

---

**Regulatory Performance Committee**  
**ATTACHMENTS UNDER SEPARATE COVER**


---

**Date:** Wednesday 6 March 2019  
**Time:** 2pm  
**Venue:** Committee Room 1, Level 2, Civic Offices,  
53 Hereford Street, Christchurch

---

<b>TABLE OF CONTENTS</b>	<b>PAGE</b>
<b>7 Proposed Plan Change 1 Woolston Risk Management Area</b>	
D. Attachment D to RPC 6 March 2019 Report - Plan change 1 WRMA - Section 32 Evaluation Report .....	3



	<p>Resource Management Act 1991</p> <p>Christchurch City Council</p> <p>Christchurch District Plan</p> <p><b>Plan Change Section 32 Evaluation</b></p>	<p>1</p>
<p style="text-align: center;"><b>WOOLSTON RISK MANAGEMENT AREA</b></p> <p><b>Introduction</b></p> <p>The purpose of the proposed plan change is to provide updated District Plan provisions that manage low probability but potentially high impact risks which would arise from the location of sensitive activities in close proximity to two bulk fuel terminals in Woolston, Christchurch. It proposes provisions that seek to enable the ongoing efficient use of those facilities and prevent reverse sensitivity effects from arising that may affect their ongoing operation and growth. It does this through the identification of a risk management area, and related provisions which limit the extent to which new sensitive activities, including pre-schools, can locate within it. The change would continue to require other new discretionary or non-complying activities seeking to establish in the area to consider the issue of risk and ensure they meet relevant risk acceptance criteria appropriate to the nature of the proposed activities but without the need to undertake an individual quantitative risk assessment to support their proposals.</p> <p>The proposed plan change has been prepared in accordance with the requirements of Section 32 (s32) of the Resource Management Act 1991 (RMA).</p> <p>This report includes:</p> <ul style="list-style-type: none"> <li>• An outline of resource management issues and possible options for addressing these;</li> <li>• An overview of the proposed changes in the context of relevant legislative and planning policy documents;</li> <li>• An evaluation of the policies, rules and other methods proposed, including an evaluation of costs, benefits of the reasonably practicable options considered;</li> <li>• An evaluation of effectiveness and efficiency of each option based on the anticipated effects of implementing the plan change in such detail as corresponds with the scale and significance of the actual or potential environmental effects anticipated; and</li> <li>• A conclusion as to the most appropriate option.</li> </ul> <p>The report also contains supplementary technical assessments including:</p> <ol style="list-style-type: none"> <li>1. Liquigas Terminal Quantitative Risk Assessment.</li> <li>2. Woolston Oil Terminal Quantitative Risk Assessment.</li> <li>3. Combined Summary of Quantitative Risk Assessments.</li> </ol>		

## Table of contents

1	Introduction .....	3
1.1	Purpose of this report .....	3
1.2	Section 32 evaluation overview .....	3
1.3	The Plan Change overview .....	3
2	Existing land-use context .....	4
2.1	Site Location .....	4
2.2	Surrounding area .....	5
2.3	Zoning.....	5
3	Resource management issues.....	6
3.1	Background.....	6
3.2	Findings of the Independent Hearings Panel on the Christchurch District Plan Review.....	7
3.3	Use of New South Wales (NSW) Hazardous Industry Planning Advisory Papers (HIPAP) Framework .....	9
3.4	New Quantitative Risk Assessments .....	10
4	Proposed Plan Change Content.....	13
5	Relevant statutory context .....	14
5.1	The Requirements of the RMA .....	14
5.2	Planning documents.....	15
6	Section 32 evaluation .....	19
6.1	Introduction .....	19
6.2	Scale and significance evaluation .....	19
6.3	Evaluation of proposed provisions and reasonably practicable alternative options.....	21
7	Assessment of Environmental Effects .....	30
7.1	Introduction .....	30
7.2	Avoidance of Sensitive Activities and (potentially) other Non-Industrial Activities .....	30
7.3	Reverse Sensitivity and Constraints on Strategic Infrastructure .....	32
8	Consultation.....	33
9	Conclusion.....	34
	APPENDIX 1 – LIQUIGAS TERMINAL QUANTITATIVE RISK ASSESSMENT .....	36
	APPENDIX 2 – WOOLSTON OIL TERMINAL QUANTITATIVE RISK ASSESSMENT .....	37
	APPENDIX 3 – COMBINED SUMMARY OF QUANTITATIVE RISK ASSESSMENT.....	38
	APPENDIX 4 – COPY OF PLAN CHANGE TEXT AMENDMENTS.....	39



## 1 Introduction

### 1.1 Purpose of this report

- 1.1.1 Section 32 (**s32**) of the Resource Management Act 1991 (**RMA**) requires that Council provides an evaluation of the changes proposed in Plan Change 1 to the Christchurch District Plan (**the Plan**). The evaluation must examine whether the proposed provisions are the most appropriate way to achieve the objectives of the plan change and the purpose of the RMA. The report must consider reasonably practicable alternatives and assess the benefits and costs of inserting/amending/deleting any objective, policy, rule or method in the Plan.
- 1.1.2 The purpose of this report is to fulfil these s32 requirements for proposed Plan Change 1 – Woolston Risk Management Area.

### 1.2 Section 32 evaluation overview

1.2.1 This section 32 evaluation includes:

- An outline of resource management issues and possible options for addressing these;
- An overview of the proposed changes in the context of relevant legislative and planning policy documents;
- An evaluation of the policies, rules and other methods proposed, including an evaluation of costs, benefits of the reasonably practicable options considered;
- An evaluation of effectiveness and efficiency of each option based on the anticipated environmental, economic, social and cultural effects of implementing the plan change in such detail as corresponds with the scale and significance of the actual or potential environmental effects anticipated; and
- A conclusion as to the most appropriate option.

### 1.3 The Plan Change overview

- 1.3.1 The proposed plan change relates to the Risk Management Areas identified in the Christchurch District Plan and relates to two bulk fuel terminals located at Chapmans Road, Woolston. The purpose of the proposed plan change is to provide updated District Plan provisions that:
- (a) manage low probability but potentially high impact risks which would arise from the location of sensitive activities, including pre-schools, in close proximity to the two terminals;
  - (b) enable the ongoing efficient use of the facilities and prevent reverse sensitivity effects from arising; and
  - (c) continues to require other new discretionary or non-complying activities seeking to establish in the area to consider the issue of risk and ensure they meet relevant risk acceptance criteria appropriate to the nature of the proposed activities, when applying for resource consent but without the need to undertake individual Quantitative Risk Assessments (**QRAs**).
- 1.3.2 Liquigas and the Oil companies have themselves now completed new QRAs (May and June 2018, respectively), which provides the evidence base to support the ongoing use of a risk management

area overlay in the district plan, amendments to its boundary and district plan provisions which seek to manage activities within the overlay area to avoid adverse effects on strategic infrastructure and minimise exposure to unacceptable risk for surrounding land uses. The proposed replacement risk management areas form the basis of this plan change.

## 2 Existing land-use context

### 2.1 Site Location

- 2.1.1 The plan change is based around two sites in the suburb of Woolston and identified in the Christchurch District Plan (**District Plan**) as strategic infrastructure. The site located at 79 Chapmans Road (referred in this report as the '**Woolston Oil Terminal**') is owned by Mobil Oil New Zealand Limited (**Mobil**) and used by the Mobil, BP Oil and Z Energy (**Oil Companies**). The other site located at 50 Chapmans Road (referred in this report as the '**Liquigas Terminal**') is owned by Liquigas Limited. The location of these two sites are shown in **Figure 1** below.
- 2.1.2 Both sites contain bulk fuel storage terminals for LPG (Liquigas Terminal) and petroleum fuel products (Woolston Oil Terminal). Both sites are serviced via ship deliveries to the tank farm in Lyttelton, with product then transported via separate pipelines over the Port Hills to the main storage terminals in Woolston. These terminals then supply truck-based delivery and distribution across the City, wider region and the upper South Island. The Oil Companies use the Woolston Oil Terminal as a supply point for their distribution networks.
- 2.1.3 Both sites are comprised of heavy industrial buildings and fuel storage terminals. The Liquigas Terminal comprises LPG storage tanks that are buried within engineered gravel mounds, with the Woolston Oil Terminal storage located within above ground tanks. Associated control buildings, workshops, pipework, truck loading facilities and perimeter security fencing is also present.



Figure 1 Location Map

## 2.2 Surrounding area

- 2.2.1 Both sites are located within a wider industrial suburb that includes a mix of warehousing, distribution and manufacturing activities with ancillary offices. The Lyttelton Port Company has an inland port and container hub located west of the Liquegas Terminal and south-west of the Woolston Oil Terminal site. Small-scale cafes and commercial service businesses are also located within the wider area to support the industrial workforce.
- 2.2.2 The Liquegas Terminal is bounded to the north-east by the rail corridor that services Lyttelton Port, with the Heathcote River located north of the Woolston Oil Terminal on the far side of Chapmans Road.

## 2.3 Zoning

- 2.3.1 As shown in **Figure 2** below, both sites are zoned Industrial Heavy (**IH**) in the Christchurch District Plan. The surrounding area also generally has an **IH** zoning, although there are areas of lighter Industrial General (**IG**) zoning east of both sites. A local park zoned Open Space Community Park (**OCP**) is located east of the Woolston Oil Terminal site on the far side of Chapmans Road, with the Heathcote River and riparian banks having an Open Space Water and Margins (**OWM**) zoning.
- 2.3.2 The **IH** and **IG** zones both provide for a range of predominantly industrial activities along with a limited range of other compatible activities. Both zones also restrict most sensitive activities such as residential accommodation, healthcare facilities and hospitals, although pre-schools are currently permitted in the **IG** Zone.
- 2.3.3 Planning Map 47A currently identifies Risk Management Area overlays around each of the bulk fuel terminals and a note on the planning map legend states that the geographic extent of those areas may be subject to a future plan change to have effect by 31<sup>st</sup> March 2019, with any such plan change needing to be based on the findings of a Quantitative Risk Assessment (**QRA**).
- 2.3.4 The District Plan currently classifies “sensitive activities”<sup>1</sup> as non-complying activities within the Risk Management Area overlay areas (Rule 4.1.4.1.5 NC2) although this rule (the “sunset clause”) expires on 31 March 2019. The intent of this interim rule was that by this date the relevant bulk fuel storage facility operators would have completed new QRAs, the outcome of which would inform whether to retain, amend or delete the overlays and associated provisions via a formal RMA plan change process<sup>2</sup>.
- 2.3.5 Without a plan change, Rule 4.1.4.1.5 (NC2) will cease to have effect on 31<sup>st</sup> March 2019, the implication being that the plan would have less controls on the location of sensitive activities in close proximity to the bulk fuel terminals, although the underlying rules would still require resource consent for the establishment of sensitive activities (other than preschools in the **IG** Zone which are permitted).

---

<sup>1</sup> Sensitive activities are defined in the District Plan as including residential activities, care facilities, education activities and preschools, and health care facilities.

