BEFORE THE INDEPENDENT HEARINGS PANEL APPOINTED BY THE NAPIER CITY COUNCIL

IN THE MATTER OF	the Resource Management Act 1991 ("the Act" or "the RMA")
AND	
IN THE MATTER OF	the submissions of bp Oil New Zealand Limited, Mobil Oil New Zealand Limited and Z Energy Limited on the Proposed Hutt City District Plan ("the PDP")

STATEMENT OF PLANNING EVIDENCE OF GEORGINA MCPHERSON

FOR

BP OIL NEW ZEALAND LIMITED, MOBIL OIL NEW ZEALAND LIMITED AND Z ENERGY LIMITED ("THE FUEL COMPANIES") (SUBMITTER 471 & 468 AND FURTHER SUBMITTER F32

HEARING STREAM 2: CONTAMINATED LAND AND HAZARDOUS SUBSTANCES

11 MAY 2026

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1. EXECUTIVE SUMMARY

1.1 This statement of evidence relates to the submissions of bp Oil NZ Limited, Mobil Oil NZ Ltd and Z Energy Limited (*the Fuel Companies*) in relation to Hearing Stream 2 – Contaminated Land and Hazardous Substances of the Proposed Hutt City District Plan (*PDP*).

1.2 The Fuel Companies' submissions are generally supportive of the notified Hazardous Substances chapter, which adopts a risk-based approach focused on managing residual risk and reverse sensitivity effects associated with significant hazardous facilities. However, this evidence addresses specific matters where the Reporting Officer has not supported the relief sought by the Fuel Companies, or where further refinement of the provisions is required to ensure the PDP provides an effective and coherent risk management framework.

1.3 In preparing this evidence, I rely on the expert risk evidence of Ms Jennifer Polich of Sherpa Consulting, who has undertaken and reviewed Quantitative Risk Assessments (QRAs) for the Seaview fuel terminals and associated infrastructure. Ms Polich's evidence confirms that risk-based overlays informed by individual fatality risk criteria are an established and orthodox land-use planning response in both New Zealand and Australia, and are intended to manage land-use change and population intensification rather than regulate operational safety matters.

1.4 A key issue addressed in my evidence is whether the Hazardous Facility Risk Management Overlay (HFRMO) should be mapped using the residential activity individual fatality risk criterion (1×10^{-6} per year), as recommended by the Reporting Officer, or the sensitive activity criterion (0.5×10^{-6} per year), as sought by the Fuel Companies. For the reasons set out in my evidence, and having regard to Ms Polich's expert analysis and established precedent in Auckland, Christchurch, Dunedin and Napier, I consider the sensitive activity contour provides a more appropriate and precautionary basis for managing risk and reverse sensitivity in the Seaview context.

1.5 My evidence also addresses the Fuel Companies' request for recognition of residual risk and reverse sensitivity issues associated with the Hutt City fuel transmission wharfline. While I acknowledge the Reporting Officer's concerns regarding proportionality and evidential sufficiency, Ms Polich's evidence confirms that risk-based planning approaches can and are applied to pipelines in other jurisdictions. In my opinion, further work to develop an agreed and nuanced

planning response is warranted, rather than the wholesale rejection of pipeline-related provisions.

1.6 In addition, I address concerns relating to the use of the term “sensitive environments” within the Hazardous Substances chapter, the policy approach to reverse sensitivity in Policy HS-P3, and the recommended amendments to Policy CL-P1 relating to contaminated land identification. While I support aspects of the Reporting Officer’s recommendations on these matters, my evidence identifies specific refinements necessary to avoid unintended outcomes, improve certainty, and maintain internal consistency across the PDP.

1.7 Overall, I consider that the inclusion of risk management overlays and associated policy and rule frameworks in the PDP is a necessary and appropriate land-use planning response to the presence of regionally significant bulk fuel infrastructure at Seaview. Subject to the refinements sought in my evidence, the Hazardous Substances and Contaminated Land provisions would provide an effective mechanism to manage residual risk, avoid inappropriate land-use change, and protect the ongoing operation of critical fuel supply infrastructure, consistent with Part 2 of the Resource Management Act 1991.

2. INTRODUCTION

2.1 My full name is Georgina Beth McPherson. I have been engaged by bp Oil NZ Limited, Mobil Oil NZ Limited and Z Energy Limited (*the Fuel Companies*) to provide expert planning evidence in relation to their submissions on the PDP. In this hearing, my evidence relates to the Contaminated Land and Hazardous Substances provisions of the PDP.

2.2 My qualifications and experience are set out in my statement of evidence for Hearing Streat 2 (Business) addressing the Seaview Marina Zone, Industrial Zones and Centre Zones and I do not repeat that here.

3. CODE OF CONDUCT FOR EXPERT WITNESSES

3.1 I have read the Environment Court’s Practice Note January 2023 as it relates to expert witnesses. My brief of evidence is prepared in compliance with the Code of Conduct, and I agree to comply with it in appearing before the Independent Hearings Panel. I am not, and will not behave as, an advocate for my client. I am engaged by the Fuel Companies as an independent expert and SLR provides planning services to the Fuel Companies along with a range of other corporate,

public agency and private sector clients. I have no other interest in the outcome of the proceedings.

3.2 I confirm that my evidence is within my area of expertise and that I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

3.3 In preparing this evidence, I have had regard to a number of documents, including:

(a) The Council's Section 42a Report on hazardous substances;

(b) The Proposed Hutt City District Plan and supporting section 32 report;

(c) The submissions and further submissions of the Fuel Companies and other relevant submitters;

(d) The RMA; and

(e) The expert risk evidence of Ms Jenny Polich of Sherpa Consulting on behalf of the Fuel Companies.

4. SCOPE OF EVIDENCE

4.1 This evidence relates to the submission points of the Fuel Companies (S471 / F32) and Z Energy (S468) on the Hazardous Substances and Contaminated Land chapters of the PDP.

4.2 The Fuel Companies engaged closely HCC throughout the preparation of the draft PDP in relation to the potential risk and reverse sensitivity issues associated with the Terminals. As a result, the Fuel Companies' submission was in general support of the notified version of the Hazardous Substances chapter subject to a number of minor wording changes to clarify the intent of the provisions.

