for this bore is linked to the cessation of the community bores pumping

Table 3: Minimum groundwater levels on restriction bores (January 2018 - March 2018)

Aquifer	Reference Map in Appendix	Aquifer reference Bore	Aquifer maximum height (m above datum)	Restriction levels (m above datum)			Jan-18		Feb-18		Mar-18	
				25% restriction*	50% restriction	100% restriction	Lowest aquifer height (m above datum)	Numbers of days below 25% restriction level	Lowest aquifer height (m above datum)	Numbers of days below 25% restriction level	Lowest aquifer height (m above datum)	Numbers of days below 25% restriction level
North Otago Volcanic Aquifer	M1	Websters Well	130.8	126	125.5	125	129.824	-	129.836	-	130.196	-
Lower Taieri West	M2	Momona Bore	101.24	100	99.5	99	99.875	16	99.963	1	100.23	-
Lower Taieri East		Harleys Well, Piezo. 2*	112.5**	110.5	110	109.5	113.938	-	113.997	-	114.082	-
Ettrick Basin	M3	Cemetery Bore	172.29	170.29	169.79	169.29	171.112	-	171.112	-	171.49	-
Roxburgh Basin		White-Hall Bore	189.5	188	187.8	187.5	189.06	-	188.989	-	189.115	-