<sup>2</sup> Independent Hearings Panel Decision 18 (March 2016) paragraphs 75-85.

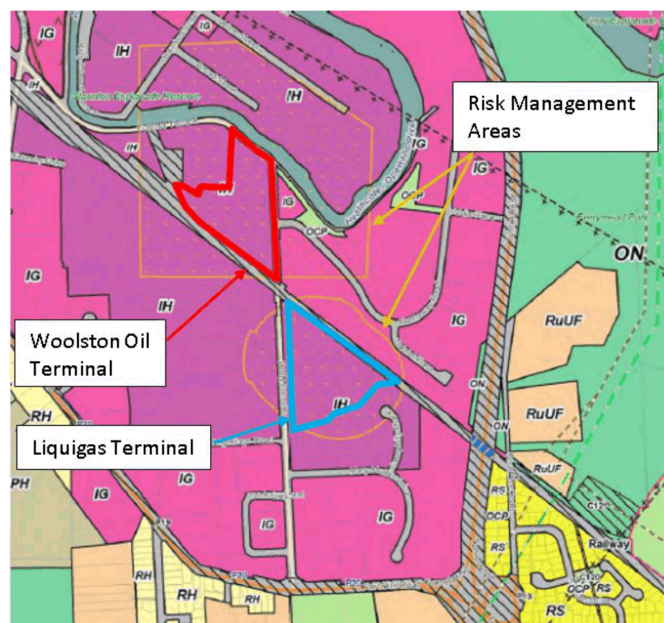


Figure 2 Extract of Operative Planning Map 47A

### 3 Resource management issues

#### 3.1 Background

- 3.1.1 This plan change relates to two sites containing bulk fuel infrastructure, located at Chapmans Road, Woolston, operated by Liquegas and three oil companies (Mobil Oil, BP Oil, and Z Energy).
- 3.1.2 The Oil Companies receive, store and distribute refined petroleum products. They have commercial, shore and marine based aviation and bulk fuel storage facilities, and are owners of retail outlets and suppliers of petroleum products to individually owned retail outlets throughout the Canterbury region and the South Island. The Oil companies have bulk storage facilities in the Naval Point area of the Port of Lyttelton (**the Lyttelton Terminals**) and at Chapmans Road (the **Woolston Oil Terminal**). The Woolston Oil Terminal is supplied (continuously) by the Lyttelton Terminals via the Woolston pipeline. This pipeline transports the bulk of petroleum products for the Oil Companies to the Woolston Oil Terminal from which all three Oil Companies then load out for distribution to their networks.
- 3.1.3 Liquigas receives, stores and distributes liquid petroleum gas (**LPG**) that is used in homes, business, vehicles and industry throughout Canterbury and the upper South Island. The Liquigas Terminal has LPG supplied directly from ships via pipeline from Lyttelton (via a pumping station) as there is no large volume LPG storage facility in Lyttelton.
- 3.1.4 These bulk fuel terminals in Woolston comprise important infrastructure in the fuel supply chain for the Canterbury region and Christchurch City. The operators of the Terminals are identified as “lifeline utilities” under the Civil Defence and Emergency Management Act 2002, i.e. entities that produce, supply, or distribute manufactured gas or natural gas. Lifeline utilities must be able to function to the fullest possible extent during and after an emergency. Any disruption to the

petroleum and/or LPG supply chains would have a major impact on the availability of fuel supplies and therefore on people's ability to meet their social and economic needs. It is important that the bulk fuel terminal operators are not unduly constrained in the way they use their land resource in order to operate successfully and remain viable.

- 3.1.5 Both Terminals are also designated as "Major Hazard Facilities" (**MHFs**) under the Health and Safety at Work (Major Hazard Facilities) Regulations 2016 (**MHF Regulations**) and must manage their activities in accordance with the Health and Safety at Work (Hazardous Substances) Regulations 2017 (**HS Regulations**). These provisions control and target the safety, design, operation and emergency response actions of those facilities. However, the MHF Regulations recognise that MHFs do not contain (or internalise) all residual risks on site. Strategic infrastructure needs to be managed through the district plan so as to protect it from incompatible development and activities by avoiding adverse effects from them, including reverse sensitivity effects<sup>3</sup>.
- 3.1.6 Due to the nature and volume of fuels stored at both Woolston Terminals, they pose a potential risk to surrounding land uses, which cannot be fully contained, and could potentially give rise to emergency scenarios, such as a vapour cloud explosion, tank and bund fires<sup>4</sup>. Such emergency scenarios are of low probability but potentially high impact to people and property in the vicinity of the Terminals. Adverse effects of such events may include blast overpressure, fragments and heat radiation.
- 3.1.7 A key concern for the safe operation of this strategic infrastructure is the presence, or potential presence, of sensitive activities and/or potentially high numbers of people in the area in close proximity to bulk fuel storage facilities. If allowed to develop without appropriate safeguards, sensitive and some other activities have the potential to increase the risk profile of the Terminals, and result in a situation where the risks are such that the operation and development of the Terminal facilities may be compromised. This will, in turn, affect resilience and efficiency in region-wide fuel supplies.
- 3.1.8 This evaluation assesses the implications of the proposed Woolston Risk Management Area overlay, and the approach to avoiding sensitive activities and other activities not typically anticipated in the IH and IG zones, within that overlay. The proposed approach would require those other activities<sup>5</sup> that would be exposed to unacceptable risk to meet risk acceptability criteria appropriate to the applicable land use.

### 3.2 Findings of the Independent Hearings Panel on the Christchurch District Plan Review

- 3.2.1 Following the Canterbury earthquake sequence, the Christchurch City Plan was subject to a comprehensive review under the Canterbury Earthquake Recovery Act 2011 and associated Orders in Council. An Independent Hearings Panel (**IHP**) was established to consider evidence and to make decisions on the proposed replacement Christchurch District Plan. Decisions on the proposed plan were released in a number of stages; of particular relevance to this plan change are the decisions on the Strategic Directions, Industrial and Hazardous Substances chapters<sup>6</sup>.

---

<sup>3</sup> Reverse Sensitivity is defined in the District Plan to mean "means the effect on existing lawful activities from the introduction of new activities, or the intensification of existing activities in the same environment, that may lead to restrictions on existing lawful activities as a consequence of complaints".

<sup>4</sup> Sherpa Consulting (June 2018), Mobil Woolston Terminal Quantitative Risk Assessment for Determination of Planning Overlay, pp26-33.

<sup>5</sup> Discretionary and non-complying activities subject of Rule 16.4.1.4 D1, Rule 16.5.1.4, and Rule 16.5.1.5 NC1.

<sup>6</sup> Decisions 1, 11 and 18 respectively.

#### ***Chapter 4 Hazardous Substances and Contaminated Land***

- 3.2.2 In summary, the two Woolston Terminals were found by the IHP to constitute 'strategic infrastructure', which is defined in the district plan as "those necessary infrastructure facilities, services and installations which are of greater than local importance..." and includes "bulk fuel supply and storage infrastructure, including terminals, wharflines and pipelines". As such, the subsequent District Plan provisions were required to give effect to the specific Strategic Direction Objective 3.3.12 concerning protection of strategic infrastructure (this objective and the wider District Plan policy framework are discussed in more detail below).
- 3.2.3 The Oil Companies and Liquigas presented evidence in support of their submissions on the Replacement District Plan setting out the rationale for a buffer area (and associated policy direction) around the two Terminals within which sensitive activities would be classified as non-complying activities, and other activities not generally anticipated in the IG and IH Zones<sup>7</sup> would be required to consider the level of risk associated with locating in close proximity to the terminals and therefore the appropriateness of establishing in that location.
- 3.2.4 The IHP agreed that, at least on an interim basis, that the use of an overlay and associated restrictions on sensitive and other activities was an appropriate method of providing for the future management of the Woolston Oil Terminal and the Liquigas Terminal. They confirmed a rule (Rule 4.1.4.1.5 NC2) that classifies all new sensitive activities within the risk management overlay, as non-complying activities.
- 3.2.5 However the Panel expressed concern that the risk management areas put forward by the bulk fuel terminal operators were based on outdated or non-quantitative risk assessments. Whilst confirming the risk management area and related provisions in Decision 18, they did so on an interim basis only, limiting the duration of Rule 4.1.4.1.5 NC2 by use of a sunset clause; such that it would cease to have effect after 31 March 2019 unless a plan change had occurred to confirm the need for, and extent of, the overlay and related provisions through new QRAs. The use of a sunset clause was seen as a tool for prompting the companies to progress QRAs in a timely manner.
- 3.2.6 The IHP noted that the sunset clause mechanism might lead to *"a number of potential outcomes including retention of the overlays and rule provisions as they are, their amendment or their deletion, and it is appropriate for these potential outcomes to be tested through a s32 process and publicly notified Plan Change which takes into account the information provided in the new QRAs and other relevant RMA factors at that time"*<sup>8</sup>.
- 3.2.7 In setting the timeframe for the sunset clause, the IHP considered that there was 'ample time' for this background work and plan change to occur prior to March 2019. However, the Council has to date been unable to promote this plan change under Schedule 1 of the Resource Management Act because it has been prevented from preparing district plan changes under the Canterbury Earthquake (Christchurch Replacement District Plan) Order 2014 (OIC). In forming its view regarding timeframes in 2015, the IHP could not have foreseen that the 2014 OIC would be extended from 2016 to 2021 by the Greater Christchurch Regeneration Act 2016. Government has recently announced that it will be revoking the OIC on 18 March 2019, thereby enabling this plan change to proceed from this date.

---

<sup>7</sup> i.e. discretionary and non-complying activities in these zones.

<sup>8</sup> Independent Hearings Panel (15 March 2016) Decision 18 – Hazardous Substances and Contaminated Land – Stages 1 and 2 paragraph 85.



### ***Chapter 16 Industrial***

- 3.2.8 The provisions of the industrial chapter (Chapter 16) were confirmed ahead of those in Chapter 4 (Hazardous Substances and Contaminated Land)<sup>9</sup>. Policy 16.2.1.4 in the Industrial Chapter was therefore formulated and decided upon in advance of Chapter 4 that confirmed the overlay, and related policy, rule and sunset clause.
- 3.2.9 Policy 16.2.1.4 sets a management-based framework. For discretionary or non-complying proposals looking to locate in close proximity to the Terminals, the IHP considered that there should be additional explicit policy direction regarding reverse sensitivity associated with such activities to help inform decision-makers when they are considering resource consent applications. The current industrial policy approach requires all applicants seeking to establish sensitive and other activities in close proximity to the Terminals, to undertake their own QRA for their particular activity and submit this with their resource consent application. The purpose of the third party QRAs was to determine if they were locating in an area that would expose them to an unacceptable level of risk. The resource consent process enables an informed assessment of the best way to manage the risks to the relevant activity from major incidents at the Terminals to be made on a case-by-case basis. Under the current framework, the consent authority can assess the appropriateness of discretionary and non-complying activities locating in the Woolston Risk Management Area and be guided by Policy 16.2.1.4(b)(ii).
- 3.2.10 The matter of risk acceptability is an approach adopted elsewhere by the IHP for the Christchurch District Plan (e.g. including its approach to natural hazards).
- 3.2.11 Given that the QRAs for the Terminals have now been undertaken by Liquigas and the Oil Companies, the Chapter 16 policy obligation on third parties to undertake QRAs is no longer necessary as the QRAs establish in a more definitive manner, the geographic extent of the area where sensitive and other activities would likely be exposed to unacceptable risk. Such activities within the overlay could therefore more simply be subject to the District Plan's policy direction that sensitive activities are to be avoided, and other activities also avoided unless they meet the relevant risk acceptance criteria.