4.3 Overall, I am in general support of the majority of the recommendations of the Reporting Officer, which include recommendations to adopt many of the changes sought in the Fuel Companies submissions. I do not, however, agree with the conclusions on the following matters and I address these in detail below:

(a) The use of the residential land use criteria risk contours (1×10^{-6}) rather than the sensitive land use criteria risk contours (0.5×10^{-6}) as the basis for the Hazardous Substances Risk Management Overlay (HSRMO);

(b) The recommendation to not include a mapped risk management corridor and associated policy and rules framework to manage risk and reverse

sensitivity issues in close proximity to the Hutt City fuel transmission Wharfline;

(c) Use of the term ‘sensitive environments’ in policy HS-P1 in the hazardous substances chapter;

(d) The policy approach to reverse sensitivity effects in Policy HS-P3; and

(e) The approach to identifying contaminated or potentially contaminated land, as set out in Policy CL-P1.

5. CONTEXT

5.1 The Fuel Companies operate four bulk fuel storage terminals within the Seaview industrial area. Fuel is delivered to the terminals by way of a 3km long joint industry pipeline (the wharfline) extending between Seaview Wharf, at Point Howard, and the Seaview industrial area. From there, product is distributed by road tankers around the Lower North Island. Approximately 80 million litres of petroleum products are supplied and distributed via the wharfline and terminals annually. These facilities are critical lifeline assets[1] and regionally significant infrastructure[2], which are of strategic importance for the functioning of the regional economy.

5.2 The Terminals at Seaview have been operating for over 70 years with a strong track record of operational excellence and safety. The facilities continue to utilise risk assessment and risk reduction measures on an ongoing basis and have done as much as reasonably practicable to minimise risk associated with their core business.

5.3 Notwithstanding this, there is an inherent risk associated with the storage and handling of large volumes of hydrocarbons, particularly for petrol. This primarily arises from the potential for a fire or explosion. While the likelihood of any such event occurring is extremely low, the consequences could be significant.

5.4 Three of the Terminals[3] are Lower Tier Major Hazardous Facility (MHF) as defined under the Health and Safety at Work (Major Hazard Facilities) Regulations 2016 (the MHF Regulations). MHF are workplaces that have significant inherent hazards due to the storage and use of large quantities of specified hazardous substances.

[1] The New Zealand Infrastructure Vulnerability Assessment, 2023 Edition, written by the New Zealand Lifelines Council (NZLC), identifies fuel pipelines, including specifically the Hutt City Wharfline, as nationally critical infrastructure.
[2] As identified in the Wellington Natural Resources Plan and the Wellington Regional Policy Statement (RPS)
[3] The NZOSL, Z Energy and Mobil terminals

Failure to control risks associated with these large quantities of hazardous materials is infrequent but can have very significant consequences.

5.5 As identified in the evidence of Ms Polich, Quantitative Risk Assessment ('QRA') work has been completed for the Terminals to better understand any residual risk posed by the Terminals to surrounding land uses and to assist the Fuel Companies in meeting their obligations under the MHF Regulations.

5.6 Because there are no 'risk criteria' for land use safety planning in place in New Zealand, the QRA results have been assessed against the criteria outlined in Australian New South Wales Department of Planning and Environment Hazardous Industry Planning Advisory Paper 4 'Risk Criteria for Land Use Safety Planning' (HIPAP 4). These have been used in many other parts of this country for assessing risk from hazardous facilities and are explained in more detail by Ms Polich in her evidence.

5.7 As detailed by Ms Polich, the QRA quantifies risk in terms of '"annual individual fatality" and applies a one in a million criteria ($1x10^{-6}$) for residential areas. People in hospitals, children at school or old-aged people are more vulnerable to hazards and less able to take evasive action, if need be, relative to the average residential population. A lower risk than the one in a million criteria (applicable for residential areas) is more appropriate for such activities ($0.5x10^{-6}$). On the other hand, land uses such as commercial and industrial do not involve continuous occupancy by the same people, and individuals have a comparatively high level of mobility and awareness of risk and emergency response scenarios, such that a higher level of risk may be tolerated.

5.8 The QRA also quantifies societal risk, which takes into account the number of people exposed to risk. For example, higher occupancy (i.e. continuous presence such as residential areas) or high localised populations such as entertainment centres, universities. This is based on the principle that risk should be managed to be ALARP (as low as reasonably practicable).

5.9 In addition, there are a range of overarching qualitative principles, including that:

(a) all 'avoidable' risks should be avoided;

(b) particular attention needs to be given to eliminating or reducing major hazards, irrespective of whether numerical criteria are met; and

(c) as far as possible, the consequences of significant events should be kept within facility boundaries.

5.10 The most recent QRAs for the Terminals conclude that when compared with international standards and with similar facilities in other locations around the world, the level of existing risk for residents and businesses surrounding the Terminals is considered to be within acceptable standards.

5.11 However, they also identify the potential for non-compliance with the individual fatality risk criteria and/or societal risk approaching intolerable levels should land uses around the Terminals change as a result of the introduction of new and/or intensified residential or sensitive land uses, particularly on sites that are currently used for non-residential purposes.

5.12 The Fuel Companies manage the source of the risk (being bulk storage of petroleum products) through adherence to codes and standards for design and operation of the facilities and industry practice and have already undertaken extensive risk reduction measures at these sites to ensure risk to existing neighbours is reduced to levels that are acceptable and ALARP.

5.13 The Fuel Companies are, however, unable to control activities outside the Terminal boundary that may affect the acceptability or tolerability of the risk. This is the key driver that has led the Fuel Companies to the point of pursuing the introduction of risk management provisions to the Hutt City PDP.

5.14 The following matters are also key drivers for the inclusion of the risk management overlays in the PDP:

(a) The Terminals are critical regional infrastructure with strategic importance for the functioning of the regional economy. It is, therefore, important that appropriate provision is made in the PDP for the ongoing operation, maintenance and upgrade of the Terminals and that they be protected from reverse sensitivity effects that may constrain their operation.

(b) There is no clear national land-use planning approach to major hazard facilities in New Zealand.

(c) The Buncefield incident in the UK in 2005 changed the approach to risk assessment for fuel terminals internationally, in that a vapour cloud explosion became a credible event. Historically this was never considered credible. The effect was to create a potential risk profile for at least most terminals in New Zealand that extends well beyond the boundary of the terminal site. The inquiry process took a number of years before the mechanisms leading to the vapour cloud explosion were understood. Apart from the issues that led to an overfill incident it was found that

vegetation played a significant role in confinement of vapours that increase the intensity of overpressure explosion.