### **3.3 Use of New South Wales (NSW) Hazardous Industry Planning Advisory Papers (HIPAP) Framework**

- 3.3.1 The required new QRAs have been prepared in accordance with the NSW HIPAP risk acceptance criteria. The general guidance in HIPAP No. 4 (Risk Criteria for Land Use Planning) is used to evaluate proposed land uses in a risk context. The use of the HIPAP criteria is considered to be appropriate for the following reasons:
- There are no specific New Zealand risk criteria available for use.
  - The Christchurch District Plan already references the NSW criteria as being the appropriate guide for identifying appropriate risk acceptability criteria<sup>10</sup>.
- 3.3.2 The HIPAP criteria have the following advantages:
- The criteria values have been set so that the risk level posed by industry (regarded as an involuntary risk exposure) is low in comparison to the voluntary risk exposures people accept in everyday life.

---

<sup>9</sup> Formerly Chapter 12 of the proposed Replacement Christchurch District Plan.

<sup>10</sup> Advice Note 3 to Policy 16.2.1.4, Chapter 16 Industrial.

- They set different risk criteria for different land use sensitivities.
- They set an upper limit risk target for risk at a site boundary.

3.3.3 The adopted criteria relates to individual fatality risk. Individual fatality risk represents the probability of a specified level of harm (usually fatality) occurring to a theoretical individual located permanently at a particular location, assuming no mitigating action such as escape can be taken. Hence, the criteria cover vulnerable individuals such as the very young, sick or elderly.

### 3.4 New Quantitative Risk Assessments

3.4.1 As mentioned above, since the release of the IHP decisions Liquigas and the Oil Companies have commissioned new QRAs for their respective sites, and these are attached as **Appendices 1 and 2**. Draft versions of the QRAs and the summary of the QRA findings in **Appendix 3** were reviewed by Council staff and updated accordingly based on feedback received. Both QRAs have adopted the risk criteria contained in the NSW HIPAP. Whilst the QRAs for the Liquigas Terminal and the Woolston Oil Terminal were undertaken by separate consultants (WorleyParsons New Zealand Limited and Sherpa Consulting Proprietary Limited, respectively), the two QRAs have adopted and applied the same criteria to enable a consistent approach between them. Worley and Sherpa peer reviewed each other's assumptions and methodology. While there are some technical differences in approach (e.g., choice of software), Worley and Sherpa agreed that:

- The approach in each QRA is appropriate for the specific facilities.
- Both QRAs have been prepared to account for a reasonable future growth case hence is representative of risk levels for each site operation over the next 10 years (up to 2028).
- The QRA results are presented and assessed in a consistent manner, i.e. both QRAs use individual fatality risk as the basis for assessment and therefore can be used cumulatively.

3.4.2 The QRA purpose and methodology are set out in the respective reports. In summary, a QRA is a technical tool for establishing the extent of risk at varying levels of social acceptability. The outer extent of the proposed Woolston Risk Management Area has been based on a  $0.5 \times 10^{-6}$  individual fatality risk, which under the HIPAP criteria, equates to an acceptable level of risk for a sensitive activity.

3.4.3 It is important to note that the QRAs provide concentric circles demarcating differing levels of risk. The outer circle (which forms the basis of the Woolston Risk Management Area and which will be shown on Planning Map 47A) is for sensitive activities, with various types of non-sensitive activities (having lower risk attached to them) falling inside the outer contour. Within this outer contour there exist a number of smaller contours that represent the risk associated with activities that are comparatively less sensitive to effects on, and from, the bulk fuel terminals. As there is less risk attached to non-sensitive activities, those can theoretically locate closer to the Terminals.

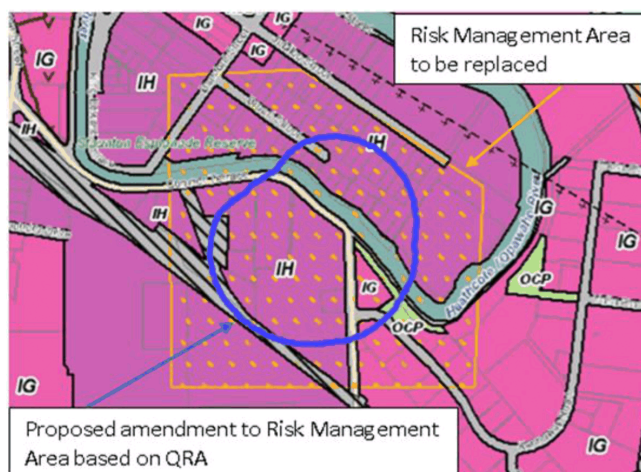
3.4.4 The principal outcomes of the QRA work for each respective terminal are:

- a. Changes to the geographic extent of the risk management areas; and
- b. Removal of the need for third parties to undertake their own QRAs when seeking consent to establish discretionary or non-complying activities.

3.4.5 For the Woolston Oil Terminal, the extent of the overlay has reduced in comparison to that included in the operative District Plan, as shown in **Figure 3**. This is largely due to the original extent and associated risk limit having been generated by the application of a generically derived



setback distance based on international research, with that generic setback now proposed to be replaced with a facility-specific QRA. The QRA for the Woolston Oil Terminal has therefore resulted in a reduction in the extent of risk and associated regulatory controls relative to the operative overlay.



**Figure 3 Woolston Oil Terminal change to overlay**

Key:

- Extent of existing Risk Management Area
- Extent of proposed Woolston Risk Management Area

- 3.4.6 The QRA for the Liquigas Terminal indicates the need for a larger overlay, as shown in **Figure 4**. The reasons underlying the increase in the geographic extent of the overlay are due primarily to changes in the modelling assumptions and improvements to the modelling software used, rather than any increase in risk/higher risk activities having recently established on the site. In short, the changes to the overlay are due to more sophisticated and up-to-date modelling rather than any physical 'on-the-ground' changes to the facility itself.

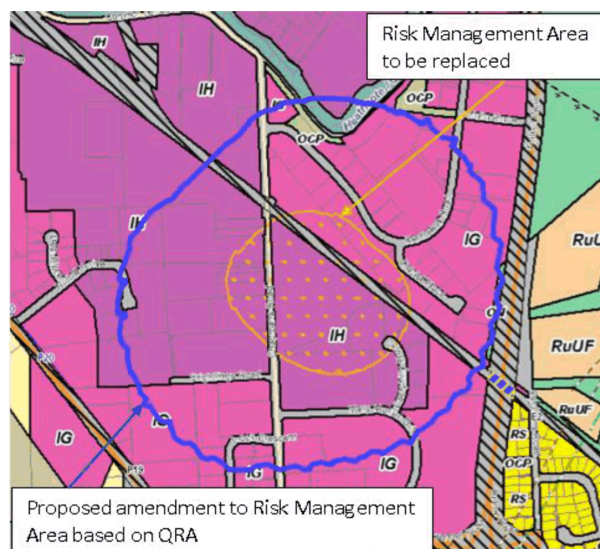


Figure 4 Liquigas Terminal change to overlay

Key:

- Extent of existing Risk Management Area
- Extent of proposed Woolston Risk Management Area

3.4.7 The outer edges of the two modelled QRAs now overlap. For graphical simplicity, it is proposed to show the overlay on the planning maps as a single outer boundary rather than as two overlapping areas, as shown in **Figure 5**. Collectively the area is proposed to be named the 'Woolston Risk Management Area' (**WRMA**). A summary of the QRA findings and discussion on the graphical representation as a single overlay has been prepared by the two companies responsible for the preparation of the QRAs and is attached as **Appendix 3**. Worley and Sherpa agreed that any differences in approach with respect to the assumptions for the specific terminals, the overall QRA methodology and reporting styles are not significant in the context of using the results for preparing a combined risk overlay to replace the existing risk management areas overlay.

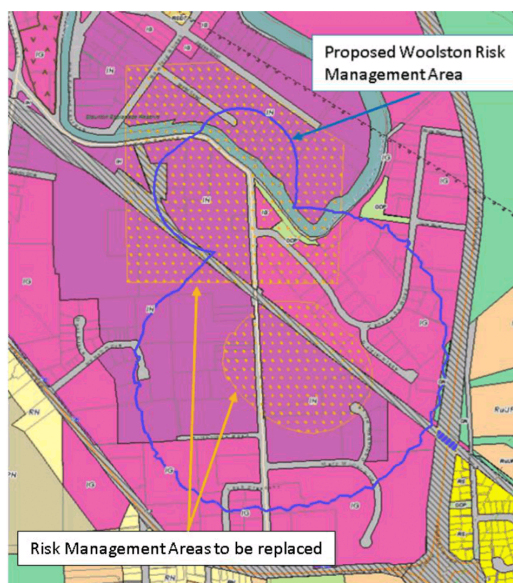


Figure 5 Combined overlay – Proposed Woolston Risk Management Area

Key:

- Extent of existing Risk Management Area
- Extent of proposed Woolston Risk Management Area

3.4.8 Given that the overlay boundary represents the outer extent within which sensitive activities should not locate, it disguises other contours that are located within it. These are relevant for the consideration of activities that may not be sensitive in terms of the district plan definition of a sensitive activity, but that nonetheless *may* have a significant adverse effect on, or be affected by, the presence of the existing bulk fuel terminals. Examples cited by Liquigas and the Oil Companies include large entertainment complexes (e.g. trampoline world) or large high occupancy offices that would increase the risk to, and from, the terminals, in a location where these types of activities are not anticipated.

## 4 Proposed Plan Change Content

4.1.1 A full set of changes proposed within the Plan Change is set out in the plan change document (and copied into **Appendix 4**). In summary the proposed changes include:

- Amendments to the geographic extent of the existing Risk Management Areas by combining the risk contours for sensitive activities of the QRAs for both sites, to create a new single Risk Management Area, shown as a change to Planning Map 47A.
- Renaming “Risk Management Areas” to “Woolston Risk Management Area” for greater clarity, and removing the “sunset clause” from Chapter 4.1 Hazardous substances, Risk Management Area policy and rule, and the planning map legend.
- Updating the policy and advice note in Chapter 16 Industrial relating to the LPG and oil depots located at Woolston, to reflect that new QRAs have been produced and are available to inform resource consent proposals for discretionary and non-complying activities.

- In Chapter 16 Industrial, changing the status of preschool activities in the part of the Woolston Risk Management Area that overlays the Industrial General zone, from permitted to non-complying, consistent with the policy and rule for sensitive activities in Chapter 4.

## 5 Relevant statutory context

### 5.1 The Requirements of the RMA

#### *Section 31 Functions of territorial authorities*

5.1.1 Any plan change must assist the Council to carry out its functions so as to achieve the purpose of the Act. The functions of a territorial authority are set out in section 31 of the Act and include:

- establishing, implementing and reviewing objectives, policies, and methods to achieve integrated management of the effects of the use and development of land; and
- controlling actual or potential effects of the use and development of land.

5.1.2 The proposed plan change accords with these stated functions. The proposal provides for the use and development of land for industrial activities in an area zoned for such use, whilst concurrently providing a framework (along with health and safety regulations) for the appropriate management of risks generated by two long-established terminals and avoiding the reverse sensitivity effects and risks that would arise if sensitive and other activities established near the Terminals. The proposed management of activities and associated effects will likewise help to ensure the ongoing operation of the Terminals as regionally significant infrastructure.

#### *Section 74 Matters to be considered*

5.1.3 Section 74 RMA requires the Council to prepare and change its district plan in accordance with its functions under section 31, the provisions of Part 2, its duty under section 32, and any regulations.

5.1.4 Section 74(2) requires the Council to also have regard to proposed regional policy statements and plans, management plans and strategies prepared under other Acts, the New Zealand Heritage List, fisheries regulations or the RMA plans of adjoining territorial authorities to the extent that these may be relevant.

5.1.5 It is noted that the proposal does not involve any cross-territorial issues, nor matters of historical relevance or relevance to fisheries, nor matters addressed by management plans or strategies prepared under other Acts. With respect to Regional Policy Statements and Plans, these are identified and addressed further below.

5.1.6 Section 74(2A) also requires the Council to take into account relevant planning documents recognised by an iwi authority, to the extent that its content has a bearing on resource management issues. In the case of Christchurch District, the relevant document is the Mahaanui Iwi Management Plan 2013, which is discussed below.

#### *Section 75 Contents of district plans*

5.1.7 Section 75 requires a District Plan to state objectives for the District, policies to implement the objectives and rules to then implement the policies.

5.1.8 The proposal does not introduce any new, or alter any existing objectives. It only proposes amendments to policies, rules, advice notes and the planning map as set out in section 3 above.

5.1.9 The reasons for the amendments to the policies and rules are provided in this section 32 evaluation and the form of the proposed changes is consistent with s75(2) and the current format of the District Plan.

5.1.10 Section 75 requires a District Plan not to be inconsistent with Regional Plans. The Canterbury Regional Policy Statement, the Canterbury Land and Water Regional Plan, and Air Regional Plan are discussed below.

5.1.11 Sections 75(3)(a), (b) and (c) also require a District Plan to give effect to any National Policy Statement, the New Zealand Coastal Policy Statement, and the applicable Regional Policy.

## 5.2 Planning documents

### *National Policy Statements (NPS) and New Zealand Coastal Policy Statement (NZCPS)*

5.2.1 There are four NPS documents to which consideration must be given. These are:

- NPS for Renewable Electricity Generation
- NPS for Electricity Transmission
- NPS for Freshwater Management
- NPS for Urban Development Capacity (NPS-UDC)

5.2.2 There is no direct connection or geographic proximity of the proposed Woolston Risk Management Area to renewable generation activities. The proposed Woolston Risk Management Area likewise does not cross or come into close proximity with strategic transmission infrastructure. The proposed District Plan amendments are limited to the management of activities within the Woolston Risk Management Area and as such do not have any relevance to the NPS for Freshwater Management. The proposed Woolston Risk Management Area is not located within the coastal environment or land adjacent to that environment and as such the NZCPS is not relevant.

5.2.3 The NPS-UDC requires councils in medium or high growth areas to demonstrate that there is sufficient feasible business (and housing) land to meet short, medium and long term demands. Christchurch City is a high growth area under NPS-UDC. The area within the Woolston Risk Management Area has long been zoned and largely utilised for industrial activities. Further development and intensification in the surrounding area is possible and provided for under the existing Industrial Heavy Zone and Industrial General Zone frameworks. The Woolston Risk Management Area does not limit development of sites for industrial or otherwise permitted activities and therefore does not reduce the ability of the area to accommodate future industrial growth and nor the growth of anticipated supporting activities.

5.2.4 In terms of the NPS-UDC, the proposed District Plan provisions would place restrictions on new sensitive and potentially some other activities and would therefore potentially displace these activities to other locations. However it is significant that the Business Capacity Assessment prepared pursuant to the NPS-UDC identifies a significant over-supply of industrial land in the City and therefore there are plenty of other locations available for any activity which is precluded from establishing within the WRMA under the proposed provisions.

**Canterbury Regional Policy Statement (CRPS)**

5.2.5 The strategic framework for managing and providing for the urban growth and recovery of greater Christchurch is set out in Chapter 6 of the CRPS. In summary, the CRPS seeks to provide for urban growth through a combination of greenfield expansion adjacent to the existing urban edge, and more intensive use and redevelopment of sites within the existing urban area. The recovery and development of infrastructure to support growth forms part of this broad approach, along with the need for growth to be appropriately managed so as to not give rise to either direct or reverse sensitivity effects on strategic infrastructure.

5.2.6 The infrastructure networks and terminals of Liquigas and the Oil Companies fall within the CRPS Chapter 6 definition of “strategic infrastructure” as they comprise “bulk fuel supply infrastructure including terminals, wharflines and pipelines”.

**Objective 5.2.1(f)** CRPS requires that *“development is located so that it functions in a way that ... is compatible with, and will result in the continued safe, efficient and effective use of regionally significant infrastructure”*. The explanation notes that regionally significant infrastructure provides considerable economic and social benefits to the region.

**Objective 6.2.1** CRPS seeks that:

*“Recovery, rebuilding and development are enabled within Greater Christchurch through a land use and infrastructure framework that:*

*...*

- (9) integrates strategic and other infrastructure and services with land use development;*
- (10) achieves development that does not adversely affect the efficient operation, use, development, appropriate upgrade, and future planning of strategic infrastructure and freight hubs;*
- (11) optimises use of existing infrastructure.*

5.2.7 **CRPS Policy 6.3.5** is an important method for implementing the above objectives. It is also the key CRPS policy concerning the management approach to infrastructure within the Greater Christchurch part of the region. Clauses (1) and (2) of this policy relate to the need to coordinate urban development with the provision of the infrastructure necessary to support that development. Clauses (3)-(5) then focus on providing for established infrastructure and the protection of such from the effects of incompatible urban growth, as follows:

*“Policy 6.3.5 – Recovery of Greater Christchurch is to be assisted by the integration of land use development with infrastructure by*

*...*

- (3) Providing that the efficient and effective functioning of infrastructure, including transport corridors, is maintained, and the ability to maintain and upgrade that infrastructure is retained;*
- (4) Only providing for new development that does not affect the efficient operation, use, development, appropriate upgrading and safety of existing infrastructure<sup>11</sup> ...*

---

<sup>11</sup> The remainder of this clause is specific to development within the air noise contours.



- (5) *Managing the effects of land use activities on infrastructure, including avoiding activities that have the potential to limit the efficient and effective provision, operation, maintenance or upgrade of strategic infrastructure and freight hubs."*

5.2.8 The CRPS includes as a method under Policy 6.3.5, a requirement that territorial authorities will, in reviewing their District Plans, include objectives, policies and rules (if any) to give effect to the Policy, including specific reference to the need to manage reverse sensitivity effects between strategic infrastructure and urban development.

5.2.9 In conclusion, the relevant strategic planning framework in the CRPS identifies the following key principles with respect to the development of strategic infrastructure:

- (a) Strategic infrastructure is to be integrated with urban growth;
- (b) Use and development of strategic infrastructure is to be provided for; and
- (c) Any significant adverse effects of incompatible land use on strategic infrastructure are to be avoided.
- (d) Conflict between incompatible activities is likewise to be avoided, especially when such will have a significant adverse effect on the health and safety of the community.

5.2.10 In order for the District Plan to give effect to the relevant strategic planning and statutory framework, the District Plan provisions therefore need to:

- (a) Recognise the benefits and role of strategic infrastructure for enabling community wellbeing and meeting the community's functional needs;
- (b) Provide for the ongoing use and development of strategic infrastructure;
- (c) Manage the effects of land use activities on infrastructure, through avoiding activities that would limit the efficient and effective provision, operation, development, maintenance and upgrade of strategic infrastructure; and
- (d) Integrate the provision of infrastructure and land use to ensure efficient and effective urban growth.

5.2.11 The proposed plan change provisions are consistent with the strategic approach set out in the CRPS. The purpose of the proposed Woolston Risk Management Area and associated District Plan policy direction and rules is to identify and manage the risk posed by existing strategic infrastructure and to make sure that incompatible activities do not locate in close proximity to the Terminals. This will mean that reverse sensitivity effects are avoided along with associated constraints on the ongoing operation and upgrading of the existing facilities.

#### ***Regional Plans***

5.2.12 The Canterbury Land and Water Regional Plan is focused on regional functions and therefore has limited, if any, relevance to the land use matters under consideration in this plan change. However, it should be noted that Objective 3.3 of that regional plan recognises the significance of regionally significant infrastructure. There are no specific objectives or policies relevant to land use risks from hazardous substances in that regional plan except in relation to discharges of contaminants.

#### ***Objective***

- 3.3 *Nationally and regionally significant infrastructure is enabled and is resilient and positively contributes to economic, cultural and social wellbeing through its efficient and effective operation, on-going maintenance, repair, development and upgrading.*

5.2.13 The Canterbury Air Regional Plan is focused on the discharge of contaminants to air. As a consequence, it has no relevant objectives or policies relevant to the land use matters the subject of this plan change. However, it has three policies (set out below) that recognise the importance of regionally significant infrastructure and are illustrative (in terms of air discharges) of how the location of sensitive and potentially other activities is important to ensure they do not alter the receiving environment.

*Policies*

6.9 *Discharges into air from new activities are appropriately located and adequately separated from sensitive activities, taking into account land use anticipated by a proposed or operative district plan and the sensitivity of the receiving environment.*

6.10 *If the sensitivity of the receiving environment is altered by authorised land use change so that an existing discharge results in significant adverse effects on the receiving environment, require the effects of that discharge to be reduced and provide a reasonable timeframe for achieving that reduction.*

6.14 *Recognise the contribution of nationally and regionally significant infrastructure to people's social and economic wellbeing and provide for discharges associated with the development, operation, and maintenance of that infrastructure.*

***Iwi Planning Documents***

5.2.14 Ngāi Tahu prepared the Mahaanui Iwi Management Plan 2013 (**IMP**), being the relevant Iwi Management Plan for Christchurch. This document does not identify any specific concerns or direction with regard to the management of the risks posed by bulk fuel storage facilities. The IMP does highlight outcomes sought across a broad range of matters of cultural interest including the management of air and water quality, mahinga kai, and land development.