(d) The introduction of the MHF Regulations place a series of obligations on MHF's. They are very similar to the Australian regulations and require MHF's to undertake safety assessments and emergency planning in relation to health and safety impacts, including natural hazards. 'Upper tier' MHF's have to develop and have an approved safety case to continue to operate. These are akin to a safety warrant of fitness. The nature of the surrounding land use within a 2km radius is a key element of that. The Seaview terminals are currently designated as 'lower tier' MHF's, but any changes in land use that affect the risk profile of the Terminals (e.g. introduction of further sensitive activities) could result in a review by WorkSafe of that designation to 'upper tier', which would introduce a range of additional obligations.

(e) Introduction of the MHF Regulations highlights HCC's role under the Health and Safety at Work Act (HSWA) in managing risk associated with MHF. Specifically, Clause 36(2) HSWA requires that local authorities (in their role as a PCBU or person conducting a business or undertaking) shouldn't do or promote any development that would put the health and safety of other persons at risk. In this context, I consider this to include an obligation that HCC must not do or promote any development that would compromise the existing risk situation associated with the Terminals, for example by enabling the development of new residential or sensitive land uses on land surrounding the Terminals.

5.15 In addition, I note that a number of jurisdictions around the country have now adopted a land use planning response to managing risk and reverse sensitivity issues associated with the relationship between bulk fuel storage terminals and sensitive activities. This further supports the appropriateness of addressing these matters through the PDP provisions. These include:

(a) The redevelopment of Wynyard Quarter (in Auckland) with apartments and commercial activities as bulk fuels and chemicals storage facilities have exited the area has required a concerted effort by the Council and operators to ensure risk has been managed within acceptable levels.

(b) The Lyttelton Port Recovery Plan (***LPRP***), where risk was a key issue in relation to proposals to develop a cruise ship terminal berth at Naval

Point, which would see significant numbers of people having to access and egress adjacent to the existing bulk fuel facilities and for which there is only one constrained access point for movement (including of emergency services) through Godley Quay. It led to an action to produce a Cumulative Quantitative Risk Assessment (***QRA***) for the Naval Point Area, considering the cumulative risks from all the facilities in the area. Risk was also a key issue for consideration by the Independent Hearing Panel[4] in considering the Christchurch Replacement District Plan. This led to the introduction of risk management overlays for both the Liquigas terminal and Mobil terminal at Woolston, similar to those now proposed for inclusion in the Napier PDP.

(c) The experience at the Wiri Oil Terminal in Auckland. In 2003, a Women's prison was designated adjacent to the terminal. A joint risk assessment was undertaken (led by Council but funded by Corrections and Wiri Oil Services Limited), which found that from a risk perspective the proposed prison was acceptable, even allowing for additional tankage between the prison and terminal. In 2010, post Buncefield, Corrections proposed building a Men's prison behind the Women's prison and undertaking double bunking at the Women's prison. A further joint risk assessment was commissioned and in light of Buncefield found that the risk to the proposed Men's prison was acceptable (being sufficiently separated) but that the risks to the existing Women's prison were unacceptable. This resulted in an investigation into various options including closure of the prison, construction of barriers, construction improvements at the prison site and risk reduction at source. The outcome has been to:

i. create an unconfined area on the prison site adjacent to the terminal (i.e. landscaping was removed as it was found that vegetation surrounding the Buncefield site created a confining effect that increased the intensity of the explosion);
ii. prevent additional petrol storage between the terminal and the prison;
iii. manage future growth of the terminal to occur where there will be no increase in risk to the prison;
iv. establish gas detection in the bunded compounds that will trigger alarms in the event of a spill; and

[4] Note that LPRP was a parallel but separate statutory process. They had no jurisdiction over the LPRP.

v. retrofit ducted overfill on the petrol tanks to take any overfill incident to the ground and thereby effectively avoid the development of a vapour cloud (Buncefield scenario).

This has also led to the introduction of risk management overlays in the Auckland Unitary Plan (Operative in Part) similar to those now proposed for inclusion in the Hutt PDP.

(d) Risk management overlays were introduced to the Dunedin 2GP in response to an initial proposal to rezone industrial land immediately adjacent to the existing fuel terminals at Dunedin Port to a mixed use zone (to the north of the Z Terminals) and a recreation zone (to the south of the BP Terminal). Both proposed zonings had the potential to enable the establishment of sensitive activities (e.g. residential and child care) in close proximity to the Terminals as a permitted or restricted discretionary activity. In response to submissions from the Fuel Companies, risk management overlays have now been adopted in the 2GP, to avoid the establishment of risk sensitive activities in close proximity to the Terminals.

(e) Risk management overlays have recently been introduced to the Napier PDP (Decisions Version) in order to manage risk and reverse sensitivity issues associated with the very close proximity between existing residential development and the bulk storage terminals at Ahuriri. Development proposals for the conversion of industrial and recreation activities (a former bowling club) to intensive residential use since around 2020, highlighted the permissive framework in place under the Operative District Plan for such activities and the absence of any requirement to consider risk management or reverse sensitivity issues. The Fuel Companies have made significant investment in the Ahuriri Terminals to manage risk to acceptable levels and to respond to the risk and reverse sensitivity issues presented by immediate residential neighbours.

5.16 Taking the above matters into account, I consider the inclusion of a risk management overlay in the Hutt City PDP to manage risk and reverse sensitivity issues associated with the Terminals is a necessary and appropriate land-use planning response.

6. EXTENT OF TERMINAL RISK MANAGEMENT PROVISIONS

Fuel Companies' submission

6.1 Submission 471.321 of the Fuel Companies sought that the mapped Hazardous Facility Risk Management Overlay (HFRMO) be amended to reflect the 0.5×10^{-6} individual fatality risk contour for sensitive activities, rather than the 1×10^{-6} individual fatality risk contour for residential activities. The mapping changes sought in the Fuel Companies submission are as included as **Appendix A** to my evidence.

Reporting Officer Recommendation

6.2 The Reporting Officer recommends that the Fuel Companies submission is rejected and the HFRMO be retained as notified, based on the 1×10^{-6} residential activity contour.

6.3 The reasons for this recommendation are given in section 294 of the Section 42A report, as follows:

'Using the sensitive land use criterion to define the overlay extent would duplicate zone-based controls, significantly expand the overlay beyond its intended strategic function, and impose disproportionate constraints on industrial and port-related land without corresponding risk management benefit. Accordingly, the requested amendment is not supported.'