5.2.15 In accordance with the boundary definitions in Ngāi Tahu Claims Act 1996, Te Rūnanga o Ngāi Tūāhuriri are the kaitiaki Rūnanga for the Woolston area. There are no statutory acknowledgement areas, silent file areas or waahi taonga sites identified in the District Plan that could be directly affected by this plan change, and the area of the proposed Woolston Risk Management Area has been zoned and developed for industrial activities for many decades.

5.2.16 The proposed plan change is not considered to impact upon any cultural values or the principles articulated in the IMP. It is noted that Ngāi Tahu will have an opportunity to consider and respond to this plan change as part of the First Schedule RMA plan change process. Initial feedback has been sought from the Rūnanga (via Maahunui Kurataiao Limited) and did not raise any concerns (refer to section 7).

***Other Plans***

5.2.17 Other higher order plans include the Greater Christchurch Urban Development Strategy, the Recovery Strategy for Greater Christchurch, and the Land Use Recovery Plan. For completeness, it is noted that there are no Regeneration Plans prepared under the Greater Christchurch Regeneration Act 2016 that are of relevance to this plan change.

5.2.18 These higher order plans were all in place when the District Plan was prepared, and the IHP was mindful of their responsibility to either have regard to, or not be inconsistent with, the wider statutory planning framework. The current District Plan provisions of relevance to this plan



change can therefore be deemed to be consistent with the outcomes sought in these higher order documents.

5.2.19 The proposed plan change seeks to continue the risk management framework of the District Plan, with the additional benefit of the geographic extent of that risk having been more accurately determined. As such the proposed plan change is considered to continue the risk management approach that the IHP determined as an effective tool that was consistent with the higher order framework, with minor but complementary amendments including the addition of a rule specifically to discourage pre-schools locating within the overlay area.

## 6 Section 32 evaluation

### 6.1 Introduction

6.1.1 Under Section 32 of the RMA, before the Council publicly notifies a plan change, it must carry out an evaluation to examine:

- (a) The extent to which each objective is the most appropriate way to achieve the purpose of this Act.
- (b) Whether the policies, rules, or other methods in the proposal are the most appropriate for achieving the objectives by:
  - Consideration of other reasonable practicable options for achieving appropriate management of risk and the ongoing operation of Strategic Infrastructure.
  - Assessment of the efficiency and effectiveness of the provisions in achieving the objective of the proposal. This assessment should identify the benefits and costs of environmental, economic, social and cultural effects, including opportunities for economic growth and employment.
- (c) Whether the provisions in the proposal are the most appropriate to achieve the objective of the existing District Plan, to the extent that those are relevant.
- (d) Assessment of the risks of acting or not acting.

The level of detail undertaken for the evaluation of the proposed plan change provisions must be determined by an assessment of the scale and significance of the environmental, economic, social and cultural effects that are anticipated from the implementation of the proposal (s32(1)(c)).

### 6.2 Scale and significance evaluation

6.2.1 The level of detail in the evaluation of the proposal has been determined by the degree of shift of the proposed provisions from the status quo and the scale of effects anticipated from the proposal. Regard has been had to the criteria outlined in the Ministry for the Environment's Section 32 guide for assessing scale and significance<sup>12</sup>.

---

<sup>12</sup> Ministry for the Environment (2017) A guide to section 32 of the Resource Management Act: Incorporating changes as a result of the Resource Legislation Amendment Act 2017. pp31-32

1. <i>Reasons for the change</i>	<p><i>Giving effect to higher level RMA document and district plan strategic objective to protect Strategic Infrastructure.</i></p> <p><i>Responding to a decision of the Independent Hearings Panel on the Christchurch District Plan review.</i></p> <p><i>Initiated as a priority due to the imminent lapsing of sunset clause.</i></p>
2. <i>Degree of shift from the status quo (status quo defined as the current approach)</i>	<p><i>The degree of shift in the provisions from the status quo is not substantial because it primarily seeks to continue on a permanent basis, rules that already have effect in the district plan.</i></p> <p><i>Moreover, having regard to the controls already in place to manage the effects from and on Strategic Infrastructure and to protect the integrity of industrial zones, the proposed package of provisions doesn't significantly add to regulatory controls or the costs on communities to comply with them than presently exists.</i></p> <p><i>The plan change comprises a discrete package of provisions to deal with a single issue and which seeks largely to retain and modify existing provisions and give greater certainty that reverse sensitivity effects will be minimised and unacceptable risks from established facilities using, storing or disposing of hazardous substances will be avoided.</i></p>
3. <i>Who and how many will be affected?</i>	<p><i>The proposed change will only affect landowners / occupiers within the Woolston Risk Management Area.</i></p> <p><i>Many of those parties are already subject to similar regulatory controls.</i></p> <p><i>Less owners will be affected by the overlay controls than under the current framework (approved by Independent Hearings Panel).<sup>13</sup></i></p> <p><i>There has already been a significant amount of public engagement on the matter (through the recent district plan review).</i></p> <p><i>The extent of effects on private property rights is tempered by the existing policies and rules of the industrial zones that seek to avoid activities in industrial zones with the potential to hinder or constrain the establishment or ongoing operation or development of strategic infrastructure.</i></p>
4. <i>Degree of impact on, or interest from iwi/Māori</i>	<p><i>The proposed plan change was discussed at a hui between MKT staff and the Kaitiaki Portfolio representatives for Te Ngāi Tūāhuriri Runanga. No concerns or recommendations were raised on the proposed plan change.</i></p>
5. <i>When will effects occur?</i>	<p><i>The effects of the regulation will be ongoing.</i></p>

<sup>13</sup> There are 54 new properties within the proposed overlay; 58 properties within the existing and proposed overlay; and 136 properties no longer within the existing overlay and outside the proposed overlay.

6. Geographic scale of impacts	<i>Spatially confined to identify Risk Management Area around the Woolston bulk fuel terminals.</i>
7. Type of effect	<p><i>The provisions seek to manage the following effects:</i></p> <ul style="list-style-type: none"> <li>- <i>The effects on surrounding land use activities related to an emergency incident. These are low probability but high consequence.</i></li> <li>- <i>Reverse sensitivity effects on Strategic Infrastructure. These effects have the potential to significantly constrain the ongoing operation and development of the terminal facilities. Any disruption to the petroleum and/or LPG supply chains would have a major impact on the availability of fuel supplies and therefore on people's ability to meet their social and economic needs.</i></li> </ul> <p><i>Refer to section 6 for more detail.</i></p>
8. Degree of policy risk, implementation risk, or uncertainty	<i>Sufficient information is now available through the necessary QRAs having been prepared in a consistent manner and in accordance with recognised criteria.</i>

### 6.3 Evaluation of proposed provisions and reasonably practicable alternative options

#### ***Are the objectives of the proposal the most appropriate way to achieve the purpose of the Act? [s32(1)(a)]***

6.3.1 The proposed plan change does not seek to alter any existing objectives of the Plan. In circumstances where objectives are not sought to be altered, s32(6)(b) states that references to 'objectives' means the 'purpose' of the proposal.

6.3.2 The purpose of this Plan Change is set out in Section 1.3 above. It seeks to provide amended District Plan provisions that enable the ongoing efficient use of the two bulk fuel storage facilities at Woolston, while managing low probability but potentially high impact risks to sensitive and potentially other non-industrial activities in the area. Accordingly, the evaluation must consider the extent to which the inclusion in the District Plan of the revised Woolston Risk Management Area and associated provisions in the district plan best achieve the purpose of the plan change, and ultimately the purpose of the RMA.

6.3.3 The purpose of the RMA is to promote sustainable management of natural and physical resources. This means managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while:

- a. Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
- b. Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and
- c. Avoiding, remedying, or mitigating any adverse effects of activities on the environment.

6.3.4 In summary, the proposal achieves the purpose of the RMA for the following reasons:

- It manages the use and development of sites in a location where they would be subject to an unacceptable level of risk if they were to be developed for sensitive activities (as defined in the district plan) or potentially some other non-industrial activities. Without such control, these activities would potentially unknowingly be exposed to an unacceptable level of risk and which in turn could result in undue constraints being imposed on the bulk fuel terminals (i.e. through reverse sensitivity/complaints) thereby imposing unnecessary costs and fuel supply issues to the wider community. It would therefore undermine the strategic directions in the District Plan aimed at ensuring regionally significant infrastructure operation and development is enabled.
- Provides the ongoing opportunity for individual landowners to develop their land for industrial and other permitted and appropriate activities (and thereby meet their economic needs) in accordance with the outcomes anticipated by the industrial zoning. (e.g. it doesn't constrain the activities permitted and anticipated in the industrial zones).
- In so doing, the plan change enables the community to provide for its economic wellbeing and employment, and thereby contributes to its social wellbeing, including their health and safety.
- It provides certainty in terms of the long-term operation and adaption of two existing strategic infrastructure facilities through proactively managing the potential for reverse sensitivity effects and ensuring activities (including sensitive activities) located within the Woolston Risk Management Area are compatible in terms of risk acceptance criteria.

***Examine whether the provisions in the proposal are the most appropriate to achieve the objective (purpose) of the proposal by:***

***Identifying if there are other reasonably practicable options for achieving the proposal [s32(1)(b)(i)].***

6.3.5 The provisions of the proposal are summarised in Section 3 above and a full copy of the proposed text changes is contained in **Appendix 4**.

6.3.6 Other reasonably practicable options for achieving the proposal include:

- a. Status quo / do nothing.
- b. Reliance on non-statutory methods.
- c. Reliance on Health and Safety legislation.

These options are discussed below.

***a. Status Quo / Do Nothing***

6.3.7 Usually when considering plan changes, retention of the status quo is an option that merits consideration. In this case the status quo provisions are in the somewhat unusual situation of being subject to a sunset clause. As such, the status quo set of provisions cannot be retained beyond 31 March 2019. For the purposes of this evaluation, the status quo therefore comprises reliance on the underlying IG and IH zone provisions (and relevant wider district plan provisions)

to manage the effects of, and on, sensitive and other activities within the Risk Management Area<sup>14</sup> (i.e. it assumes that the sunset clause has lapsed).

- 6.3.8 For both the IH and IG zones, sensitive activities are not currently enabled as permitted activities (other than preschools in the IG Zone). Any proposals to establish a sensitive activity other than a preschool would therefore fall to be considered as a fully discretionary activity in the IG zone and non-complying in the IH zone. This enables a full range of potential effects (including reverse sensitivity and risk matters) to be considered through the consent process. Resource consent applications for DA and NCA activities would need to be assessed against all relevant district plan policies including:

**Objectives 3.3.12 and 3.3.14** which, *inter alia*, aim to protect the role and function of strategic infrastructure<sup>15</sup> from incompatible development and activities and avoid conflicts between incompatible activities where there may be significant adverse effects on the health, safety and amenity of people.

**Policy 4.1.2.2.2 – Risk Management Area** which seeks to avoid sensitive activities locating within the Risk Management Areas where these have the potential to be exposed to unacceptable risk and / or may otherwise constrain the development, operation, upgrading or maintenance of bulk fuel and gas terminals.

**Policy 16.2.1.4 – Activities in Industrial Zones** that limits the range of non-industrial activities in industrial zones to those that maintain and support the function of the zone and requires avoidance of any activity with the potential to hinder or constrain the establishment or ongoing operation or development of industrial activities and strategic infrastructure.

- 6.3.9 This policy (16.2.1.4) would continue to require proponents of new discretionary and non-complying activities to carry out their own QRAs (at their own cost) to support resource consent applications. This is despite the fact that Liquigas and the Oil Companies have now completed their own QRAs to determine the appropriate extent of the Woolston Risk Management Area and to inform the appropriateness of various land use activities locating within it.
- 6.3.10 In summary it can be seen that the even without the subset clause, there are provisions which go a long way towards achieving the plan's objectives of protecting strategic infrastructure and risks associated with the infrastructure on sensitive or otherwise incompatible activities. Significantly however, preschools would be permitted in the IG zone close to the terminals, potentially undermining the district plan's wider policy framework regarding the protection and enablement of strategic infrastructure. Additionally, other sensitive activities in the IG Zone would be classified as discretionary activities, a less onerous consent pathway than the non-complying activity status proposed in this plan change (and currently in the plan but due to expire).
- 6.3.11 This approach would be less appropriate than the proposed plan change as it would have adverse effects on strategic infrastructure, the health and safety of sensitive (and potentially other) activities and would incur unnecessary costs on applicants and councils by retaining the policy requirement for third party QRAs, contrary to plan objectives 3.3.2, 3.3.12 and 4.1.2.2.

---

<sup>14</sup> Noting that the sunset clause only relates to rule 4.1.4.1.5 not the related policy (4.1.2.2.) or overlay itself which would continue to have effect.

<sup>15</sup> Defined in the district plan as "those necessary infrastructure facilities, services and installations which are of greater than local importance. It includes infrastructure that is nationally significant. This includes (d) bulk fuel supply and storage infrastructure, including terminals, wharf lines and pipelines".

**b. Reliance on Health & Safety Legislation**

6.3.12 The Health and Safety at Work Act 2015 (**HSWA**) regulates activities in all work places by focusing on how activities at work places can be undertaken safely. The Major Hazard Facility (**MHF**) Regulations apply to activities being undertaken at the Terminals (being Upper Tier Facilities) under those regulations. Health and Safety legislation including the HSWA and the MHF Regulations regulate activities *within* individual sites, and do not regulate the interaction between sites or address the compatibility of land use activities on different sites.

6.3.13 The Health and Safety at Work Act 2015 (**HSWA**) and associated regulations, are complementary to the provisions of Policy 16.2.1.4 that seek to manage the location of risk sensitive activities within the Woolston Risk Management Area. The HSWA's focus is on the risks that can be controlled and managed in respect of each individual workplace, not for those arising from other workplaces in the vicinity.

6.3.14 Overall this method is considered to be less appropriate because it would be less effective and efficient than the package of provisions proposed by the plan change having regard to the adverse effects (costs) associated with increased risk to and from the strategic infrastructure.

**c. Reliance on non-statutory methods**

6.3.15 Primarily this method would focus on operators of the bulk fuel terminals seeking to manage risks to and from the terminals, by communicating with neighbours about the importance of emergency exit points and providing contact details. Aside from education, other non-statutory methods could include developing design guidelines for buildings and activities located in the Woolston Risk Management Area. However, non-statutory methods have their limits. Communication of these limits often occurs after land use activities have commenced and do not influence decision-making about site selection.

6.3.16 Without regulation, there is a greater risk of sensitive activities locating near the Terminals and being exposed to an unacceptable level of risk from them. The potential costs associated with this on those activities (low probability but high consequence) and on the terminals arising from reverse sensitive pressures, make this a less appropriate method than the proposed plan change provisions.

***Assessing the efficiency and effectiveness of the proposed provisions in achieving the objective of the proposal [s32(1)(ii) and s32(2)].***

6.3.17 Section 32 of the Act requires consideration of the benefits and costs of the proposal when assessing efficiency and effectiveness. These benefits and costs apply to the proposed provisions in respect of their environmental, social, cultural, and economic effects. Economic effects in particular are required to consider opportunities for economic growth [s32(2)(a)(i)] and employment [s32(2)(a)(ii)]. All effects are required to be quantified where practicable [s32(2)(b)]. The costs and benefits of the plan change package as a whole are summarised in the table below.

Economic, Social, Environmental & Cultural	
Benefits	Costs
<ul style="list-style-type: none"> <li>Directs sensitive and (potentially) other activities to locate in areas where they won't be exposed to unacceptable risks to</li> </ul>	<ul style="list-style-type: none"> <li>No material social, environmental, or cultural costs are identified.</li> <li>Sensitive activities will need to locate</li> </ul>

<p>life and property.</p> <ul style="list-style-type: none"> <li>• Helps maintain and support the function of industrial zones, providing for primarily industrial activities.</li> <li>• Promotes long-term security for strategic infrastructure and the associated security of reliable fuel supplies including the ability of the existing strategic infrastructure to expand to meet demand as required. Flow on benefits accrue to downstream activities that are reliant on existing and future fuel supplies, including the employment opportunities they provide.</li> <li>• Removes requirement (and associated costs) for applicants of discretionary and non-complying activities seeking to establish near the Terminals to prepare individual full QRAs.</li> <li>• Given the policy direction in the industrial area it could be considered unlikely that a sensitive activity or other non-industrial activity could establish that would result in constraint on Terminal operations. However, that cannot be ruled out and the proposed provisions provide additional certainty for the regionally significant Terminal infrastructure, as one inappropriate activity can lead to significant constraint.</li> </ul>	<p>elsewhere, reducing locational choice/opportunity, noting however that as such activities are not generally permitted by the underlying zoning, the opportunity cost is minimal.</p> <ul style="list-style-type: none"> <li>• The proposal would strongly limit the ability for preschools to locate in proximity to the terminals however it is considered that the costs associated would be outweighed by the benefits of minimising risk to vulnerable children. It is noted that there are ample locational choices available for preschools within the wider area and therefore at a societal level the ability of local workers to access convenient child care facilities is not unduly limited by the proposed plan change.</li> <li>• Opportunity costs associated with the potential limitations on the establishment of other activities (such as entertainment or commercial activities) that may otherwise have been contemplated. However other district plan policies strongly limit the extent to which commercial type activities can locate in industrial zones, such that the opportunity cost would unlikely be significant.</li> </ul>
<p><b>Efficiency and Effectiveness of Provisions</b></p> <p>The principle of an overlay as an appropriate tool for managing risk to sensitive and other discretionary and non-complying activities has already been found to be effective and efficient by the Independent Hearings Panel (IHP); at least on an interim basis. This plan change further improves the effectiveness and efficiency of the policy and rule package by updating the geographic extent of the overlay based on up-to-date QRAs.</p> <p>The Plan Change rationalises Policy 16.2.1.4 by removing the obligation on third parties to undertake full QRAs as QRAs have now been completed by Liquigas and the Oil Companies. The proposed removal of this obligation improves the overall efficiency and effectiveness of the District Plan.</p> <p>Rule 16.4.1.1 (P18) and Rule 16.4.1.5 (NC2) are proposed to manage the risk of preschools locating within that portion of the Industrial General Zone that falls within the Woolston Risk Management Area. NSW HIPAP guidance is that such activities within the risk areas would create an unacceptable level of risk through placing young children in a location where they may be exposed to the adverse consequences of an event occurring and where the nature of childcare for young children makes safe and timely evacuation out of the area challenging. As such, preschools are not contemplated as being acceptable within the risk management areas and therefore a non-complying activity status is considered to be an effective and efficient tool for managing risk.</p>	

***Summarising the reasons for deciding on the provisions [s32(1)(b)(iii)].***

- 6.3.18 The IHP process as part of the replacement Christchurch District Plan Review confirmed the need to concurrently protect and provide for strategic infrastructure and to appropriately manage the risks posed by bulk fuel storage facilities. The IHP therefore identified that there was merit, at least on an interim basis, in having a risk management area shown on the planning maps via an overlay and associated policy direction that sensitive and other discretionary and non-complying activities within the overlay would be avoided.
- 6.3.19 The proposed plan change seeks to update the geographic extent of the overlay, more efficiently and effectively apply the policy direction and controls on avoiding sensitive activities in this area and assessing the level of risk exposure for other non-industrial activities such as large scale commercial and recreational activities.
- 6.3.20 The proposed provisions are consequently considered to be more effective in managing risk than any of the available alternatives.
- 6.3.21 With respect to efficiency, it is considered that the provisions would result in a high degree of benefits while maintaining a relatively low level of cost. In summary, the provisions of the Plan Change would be efficient and effective in achieving the objective of the proposal whilst not unduly constraining the ability of anticipated industrial and otherwise permitted activities to occur in the surrounding area.

***Risk of acting or not acting [s32(2)(c)]***

- 6.3.22 The RMA requires assessment of the risk of acting, or not acting, if there is uncertain or insufficient information about the subject matter of the policies, rules, or other methods.
- 6.3.23 In relation to this proposed plan change there is no reason for not acting on the basis of insufficient or uncertain information. Sufficient information is now available through the necessary QRAs having been prepared in a consistent manner and in accordance with recognised criteria. The QRAs now provide an updated identification of the geographic extent of unacceptable risk for sensitive and some other non-industrial activities.
- 6.3.24 The risk of not acting, and instead maintaining the status quo (for a reversion to the underlying Industrial Zone provisions) is that sensitive and potentially other (albeit less sensitive) activities potentially occur in a location where they are subject to unacceptable risk, and/or that their establishment results in reverse sensitivity effects, that limit the ongoing operation and development of strategic infrastructure.
- 6.3.25 Furthermore, the new QRAs demonstrate that it is more appropriate to adopt the amended risk contour for planning purposes with the implication that some new properties now fall within the risk contour and some properties currently included in the risk management area will no longer be affected. A risk of not acting is that the district plan would otherwise contain a risk management area overlay that is out of date and does not manage all appropriate land and activities that ought to be managed based on best available information.

***Examine whether the provisions in the proposal are the most appropriate means of to achieve the objectives of the existing District Plan to the extent that those are relevant [s32(3)]***



6.3.26 In respect of each relevant existing District Plan objective (and associated policies), an assessment is provided which discusses the provisions of the plan change request and the manner in which they achieve the District Plan's operative objective and policy framework. These are assessed in the table below.