Analysis

6.4 The intent of the Fuel Companies submission is to ensure, to the extent reasonably practicable, no encroachment of risk sensitive land uses that would unduly compromise the ability of the Terminal to continue to provide for Greater Wellington's existing and on-going future fuel demands, including by creating lower thresholds of acceptable risk in the receiving environment and generating reverse sensitivity effects.

6.5 As set out in Ms Polich' evidence, the QRA modelling assesses risk against the NSW Hazardous Industry Planning Advisory Paper No. 4 (HIPAP 4), which clearly distinguishes between residential activities and sensitive activities.

6.6 Her evidence demonstrates that while residual risk to general residential activities within the 0.5×10^{-6} contour may be tolerable, risk to sensitive activities within the 0.5×10^{-6} contour is unacceptable.

6.7 While the provisions of the Heavy Industrial Zone generally restrict or require non-complying activity status for sensitive activities or activities that are otherwise incompatible with the Heavy Industry Zone, the Seaview Marina Zone provisions are more enabling for potentially sensitivity activities. As such, the zone provisions applying in the 0.5×10^{-6} contour on their own do not provide the level of protection needed for the Terminals from the potential encroachment of sensitive activities.

6.8 Neither the policy framework for the Heavy Industrial Zone nor the Seaview Marina Zone make any reference to the bulk fuel storage terminals or the need to manage hazardous substances risk, meaning there is potential for such issues to be overlooked in the event an application for a sensitive activity was to be advanced in the area within the 0.5×10^{-6} sensitive activity contour but outside the 1×10^{-6} residential activity contour. Sensitive activities, such as childcare facilities, are not uncommon in Industrial Zones and I'm aware of at least one such proposal being considered on industrial zoned land adjoining the WOSL Terminal in Auckland. The proposal was clearly restricted by the risk management overlay provisions and was not pursued. However, in the absence of such provisions in Seaview, there is potential for proposals for sensitive activities to be advanced in a location where risk to sensitive activities is known to be at unacceptable levels, with no mechanism to draw attention to the need to consider the acceptability of or management of risk.

6.9 As identified in Ms Polich' evidence, the use of the 0.5×10^{-6} sensitive activity contour is well-established in New Zealand planning practice for fuel terminals, and potentially more so than the use of the 1×10^{-6} residential activity contour, which the reporting officer refers to (at para 179) as established risk-based land-use planning practice. Specifically, Table 2 in Ms Polich' evidence identifies that risk management overlays in the Auckland Unitary Plan, Christchurch District Plan, Dunedin 2GP and Napier District Plan are based on the 0.5×10^{-6} sensitive activity contour, compared to only the New Plymouth and South Taranaki District Plans having adopted the 0.5×10^{-6} residential activity contour.

6.10 In the case of Seaview, the context in which the bulk fuel terminals are located is more comparable to that of the Terminals in Auckland, Christchurch, Dunedin and Napier, where they are in urban settings, comprising predominantly industrial land use but with various more sensitive activities in close proximity, including residential and community facilities. Land use change and population increase in such locations presents additional societal risk implications, which are largely absent from the context in which the risk management overlays have been developed for the South Taranaki District Plan and the New Plymouth District Plan.

6.11 In my opinion, relying on zone provisions alone to manage sensitive activities outside the residential overlay but within the modelled sensitive activity contour will not provide sufficient management of risk and reverse sensitivity issues. In relation to the points raised by the Reporting Officer I note that:

a. The zone provisions do not provide any reference to hazardous substances risk, individual fatality risk, or risk thresholds, or to the protection of regionally significant infrastructure from reverse sensitivity effects[5]. On this basis, the expansion of the HFRMO to apply to sensitive activities within the modelled sensitive activity contour rather than just the residential activity contour will not result in duplication. Rather it will address a potential gap in the management of sensitive activities in an area where the QRA modelling clearly identifies such activities would be at unacceptable risk;
b. There is established precedent in Auckland, Christchurch, Dunedin and Napier to adopt the 0.5×10^{-6} sensitive activity contour. The current proposal to expand the HFRMO at Seaview would be consistent with that approach; and
c. It is unclear how managing risk to sensitive activities within the modelled 0.5×10^{-6} sensitive activity contour would place disproportionate constraints on industrial and port-related land. Rather, in my opinion, it would be entirely consistent with the intent and purpose of the HIPAP guidance on which the current risk management approach is based.

6.12 As a result, relying on zone provisions alone creates the potential to enable sensitive activities in locations that QRA demonstrates are exposed to unacceptable risk, contrary to accepted risk management principles.

Relief sought

6.13 For the reasons above, I consider it more appropriate and consistent with risk-based planning that the Hazardous Facility Risk Management Overlay be mapped using the 0.5×10^{-6} sensitive activity individual fatality risk contour.

I therefore urge the Hearings Panel to reject the Reporting Officer's recommendation on this point and adopt the Fuel Companies' requested approach, as illustrated on the plan included as **Appendix A** to my evidence.

[5] Only generic reference is provided to management of reverse sensitivity effects.

7. HUTT CITY FUEL TRANSMISSION PIPELINE CORRIDOR

Fuel Companies submission and context

7.1 The Fuel Companies (submission 471.322) sought to establish a fuel transmission pipeline corridor and associated objectives, policies and rules to the PDP to manage residual risk and reverse sensitivity effects associated with the Hutt City fuel transmission pipeline. The submission sought a pipeline corridor with a width of 40m either side of the centreline of the pipeline, within which the same approach to management of sensitive activities would apply as for the HFRMO. That is, sensitive activities within 40m either side of the fuel transmission pipeline would be restricted from establishing by way of a non-complying activity status.

7.2 The intent of the submission is to ensure that the pipeline, which is regionally significant infrastructure (RSI), is protected from reverse sensitivity effects associated with nearby activities which could constrain its operation and to ensure that potential residual risk effects on surrounding landuse activities are avoided.

7.3 The HCWL route and associated fuel transmission corridor proposed in the Fuel Companies submission is shown in **Appendix B**.

Reporting Officer Recommendation

7.4 The Reporting Officer recommends that the request to introduce a fuel transmission pipeline corridor into the PDP be rejected as currently sought. However, the Officer goes on to note that the matter could be reconsidered should further technical evidence be provided by the Fuel Companies to support a proportionate and context-appropriate planning response.