Christchurch District Plan	
Relevant Provisions	Assessment
<b>Chapter 3 Strategic Directions</b>	
<p><b>3.3.1 Objective – Enabling recovery and facilitating the future enhancement of the district</b></p> <p><i>a. The expedited recovery and future enhancement of Christchurch as a dynamic, prosperous and internationally competitive city, in a manner that:</i></p> <ul style="list-style-type: none"> <li><i>i. Meets the community's immediate and longer term needs for housing, economic development, community facilities, infrastructure, transport, and social and cultural wellbeing; and</i></li> <li><i>ii. Fosters investment certainty; and</i></li> <li><i>iii. Sustains the important qualities and values of the natural environment.</i></li> </ul> <p><b>3.3.2 Objective – Clarity of language and efficiency</b></p> <p><i>a. The District Plan, through its preparation, change, interpretation and implementation:</i></p> <ul style="list-style-type: none"> <li><i>i. Minimises:</i> <ul style="list-style-type: none"> <li><i>A. transaction costs and reliance on resource consent processes; and</i></li> <li><i>B. the number, extent, and prescriptiveness of development controls and design standards in the rules, in order to encourage innovation and choice; and</i></li> <li><i>C. the requirements for notification and written approval; and</i></li> </ul> </li> <li><i>ii. Sets objectives and policies that clearly state the outcomes intended; and</i></li> <li><i>iii. Uses clear, concise language so that the District Plan is easy to understand and use.</i></li> </ul>	<p>The proposed plan change seeks to meet the community's need for infrastructure and economic development through enabling the ongoing operation of existing strategic infrastructure. By avoiding the potential for reverse sensitivity effects to arise, the plan change fosters investment certainty for the ongoing operation and upgrading of strategic infrastructure. It also provides a higher level of direction for other landowners contemplating sensitive and other discretionary and non-complying activities regarding locations where such activities would not be exposed to an unacceptable level of risk.</p> <p>Investment certainty is also fostered by more accurately identifying the geographic extent of risk from the terminals.</p> <p>The proposed plan change would also remove the QRA obligations for new discretionary and non-complying activities seeking to establish in the Woolston Risk Management Area, thereby reducing transaction costs on third parties.</p>

<p><b>3.3.10 Objective – Commercial and industrial activities</b></p> <p><i>a. The recovery and stimulation of commercial and industrial activities in a way that expedites recovery and long-term economic and employment growth through:</i></p> <p><i>i. Enabling rebuilding of existing business areas, revitalising of centres, and provision in greenfield areas; and</i></p> <p><i>ii. Ensuring sufficient and suitable land development capacity.</i></p> <p><b>3.3.12 Objective – Infrastructure</b></p> <p><i>a. The social, economic, environmental and cultural benefits of infrastructure, including strategic infrastructure, are recognised and provided for, and its safe, efficient and effective development, upgrade, maintenance and operation is enabled; and</i></p> <p><i>b. Strategic infrastructure, including its role and function, is protected from incompatible development and activities by avoiding adverse effects from them, including reverse sensitivity effects. This includes: ....</i></p> <p><i>c. The adverse effects of infrastructure on the surrounding environment are managed, having regard to the economic benefits and technical and operational needs of infrastructure.</i></p> <p><b>3.3.14 Objective – Incompatible activities</b></p> <p><i>a. The location of activities is controlled, primarily by zoning, to minimise conflicts between incompatible activities; and</i></p> <p><i>b. Conflicts between incompatible activities are avoided where there may be significant adverse effects on the health, safety and amenity of people and communities.</i></p>	<p>The strategic objectives relating to industry and infrastructure establish a framework that recognises the role that industry will play in the recovery and growth of the City. As such, the District Plan needs to enable industrial growth and activities in appropriate locations. The proposed plan change does not limit or hinder the use of land within the Woolston Risk Management Area for industrial or otherwise permitted activities, and therefore does not frustrate this strategic direction. The terminals are therefore located in an appropriate zone for the activity.</p> <p>The strategic objectives likewise contain a clear direction regarding the role of infrastructure, and strategic infrastructure in particular, in facilitating the City's recovery. The benefits of strategic infrastructure are to be recognised and provided for, including their ongoing operation, development, and upgrading. Objective 3.3.12b makes explicit reference to the need to protect strategic infrastructure from incompatible activities, including reverse sensitivity effects.</p> <p>Objective 3.3.14 likewise seeks to avoid conflicts between incompatible activities where there may be significant adverse effects on the health and safety of people and communities.</p> <p>The proposed plan change achieves this, by clearly identifying an area around the terminals where the establishment of sensitive and other discretionary and non-complying activities may be incompatible with established bulk fuel storage facilities and where people could be exposed to an unacceptable risk to health and safety. Such activities, were they to establish, could also generate reverse sensitivity effects and could constrain their use/operations. The identification of the Woolston Risk Management Area and associated non-complying activity status for sensitive activities are effective tools to ensure that such incompatible activities are avoided.</p>
Chapter 4 Hazardous Substances and Contaminated Land	

<p><b>4.1.2.1 Objective – Adverse environmental effects</b></p> <p><i>a. The residual risks associated with the storage, use, or disposal of hazardous substances in the district are managed to acceptable levels to not adversely affect people, property and the environment while recognising the benefits of facilities using hazardous substances.</i></p> <p><b>4.1.2.2 Objective – Risk and reverse sensitivity effects</b></p> <p><i>a. Sensitive activities are established at suitable locations to minimise reverse sensitivity effects on and avoid unacceptable risks from established facilities using, storing or disposing of hazardous substances.</i></p>	<p>The Chapter 4 policy framework provides a three-fold direction. The first element is that hazardous substances are used and stored in locations and in a manner where they will not give rise to unacceptable effects.</p> <p>This policy direction is achieved through the identification of Industrial Heavy zones where the use and storage of hazardous substances is an anticipated component of industrial activities. The two terminals are likewise subject to a wide range of regulation to ensure that they are designed and operated in a safe manner where the risks associated with bulk fuel storage are minimised as far as practicable.</p> <p>The second policy direction is that the effects and associated residual risks of facilities using hazardous substances are identified and managed. Both Liquigas and the Oil Companies have undertaken QRAs to geographically map the extent of the residual risk posed by the facilities. The proposed Plan Change provides a tool for managing this residual risk, namely the avoidance of sensitive activities and ensuring some other discretionary and non-complying activities are located appropriately with reference to the relevant risk acceptance criteria.</p> <p>The third policy direction concerns the management of sensitive activities and the avoidance of such from locating in areas where they would be exposed to an unacceptable level of risk and/or would give rise to reverse sensitivity effects. Policy 4.1.2.2.2 makes explicit reference to this policy outcome regarding the Woolston terminals. This policy identifies the need for the extent of the Risk Management Area to be confirmed via QRAs which this plan change is seeking to achieve.</p> <p>The plan change again directly implements this policy direction by mapping the extent of the area (based on QRAs) in conjunction with a non-complying rule as a tool to avoid sensitive activities locating in an area where they would be exposed to unacceptable risk.</p>
Chapter 16 Industrial	

<p><i>Objective 16.2.1 – Recovery and growth</i></p> <p><i>The recovery and economic growth of the district’s industry is supported and strengthened in existing and new greenfield industrial zones.</i></p>	<p>The proposed plan change does not seek to limit industrial activities within the Woolston Risk Management Area, nor complementary supporting activities that are permitted in the IG and IH zones. The recovery and economic growth of land within the WRMA would therefore continue to be supported by the plan change proposal.</p>
---	--

6.3.27 Overall it is considered that the proposed plan change package of provisions is the most appropriate method for achieving the objectives of the Christchurch District Plan, having regard to their efficiency and effectiveness. In particular it would more appropriately recognise and provide for the ongoing use, operation and upgrading of strategic infrastructure, ensure that sensitive and/or incompatible activities are avoided in close proximity to this infrastructure whilst continuing to enable the function of the industrial zones to provide for primarily industrial related activities.

## 7 Assessment of Environmental Effects

### 7.1 Introduction

7.1.1 It is important to emphasise that the sites and the surrounding area already have an urban industrial zoning. This plan change does not seek to change the underlying zoning. The proposed amendments likewise do not seek to restrict or prevent industrial (or other permitted) activities from occurring with the overlay. The Plan Change simply inserts an amended overlay boundary, and makes consequential changes to the policy framework and related advice notes.

7.1.2 The scope of the Assessment of Environmental Effects (**AEE**) is therefore limited to the effects derived from the proposed amendments:

- Avoidance of sensitive activities and ensuring other non-industrial activities are located where they meet the relevant risk acceptance criteria.
- Reverse sensitivity and constraints on Strategic Infrastructure.

### 7.2 Avoidance of Sensitive Activities and (potentially) other Non-Industrial Activities

7.2.1 Both terminals are equipped to ensure the safety and security of operations carried out within their own boundaries. The operation of both terminals is under continuous review to ensure that the facilities are managed to mitigate risk as far as practicable. Liquigas and the Oil Companies likewise have responsibilities to as far as practicable provide a safe working environment for their staff and to prepare a safety case or associated major accident prevention policy under the MHF Regulations 2016. There is therefore considerable focus on managing risk at source as far as practicable.

7.2.2 The nature of the facilities and the product stored does nonetheless mean that complete elimination of risk or the restriction of such to within the site boundaries is not possible. Whilst the probability of an emergency incident occurring at one of the Terminals is extremely low, the impact of such an event is potentially high. For example, the vapour cloud explosion that occurred at the Buncefield Terminal in the United Kingdom in 2005 resulted in the destruction of

buildings several hundred metres away from the fuel storage tank area and lesser effects, such as window breakage, up to 8km away<sup>16</sup>.

- 7.2.3 The event at Buncefield highlighted that a vapour cloud explosion, which was historically never considered credible at a terminal site due to their unconfined nature was, in fact, a credible event. As a result, industry and regulator practice around the assessment of risk at fuel terminals has changed to include consideration of the potential for large vapour cloud explosions. This in turn has affected the modelling assumptions that input into the QRAs.
- 7.2.4 In addition to managing the safety of the facility, an approach to managing life safety risk also involves managing incompatible activities in close proximity to the facility, where those activities would result in an increase in the risk posed by the facility. Risk is the sum of the likelihood of an event occurring and the consequence of that event. A new activity that involves high rates of human occupancy or vulnerable populations increases the potential impact of an event, and therefore alters the risk profile of an established facility and constrains future development options on the site.
- 7.2.5 The acceptability of risk involves many considerations but in relation to land uses in close proximity to the bulk fuel storage terminals broadly ranges between tolerable for industrial type land uses to intolerable or unacceptable for sensitive activities (e.g. residential, child care, health care). It is therefore critical to ensure that land uses surrounding the terminal sites remain compatible with the level of risk associated with these activities.
- 7.2.6 Appropriate planning controls are required to manage risks to public health and safety, while enabling the efficient and effective operation, maintenance, upgrade and future development of the terminals and surrounding land.
- 7.2.7 The proposed plan change to amend the extent of the overlay will not in itself result in any direct effects on the environment. It is in nature different from a plan change to, for example, rezone land from rural to urban activities or to intensify an existing residential neighbourhood where the change in planning controls will over time result in a markedly different physical environment. The identification of risk is not a direct physical environmental effect in the same way as, for example, noise, odour, or visual amenity. Rather it involves the consequence of an event occurring together with its associated likelihood.
- 7.2.8 The effect of the overlay does not restrict the development of industrial or (except in relation to preschools) other permitted activities in the underlying zones. The physical environment will therefore continue to be able to be developed in accordance with the environmental outcomes anticipated by the Industrial Heavy and Industrial General Zones, and in accordance with the District Plan's policy framework for the area.
- 7.2.9 The plan change retains the operative District Plan's explicit policy direction and associated non-complying rule that the establishment of new sensitive activities within the Woolston Risk Management Area overlay will result in unacceptable risk and therefore is to be avoided, other non-industrial activities will only be able to be located where they meet the relevant risk acceptance criteria. The geographic extent of the overlay identifying the extent of unacceptable risk for sensitive activities has been updated and an advice note in chapter 16 will identify that the new QRAs are publicly available.