Analysis

7.5 As discussed in the evidence of Ms Polich, the New South Wales (NSW) Department of Planning, Housing and Infrastructure issued guidance in 2024 on land use planning in close proximity to high pressure dangerous goods pipelines. The guidance takes a similar risk-based approach to setting overlays around pipelines as the approach promoted by the HIPAP guidelines to managing risk in close proximity to significant hazardous facilities (including bulk fuel storage terminals) and which has now been adopted in a number of New Zealand jurisdictions[6].

[6] Auckland, Christchurch, Dunedin, Napier, South Tarankai and New Plymouth.

7.6 I'm not aware that this approach has yet been applied in any New Zealand planning documents, but consider it provides a useful framework to guide the development of a proportionate and context-appropriate planning response to managing risk and reverse sensitivity issues associated with the Hutt City Wharfline.

7.7 In this regard, taking into account the direction provided by the NSW 2024 guidance, the comments of the Reporting Officer and the submission of Seaview Marina Ltd, I consider it will likely be appropriate for the parties to work together to develop a more nuanced approach to the management of risk and reverse sensitivity issues within a modelled risk management corridor associated with the Hutt City Wharfline, than that sought in the Fuel Companies submission.

7.8 In my opinion, key elements of the NSW approach that may be appropriate to adopt in relation to the Hutt City fuel transmission pipeline are:

(a) Requirement for notification of new development to the pipeline operator to ensure awareness of the development proposal at an early stage of the project to assess the level of risk both to and from the pipeline. This recognises that some developments or land use changes in proximity to the pipeline may trigger the requirement for the pipeline operator to review the safety management study to mitigate any potential hazards to and from the existing pipeline from the proposed development.

(b) Ability to consider construction effects on the integrity of the pipeline. A key cause of pipeline failure is puncture or penetration of the pipeline by machinery such as an excavator or a drill, especially during construction. This can occur even when the primary development is not immediately over or adjacent to the pipeline, but where there is a need to connect to services in the road, in close proximity to the pipeline.

(c) A restriction on sensitive activities within the sensitive activity setback of 40m, modelled in the 2009 pipeline QRA, but noting that the NSW generic approach does not indicate a need to restrict residential activities in relation to petroleum pipelines (other than residential development that may result in a significant population increase).

(d) Ability to consider the acceptability of risk in relation to development that may result in a significant population increase, described in the 'Planning circular – PS 24-005 Development near high pressure pipelines' to include attached dwelling, multi-dwelling housing, residential flat building, group homes, boarding house, co-living housing, seniors housing, hostel, manor houses, health services facility, centre-based childcare, educational

establishment, industrial development (excluding home industry), entertainment facility, tourist and visitor accommodation (excluding farm stay accommodation), commercial premises (excluding take-away food and drink premises), correctional centre.

7.9 In my opinion, a non-complying activity status is likely to remain appropriate for sensitive activities (but potentially excluding residential activities) in the modelled $0.5x10^{-6}$ risk contour associated with the fuel transmission line.

7.10 A lesser activity status may be appropriate for other activity types, provided there is sufficient provision to consider risk and reverse sensitivity issues and ensure they are managed to appropriate levels, taking into account technical advice from the pipeline operator and the specific accessibility constraints applying to the Seaview Marina Zone whereby the only access points to the site traverse over the Seaview fuel transmission pipeline.

Relief Sought

7.11 In my opinion, it would be appropriate to provide an opportunity for the Fuel Companies, Seaview Marina Ltd and the Council to work together to develop an agreed approach to the management of risk and reverse sensitivity issues in proximity to the Seaview fuel transmission pipeline and I urge the Panel to direct that direct discussions are undertaken in this regard.

7.12 In lieu of this, I consider the provisions sought in the Fuel Companies submission, including the mapped pipeline risk management corridor and amendments to the introduction, objectives, policies and rules of the Hazardous Substances chapter would provide a workable approach to managing risk and reverse sensitivity issues associated with the fuel transmission pipeline and that these provisions should be adopted.

8. USE OF THE TERM 'SENSITIVE ENVIRONEMNTS' IN HAZARDOUS SUBSTANCES CHAPTER

Fuel Companies Submission

8.1 The term 'sensitive environments' is used in the introduction to the hazardous substances chapter as well as Policy HS-P1 and the assessment criteria for rules HS-R1 and HS-R2. The Fuel Companies (471.158) sought to introduce a definition of 'sensitive environments' and/or to replace references to 'sensitive environments' throughout the chapter with the defined term 'specified overlay', in order to provide

greater certain as to the specific locations in which the relevant provisions would apply.

Reporting Officers Recommendation

8.2 The recommendation in the s42A report[7] is to reject the submission and retain the term 'sensitive environment' on the basis it is a deliberate reference intended to capture a broad range of environments that may be vulnerable to hazardous substances effects, including natural features, waterbodies, ecological areas and other values that may not always be mapped. In addition, it is noted the alternative term 'specified overlay' suggested by the Fuel Companies may be deleted due to the withdrawal from the PDP of some the overlays included in the definition.

Analysis

8.3 I acknowledge the rationale presented in the s42A report and accept the use of the generic term 'sensitive environments' as reasonable in the context of the assessment criteria for rules HS-R1 and HS-R2, where the wording relates to the proximity of SHF to sensitive environments.

8.4 Policy HS-P1 clause (3), however, directs that new significant hazardous facilities (SHF) should be located outside of sensitive environments. As per the discussion in the s42A report, 'sensitive environments' may cover a broad range of environments, and in my opinion, these may be open to interpretation. For example, coastal environments are commonly considered to be a generally sensitive environment. However, if the coastal environment was considered to be a 'sensitive environment' in the context of Policy HS-P1, the policy would essentially direct that no new SHF should be located within the Seaview Heavy Industrial Zone as it is a sensitive coastal environment. That would conflict with the general intent of the zone, and the zoning hierarchy in the PDP, to direct heavy industrial activities, such as SHF, to locations such as the Seaview Heavy Industrial Zone.

8.5 In my opinion, that would be an inappropriate outcome.

Relief Sought

8.6 Without understanding the scope of the locations that may fall to be considered as 'sensitive environments' the appropriateness of the direction to avoid all sensitive environments, in HS-P1 (3) is uncertain. That could be addressed by introducing a definition of 'sensitive environments' as per the Fuel Companies submission.

[7] Refer S42A Report – Haz Substances and Cont Land - paras 53-63

Another, more straightforward alternative could be to amend the wording of HS-P1(3) to adopt the approach taken in clause (4) of the policy, which directs that SHF should be located outside High Natural Hazard Overlays, '*unless there is an operational need or a functional need for the SHF to be located in the area*'.