---

<sup>16</sup> Buncefield Major Incident Investigation Board (2008) The Buncefield Incident 11 December 2005: The final report of the Major Investigation Board, p10.

### 7.3 Reverse Sensitivity and Constraints on Strategic Infrastructure

- 7.3.1 The Liquigas Terminal and the Woolston Oil Terminal are regionally significant infrastructure and are two of the key components in the fuel supply chain for the Canterbury Region.
- 7.3.2 Proximity of sensitive activities and potentially other non-industrial activities that have a different risk profile) in and around the terminals have the potential to pose significant constraint on the ongoing operation and development of those facilities. As noted above, under the District Plan, 'reverse sensitivity' *"means the effect on existing lawful activities from the introduction of new activities, or the intensification of existing activities in the same environment, that may lead to restrictions on existing lawful activities as a consequence of complaints"*.
- 7.3.3 To date, operators consider that development in and around the terminals has largely been compatible with the terminal operations. However with the earthquake recovery and the need for substantial redevelopment across the Canterbury Region it is necessary that the District Plan includes provisions that adequately future proof and protect the resilience of the fuel supply chain to the Canterbury Region so that ongoing fuel demands can be met appropriately and safely.
- 7.3.4 The District Plan provisions need to ensure land uses in the vicinity of the terminal sites remain compatible with the level of risk associated with the terminals to avoid new sensitive and other incompatible non-industrial activities complaining about the risk that they are exposed to and thereby seeking to place restraints on the operations of strategic infrastructure.
- 7.3.5 In this regard, the District Plan needs to restrict the establishment of sensitive or other land uses that could give rise to an issue of reverse sensitivity or operational constraint due to an activity being considered to be exposed to an unacceptable level of risk from the terminals.
- 7.3.6 The nature of fuel supply means that bulk deliveries to Canterbury must come by ship and be discharged at Lyttelton. The two pipelines to transport this fuel from Lyttelton to Woolston are existing and represent significant fixed costs/value in strategic infrastructure. Operators consider that there are significant constraints on road transport of hazardous substances from Lyttelton given the loss of the Sumner Road access, the narrow, winding nature of that route when re-established, and restrictions on tunnel use. Transport by pipeline has been the most efficient, effective, and safest means of transporting these fuels in bulk.
- 7.3.7 The two terminals are located in Woolston to maximize pipeline efficiency over the Port Hills. The terminals are existing and located within an appropriate land use zone that anticipates these types of activities. The region's bulk fuel will continue to be stored and distributed from this location for the foreseeable future. As such it is critical that these terminals are able to continue to operate and be upgraded. The establishment of new sensitive or other non-industrial activities in close proximity to the terminals can lead to increased pressure to reduce operations or to prevent expansion due to both the perception and the potential reality that such works would result in increased risk to nearby properties.

## 8 Consultation

- 8.1.1 The principle of a Risk Management Area and associated rules were subject to the statutory submission process undertaken as part of the District Plan Review. As such, interested parties had the opportunity to become involved in the development of the operative District Plan's provisions and to present evidence through that hearing process.
- 8.1.2 On October 2018, the Linwood-Central-Heathcote Community Board was briefed on the upcoming proposed Plan Change 1 Woolston Risk Management Area. The process, timing and issues surrounding the upcoming proposed plan change was presented to Council at its meeting on December 2018.
- 8.1.3 Following direction from the Council, pre-notification consultation was held from mid-January to mid-February 2019. Letters were sent out to owners and owner-occupiers considered to be affected inviting them to comment on the draft plan change and to attend one of the public information drop-in sessions: (1) Tuesday, 5 February 2019, (2) Monday, 11 February 2019, and (3) Wednesday, 13 February 2019. Likewise, the Ministry for the Environment, Department of the Prime Minister and Cabinet (**DPMC**), Canterbury Regional Council and Ngāi Tahu were invited to provide comments on the draft plan change, in accordance with Clause 3(1), Schedule 1 of the RMA.
- 8.1.4 Affected parties were invited to call or email Council staff directly if unable to attend any of the scheduled drop-in sessions. Detailed information and the Quantitative Risk Assessments were made available at [www.ccc.govt.nz/planchange](http://www.ccc.govt.nz/planchange) and the Council [Have Your Say](#) webpage.
- 8.1.5 A total number of nine property owners representing 12 sites attended the scheduled public information drop-in sessions, broken down as follows into different groups:
- new properties within the proposed overlay – 5
  - properties within the existing and proposed overlay – 7
  - properties no longer within the existing overlay and outside the proposed overlay – 0
- 8.1.6 Feedback from the drop-in sessions showed general support for the plan change because they consider sensitive activities inappropriate to be located near their industrial activities.
- 8.1.7 Queries received via email were mainly clarification requests with respect to the boundary of the overlay in relation to properties. One specific query was received from the media (after seeing the plan change info at the Council Have Your Say webpage) about the process involved in revoking the OiC.
- 8.1.8 Three completed feedback forms were received via post: (1) One landowner noted no concerns as long as there are no further or additional restrictions placed on their current business use under the current plan; (2) One landowner would be very pleased to see this change take effect; and (3) the other landowner sought flexibility to operate offices in the IH Zone, within the overlay.
- 8.1.9 Feedback received via email from Mahaanui Kurataiao Ltd (**MKT**) stated that the proposed plan change was discussed at a recent hui between MKT staff and the Kaitiaki Portfolio representatives for Te Ngāi Tūāhuriri Rūnanga. No concerns or recommendations were raised on the proposed plan change.



8.1.10 Liquigas and the Oil Companies commented in support the draft plan change except for the change initially proposed to Policy 16.2.1.4 - Activities in industrial zones, as explained below.

8.1.11 The draft plan change made available during the informal pre-notification consultation proposed to delete the part of the policy that required discretionary and non-complying activities to prepare and submit a QRA with their resource consent application in order to demonstrate that their proposal meets the appropriate risk acceptability criteria for the type of land use. Council initially considered that this policy requirement was no longer necessary because QRAs had since been undertaken by Liquigas and the Oil Companies, and provisions in Chapter 4 (Hazardous Substances and Contaminated Land) of the District Plan now manage the location of sensitive activities within the Woolston Risk Management Area.

8.1.12 Liquigas and the Oil Companies conveyed their position that it remains appropriate for Council to consider the potential of discretionary and non-complying activities seeking consent to establish within the Woolston Risk Management Area. This is to enable an assessment of the extent to which these activities were likely to generate reverse sensitivity effects on the bulk fuel terminals and to consider the exposure of these activities to unacceptable risk. These potential effects may be relevant to all activities, not just those defined as sensitive in the District Plan<sup>17</sup>. Council staff now agree that it is appropriate to retain this policy requirement but that it is also appropriate to include reference to the existing QRAs to provide additional clarity to plan users via an advice note that:

- The QRAs prepared by the LPG and oil depot companies for the Woolston Risk Management Area will be made freely available to the public to inform the policy requirement; and
- The relevant discretionary and non-complying activities are only those the subject of Rule 16.4.1.4 D1, Rule 16.5.1.4, and Rule 16.5.1.5 NC1.

Liquigas and the Oil Companies also expressed strong support for inserting new rules relating to Site Emergency Management Plans (SEMPs) for the safety and protection of workers and visitors in the surrounding areas. However at the time of preparing the plan change and given the urgent focus of the plan change (i.e. the lapse sunset clause), Council considered that further analysis was required in order to test the SEMP provisions under section 32 of the Act.

In accordance with the 1<sup>st</sup> Schedule of the RMA, formal consultation on the proposed Plan Change will occur with all landowners within the operative Risk Management Areas and the proposed Woolston Risk Management Area. CCC is making an application to the Environment Court for Rule 4.1.4.1.5 and the associated revised overlay to have immediate legal effect on a date other than the date at which a decision on submissions to the rule is made<sup>18</sup>. The RMA requires that in such circumstances, the proposed plan change is publicly notified. Any other interested parties are able to put forward their views through the statutory public notification process.

## 9 Conclusion

9.1.1 This section 32 report and appendices present all of the relevant information required to enable the proposed plan change to be considered. The information provided is at a level of detail that is appropriate to the scale and significance of the issues concerned. Potential environmental effects

---

<sup>17</sup> E.g. residential, care facilities, education activities and preschools, guest accommodation, health care facilities, hospitals and custodial accommodation.

<sup>18</sup> Resource Management Act 1991, s86D



have been identified and appropriately avoided, remedied or mitigated through the proposed provisions.

- 9.1.2 All of the matters of policy and statutory consideration have been identified and addressed, including for all relevant higher order documents. Consultation with stakeholders will be on-going as required, noting that all interested parties will have a formal opportunity to lodge submissions as part of this statutory plan change process.
- 9.1.3 The CRPS provides a framework within which the role and benefits of strategic infrastructure are recognised and provided for, along with the need to protect such infrastructure from the adverse effects of incompatible activities becoming established in locations that would result in constraints on the operation and development of strategic infrastructure.
- 9.1.4 The proposed amendments to the policy frameworks of the Industrial and Hazardous Substances Chapters likewise give effect to the higher order direction insofar as the policy direction relates to strategic infrastructure and the need to avoid incompatible activities that would have a significant adverse effect on the efficient functioning, use, and development of that infrastructure.
- 9.1.5 The proposed amended Woolston Risk Management Area boundary identifies the geographic extent of the sensitive area around the existing strategic infrastructure facilities where the location of new sensitive activities should be avoided and potentially other non-industrial activities assessed on the extent to which they meet the relevant risk criteria as an effective tool for managing incompatible activities in relation to bulk fuel storage facilities.
- 9.1.6 The proposed policy and rule amendments to remove the sunset clause and limit the establishment of preschools and other sensitive activities in the vicinity of the terminals are considered to better give effect to the CRPS and the Strategic Directions objectives than the operative District Plan provisions.

APPENDIX 1 – LIQUIGAS TERMINAL QUANTITATIVE RISK ASSESSMENT

APPENDIX 2 – WOOLSTON OIL TERMINAL QUANTITATIVE RISK ASSESSMENT

APPENDIX 3 – COMBINED SUMMARY OF QUANTITATIVE RISK ASSESSMENT

APPENDIX 4 – COPY OF PLAN CHANGE TEXT AMENDMENTS

Plan Change 1- Section 32 Evaluation