8.7 That would retain the primary direction to locate SHF outside of sensitive environments, but also provide a policy pathway for SHF where they may have an operational or functional need to locate in a specific location. For example, the location of the bulk fuel storage terminals in the coastal environment at Seaview, due to the need for close proximity to the Seaview fuels wharf where petroleum products are received from tanker ships.

8.8 On this basis, I urge the Hearings Panel to amend Policy HS-P1 to provide a policy pathway for SHF to be able to locate where there is an operational or function need, in situations where the ambiguity of the term 'sensitive environment' may otherwise inappropriately restrict location. This could be achieved by amending Policy HS-P1 along the following lines (Reporting Officer's recommended insertions in blue underlined and deletions in ~~blue strikethrough;~~ my additional recommended insertions in red double underlined and deletions in ~~red double strikethrough~~):

> ***HS-P1 Location of significant hazardous facilities***
>
> *Ensure significant hazardous facilities and activities involving the manufacture, use, storage, transportation, or disposal of hazardous substances~~, including significant hazardous facilities,~~ are appropriately located and managed by:*
>
> 1. *Avoiding unacceptable residual risk to human health, people, and communities as determined through the use of a Quantitative Risk Assessment or other acceptable risk assessment ~~process for the proposed activity,~~ having regard to ~~including its~~ site characteristics and any cumulative risk from other nearby hazardous facilities,*
> 2. *Recognising the purpose of the zone in which the proposed activity is located, and the sensitivity of the activities that are enabled in that zone,*
> 3. *Locating new significant hazardous facilities outside of sensitive environments unless there is an operational need or functional need for the significant hazardous facility to be located in the area and the significant hazardous facility mitigates the risk to the sensitive environment, and*
> 4. *Locating significant hazardous facilities outside of High Natural Hazard Overlays unless there is an operational need or functional need for the significant hazardous facility to be located in the area and the significant*

hazardous facility mitigates the risk from natural hazards to people, buildings and infrastructure.

Policy HS-P2 – Identify areas of unacceptable risk

Fuel Companies Submission

8.9 The Fuel Companies (471.163) sought changes to both Policy HS-P1 and HS-P2 to recognise that quantitative risk assessment (QRA) is not necessarily the usual or most appropriate approach to risk assessment for all types of SHF, for example, wastewater and milk treatment plants. In this context, and for the same reasons identified above in relation to the submission to map HFRMO on the basis of the sensitive land use criteria risk contours (1×10^{-6}) as opposed to the residential land use criteria risk contours (1×10^{-6}), the Fuel Companies sought to delete the reference in HS-P2 to the risk threshold of 1×10^{-6}.

Reporting Officers' Recommendation

8.10 The recommendation in the s 42A report (paras 109-111) is to accept the Fuel Companies submission in part, but to not accept the change sought to delete the measure of what is an unacceptable level of risk i.e. the threshold of $1x10^{-6}$.

8.11 The reason given is that stating the threshold in the policy provides certainty on the level of unacceptable risk in the context of existing significant hazardous facilities in Lower Hutt.

Analysis

8.12 For the reasons set out in Section 6 of my evidence, I consider the appropriate threshold for the acceptability of risk is the sensitive activity threshold of $0.5x10^{-6}$ rather than the residential activity threshold of $1x10^{-6}$. Specifically, the risk modelling indicates that sensitive activities locating within the modelled sensitive activity contour would be subject to an unacceptable level of risk. On that basis it is appropriate to manage that risk by restricting sensitive activities within the $0.5x10^{-6}$ sensitive activity contour, which is a widely accepted approach in a number of jurisdictions[8]. Reliance on the underlying zone provisions alone does not represent an appropriate management approach to a known issue, as the zone provisions do not require consideration of risk associated with hazardous substances storage or specifically protect regionally significant infrastructure, creating the potential for risk and reverse sensitivity issues to be overlooked when

[8] Auckland, Christchurch, Dunedin, Napier.

considering development proposals in the area between the residential and the sensitive activity contours.

Recommendation

8.13 For the reasons set out above, I urge the Hearings Panel to further amend Policy HS-P2 to remove the reference to the level of acceptable risk being set at the residential activity threshold of $1x10^{-6}$. While I consider it preferable to remove the reference to a specific threshold entirely, as there will be a range of different ways of measuring risk depending on the specific type of SHF involved, at a minimum, the reference should be amended to refer instead to the sensitive activity threshold of $0.5x10^{-6}$. This could be achieved by amending Policy HS-P2 along the following lines (Reporting Officer's recommended insertions in blue underlined and deletions in ~~blue strikethrough;~~ my additional recommended insertions in red double underlined and deletions in ~~red double strikethrough~~):

> ***HS-P2 Identify areas of unacceptable residual risk***
>
> *Identify areas where activities are exposed to an unacceptable level of residual risk from existing significant hazardous facilities ~~based on a risk threshold of 1 x 10⁻⁶,~~ and map these areas using ~~the~~ a Hazardous Substances Risk Management Overlay.*

Policy HS-P3 Location of activities sensitive to hazardous substances risk

Fuel Companies Submission

8.14 The Fuel Companies (471.164) supported the intent of Policy HS-P3 but sought the policy be amended to apply to the intensification of existing sensitive activities as well as new sensitive activities in order to ensure a comprehensive approach to management of risk and consistency with qualitative risk management principles, such as 'avoiding all avoidable risk'. In addition, an amendment was sought to require the 'avoidance' of reverse sensitivity effects on existing SHF, rather than just that reverse sensitivity effects be 'minimised'.

Reporting Officers' Recommendation

The recommendation in the s 42A report (paras 109-111) is to accept the Fuel Companies submission in part,

8.15 The recommendation in the s 42A report (paras 117-120) is to accept the Fuel Companies submission in part by amending Policy HS-P3 to refer to the intensification of existing sensitive activities, as well as new sensitive activities.

However, the requested change from ‘minimise’ to ‘avoid’ is not supported. The reasons given are that:

(a) Reverse sensitivity in relation to SHF is context specific and can usually be managed through established planning tools such as site design, consent conditions and risk mitigation measures.

(b) Requiring effects to be “avoided” would create an absolute policy test, removing flexibility to respond to site-specific circumstances.

(c) An “avoid” directive would unduly constrain appropriate development, particularly in industrial, port-related, and mixed-use areas where hazardous facilities are long-established and expected to continue operating.

(d) The term “minimise” aligns with a risk-based planning approach, allows for effective mitigation where residual risk is acceptable, and avoids unnecessarily restricting land use or shifting all future land-use constraints onto sensitive activities regardless of site-specific circumstances.

(e) “Avoid” is typically reserved for effects that are incapable of mitigation, which is not the case for reverse sensitivity in all situations.

Analysis

8.16 In my opinion, use of qualifying terms such as ‘minimising’ reverse sensitivity effects imply there may be some constraints on the operation of the Terminals and wharfline that are “reasonable”. The Fuel Companies QRAs have demonstrated constraints should be avoided within the modelled risk contours.

8.17 I agree that reverse sensitivity is context specific. Measures such as separation distances, site design, consent conditions and risk mitigation measures are likely to be appropriate and necessary for certain types of development located in close proximity to the Terminals, in order to ensure both risk and reverse sensitivity effects are appropriately managed, including that constraints on the operation of an existing SHF are appropriately avoided.

8.18 It is unclear how a direction to avoid reverse sensitivity would unduly constrain appropriate development. Reverse sensitivity arises where incompatible land uses are located in close proximity to one another. Other industrial or port-based activities located within the mapped HFRMO are unlikely to generate reverse sensitivity effects on SHF as they will typically be less sensitivity to risk in terms of the HIPAP4 risk criteria.

8.19 The QRA modelling indicates risk to sensitive activities within the modelled $0.5x10^{-6}$ contour will typically be at unacceptable levels and the intent of the proposed HFRMO is to restrict such activities from locating close to existing SHF. Less sensitive activity types, such as industrial activity, are not restricted as the QRA modelling indicates risk to these activity types will be at acceptable levels. That is, the QRA and associated HFRMO provisions are designed to provide a high level of certainty around the types of land use that will generally be appropriate or inappropriate in close proximity to SHF. It is not clear to me how this results in an unnecessary restriction on land use or a shifting of constraints to future sensitive activities. In my opinion, it is appropriate that any sensitive activity seeking to establish within the modelled $0.5x10^{-6}$ contour would subject to rigorous risk assessment and required to implement mitigation measures to ensure risk is managed to acceptable levels. If risk and reverse sensitivity effects can be appropriately managed,

8.20 I disagree that 'avoid' is generally reserved for effects that are incapable of mitigation. In my experience, a directive to 'avoid' effects is more typically a policy decision based on the significance and/or sensitivity of the receiving environment and the perceived acceptability of adverse effects being incurred. A policy directive to 'avoid' effects does not preclude the incorporation of design or management measures into a development proposal to ensure the effect in question is appropriately avoided.

8.21 In my opinion, it would be inappropriate for sensitive activities seeking to intensify or establish in a HFRMO to undermine the integrity of SHF by generating reverse sensitivity effects resulting in the constraint or curtailment of the facility, particularly where the SHF is also established regionally significant infrastructure such as the bulk storage Terminals and Hutt City Wharfline.

Recommended relief

8.22 Accordingly, for the reasons set out above, I consider it is appropriate to apply a policy direction to avoid reverse sensitivity effects of sensitive activities on established SHF and I urge the Hearings Panel to make the following additional changes to HS-P3 (Reporting Officer's recommended insertions in blue underlined and deletions in ~~blue strikethrough;~~ my additional recommended insertions in red double underlined and deletions in ~~red double strikethrough~~):

> ***HS-P3 Location of activities sensitive to hazardous substance risks***
>
> *Require activities sensitive to hazardous substance risks to be adequately separated from significant hazardous facilities ~~to~~ by:*

1. *Avoid~~ing~~ new activities sensitive to hazardous substance risks, and the intensification or expansion of existing activities sensitive to hazardous substance risks, locating in areas exposed to unacceptable residual risks from existing significant hazardous facilities, and*

2. *~~Minimise~~ Avoiding reverse sensitivity ~~effects~~ on existing significant hazardous facilities.*

9. CONTAMINATED LAND – POLICY CL-P1

Fuel Companies Submission

9.1 The Fuel Companies [471.154] support the intent of CL-P1 but consider it should be amended to recognise that investigation of potentially contaminated land will not necessarily be needed in all situations. The submission notes that investigations are not needed for proposals such as replacement of underground fuel tanks where physical soil investigation around underground storage tanks at an operational service station is impractical, high risk and offers little benefit given the nature of potential soil contaminants (i.e. hydrocarbons) are already well known and understood and can be appropriately managed during soil disturbance. Therefore, the Fuel Companies requested that the word "where necessary" be inserted into clause (2).

Reporting Officers' Recommendation

9.2 The Reporting Officer analyses the submission points on CL-P1 at paras [207] to [217] of the s 42A report. The Reporting Officer acknowledges Greater Wellington Regional Council's ("GWRC") [452.71] concern that relying solely on SLUR records may result in contaminated land being overlooked and agrees that CL-P1 should better support its identification. However, they consider GWRC's requested wording to be overly prescriptive and potentially duplicative of the NES-CS, particularly where it could require investigations without reasonable grounds. The Reporting Officer also agrees in part with the Fuel Companies' position, supporting a more flexible, risk-based approach that allows for professional judgement and avoids unnecessary investigations.

9.3 The Reporting Officer recommends amending CL-P1 to require investigation where there is a history, evidence, or reasonable suspicion of contamination, rather than automatically triggering it based on the absence of SLUR records. This is intended to improve identification of contaminated land while maintaining proportionality and alignment with existing regulatory frameworks. The recommendation in the S42A Report is to accept in part the relief sought by GWRC and the Fuel Companies is

recommended and to amend the wording of Policy CL-P1 as follows (Reporting Officer's recommended insertions in blue underlined and deletions in ~~blue strikethrough~~):

CL-P1 Identification of contaminated and potentially contaminated land

Identify contaminated ~~land~~ and potentially contaminated land prior to subdivision, change of use, or development by:

1. Working with Wellington Regional Council to maintain the Selected Land Use Register, and

2. Requiring the investigation of contaminant risks for sites ~~with~~ where there is evidence, a history, or reasonable potential of land use or activity that could have resulted in contamination of soil, including activities listed on the Hazardous Activities and Industries List (HAIL).

Analysis

9.4 I acknowledge the Reporting Officer's partial agreement with the concerns raised in the Fuel Companies' submission and do not necessarily oppose the recommended amendments to CL P1. However, I consider that the Fuel Companies' concern has not been fully addressed.

9.5 I note that the overarching intent of CL P1 is simply to *identify* contaminated and potentially contaminated land. In that context, I consider that additional investigation is not necessary where contamination risk is already known, such as where a site is recorded on the SLUR. In the case of the Fuel Companies, all service stations and terminals in the Hutt City District are recorded on the SLUR, meaning clause (1) is met, but requiring a further investigation under clause (2) is not warranted as it would not provide new information. A minor amendment to clause (2) would address this issue.

Recommended relief

9.6 Accordingly, for the reasons set out above, I urge the Hearings Panel to make the following additional changes to CL-P1 (my additional recommended insertions in red double underlined and deletions in ~~red double strikethrough~~):

CL-P1 Identification of contaminated and potentially contaminated land

Identify contaminated ~~land~~ and potentially contaminated land prior to subdivision, change of use, or development by:

1. Working with Wellington Regional Council to maintain the Selected Land Use Register, and

2. For land not identified on the Selected Land Use Register, ~~R~~requiring the investigation of contaminant risks for sites ~~with~~ where there is evidence, a history, or reasonable potential of land use or activity that could have resulted in contamination of soil, including activities listed on the Hazardous Activities and Industries List (HAIL).

10. CLOSING

10.1 If there are any specific issues that the Hearings Panel and/or Council wish to address, or a more pragmatic way to achieve the recommended relief, I am more than happy to consider alternatives and/or participate in conferencing.

Georgina McPherson

11 May 2026

Appendix A Changes sought to mapped HFRMO to reflect the modelled 0.5x10-6 sensitive activity contour

Appendix B Hutt City Wharfline Route and Proposed Risk Managment Contours

Appendix A – Changes sought to mapped HFRMO to reflect the modelled 0.5x10-6 sensitive activity contour

SLR

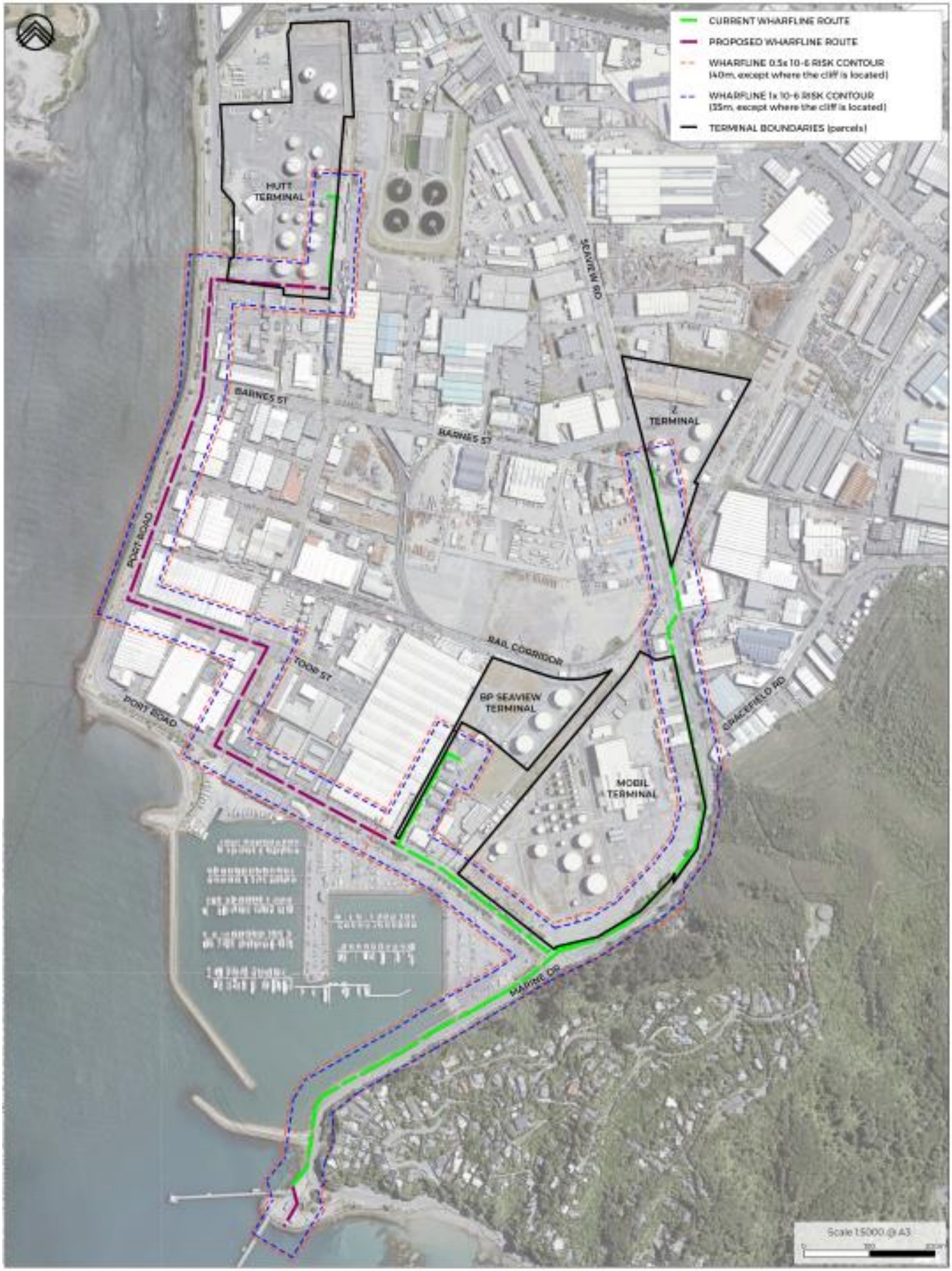
810.V16888.00001 - Hutt City District Plan Review (GIS WG)

HUTT CITY FUEL TERMINAL RISK CONTOURS

Figure prepared for HCC by SLR Consulting

Date: 12/11/2024
Version: 6.1 V2 (terminal risk contours)
Drawn: Aimily Li
Checked: Philip Brown
Approved: Philip Brown

Appendix B – Hutt City Wharfline Route and Proposed Risk Managment Contours



SLR

610.V16388.00001 - Hutt City District Plan Review (CIEWG)

HUTT CITY WHARFLINE RISK CONTOURS

Figure prepared for HCC by SLR Consulting

Date: 01/04/2025
Version: 6.1 V2 (wharfline risk contours)
Drawn: Aimily Li
Checked: Philip Brown
Approved: Philip Brown